THIS OFFERING IS AVAILABLE ONLY TO INVESTORS WHO ARE EITHER (A) NON-U.S. PERSONS OR ADDRESSEES OUTSIDE OF THE UNITED STATES OR (B) QUALIFIED INSTITUTIONAL BUYERS ("QIB") PURSUANT TO RULE 144A OF THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT").

IMPORTANT: You must read the following before continuing. The following applies to the offering circular following this page (the "Offering Circular"), and you are therefore advised to read this carefully before reading, accessing or making any other use of the Offering Circular. In accessing the Offering Circular, you agree to be bound by the following terms and conditions, including any modifications to them from time to time, each time you receive any information from us as a result of such access.

NOTHING IN THIS ELECTRONIC TRANSMISSION CONSTITUTES AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY ANY SECURITIES IN THE UNITED STATES OR ANY OTHER JURISDICTION WHERE IT IS UNLAWFUL TO DO SO. THE SECURITIES REFERRED TO IN THE OFFERING CIRCULAR HAVE NOT BEEN, AND WILL NOT BE, REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR THE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION OF THE UNITED STATES AND THE SECURITIES MAY NOT BE OFFERED OR SOLD WITHIN THE UNITED STATES, EXCEPT PURSUANT TO AN EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND ANY APPLICABLE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION OF THE UNITED STATES.

THE OFFERING CIRCULAR MAY NOT BE FORWARDED OR DISTRIBUTED TO ANY OTHER PERSON AND MAY NOT BE REPRODUCED IN ANY MANNER WHATSOEVER, AND IN PARTICULAR, MAY NOT BE FORWARDED TO ANY PERSON IN THE UNITED STATES EXCEPT PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT. ANY FORWARDING, DISTRIBUTION OR REPRODUCTION OF THIS DOCUMENT IN WHOLE OR IN PART IS UNAUTHORIZED. FAILURE TO COMPLY WITH THIS DIRECTIVE MAY RESULT IN A VIOLATION OF THE SECURITIES ACT OR THE APPLICABLE LAWS OF OTHER JURISDICTIONS.

CONFIRMATION OF YOUR REPRESENTATION: IN ORDER TO BE ELIGIBLE TO VIEW THE OFFERING CIRCULAR, INVESTORS MUST COMPLY WITH THE FOLLOWING PROVISIONS. YOU HAVE BEEN SENT THIS DOCUMENT AT YOUR REQUEST AND ON THE BASIS THAT YOU HAVE CONFIRMED TO THE DEALERS NAMED IN THE OFFERING CIRCULAR THAT YOU (1) EITHER ARE A NON-U.S. PERSON OUTSIDE THE UNITED STATES (AS DEFINED IN REGULATION S UNDER THE SECURITIES ACT ("REGULATION S")) OR YOU ARE A QIB PURSUANT TO RULE 144A OF THE SECURITIES ACT AND, TO THE EXTENT THAT YOU PURCHASE THE SECURITIES DESCRIBED IN THE OFFERING CIRCULAR, YOU WILL BE DOING SO EITHER IN AN OFFSHORE TRANSACTION (AS DEFINED IN REGULATION S) IN COMPLIANCE WITH REGULATION S OR PURSUANT TO RULE 144A OF THE SECURITIES ACT; AND (2) CONSENT TO DELIVERY OF THE OFFERING CIRCULAR AND ANY AMENDMENTS OR SUPPLEMENTS THERETO BY ELECTRONIC TRANSMISSION.

You are reminded that the Offering Circular has been delivered to you on the basis that you are a person into whose possession the Offering Circular may lawfully be delivered in accordance with the laws of the jurisdiction in which you are located and you may not, nor are you authorized to, deliver the Offering Circular to any other person. If this is not the case, you must return the Offering Circular to us immediately. You may not, nor are you authorized to, deliver or disclose the contents of the Offering Circular to any other person.

The materials relating to the offering do not constitute, and may not be used in connection with, an offer or solicitation in any place where offers or solicitations are not permitted by law. If a jurisdiction requires that the offering be made by a licensed broker or dealer and the dealers named in the Offering Circular (the "Dealers") or any of their respective affiliates is a licensed broker or dealer in that jurisdiction, the offering shall be deemed to be made by the Dealers or such affiliate on behalf of MISC Capital Two (Labuan) Limited (the "Issuer") or MISC Berhad (the "Guarantor").

The Offering Circular has been sent to you in electronic form. You are reminded that documents transmitted via this medium may be altered or changed during the process of electronic transmission and consequently none of the Issuer, the Guarantor, the Dealers or any person who controls any of them or any of their respective commissioners, directors, officers, employees, agents or affiliates accepts any liability or responsibility whatsoever in respect of any discrepancies between the Offering Circular distributed to you in electronic format and the hard copy version is available to you on request from the Dealers.

OFFERING CIRCULAR

MISC Capital Two (Labuan) Limited

(incorporated in Labuan, Malaysia with limited liability)

U.S.$3,000,000,000
Global Medium Term Note Program

unconditionally and irrevocably guaranteed by

MISC Berhad

(incorporated in Malaysia with limited liability)

This Offering Circular establishes the Program (as defined below). Any Notes (as defined below) issued under this Program on or after the date of this Offering Circular are issued subject to the provisions described herein. This does not affect any Notes issued prior to the date of this Offering Circular.

Under this U.S.$3,000,000,000 Global Medium Term Note Program (the "**Program**"), MISC Capital Two (Labuan) Limited (the "**Issuer**"), subject to compliance with all relevant laws, regulations and directives, may from time to time issue notes (the "**Notes**") denominated in any currency agreed between the Issuer and the Relevant Dealer (as defined below) other than the Malaysian ringgit. The Notes will be issued on a senior basis and may be issued in bearer or registered form ("**Bearer Notes**" and "**Registered Notes**", respectively).

Notes issued by the Issuer will be unconditionally and irrevocably guaranteed by MISC Berhad ("**MISC**") on a senior basis. The maximum aggregate nominal amount of all Notes from time to time outstanding under the Program will not exceed U.S.$3,000,000,000 (or its equivalent in other currencies calculated as described herein), subject to increase as described herein. The Notes may be issued on a continuing basis to one or more of the Dealers specified under "Summary of the Program" and any additional Dealer appointed under the Program from time to time by the Issuer (each a "**Dealer**" and together the "**Dealers**"), which appointment may be for a specific issue or on an ongoing basis. References in this Offering Circular to the "**Relevant Dealer**" shall, in the case of an issue of Notes being (or intended to be) subscribed by more than one Dealer, be to all Dealers agreeing to subscribe such Notes.

With respect to any Notes that may be issued by the Issuer pursuant to the Program and which are agreed at or prior to the time of issue thereof to be listed, approval in-principle has been obtained for (a) listing of such Notes on, and admission to the Official List of, the Labuan International Financial Exchange Inc. ("**Labuan International Financial Exchange**") and (b) for listing of such Notes on, and admission to the Official List of Bursa Malaysia Securities Berhad ("**Bursa Malaysia**") under an exempt regime pursuant to which the Notes will be listed but not quoted for trading ("**Bursa Malaysia (Exempt Regime)**"). The Labuan International Financial Exchange and Bursa Malaysia take no responsibility for the contents of this document, make no representation as to its accuracy or completeness and expressly disclaim any liability whatsoever for any loss howsoever arising from or in reliance upon the whole or any part of the contents of this document.

Application has been made to the Securities Exchange Securities Trading Limited (the "**SGX-ST**") for permission to deal in and the listing and quotation of any Notes to be issued pursuant to the Program and which are agreed at the time of issue thereof to be so listed on the SGX-ST. Such permission will be granted when such Notes have been admitted to the Official List of the SGX-ST. There is no assurance that the application to the SGX-ST for the listing of the Notes will be approved. The SGX-ST assumes no responsibility for the correctness of any of the statements made or opinions expressed, or reports contained in this Offering Circular. Approval in-principle for the listing and quotation of any Notes on each of the SGX-ST, Labuan International Financial Exchange and/or Bursa Malaysia (Exempt Regime) is not to be taken as an indication of the merits of the Issuer, the Guarantor, the Program or the Notes.

Notice of the aggregate nominal amount of Notes, interest (if any) payable in respect of Notes, the issue price of Notes and any other terms and conditions not contained herein which are applicable to each Tranche (as defined under "*Terms and Conditions of the Notes*") of Notes will be set out in a pricing supplement (the "**Pricing Supplement**"). The Program provides that Notes may be listed or admitted to trading, as the case may be, on such other or further stock exchanges or markets as may be agreed between the Issuer, the Guarantor and the Relevant Dealer(s). The Issuer may also issue unlisted Notes and/or Notes not admitted to trading on any market.

Investing in the Notes involves risk. You should read "Risk Factors" beginning on page 92 before investing in the Notes.

The Notes have not been and will not be registered under the United States Securities Act of 1933, as amended (the "Securities Act"), or with any securities regulatory authority of any state or other jurisdiction of the United States. The Notes of each Series will be in either bearer form, with or without interest coupons attached, or registered form, without interest coupons attached. Bearer Notes will be issued only outside the United States to non-U.S. persons in reliance on the exemption from registration provided by Regulation S under the Securities Act ("Regulation S") and Registered Notes may be issued both outside the United States to non-U.S. persons in reliance on the exemption from registration provided by Regulation S and, if so specified, within the United States or to U.S. persons in private transactions (i) to "qualified institutional buyers" within the meaning of Rule 144A under the Securities Act ("QIBs") or (ii) to "accredited investors" (as defined in Rule 501(a)(1), (2), (3) or (7) under the Securities Act) that are institutions ("Institutional Accredited Investors") who agree to purchase the Notes for their own account and not with a view to the distribution thereof. Bearer Notes are subject to U.S. tax law requirements. Subject to certain exceptions, the Notes may not be offered or sold, or in the case of Bearer Notes delivered, in the United States or its possessions or to, or for the benefit of, U.S. persons (as defined in Regulation S under the Securities Act or, in the case of Bearer Notes, the U.S. Internal Revenue Code of 1986, as amended). See "*Form of the Notes*" for more description of the manner in which Notes will be issued. Notes are subject to certain restrictions on transfer. See "*Subscription and Sale and Transfer and Selling Restrictions.*"

Arrangers

Citigroup **Standard Chartered Bank**

Dealers

Citigroup **Maybank** **MUFG** **Standard Chartered Bank**

Offering Circular dated March 29, 2022

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This Offering Circular includes risk factors, MISC's audited consolidated and unconsolidated financial statements and disclosure concerning MISC's business and financial condition and results of operations, as well as other matters. You should carefully review the entire Offering Circular before making an investment decision.

You should rely only on the information contained in this Offering Circular or to which MISC or the Issuer have referred you. Neither MISC nor the Issuer have authorized anyone to provide you with information that is different. This Offering Circular may only be used where it is legal to sell the Notes. You should not assume that the information in this Offering Circular is accurate as of any date other than the date at the front of this Offering Circular. This Offering Circular is confidential. You are authorized to use this Offering Circular solely for the purpose of considering the purchase of the Notes described in this Offering Circular. You may not reproduce or distribute this Offering Circular in whole or in part, and you may not disclose any of the contents of this Offering Circular or use any information herein for any purpose other than considering a purchase of the Notes. You agree to the foregoing by accepting delivery of this Offering Circular.

IN CONNECTION WITH THE ISSUE AND DISTRIBUTION OF ANY TRANCHE OF NOTES, THE DEALER(S) (IF ANY) NAMED AS THE STABILIZING MANAGER(S) (OR PERSONS ACTING ON BEHALF OF ANY STABILIZING MANAGER(S)) IN THE APPLICABLE PRICING SUPPLEMENT MAY OVER-ALLOT NOTES OR EFFECT TRANSACTIONS WITH A VIEW TO SUPPORTING THE MARKET PRICE OF THE NOTES AT A LEVEL HIGHER THAN THAT WHICH MIGHT OTHERWISE PREVAIL. HOWEVER, STABILIZATION MAY NOT OCCUR. ANY STABILIZATION ACTION MAY BEGIN ON OR AFTER THE DATE ON WHICH ADEQUATE PUBLIC DISCLOSURE OF THE TERMS OF THE OFFER OF THE RELEVANT TRANCHE OF NOTES IS MADE AND, IF BEGUN, MAY CEASE AT ANY TIME, BUT IT MUST END NO LATER THAN THE EARLIER OF 30 DAYS AFTER THE ISSUE DATE OF THE RELEVANT TRANCHE OF NOTES AND 60 DAYS AFTER THE DATE OF THE ALLOTMENT OF THE RELEVANT TRANCHE OF NOTES. ANY STABILIZATION ACTION OR OVER- ALLOTMENT MUST BE CONDUCTED BY THE RELEVANT STABILIZING MANAGER(S) (OR ANY PERSON ACTING ON BEHALF OF ANY STABILIZING MANAGER(S)) IN ACCORDANCE WITH ALL APPLICABLE LAWS AND RULES.

NOTICE TO INVESTORS

The Issuer and the Guarantor, having made all reasonable enquiries, confirm that this Offering Circular contains or incorporates all information material in the context of the issuance and offering of the Notes, that the information contained or incorporated in this Offering Circular is true and accurate in all material respects and is not misleading in any material respect, that the opinions and intentions expressed in this Offering Circular are honestly held and have been reached after considering all relevant circumstances and are based on reasonable assumptions, and that there are no other facts, the omission of which would, in the context of the issue and offering of the Notes, make this Offering Circular as a whole or any information or the expression of any opinions or intentions expressed in this Offering Circular misleading in any material respect. The Issuer and the Guarantor accept responsibility accordingly. Any information provided in this Offering Circular with respect to Malaysia, its political status and economy has been derived from information published by the Malaysian government and other public sources, and the Issuer and the Guarantor accept responsibility only for the accurate extraction of information from such sources.

Unless otherwise provided herein, this Offering Circular is based on the information provided by the Issuer and the Guarantor. Accordingly, no representation, warranty or undertaking, express or implied, is made and no responsibility or liability is accepted by the Dealers as to the accuracy or completeness of the information contained or incorporated in this Offering Circular or any other information provided by the Issuer or the Guarantor in connection with the Program.

This Offering Circular includes statistical data provided by MISC and various third-parties and cites third-party projections regarding the growth and performance of the industry in which MISC operates and estimated market rankings in the industry in which MISC operates. This data is taken or derived from information published by industry sources and from MISC internal data. In each such case, the source is stated in this Offering Circular, provided that where no source is stated, it can be assumed that the information originates from MISC, or is extracted from the Independent Market Report ("**IMR Report**") included in Appendix A of this Offering Circular. Certain information in this Offering Circular is extracted or derived from the IMR Report prepared by Drewry Maritime Services (Asia) Pte Ltd. ("**Drewry"**) for inclusion in this Offering Circular. We have appointed Drewry to provide an independent market and industry review. Drewry has advised MISC that the statistical and graphical information contained in the IMR Report is drawn from its database and other sources. In connection therewith, Drewry has advised that: (a) majority of the data is available as of 2020; (b) certain information in Drewry's database is derived from estimates or subjective judgments; (c) the information in the databases of other maritime data collection agencies may differ from the information in Drewry's database; and (d) while Drewry has taken reasonable care in the compilation of the statistical and graphical information and believes it to be accurate and correct, data compilation is subject to limited audit and validation procedures. The information on the industry as contained in this Offering Circular and the other statistical data and projections cited in this Offering Circular is intended to help prospective investors understand the major trends in the industry in which MISC operates. However, the Issuer, the Guarantor, the Dealers and their respective advisers have not independently verified these figures.

Neither the Issuer, the Guarantor, the Dealers and their respective advisers make any representation as to the correctness, accuracy or completeness of such industry data and accordingly, prospective investors should not place undue reliance on the industry statistical data cited in this Offering Circular. Further, third-party projections cited in this Offering Circular are subject to significant uncertainties that could cause actual data to differ materially from the projected figures. No assurances are given or can be given that the estimated figures will be achieved, and you should not place undue reliance on the third-party projections cited in this Offering Circular.

No person is or has been authorized by the Issuer or the Guarantor to give any information or to make any representation other than as contained in this Offering Circular or any other information supplied in connection with the Program or the Notes and, if given or made, such information or representation must not be relied upon as having been authorized by any of the Issuer, the Guarantor or the Dealers.

Neither this Offering Circular nor any other information supplied in connection with the Program or any Notes (a) is intended to provide the basis of any credit or other evaluation or (b) should be considered as a recommendation by any of the Issuer, the Guarantor or the Dealers that any recipient of this Offering Circular or any other information supplied in connection with the Program or any Notes should purchase any Notes. Each investor contemplating purchasing any Notes should make its own independent investigation of the financial condition and affairs, and its own appraisal of the creditworthiness, of the Issuer and the Guarantor. Neither this Offering Circular nor any other information supplied in connection with the Program or the issue of any Notes constitutes an offer or invitation by or on behalf of any of the Issuer, the Guarantor or the Dealers to any person to subscribe for or to purchase any Notes. The contents of this Offering Circular should not be construed as providing legal, business, accounting or tax advice. An investor should bear the economic risk of an investment in the Notes.

Neither the delivery of this Offering Circular nor the offering, sale or delivery of any Notes shall in any circumstances imply that the information contained herein concerning the Issuer and the Guarantor is correct at any time subsequent to the date hereof or that any other information supplied in connection with the Program is correct as of any time subsequent to the date indicated in the document containing the same. The Dealers expressly do not undertake to advise any investor in the Notes of any information coming to their attention. Investors should review, inter alia, the most recently published documents incorporated by reference into this Offering Circular when deciding whether or not to purchase any Notes.

This Offering Circular does not constitute an offer to sell or the solicitation of an offer to buy any Notes in any jurisdiction to any person to whom it is unlawful to make the offer or solicitation in such jurisdiction. The distribution of this Offering Circular and the offer or sale of the Notes may be restricted by law in certain jurisdictions. The Issuer, the Guarantor and the Dealers do not represent that this Offering Circular may be lawfully distributed, or that any Notes may be lawfully offered, in compliance with any applicable registration or other requirements in any such jurisdiction, or pursuant to an exemption available thereunder, or assume any responsibility for facilitating any such distribution or offering. In particular, no action has been taken by the Issuer, the Guarantor or the Dealers that would permit a public offering of any Notes or distribution of this document in any jurisdiction where action for that purpose is required. Accordingly, no Notes may be offered or sold, directly or indirectly, and neither this Offering Circular nor any advertisement or other offering material may be distributed or published in any jurisdiction, except under circumstances that will result in compliance with any applicable laws and regulations. Persons into whose possession this Offering Circular or any Notes may come must inform themselves about, and observe, any such restrictions on the distribution of this Offering Circular and the offering and sale of the Notes. In particular, there are restrictions on the distribution of this Offering Circular and the offer or sale of Notes in the United States of America, the European Economic Area (the "**EEA**"), the United Kingdom, Malaysia, Japan, Singapore, Hong Kong, the United Arab Emirates (excluding the Dubai International Financial Centre), the Dubai International Financial Centre, State of Qatar ("**Qatar**"), Kingdom of Bahrain, Kuwait, Canada, Taiwan (ROC) and the Republic of Korea ("**Korea**"). See "*Subscription and Sale and Transfer and Selling Restrictions.*"

All references in this Offering Circular to the "**Guarantor**" are to MISC Berhad, and all references in this Offering Circular to "MISC" are, unless the context otherwise requires, to MISC and its subsidiaries. Furthermore, references to "us," "we", and "our" are references to MISC and its subsidiaries. References to the "Issuer" are to MISC Capital Two (Labuan) Limited under the Program in accordance with the program agreement entered into between the Issuer, MISC Berhad and the other parties named therein on March 29, 2022 (the "**Program Agreement**"). Unless otherwise indicated, dollar amounts in this Offering Circular are presented in U.S. dollars. Solely for the convenience of the reader, this Offering Circular contains translations of certain Malaysian ringgit amounts into U.S. dollars at the exchange rate of RM4.165 to US$1.00, which was the middle rate of exchange of the Malaysian ringgit against the U.S. dollar as published by Bank Negara Malaysia, the Central Bank of Malaysia, at 5:00 pm on December 31, 2021. No representation is made that the Malaysian ringgit referred to herein could have been or could be converted into U.S. dollars at any particular rate or at all.

Notification under section 309B of the Securities and Futures Act 2001 of Singapore (the "**SFA**"): Unless otherwise stated in the Pricing Supplement for any Series of Notes, the Notes shall be prescribed capital markets products (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

U.S. INFORMATION

This Offering Circular is being provided on a confidential basis in the United States to a limited number of QIBs or Institutional Accredited Investors (each as defined under "*Form of the Notes*") for informational use solely in connection with the consideration of the purchase of the Notes being offered hereby. Its use for any other purpose in the United States is not authorized. It may not be copied or reproduced in whole or in part nor may it be distributed or any of its contents disclosed to anyone other than the prospective investors to whom it is originally submitted.

The Registered Notes may be offered or sold within the United States only to QIBs or to Institutional Accredited Investors, in either case in transactions exempt from registration under the Securities Act. Each U.S. purchaser of the Registered Notes is hereby notified that the offer and sale of any Registered Notes to it may be made in reliance upon the exemption from the registration requirements of the Securities Act provided by Rule 144A under the Securities Act ("**Rule 144A**").

Purchasers of the Definitive IAI Registered Notes (as defined in the Program Agreement) will be required to execute and deliver an IAI Investment Letter (each as defined under "*Terms and Conditions of the Notes*"). Each purchaser or holder of the Definitive IAI Registered Notes, the Notes represented by a Rule 144A Global Note (as defined below) or any Notes issued in registered form in exchange or substitution therefor (together "**Legended Notes**") will be deemed, by its acceptance or purchase of any such Legended Notes, to have made certain representations and agreements intended to restrict the resale or other transfer of such Notes as set out in "*Subscription and Sale and Transfer and Selling Restrictions*." Unless otherwise stated, terms used in this paragraph have the meanings given to them in "*Form of the Notes*."

Bearer Notes are subject to U.S. tax law requirements and may not be offered, sold or delivered within the United States or its possessions or to U.S. persons, except in certain transactions permitted by U.S. Treasury regulations. Terms used in this paragraph have the meanings given to them by the U.S. Internal Revenue Code of 1986, as amended, and the U.S. Treasury regulations promulgated thereunder.

NOTICE TO RESIDENTS OF MALAYSIA

THE LODGEMENT OF DOCUMENTS AND INFORMATION RELATING TO THE PROGRAM WILL BE MADE WITH THE SECURITIES COMMISSION MALAYSIA IN ACCORDANCE WITH THE GUIDELINES ON UNLISTED CAPITAL MARKET PRODUCTS UNDER THE LODGE AND LAUNCH FRAMEWORK FIRST ISSUED BY THE SECURITIES COMMISSION MALAYSIA ON MARCH 9, 2015 AND REVISED ON NOVEMBER 22, 2021 (AS MAY BE AMENDED FROM TIME TO TIME) AND ANY APPLICABLE APPROVAL FROM THE SECURITIES COMMISSION MALAYSIA WILL BE OBTAINED PRIOR TO ANY INVITATION TO SUBSCRIBE FOR, OR ANY OFFER TO PURCHASE THE NOTES BEING MADE IN MALAYSIA. ANY LODGEMENT WITH THE SECURITIES COMMISSION MALAYSIA SHALL NOT BE TAKEN TO INDICATE THAT THE SECURITIES COMMISSION MALAYSIA RECOMMENDS THE SUBSCRIPTION OR PURCHASE OF THE NOTES UNDER THE PROGRAM.

THIS OFFERING CIRCULAR HAS NOT BEEN REGISTERED AS A PROSPECTUS WITH THE SECURITIES COMMISSION MALAYSIA UNDER THE CAPITAL MARKETS AND SERVICES ACT 2007 OF MALAYSIA AND ACCORDINGLY, THE NOTES MAY NOT BE OFFERED, SOLD, TRANSFERRED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY TO A PERSON TO WHOM AN OFFER FOR SUBSCRIPTION OR PURCHASE OF, OR INVITATION TO SUBSCRIBE FOR

OR PURCHASE THE NOTES AND TO WHOM THE NOTES ARE ISSUED, NOR MAY ANY DOCUMENT OR OTHER MATERIAL IN CONNECTION THEREWITH BE DISTRIBUTED IN MALAYSIA, OTHER THAN TO PERSONS FALLING WITHIN ANY ONE OF THE CATEGORIES OF PERSONS SPECIFIED UNDER PARAGRAPH 1(A), (B) OR (D) OF PART 1 OF SCHEDULE 5 SCHEDULE 6, SCHEDULE 7, AND SCHEDULE 8, READ TOGETHER WITH SCHEDULE 9 (OR SECTION 257(3)) OF THE CAPITAL MARKETS AND SERVICES ACT 2007, OF MALAYSIA, SUBJECT TO ANY LAW, ORDER, REGULATION OR OFFICIAL DIRECTIVE OF CENTRAL BANK OF MALAYSIA, SECURITIES COMMISSION MALAYSIA AND/OR ANY OTHER REGULATORY AUTHORITY FROM TIME TO TIME. THEREAFTER, THE NOTES MAY ONLY BE OFFERED, SOLD, TRANSFERRED OR OTHERWISE DISPOSED DIRECTLY OR INDIRECTLY TO A PERSON TO WHOM AN OFFER OR INVITATION TO PURCHASE THE NOTES WOULD FALL WITHIN PARAGRAPH 1 (A), (B) OR (D) OF PART I OF SCHEDULE 5, SCHEDULE 6 OR SECTION 229(1)(B), AND SCHEDULE 8, READ TOGETHER WITH SCHEDULE 9 (OR SECTION 257(3)) OF THE CAPITAL MARKETS AND SERVICES ACT 2007 OF MALAYSIA, SUBJECT TO ANY LAW, ORDER, REGULATION OR OFFICIAL DIRECTIVE OF CENTRAL BANK OF MALAYSIA, SECURITIES COMMISSION MALAYSIA AND/OR ANY OTHER REGULATORY AUTHORITY FROM TIME TO TIME.

IN ADDITION, RESIDENTS OF MALAYSIA MAY BE REQUIRED TO OBTAIN RELEVANT REGULATORY APPROVALS, INCLUDING APPROVAL FROM THE CONTROLLER OF FOREIGN EXCHANGE TO PURCHASE THE NOTES. THE ONUS IS ON THE MALAYSIAN RESIDENTS CONCERNED TO OBTAIN SUCH REGULATORY APPROVALS AND NONE OF THE DEALERS IS RESPONSIBLE FOR ANY INVITATION, OFFER, SALE OR PURCHASE OF THE NOTES AS AFORESAID WITHOUT THE NECESSARY APPROVALS BEING IN PLACE.

AN INVITATION TO SUBSCRIBE FOR, OR AN OFFER TO PURCHASE THE NOTES MAY ONLY BE MADE INTO LABUAN IF SUCH NOTES ARE OFFERED FOR SUBSCRIPTION OR SALE, SOLD, TRANSFERRED OR OTHERWISE DISPOSED OF, DIRECTLY OR INDIRECTLY TO A PERSON FALLING, OR IF SUCH OFFER OR INVITATION FALLS, WITHIN SECTION 8(5) OF THE LABUAN FINANCIAL SERVICES AND SECURITIES ACT 2010.

IN ACCORDANCE WITH THE CAPITAL MARKETS AND SERVICES ACT 2007 OF MALAYSIA, A COPY OF THIS OFFERING CIRCULAR WILL BE DEPOSITED WITH THE SECURITIES COMMISSION MALAYSIA WITHIN 7 DAYS FROM THE DATE THIS OFFERING CIRCULAR IS MADE AVAILABLE PURSUANT TO AN OFFERING IN MALAYSIA. THE SECURITIES COMMISSION MALAYSIA SHALL NOT BE LIABLE FOR ANY NON-DISCLOSURE ON THE PART OF THE ISSUER OR MISC AND ASSUMES NO RESPONSIBILITY FOR THE CORRECTNESS OF ANY STATEMENTS MADE OR OPINIONS OR REPORTS EXPRESSED IN THIS OFFERING CIRCULAR. THE ISSUE, OFFER OR INVITATION IN RELATION TO THE PROGRAM OR THE ISSUANCE OF THE NOTES THEREUNDER OR OTHERWISE ARE SUBJECT TO THE FULFILLMENT OF VARIOUS CONDITIONS PRECEDENT, INCLUDING, WITHOUT LIMITATION, THE LODGEMENT OF THE DOCUMENTS AND INFORMATION RELATING TO THE PROGRAM WITH THE SECURITIES COMMISSION MALAYSIA. EACH RECIPIENT OF THIS OFFERING CIRCULAR ACKNOWLEDGES AND AGREES THAT ANY LODGEMENT WITH THE SECURITIES COMMISSION MALAYSIA SHALL NOT BE TAKEN TO INDICATE THAT THE SECURITIES COMMISSION MALAYSIA RECOMMENDS THE SUBSCRIPTION OR PURCHASE OF THE NOTES UNDER THE PROGRAM.

THE LABUAN INTERNATIONAL FINANCIAL EXCHANGE AND BURSA MALAYSIA SECURITIES BERHAD EACH TAKE NO RESPONSIBILITY FOR THE CONTENTS OF THIS OFFERING CIRCULAR, MAKE NO REPRESENTATION AS TO ITS ACCURACY OR COMPLETENESS AND EXPRESSLY DISCLAIM ANY LIABILITY WHATSOEVER FOR ANY LOSS HOWSOEVER ARISING FROM OR IN RELIANCE UPON ANY PART OF THE CONTENTS OF THIS OFFERING CIRCULAR. ANY APPROVAL OF AND THE ADMISSION OF THE NOTES TO THE OFFICIAL LISTS OF THE LABUAN INTERNATIONAL FINANCIAL EXCHANGE AND BURSA

MALAYSIA (EXEMPT REGIME) SHALL NOT BE TAKEN TO INDICATE THAT THE LABUAN INTERNATIONAL FINANCIAL EXCHANGE AND BURSA MALAYSIA RECOMMEND THE SUBSCRIPTION OR PURCHASE OF THE NOTES OR AS AN INDICATION OF THE MERITS OF THE ISSUER, MISC OR THE NOTES. INVESTORS ARE ADVISED TO READ AND UNDERSTAND THE CONTENTS OF THIS OFFERING CIRCULAR BEFORE INVESTING. IF IN DOUBT, THE INVESTORS SHOULD CONSULT HIS OR HER ADVISORS.

ENFORCEABILITY OF CIVIL LIABILITIES

MISC Berhad is incorporated in Malaysia with limited liability. The Issuer is incorporated in Labuan, Malaysia with limited liability. In addition, all of the directors and executive officers of MISC and the Issuer are located in Malaysia As a result, it may not be possible for investors to effect service of process outside of Malaysia upon such persons or to enforce judgments obtained in courts outside of Malaysia, including judgments predicated upon the civil liability provisions of the federal securities laws of the United States, against such persons, MISC or the Issuer. MISC and the Issuer have been advised by Kadir Andri & Partners, their Malaysian counsel, that there is doubt as to the enforceability in Malaysian courts, in original actions or in actions for the enforcement of judgments of United States courts, of civil liabilities predicated upon the federal securities laws of the United States.

A judgment obtained against MISC or the Issuer in a court of a reciprocating country (as listed in the Reciprocal Enforcement of Judgments Act, 1958 of Malaysia (the "**Enforcement Act**")) in respect of any sum payable by MISC or the Issuer under the Notes, the Guarantee or the agency agreement entered into among the Issuer, MISC, Citibank, N.A. London Branch as the Principal Paying Agent, DTC Registrar, Paying Agent, Exchange Agent, Euroclear/Clearstream Registrar and Transfer Agent and the other parties named therein on March 29, 2022 (the "**Agency Agreement**"), may be recognized and enforced by the courts of Malaysia upon registration of the judgment with the courts of Malaysia under the Enforcement Act within six years after the date of the judgment, or, where there have been proceedings by way of appeal against the judgment, after the date of the last judgment given in those proceedings, so long as the judgment:

- is not inconsistent with public policy in Malaysia;
- was not given or obtained by fraud or duress or in a manner contrary to natural justice;
- is not directly or indirectly for the payment of taxes or other charges of a like nature or of a fine or other penalty;
- was of a court of competent jurisdiction of such jurisdiction and the judgment debtor being the defendant in the original court received notice of those proceedings in sufficient time to enable it to defend the proceedings;
- has not been wholly satisfied;
- is final and conclusive between the parties;
- could be enforced by execution in the country of that original court;
- is for a fixed sum;
- is not directly or indirectly intended to enforce the penal laws or sanctions imposed by the authorities of such jurisdiction;
- is not preceded by a final and conclusive judgment by a court having jurisdiction in that matter; and
- is vested in the person by whom the application for registration was made.

Under current Malaysian law, any judgment obtained for a fixed sum against MISC or the Issuer in a court of a foreign jurisdiction with which Malaysia has no arrangement for reciprocal enforcement of judgments, after due service of process, may, at the discretion of the courts of Malaysia be actionable in the courts of Malaysia by way of a suit on a debt if such judgment is final and conclusive. However, such action may be met with defenses, including but not limited to those listed above. There is currently no agreement for reciprocal enforcement of judgments between Malaysia and the United States, and as such the United States is not a reciprocating country under the First Schedule of the Enforcement Act and the Enforcement Act does not apply to judgments obtained in the United States. Accordingly, even if a United States court were to rule in an investor's favor, it may be difficult to enforce such judgments in Malaysia. Due to the absence of reciprocal arrangements, judgments obtained in a United States court will only be enforced in Malaysia in accordance with the common law principles and fresh proceedings must be instituted by the judgment creditor and upon re-litigation and re-examination of the issues.

AVAILABLE INFORMATION

To permit compliance with Rule 144A under the Securities Act in connection with sales of the Notes, each of the Issuer and the Guarantor will be required to furnish, upon request, to a Noteholder (as defined in "*Terms and Conditions of the Notes*") and a prospective investor designated by such Noteholder, the information required to be delivered under Rule 144A(d)(4) under the Securities Act unless at the time of the request such Issuer or Guarantor is a reporting company under Section 13 or Section 15(d) of the United States Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), or is exempt from the registration requirements of Section 12(g) of the Exchange Act (and therefore is required to publish on its website, in English, certain information pursuant to Rule 12g3-2(b) under the Exchange Act).

PRESENTATION OF FINANCIAL INFORMATION AND OTHER DATA

Financial Data

MISC's audited financial statements for the years ended December 31, 2019, 2020 and 2021 included elsewhere in this Offering Circular are presented in accordance with Malaysian Financial Reporting Standards ("**MFRS**") issued by the Malaysian Accounting Standards Board, International Financial Reporting Standards ("**IFRS**") and the requirements of the Malaysian Companies Act 2016. MFRS and IFRS may differ in significant respects from accounting principles generally accepted elsewhere, including those in the United States. In making an investment decision, investors must rely on their own examination of the Issuer and MISC, the terms of the offering and the financial information contained in this Offering Circular. Potential investors should consult their own professional advisors for an understanding of the differences between MFRS, on the one hand, and accounting principles generally accepted elsewhere on the other hand, and how these differences might affect their understanding of the financial information contained herein.

MISC's financial statements are audited and published annually. MISC also publishes certain unaudited summary financial information on a quarterly basis.

Rounding

Certain amounts and percentages included in this Offering Circular have been rounded. Accordingly, in certain instances, the sum of the numbers in a column may not exactly equal the total figure for that column.

Non-GAAP Financial Measures

As used in this Offering Circular, a non-GAAP financial measure is one that purports to measure historical or future financial performance, financial position or cash flows but excludes or includes amounts that would not be so adjusted in the most comparable MFRS measures. From time to time, reference is made in this Offering Circular to such "non-GAAP financial measures," primarily Adjusted Cash Flow From Operating Activities (as defined herein), Adjusted EBIT (as defined herein) and Adjusted EBITDA (as defined herein). For more detailed information concerning Adjusted Cash Flow From Operating Activities, Adjusted EBIT, Adjusted EBITDA and other non-GAAP financial measures used in this Offering Circular, see "*Summary—Summary Consolidated Financial Information—Other Financial Informatio*n" and "*Selected Consolidated Financial Data—Other Financial Data.*" The non-GAAP financial measures described herein are not a substitute for MFRS measures of earnings or cash flows. Adjusted Cash Flow From Operating Activities, Adjusted EBIT, Adjusted EBITDA and other non-GAAP financial measures presented herein may not be comparable to similarly titled measures presented by other companies. Investors should not compare our Adjusted Cash Flow From Operating Activities, Adjusted EBIT, Adjusted EBITDA and the other non-GAAP financial measures used herein to adjusted cash flow from operating activities, adjusted EBIT, adjusted EBITDA and other similarly titled non-GAAP financial measures presented by other companies because not all companies use the same definitions.

Currency References

In this Offering Circular, references to "ringgit" or "RM" are to the currency of Malaysia, references to "U.S. dollar," "$," "U.S.$," "US$" or "USD" are to the currency of the United States of America, references to "euro" or "€" are to the currency of the Eurozone, references to "yen," "¥" or "JPY" are to the currency of Japan, and references to "Renminbi" or "CNY" are to the currency of the People's Republic of China.

SUPPLEMENTAL OFFERING CIRCULAR

The Issuer and the Guarantor have given an undertaking to the Dealers that if the Issuer and the Guarantor have notified the Arrangers or the Dealers that the Issuer intends to issue Notes under the Program for the time being, and if a significant new factor, material mistake or material inaccuracy arises or is noted relating to the information included in this Offering Circular which is capable of affecting an assessment by investors of the assets and liabilities, financial position, profits and losses, and prospects of the Issuer and/or the Guarantor and/or the rights attaching to the Notes, the Issuer and the Guarantor shall prepare and publish an amendment or supplement to or replacement of this Offering Circular.

FORWARD-LOOKING STATEMENTS AND ASSOCIATED RISKS

Certain statements in this Offering Circular are not historical facts and are "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. This Offering Circular may contain words such as "believe," "could," "may," "will," "target," "estimate," "project," "predict," "forecast," "guideline," "should," "plan," "expect" and "anticipate" and similar expressions that are intended to identify forward-looking statements, but are not the exclusive means of identifying these statements. Specifically, all statements under the captions "*Summary—MISC*," "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" and "*Business*" relating to the following matters may include forward-looking statements:

- the anticipated demand for LNG, petroleum products and petrochemicals and the corresponding anticipated demand for seaborne transportation of these commodities;
- the anticipated construction and delivery of assets, including vessels and offshore assets;
- environmental compliance and remediation;
- projections of capital expenditures in general and other financial items;
- generation of future receivables; and
- sales to customers.

Such statements are subject to certain risks and uncertainties, including, but not limited to:

- changes in global economic and social conditions;
- substantial or extended declines in the demand of LNG, crude oil and related oil and gas products, or volatility in the prices of these products;
- the COVID-19 outbreak or other outbreaks of communicable diseases;
- changes in global or regional political situations;
- changes in economic and political conditions in Malaysia and other countries in which we operate, transact business or have interests;
- increases in regulatory burdens in Malaysia and countries where we operate, transact business or have interests;
- increases in regulatory burdens resulted from changes in international law;
- the impact of increasing scrutiny and changing expectations from investors, lenders and other market participants with respect to our environmental, social and governance policies;
- potential disruption of shipping routes due to accidents or political events;
- vessel breakdowns and instances of off-hire;
- accidents and natural disasters;
- cybersecurity risks;
- changes in our relationship with PETRONAS;

- changes in laws, regulations, taxation or accounting standards or practices;

- changes in prices or demand for products and services provided by us or any of our subsidiaries or affiliates, both in Malaysia and in international markets, as a result of competitive actions, technological innovation, or economic factors, such as inflation or exchange rate fluctuations;

- the risks of increased costs in related technologies and the uncertainty of such technologies producing expected results;

- the ability of third parties to perform in accordance with contractual terms and specifications;

- assets expropriation;

- potential liabilities from pending or future legal or arbitration proceedings;

- corruption, piracy, militant activities, political instability, terrorism, and ethnic unrest in locations where we may operate;

- delays and cost overruns in construction projects;

- acquisitions or divestitures; and

- our success at managing the risks of the aforementioned factors.

Forward-looking statements involve inherent risks and uncertainties. Should one or more of these or other uncertainties or risks materialize, actual results may vary materially from those estimated, anticipated or projected. Specifically, but without limitation, capital costs could increase, projects could be delayed, and anticipated improvements in capacity, performance or profit levels might not be fully realized. Although MISC believes that the expectations of its management as reflected by such forward-looking statements are reasonable based on information currently available to it, no assurances can be given that such expectations will prove to have been correct. Accordingly, you are cautioned not to place undue reliance on the forward-looking statements, which speak only as of the date they are made. MISC undertakes no obligation to update or revise any of them, whether as a result of new information, future developments or otherwise.

GENERAL DESCRIPTION OF THE PROGRAM

Under the Program, the Issuer may, with the consent of the Guarantor, from time to time issue Notes denominated in any currency (other than the Malaysian ringgit), subject as set out herein. A summary of the terms and conditions of the Program and the Notes appears below. The applicable terms of any Notes will be agreed between the Issuer, the Guarantor and the Relevant Dealer(s) prior to the issue of the Notes and will be set out in the Terms and Conditions of the Notes endorsed on, attached to, or incorporated by reference into, the Notes, as modified and supplemented by the applicable Pricing Supplement attached to, or endorsed on, such Notes, as more fully described under "*Form of the Notes*."

This Offering Circular and any supplement will only be valid for Notes issued under the Program in an aggregate principal amount which, when added to the aggregate principal amount then outstanding of all Notes previously or simultaneously issued under the Program, does not exceed U.S.$3,000,000,000 or its equivalent in other currencies. From time to time MISC may increase the aggregate principal amount of Notes that may be issued under the Program, subject to certain conditions set out in the Program Agreement.

Each Series of Notes may be listed on the SGX-ST, the Labuan International Financial Exchange, Bursa Malaysia (Exempt Regime) and/or any other stock exchange, as may be agreed upon among the Issuer, the Guarantor and the Relevant Dealer(s) and specified in the applicable Pricing Supplement, or may be unlisted. Further, Notes that are initially listed on an exchange may subsequently be de-listed under limited circumstances.

SUMMARY OF THE PROGRAM

The following summary does not purport to be complete and is taken from, and is qualified in its entirety by, reference to, and must be read in conjunction with, the detailed information appearing in the remainder of this Offering Circular and, in relation to the terms and conditions of any particular Tranche of Notes, the applicable Pricing Supplement.

Phrases used in the following summary that are not otherwise defined in this summary have the meanings given to them in "Terms and Conditions of the Notes."

Issuer	MISC Capital Two (Labuan) Limited.
Guarantor	MISC Berhad.
Arrangers	Citigroup Global Markets Singapore Pte. Ltd., Standard Chartered Bank (Singapore) Limited.
Dealers	Citigroup Global Markets Singapore Pte. Ltd., Standard Chartered Bank (Singapore) Limited, Malayan Banking Berhad and MUFG Securities Asia Limited Singapore Branch and any other Dealer(s) appointed from time to time by the Issuer and MISC in accordance with the terms of the Program Agreement. References in this Offering Circular to the "**Relevant Dealer(s)**" shall, in relation to the issue of any Note, be references to the Dealer or Dealers with whom the Issuer and the Guarantor have concluded or are negotiating an agreement for the issue of such Note.
Description	Multi-currency Global Medium Term Note Program.
Program Limit	U.S.$3,000,000,000 (or its equivalent in other currencies) outstanding at any time. MISC may increase the Program Limit in accordance with the terms of the Program Agreement.
Principal Paying Agent	Citibank, N.A., London Branch.
DTC Registrar, Paying Agent, Exchange Agent and Transfer Agent	Citibank, N.A., London Branch.
Euroclear/Clearstream Registrar and Transfer Agent	Citibank, N.A., London Branch.
Currency	Notes may be denominated in, subject to any applicable legal or regulatory restrictions, any currency (other than the Malaysian ringgit) agreed between the Issuer, MISC and the Relevant Dealer(s). Payments in respect of Notes may, subject to such compliance, be made in and/or linked to, any currency or currencies (other than the Malaysian ringgit) other than the currency in which such Notes are denominated.

Method of Issuance.	The Notes will be issued in Series. Each Series may comprise one or more Tranches issued on different issue dates. The Notes of each Series will all be subject to identical terms, except that the Issue Date, the Interest Commencement Date (if applicable) and/or the Issue Price (if applicable) may be different in respect of different Tranches. The Notes of each Tranche will be subject to identical terms in all respects.
Maturities	The Notes will have such maturities as may be agreed between the Issuer, MISC and the Relevant Dealer(s), subject to compliance with all relevant laws and regulations.
Issue Price	The Notes may be issued on a fully paid or a partly paid basis and at an issue price which is at par or at a discount to, or premium over, par (as specified in the applicable Pricing Supplement). The price and amount of Notes to be issued will be determined by the Issuer, MISC and the Relevant Dealer(s) at the time of issue in accordance with prevailing market conditions.
Form and Denomination	The Notes will be issued in bearer or registered form as described in "*Form of the Notes*." Registered Notes will not be exchangeable for Bearer Notes and vice versa. Notes offered in the United States or to, or for the account or benefit of, U.S. persons will only be issued in registered form. Notes sold in the United States to Institutional Accredited Investors will be represented by definitive Notes in certificated form. The Notes will be issued in such denominations as may be agreed between the Issuer, MISC and the Relevant Dealer(s) and as specified in the applicable Pricing Supplement, save that the minimum denomination of each Note will be such amount as may be allowed or required from time to time by the relevant central bank (or equivalent body) or any laws or regulations applicable to the relevant Specified Currency. Unless otherwise stated in the applicable Pricing Supplement, Notes sold to Institutional Accredited Investors and QIBs will be in minimum denominations of U.S.$500,000 (or its foreign currency equivalent) or U.S.$200,000 (or its foreign currency equivalent), respectively.

Ranking	The Notes and any Receipts and Coupons relating thereto under the Program will be direct, unconditional, unsubordinated and (subject to Condition 4 *(Certain Covenants)*) unsecured general obligations of the Issuer and will, subject to the Conditions of the Notes, at all times rank *pari passu*, without any preference among themselves and equally with all other outstanding unsecured and unsubordinated general obligations of the Issuer. See Condition 3 *(Status of the Notes; Guarantee)*.
Guarantee	MISC will unconditionally and irrevocably guarantee the payment of the principal and premium, if any, and interest, if any, on the Notes issued under the Program and the related Receipts and Coupons, when and as the same shall become due and payable, whether on the relevant Maturity Date, upon acceleration, by call for redemption or otherwise. The Guarantee will be a direct, unconditional, unsubordinated and (subject to Condition 4 *(Certain Covenants)*) unsecured obligation of MISC and will, subject to the Conditions of the Notes, at all times rank *pari passu* and equally with all other outstanding unsecured and unsubordinated general obligations of MISC. See Condition 3 *(Status of the Notes; Guarantee)*.
Fixed Rate Notes	Fixed interest will be payable on such date or dates as may be agreed between the Issuer and the Relevant Dealer(s) (as specified in the applicable Pricing Supplement) and on redemption and will be calculated on the basis of such Day Count Fraction as may be agreed between the Issuer, MISC and the Relevant Dealer(s) (as specified in the applicable Pricing Supplement).
Floating Rate Notes	Floating Rate Notes will bear interest determined separately for each Series as follows: (a) on the same basis as the floating rate under a notional interest rate swap transaction in the relevant Specified Currency governed by an agreement incorporating the 2006 ISDA Definitions (as published by the International Swaps and Derivatives Association, Inc., and as amended and updated as at the Issue Date of the first Tranche of the Notes of the relevant Series); or (b) by reference to EURIBOR or HIBOR or CNH HIBOR (or such other benchmark as may be specified in the relevant Pricing Supplement) as adjusted for any applicable margin; or (c) on the basis of SOFR reference rates appearing on the agreed screen page of a commercial quotation service (in relation to Screen Rate Determination for Floating Rate Notes where the Reference Rate is specified as being SOFR Benchmark, please see Condition 5.2(b)(iii); or

	(d) on such other basis as may be agreed between the Issuer, MISC and the Relevant Dealer(s) (as specified in the applicable Pricing Supplement). The margin (if any) relating to such floating rate will be agreed between the Issuer, MISC and the Relevant Dealer(s) for each Series of Floating Rate Notes (as specified in the applicable Pricing Supplement).
Other provisions in relation to Floating Rate Notes	Floating Rate Notes may also have a maximum interest rate, a minimum interest rate or both. Interest on Floating Rate Notes in respect of each Interest Period, as agreed prior to issue by the Issuer, MISC and the Relevant Dealer(s), will be payable on such Interest Payment Dates, and will be calculated on the basis of such Day Count Fraction, as may be agreed between the Issuer, MISC and the Relevant Dealer(s).
Dual Currency Notes	Payments (whether in respect of principal or interest and whether at maturity or otherwise) in respect of Dual Currency Notes will be made in such currencies, and based on such rates of exchange, as agreed between the Issuer, MISC and the Relevant Dealer(s) (as specified in the applicable Pricing Supplement).
Zero Coupon Notes.	Zero Coupon Notes will be offered and sold at a discount to their nominal amount and will not bear interest.
Ratings	The rating of certain Series of the Notes to be issued under the Program may be specified in the applicable Pricing Supplement. Credit ratings are not a recommendation to purchase, hold or sell Notes and may be subject to suspension, change or withdrawal at any time by the assigning rating agencies.
Negative Pledge	MISC has covenanted that, subject to certain exceptions and so long as any of the Notes issued under the Program remain outstanding, it will not create, incur or have outstanding any mortgage, pledge, lien, charge, encumbrance or any other security interest upon the whole or any part of the property or assets, present or future of the Issuer, MISC and its Principal Subsidiaries (as defined in the Conditions), to secure for the benefit of the holders of any existing or future International Investment Securities (as defined below) (or to secure for the benefit of the holders thereof any guarantee or indemnity in respect thereof) without, in any such case, effectively providing that the obligations of MISC as guarantor under the Notes shall be secured equally and ratably with or prior to such International Investment Securities (or such guarantee or indemnity in respect thereof).

"**International Investment Securities**" means debentures, notes, bonds or other similar investment securities (present or future) evidencing indebtedness, sukuk obligations or interests with a maturity of not less than one year which (a) either (i) are by their terms payable, or confer a right to receive payment, in any currency other than in Ringgit or (ii) are denominated or payable in Ringgit and more than 50 percent of the aggregate principal amount thereof is initially distributed outside Malaysia by or with the authorization of the Guarantor or the Issuer, and (b) are for the time being, or are capable of being, quoted, listed, ordinarily dealt in or traded on any stock exchange, quotation system or over-the counter or other similar securities market outside Malaysia.

Redemption	The Issuer may redeem Notes, in whole but not in part, upon the occurrence of certain events related to tax laws and regulations of a Tax Jurisdiction as provided in Condition 9 *(Taxation)*. In addition, the applicable Pricing Supplement will indicate either that the relevant Notes cannot be redeemed prior to their stated maturity (other than in specified installments, if applicable, or for taxation reasons or following an Event of Default) or that such Notes will be redeemable at the option of the Issuer and/or the Noteholders upon giving notice to the Noteholders or the Issuer, as the case may be, on a date or dates specified prior to such stated maturity and at a price or prices and on such other terms as may be agreed between the Issuer, MISC and the Relevant Dealer(s). See Condition 8 (*Redemption and Purchase*). The terms of any such redemption, including notice periods, any relevant conditions to be satisfied and the relevant redemption dates and prices will be indicated in the applicable Pricing Supplement.
Listing	Application has been made to the SGX-ST for permission to deal in and the listing and quotation of any Notes to be issued pursuant to the Program and which are agreed at the time of issue thereof to be so listed on the SGX-ST. Such permission will be granted when such Notes have been admitted to the Official List of the SGX-ST. There is no assurance that the application to the SGX-ST for the listing of the Notes will be approved. The SGX-ST assumes no responsibility for the correctness of any of the statements made or opinions expressed, or reports contained in this Offering Circular. Approval in-principle for the listing and quotation of any Notes on the SGX-ST is not to be taken as an indication of the merits of the Issuer, the Guarantor, the Program or the Notes. If the application to the SGX-ST to list a particular Series of Notes is approved, such Notes listed on the SGX-ST will be traded on the SGX-ST in a board lot size of at least S$200,000 (or its equivalent in other currencies).

	Application has also been made for (a) the listing of Notes on, and admission to the Official List of Labuan International Financial Exchange and (b) for the listing of Notes on, and admission to the Official List of Bursa Malaysia (Exempt Regime). There is no assurance that such applications to the Labuan International Financial Exchange or Bursa Malaysia will be approved. Labuan International Financial Exchange and Bursa Malaysia take no responsibility for the contents of this Offering Circular, make no representation as to its accuracy or completeness and expressly disclaim any liability whatsoever for any loss howsoever arising from or in reliance upon the whole or any part of the contents of this Offering Circular. Approval in-principle for the listing and quotation of any Notes on each of the Labuan International Financial Exchange or Bursa Malaysia (Exempt Regime) is not to be taken as an indication of the merits of the Issuer, the Guarantor, the Program or the Notes. Unlisted series of Notes may also be issued pursuant to the Program. The Notes may also be listed on such other or further stock exchange(s) as may be agreed between the Issuer and the relevant Dealer(s) in relation to each Series of Notes. The Prospectus Supplement relating to each Series of Notes will state whether or not the Notes of such Series will be listed on any stock exchange(s) and, if so, on which stock exchange(s) the Notes are to be listed.
Use of Proceeds	Unless otherwise stated in the applicable Pricing Supplement, substantially all of the net proceeds from its issue of Notes will be provided by the Issuer to MISC and/or its subsidiaries and/or associated companies. MISC and/or its subsidiaries and/or associated companies is expected to, in turn, use the proceeds for general corporate purposes, including but not limited to financing capital expenditures, working capital and refinancing of existing borrowings. Some of the Dealers and/or their affiliates act as coordinating lead arrangers, lenders and/or agents under certain MISC credit facilities and debt instruments. As a result, certain of the Dealers and/or their affiliates may receive proceeds from the issue of Notes under the Program.
Taxation.	All payments of principal and interest in respect of the Notes, Receipts and Coupons or under the Guarantee will be made without withholding or deduction for or on account of any present or future taxes or duties of whatever nature imposed or levied by or on behalf of any Tax Jurisdiction as provided in Condition 9 (*Taxation*), unless otherwise required by applicable law. In the event that any such withholding or deduction is made, the Issuer or, as the case may be, MISC will, save in certain limited circumstances provided in Condition 9 (*Taxation*), be required to pay additional amounts as would have been paid had no such withholding or deduction been required.
Governing Law.	New York.

Selling Restrictions.	For a description of certain restrictions on offers, sales and deliveries of the Notes and on the distribution of offering material in the United States of America, the EEA, the United Kingdom, Malaysia, Japan, Singapore, Hong Kong, the United Arab Emirates (excluding the Dubai International Financial Centre), the Dubai International Financial Centre, Qatar, Bahrain, Kuwait, Canada, Taiwan (ROC) and Korea and other restrictions as may apply in connection with the offering and sale of a particular Series of Notes, see "*Subscription and Sale and Transfer and Selling Restrictions*."
Transfer Restrictions.	The Notes will not be registered under the Securities Act and are subject to certain restrictions on transfers. See "*Subscription and Sale and Transfer and Selling Restrictions*."
Risk Factors.	Investing in the Notes issued under the Program involves risks. You should carefully consider all information set forth in this Offering Circular. In particular, potential investors should carefully read the section entitled "*Risk Factors*" before purchasing any of the Notes.

SUMMARY

This summary highlights certain information contained elsewhere in this Offering Circular. You should read the entire Offering Circular carefully, including the sections regarding "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

MISC

We are a world-leading provider of international energy-related maritime solutions and services. Our principal business include energy shipping and its related activities, owning and operating offshore floating solutions, marine repair and conversion, and engineering and construction works. Primarily in connection with these business lines, we also provide integrated marine services, port management and maritime services, as well as maritime education and training. We have an operating presence in 11 countries globally and move energy across six continents.

As of December 31, 2021 our market capitalization was RM31.5 billion, (US$7.6 billion), making us one of the largest companies listed on Bursa Malaysia by market capitalization. We are a 51%-owned subsidiary of Petroliam Nasional Berhad (PETRONAS), a leading multinational, integrated energy company with a global presence in over 50 countries. We were incorporated in November 1968 and have been listed on the Bursa Malaysia since February 1987.

We are one of the world's highest internationally rated companies in the marine transport sector, as reflected in our corporate ratings of Baa2 by Moody's Investor Services, Inc. ("**Moody's**") and BBB+ by Standard & Poor's Ratings Services ("**S&P**").

Our business consists of five business segments, which we use for financial reporting purposes:

- o Gas Assets and Solutions, which primarily engages in the transportation of liquefied natural gas ("**LNG"**) and ethane;
- o Petroleum and Product Shipping, which engages in the transportation of crude oil, petroleum products and chemicals;
- o Offshore Business segment, which provides comprehensive offshore solutions for the oil and gas industry and owns, leases, operates and maintains various offshore floating assets;
- o Marine and Heavy Engineering segment, which provides energy industry and marine solutions for a wide range of heavy engineering facilities and vessels in the oil and gas and other industries, including marine repair, marine conversions and engineering and construction works; and
- o Other businesses, which primarily includes our three strategic enablers: Integrated Marine Services, Port Management and Maritime Services, and Maritime Education and Training.

Our vision is to consistently provide better energy-related maritime solutions and services. In pursuing our mission to be consistently better, we strive to:

- Exceed the expectations of our customers,
- Promote individual and team excellence of our employees,
- Create positive differences in the lives of communities,

- Care for the environment and operate responsibly, and

- Drive sustainable value for our shareholders.

Across our organization, we promote our shared values of loyalty, integrity, professionalism and cohesiveness.

In 2019, 2020 and 2021, we derived 28.8%, 28.2% and 27.0% of our revenue and 61.7%, 59.0% and 64.2% of our operating profit from the Gas Assets and Solutions segment, respectively, 48.0%, 41.1% and 30.0%, of our revenue and 18.7%, 23.3% and 14.4% of our operating profit from the Petroleum and Product Shipping segment, respectively, and 12.1%, 13.7% and 28.5% of our revenue and 25.7%, 28.1% and 41.3% of our operating profit from the Offshore Business segment, respectively. During these same years, we derived 11.3%, 16.7% and 13.7% of our revenue, but had an operating loss of RM40.5 million, RM100.1 million and RM252.2 million (US$60.5 million) from our Marine and Heavy Engineering segment, respectively. We consider these four segments as our principal businesses.

Our operations are built around a portfolio of modern, high quality assets, the substantial majority of which are on long-term charters or leases. In our Gas Assets and Solutions and Petroleum Shipping businesses, we own and operate a wide range of specialized ships for the energy transportation needs of our diverse client base. For Gas Assets and Solutions, this includes 30 owned LNG carriers ("**LNGCs**"), which accounted for approximately 4.3% of the global fleet as of December 31, 2021, making us one of the largest single owner-operator of LNGCs, and six very large ethane carriers ("**VLECs**"), which we have used to enter the newly developed market for transporting liquefied ethane. The other vessels include two Floating Storage Units ("**FSUs**") and one LNG bunker vessel ("**LBV**"). Our Petroleum Shipping business is helmed by our subsidiary AET Tanker Holding Sdn. Bhd. ("**AET**"), and as of December 31, 2021 had eight owned very large crude carriers ("**VLCC**"), and in the mid-size tanker segment our fleet consisted of 20 owned Aframaxes, two chartered-in Aframax, one chartered-in Panamax, three chartered-in long-range 2 ("**LR2s**") trading in the crude sector, and six owned Suezmaxes, two owned and three chartered-in long-range 2 ("**LR2s**"), four chartered-in chemical tankers and seven owned and one chartered-in lightering support vessels ("**LSVs**"). As of December 31, 2021, we also owned specialized and technically advanced assets including 11 dynamic positioning shuttle tankers ("**DPSTs**") and two modular capture vessels ("**MCVs**"). In our Offshore business, as of December 31, 2021 we owned (including through joint ventures) 12 offshore floating facilities, consisting of six floating production, storage and offloading ("**FPSO**") facilities, five floating storage and offloading ("**FSO**") facilities, and one semi-submersible floating production system ("**Semi-FPS**"). In our Marine and Heavy Engineering Business, which is operating by our Bursa Malaysia-listed subsidiary Malaysia Marine and Heavy Engineering Holding Berhad ("**MHB**"), we own and operate Malaysia's largest operating yards, including the largest single fabrication yard in Southeast Asia (by area and annual production capacity) and one of the largest drydocks in Southeast Asia, with capacity to dock vessels up to 450,000 dwt.

Our other businesses are primarily strategic enablers that support our four core businesses, consisting of Integrated Marine Services, which provides shipmanagement solutions, Port Management and Maritime Services, which provides port and terminal management, marine assurance and consultancy services, and Maritime Education and Training, which manages Akademi Laut Malaysia ("**ALAM**"), one of the leading maritime institutions in the region. We conduct our Integrated Marine Services segment through our wholly-owned subsidiary Eaglestar Marine Holdings (L) Pte. Ltd. ("**Eaglestar**"), which technically manages our vessel operations. As of December 31, 2021, Eaglestar had a team of approximately 4,800 highly skilled, competent and dedicated professionals to support our core businesses by delivering a comprehensive range of solutions including fleet management, crew management and project management services for newbuild construction and conversion projects.

As a world leading provider of international energy-related maritime solutions and services, we are committed to creating value for our stakeholders and contributing to the sustainability of our industry. In 2020, we undertook a comprehensive process, including extensive discussions and collaboration with our diverse workforce, suppliers and customers, to develop our 2021-2025 Sustainability Strategy. Through this process, we identified nine strategic priorities within the three ESG pillars–the environmental pillar, social pillar and governance pillar–and the fourth stakeholder engagement pillar. In addition, we included a Financial Pillar as part of our financial support to complete the Sustainability Strategy. Within our Environmental Pillar, we aspire to achieve decarbonized shipping operations by 2050, and this strategic priority aligns our carbon emission reduction commitments and exceeds the IMO's Initial Greenhouse Gas Strategy. We have planned out short to medium-term and long-term carbon reduction targets and, in connection with these targets, we have put in place concrete plans for both our shipping and non-shipping operations.

Competitive Strengths

We believe that our success is primarily attributable to the factors outlined below:

- Our diversified portfolio of businesses provides a strong shield against market volatility and mitigates the standalone cyclicality of our individual businesses;
- Established customer relationships with key industry players;
- Stable cash flow from term contracts complemented by discipline and rigor in risk and financial management;
- Healthy liquidity, backed by strong balance sheet;
- Successfully combining commercial viability and ESG priorities, particularly:
    - o *Strong sustainability credit ratings;*
    - o *Environmental sustainability;*
    - o *Social sustainability; and*
    - o *Governance sustainability;*
- Strong track record of operational excellence; and
- Highly experienced board members and senior management team with in-depth industry experience operating within a strong governance framework.

Strategies

We will seek to expand our business and ensure our future success through strategies focused on securing long-term revenue sources; diversifying into new asset classes and new markets to add resilience to our revenues and cash flows; focusing on project execution, delivery and operational excellence; and continuing to develop and execute our sustainability agenda. Led by our four principal business, we will execute this through the strategies outlined below:

- We will pursue targeted growth strategies across each of our four main businesses as follows:
    - o Gas Assets and Solutions: Selectively pursue growth opportunities in conventional LNG segment while diversifying asset portfolio with non-conventional gas solutions;

- Petroleum and Product Shipping: Continue to build long-term revenue streams and reduce earnings volatility arising from spot contracts while rejuvenating fleet with eco-efficient vessels;

- Offshore Business: Continue to pursue major projects in the FPS space; and

- Marine and Heavy Engineering: Leverage on new areas of growth, replenish order book and optimize operating costs;

- Across our organization, continue with proven long-term revenue strategy while focusing on project execution and delivery as well as matching long-term charters with debt repayment obligations;

- Leverage on technology and digitalization; and

- Set course towards a sustainable future in a net-zero carbon economy with a sustainability strategy aligned with 11 of the 17 UN Sustainable Development Goals.

MISC Capital Two (Labuan) Limited

MISC Capital Two (Labuan) Limited is a wholly-owned subsidiary of MISC and was incorporated under the laws of Labuan, Malaysia under the Labuan Companies Act, 1990 on November 22, 2021. MISC Capital Two (Labuan) Limited is a special purpose vehicle to finance the business operations of MISC. It has no other operations. MISC Capital Two (Labuan) Limited intends to provide substantially all of the net proceeds of its borrowings to MISC and/or its subsidiaries and/or associated companies.

Summary Consolidated Financial Information

The summary consolidated financial information as at and for each of the years ended December 31, 2019, 2020 and 2021 set forth below have been derived from MISC's audited consolidated financial statements included elsewhere in this Offering Circular. The summary consolidated financial information should be read in conjunction with our audited financial statements and notes thereto as well as the section entitled "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" included elsewhere in this Offering Circular.

	Year Ended December 31,			
	2019	2020	2021	
	(in millions)			
Summary Consolidated Statements of Profit or Loss Information:				
Revenue[(1)]	RM8,962.7	RM9,401.2	RM10,671.7	US$2,562.2
Cost of sales	(6,215.6)	(6,521.4)	(8,054.2)	(1,933.8)
Gross profit	2,747.1	2,879.8	2,617.5	628.5
Other operating income	118.9	141.7	369.5	88.7
General and administrative expenses	(1,105.9)	(1,116.9)	(1,086.8)	(261.0)
Impairment provisions	(214.9)	(331.4)	(111.9)	(26.9)
Gain on disposal of ships	7.9	25.1	31.6	7.6
Loss from deconsolidation of a subsidiary	—	—	(2.3)	(0.6)
Gain on acquisition of a business	23.7	—	—	—
Gain on disposal of interest in joint ventures	—	—	25.1	6.0
Write off of trade receivables and loss on re-measurement of finance lease receivables	—	(846.2)	—	—
Provision for litigation claims	—	(1,049.2)	—	—
Finance income	169.2	112.6	48.3	11.6
Finance costs	(484.3)	(368.1)	(417.3)	(100.2)
Share of profit of joint ventures	250.6	428.8	297.4	71.4
Share of profit of associates	—	0.2	3.7	0.9
Profit/(loss) before taxation	1,512.3	(123.6)	1,774.7	426.0
Taxation	(76.1)	(46.2)	(41.1)	(9.9)
Profit/(loss) for the year	RM1,436.2	RM(169.8)	RM1,733.6	US$416.1

	As at December 31,			
	2019	2020	2021	
	(in millions)			
Summary Consolidated Statements of Financial Position Information:				
Non-current assets:				
Ships	RM20,975.9	RM21,088.4	RM21,496.3	US$5,161.2
Offshore floating assets	82.4	51.3	25.5	6.1
Other property, plant and equipment	2,228.9	2,169.5	1,889.9	453.8
Prepaid lease payments on land and buildings	219.8	212.5	205.5	49.3
Intangible assets	840.7	819.2	1,060.9	254.7
Investments in associates	0.5	0.7	21.0	5.1
Investments in joint ventures	925.7	873.1	1,047.5	251.5
Other non-current assets	225.9	389.5	3,289.2	789.7
Finance lease receivables	15,008.0	13,754.5	15,439.5	3,707.0
Deferred tax assets	103.5	104.4	101.9	24.5
Derivative assets	—	—	103.0	24.7
Total non-current assets	RM40,611.3	RM39,463.1	RM44,680.3	US$10,727.6
Current assets:				
Inventories	RM165.7	RM91.4	RM120.0	US$28.8
Trade and other receivables	3,930.7	5,406.7	4,754.3	1,141.5
Cash, deposits and bank balances	7,030.8	6,855.0	7,952.4	1,909.3
Non-current assets classified as held of sale	125.3	4.8	14.3	3.4
Total current assets	RM11,252.5	RM12,357.9	RM12,841.1	US$3,083.1
Current liabilities:				
Trade and other payables	RM2,186.6	RM3,509.2	RM4,041.7	US$970.4
Deferred liabilities	1.6	11.7	56.9	13.7
Short term interest-bearing loans and borrowings[2]	5,599.5	2,005.5	8,309.3	1,995.0
Provision for taxation	14.1	23.3	19.9	4.8
Total current liabilities	RM7,801.8	RM5,549.7	RM12,427.8	US$2,983.9
Net current assets	3,450.7	6,808.2	413.3	99.2
	RM44,062.0	RM46,271.3	RM45,093.6	US$10,826.8

	As at December 31,			
	2019	2020	2021	
	(in millions)			
Equity:				
Equity attributable to equity holders of the Corporation				
Share capital	RM8,923.3	RM8,923.3	RM8,923.3	US$2,142.4
Treasury shares	(0.3)	(0.3)	(0.3)	(0.1)
Other reserves	6,060.2	5,122.0	6,653.6	1,597.5
Retained profits	19,744.0	18,227.8	18,586.1	4,462.4
Total equity attributable to equity holders of the Corporation	34,727.2	32,272.8	34,162.7	8,202.3
Non-controlling interests	1,026.5	878.3	762.2	183.0
Total equity	RM35,753.7	RM33,151.1	RM34,924.9	US$8,385.3
Non-current liabilities:				
Long term interest-bearing loans and borrowings(2)	RM7,552.7	RM11,434.9	RM8,719.7	US$2,093.6
Deferred tax liabilities	30.9	7.8	6.8	1.6
Derivative liabilities	158.4	527.0	161.2	38.7
Deferred income	566.3	1,150.5	1,105.0	265.3
Other non-current liabilities	—	—	176.0	42.2
Total non-current liabilities	RM8,308.3	RM13,120.2	RM10,168.7	US$2,441.5
	RM44,062.0	RM46,271.3	RM45,093.6	US$10,826.8

	As at and for the Year Ended December 31,			
	2019	2020	2021	
	(in millions except for ratios and %)			
Other Financial Information:				
Interest Coverage Ratio(3)	3.9	5.8	5.4	5.4
Adjusted Cash Flow From Operating Activities(4)	RM5,579.1	RM5,587.9	RM4,034.7	US$968.7
Ratio of Adjusted Cash Flow From Operating Activities to Total Interest Expenses(5)	12.2	16.1	10.3	10.3
Adjusted EBITDA(6)	RM4,252.0	RM4,462.9	RM4,234.4	US$1,016.6
Total Debt(7) to Adjusted EBITDA	3.1	3.0	4.0	4.0
Net Debt(8) to Adjusted EBITDA	1.4	1.5	2.1	2.1
Pledged Ships(9) to Total Ships	30.0%	42.6%	42.9%	42.9%
Pledged Ships to Total Assets	12.1%	17.4%	16.0%	16.0%
Cash Flow Return on Asset ("CFROA")(10)	10.8%	10.8%	7.0%	7.0%
Capital Commitment(11)	RM4,228.5	RM6,637.5	RM3,416.8	US$820.4

(1) See "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" for a breakdown of the major sources of MISC's revenue.

(2) Consists of secured and unsecured term loans, revolving credits and lease liabilities. See note 20(c) to the notes to the financial statements included elsewhere in this Offering Circular.

(3) Interest coverage ratio is computed as Adjusted Earnings Before Interest and Taxes ("Adjusted EBIT") divided by Total Interest Expense. A reconciliation of profit/(loss) for the year to Adjusted EBIT is provided below:

	Year Ended December 31,			
	2019	2020	2021	
	(in millions)			
Profit/(Loss) for the year	RM1,436.2	RM(169.8)	RM1,733.6	US$416.1
Add:				
Taxation	76.1	46.2	41.1	9.9
Profit/(Loss) before taxation	1,512.3	(123.6)	1,774.7	426.0
Add:				
Total interest expenses	458.1	346.6	390.3	93.7
Write-off of trade receivables and loss on re-measurement of finance lease receivables	–	846.2	–	–
Provision for litigation claims	–	1,049.2	–	–
Less:				
Finance income	169.2	112.6	48.3	11.6
Adjusted EBIT	RM1,801.2	RM2,005.8	RM2,116.7	US$508.1

(4) Adjusted Cash Flow From Operating Activities consists of net cash generated from operating activities excluding payments for costs relating to the turnkey activities for the conversion of a vessel to an FPSO facility which amounted to RM1,126.1 million (US$270.4 million) in 2021; there were no such adjustment for 2020 or 2019. These payments are disclosed as part of cash flows from operating activities as the turnkey activities contribute to the recognition of contract assets per MFRS 15: Revenue from Contract with Customers. However, we consider these payments as capital expenditure payments, and internally classify them as an outflow from our investing activities in measuring our performance and allocation of resources.

Adjusted Cash Flow From Operating Activities should not be viewed as an alternative measure of operating results or cash flows from operating activities as determined in accordance with MFRS. Adjusted Cash Flow From Operating Activities presented herein may not be comparable to similarly titled measures presented by other companies. Investors should not compare our Adjusted Cash Flow From Operating Activities to adjusted cash flow from operating activities presented by other companies because not all companies use the same definition.

(5) Ratio is calculated by dividing Adjusted Cash Flow From Operating Activities to Total Interest Expenses.

(6) Adjusted EBITDA consists of profit/(loss) for the year before tax expenses, with the addition of amounts previously deducted for depreciation and amortization, total interest expenses, impairment losses, write off of trade receivables and loss on re-measurement of finance lease receivables, provision for litigation claims, and the exclusion of finance income. A reconciliation of profit/(loss) for the year to Adjusted EBITDA is provided below:

	Year Ended December 31,			
	2019	**2020**	**2021**	
	(in millions)			
Profit/(Loss) for the year	RM1,436.2	RM(169.8)	RM1,733.6	US$416.1
Add:				
Taxation	76.1	46.2	41.1	9.9
Profit/(Loss) before taxation	1,512.3	(123.6)	1,774.7	426.0
Add:				
Depreciation and amortization[(a)]	2,255.5	2,125.7	2,005.8	481.6
Total interest expenses	458.1	346.6	390.3	93.7
Impairment losses[(b)]	195.3	331.4	111.9	26.9
Write-off of trade receivables and loss on re-measurement of finance lease receivables	—	846.2	—	—
Provision for litigation claims	—	1,049.2	—	—
Less:				
Finance income	169.2	112.6	48.3	11.6
Adjusted EBITDA	RM4,252.0	RM4,462.9	RM4,234.4	US$1,016.6

(a) Includes depreciation of ships, offshore floating assets, other property, plant and equipment and right-of-use assets as well as amortization of prepaid lease payments, upfront fees for borrowings and intangible assets.

(b) Includes impairment losses on ships, offshore floating assets, other property, plant and equipment and right-of-use assets, as well as non-current assets held for sale written down.

Adjusted EBITDA should not be viewed as an alternative measure of operating results or cash flows from operating activities as determined in accordance with MFRS. Adjusted EBITDA has been included because it is widely used as a financial measure of the potential capacity of a company to incur and service debt. Adjusted EBITDA presented herein may not be comparable to similarly titled measures presented by other companies. Investors should not compare our Adjusted EBITDA to adjusted EBITDA presented by other companies because not all companies use the same definition.

(7) Total Debt consists of total short term and long term interest-bearing loans and borrowings.

(8) Net Debt consists of total debt less cash, deposits and bank balances.

(9) Pledged Ships refer to the net carrying amounts of ships pledged as security for borrowings.

(10) CFROA is calculated as Adjusted Cash Flow from Operating Activities divided by total assets for the year. We use this ratio to assess our operational cash flow generation against our asset base. We believe that a metric based on cash flow would be more reflective of our performance as compared to accounting-based metrics. Total assets consists of non-current assets and current assets.

(11) Capital Commitment comprises capital expenditure approved and contracted for ships, offshore floating assets and other property, plant and equipment, and information and communication technology including our share of capital commitment of a joint venture. In 2020, the approved and contracted capital expenditure included an amount totaling RM1,591.8 million relating to the turnkey activities for the conversion of a vessel to an FPSO to be leased out to a customer under a time charter contract. Pursuant to MFRS 15: Revenue from Contract with Customers. For 2021, this excludes the approved and contracted amount relating to the vessel conversion as at December 31, 2021 of RM3,799.1 million (US$912.1 million); see note (4) above.

FORM OF THE NOTES

The Notes of each Series will be in either bearer form, with or without interest coupons attached, or registered form, without interest coupons attached. Bearer Notes will be issued outside the United States in reliance on Regulation S under the Securities Act and Registered Notes may be issued both outside the United States in reliance on the exemption from registration provided by Regulation S or within the United States in reliance on Rule 144A or Section 4(a)(2) of the Securities Act.

Bearer Notes

Each Tranche of Bearer Notes will be initially issued in the form of either a temporary global note (a "**Temporary Bearer Global Note**") or a permanent global note (a "**Permanent Bearer Global Note**") as indicated in the applicable Pricing Supplement, which, in either case, will be delivered on or prior to the original issue date of the Tranche to a common depositary (the "**Common Depositary**") for Euroclear Bank SA/NV ("**Euroclear**") and Clearstream Banking S.A. ("**Clearstream**").

Bearer Notes will only be delivered outside the United States and its possessions.

While any Bearer Note is represented by a Temporary Bearer Global Note, payments of principal, interest (if any) and any other amount payable in respect of the Notes due prior to the Exchange Date (as defined below) will only be made (against presentation of the Temporary Bearer Global Note) outside the United States and its possessions and only to the extent that certification (in a form to be provided) to the effect that the beneficial owners of interests in such Bearer Note are not U.S. persons or persons who have purchased for resale to any U.S. person, as required by U.S. Treasury Regulations, has been received by Euroclear and/or Clearstream and Euroclear and/or Clearstream, as applicable, has given a similar certification (based on the certifications it has received) to the Principal Paying Agent.

On and after the date (the "**Exchange Date**") which is forty days after a Temporary Bearer Global Note is issued, interests in such Temporary Bearer Global Note will be exchangeable (free of charge) upon a request as described therein either for: (i) interests in a Permanent Bearer Global Note of the same Series; or (ii) for definitive Bearer Notes of the same Series with, where applicable, receipts, interest coupons and talons attached (as indicated in the applicable Pricing Supplement and subject, in the case of definitive Bearer Notes, to such notice period as is specified in the applicable Pricing Supplement and provided that no definitive Bearer Note will be delivered to an address in the U.S. or its possessions), in each case against certification of beneficial ownership as described above unless such certification has already been given. The holder of a Temporary Bearer Global Note will not be entitled to collect any payment of interest, principal or other amount due on or after the Exchange Date unless, upon due certification as to non-U.S. beneficial ownership, exchange of the Temporary Bearer Global Note for an interest in a Permanent Bearer Global Note or for definitive Bearer Notes is improperly withheld or refused.

Payments of principal, interest (if any) or any other amounts on a Permanent Bearer Global Note will be made only outside the United States and its possessions through Euroclear and/or Clearstream (against presentation or surrender (as the case may be) of the Permanent Bearer Global Note) without any requirement for certification if such Note is being issued in accordance with TEFRA C or if certification has already been given (as described in the preceding paragraph).

The applicable Pricing Supplement will specify that a Permanent Bearer Global Note will be exchangeable (free of charge), in whole but not in part, for definitive Bearer Notes with, where applicable, receipts, interest coupons and talons attached upon either: (a) not less than sixty days' written notice from Euroclear and/or Clearstream (acting on the instructions of any holder of an interest in such Permanent Bearer Global Note) to the Principal Paying Agent as described therein; or (b) only upon the occurrence of an Exchange Event. For these purposes, "**Exchange Event**" means that: (i) an Event of Default (as defined in Condition 11 (*Events of Default*) of the Terms and Conditions of the Notes) has occurred and is continuing; (ii) the Issuer has been notified that both Euroclear and Clearstream have been closed for business for a continuous period of fourteen days (other than by reason of holiday, statutory or otherwise) or have announced an intention permanently to cease business or have in fact done so and no successor clearing system is available; or (iii) the Issuer or the Guarantor has or will become subject to adverse tax consequences which would not be suffered were the Notes represented by the Permanent Bearer Global Note in definitive form. The Issuer will promptly give notice to Noteholders in accordance with Condition 15 (*Notices*) of the Terms and Conditions of the Notes if an Exchange Event occurs. In the event of the occurrence of an Exchange Event, Euroclear and/or Clearstream (acting on the instructions of any holder of an interest in such Permanent Bearer Global Note) may give notice to the Principal Paying Agent requesting exchange and, in the event of the occurrence of an Exchange Event as described in (iii) above, the Issuer may also give notice to the Principal Paying Agent requesting exchange. Any such exchange shall occur not later than forty-five days after the date of receipt of the first relevant notice by the Principal Paying Agent.

The following legend will appear on the face of all Bearer Notes which have an original maturity of more than 365 days (including unilateral roll overs and extensions) and on all receipts, interest coupons or talons relating to such Notes:

"ANY UNITED STATES PERSON WHO HOLDS THIS OBLIGATION WILL BE SUBJECT TO LIMITATIONS UNDER THE UNITED STATES INCOME TAX LAWS, INCLUDING THE LIMITATIONS PROVIDED IN SECTIONS 165(j) AND 1287(a) OF THE INTERNAL REVENUE CODE."

The sections referred to in the legend above provide that United States holders (as defined in "*Taxation—Certain U.S. Federal Income Tax Considerations*"), with certain limited exceptions, will not be entitled to deduct any loss on Bearer Notes, receipts or interest coupons and will not be entitled to capital gains treatment of any gain on any sale, disposition, redemption or payment of principal in respect of such Notes, receipts or interest coupons.

Notes which are represented by a Bearer Global Note will only be transferable in accordance with the rules and procedures for the time being of Euroclear or Clearstream, as the case may be.

Registered Notes

The Registered Notes of each Tranche offered and sold in reliance on Regulation S, which will be sold to non-U.S. persons outside the United States, will initially be represented by a global note in registered form (a "**Regulation S Global Note**"). Prior to expiry of the distribution compliance period (as defined in Regulation S) applicable to each Tranche of Notes, beneficial interests in a Regulation S Global Note may not be offered or sold to, or for the account or benefit of, a U.S. person save as otherwise provided in Condition 2 (*Transfers of Registered Notes*) of the Terms and Conditions of the Notes contained herein and such Regulation S Global Note will bear a legend regarding such restrictions on transfer.

The Registered Notes of each Tranche may only be offered and sold in the United States or to U.S. persons in private transactions: (i) to QIBs; or (ii) to Institutional Accredited Investors who agree to purchase the Notes for their own account and not with a view to the distribution thereof. The Registered Notes of each Tranche sold to QIBs will be represented by a global note in registered form (a "**Rule 144A Global Note**" and, together with a Regulation S Global Note, the "**Registered Global Notes**").

Registered Global Notes will either: (i) be deposited with a custodian for, and registered in the name of a nominee of, the Depository Trust Company ("**DTC**") for the accounts of its participants, including Euroclear and Clearstream, or (ii) be deposited with a common depositary for, and registered in the name of a common nominee of, Euroclear and Clearstream, as specified in the applicable Pricing Supplement. Persons holding beneficial interests in Registered Global Notes will be entitled or required, as the case may be, under the circumstances described below, to receive physical delivery of definitive Notes in fully registered form.

The Registered Notes of each Tranche sold to Institutional Accredited Investors will be in definitive form, registered in the name of the holder thereof ("**Definitive IAI Registered Notes**"). Unless otherwise set forth in the applicable Pricing Supplement, Definitive IAI Registered Notes will be issued only in minimum denominations of U.S.$500,000 and integral multiples of U.S.$1,000 in excess thereof (or the approximate equivalents in the applicable Specified Currency). Definitive IAI Registered Notes will be subject to the restrictions on transfer set forth therein and will bear the restrictive legend described under "*Subscription and Sale and Transfer and Selling Restrictions—Transfer Restrictions*." The Rule 144A Global Notes and the Definitive IAI Registered Notes will be subject to certain restrictions on transfer set forth therein and will bear a legend regarding such restrictions.

Payments of principal, interest and any other amount in respect of the Registered Global Notes will, in the absence of provision to the contrary, be made to the person shown on the Register (as defined in Condition 7.4 (*Payments—Payments in respect of Registered Notes*) of the Terms and Conditions of the Notes) as the registered holder of the Registered Global Notes. None of the Issuer, the Guarantor, any Paying Agent or the Registrar will have any responsibility or liability for any aspect of the records relating to or payments or deliveries made on account of beneficial ownership interests in the Registered Global Notes or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

Payments of principal, interest or any other amount in respect of the Registered Notes in definitive form will, in the absence of provision to the contrary, be made to the persons shown on the Register on the relevant Record Date (as defined in Condition 7.4 (*Payments—Payments in respect of Registered Notes*) of the Terms and Conditions of the Notes) immediately preceding the due date for payment in the manner provided in that Condition.

Interests in a Registered Global Note will be exchangeable (free of charge), in whole but not in part, for definitive Registered Notes without receipts, interest coupons or talons attached only upon the occurrence of an Exchange Event. For these purposes, "**Exchange Event**" means that: (i) an Event of Default has occurred and is continuing; (ii) (a) in the case of Notes registered in the name of a nominee for DTC, either DTC has notified the Issuer and the Guarantor that it is unwilling or unable to continue to act as depository for the Notes and no alternative clearing system is available, or DTC has ceased to constitute a clearing agency registered under the United States Securities Exchange Act of 1934 (as amended) ("**Exchange Act**") and no alternative clearing system is available; or (b) in the case of Notes registered in the name of a nominee for a common depositary for Euroclear and Clearstream, the Issuer and the Guarantor have been notified that both Euroclear and Clearstream have been closed for business for a continuous period of fourteen days (other than by reason of holiday, statutory or otherwise) or have announced an intention permanently to cease business or have in fact done so and, in any such case, no successor clearing system is available; (iii) definitive Notes are required by law to be issued in exchange for beneficial interests in global Notes; or (iv) the Issuer or the Guarantor has or will become subject to adverse tax consequences which would not be suffered were the Notes represented by this Global Note in definitive form. The Issuer will promptly give notice to Noteholders in accordance with Condition 15 (*Notices*) of the Terms and Conditions of the Notes if an Exchange Event occurs. In the event of the occurrence of an Exchange Event, DTC, Euroclear and/or Clearstream (acting on the instructions of any holder of an interest in such Registered Global Note) may give notice to the Registrar requesting exchange and, in the event of the occurrence of an Exchange Event as described in (iv) above, the Issuer may also give notice to the Registrar requesting exchange. Any such exchange shall occur not later than ten days after the date of receipt of the first relevant notice by the Registrar.

Transfer of Interests

Interests in a Registered Global Note may, subject to compliance with all applicable restrictions, be transferred to a person who wishes to hold such interest in another Registered Global Note or in the form of a Definitive IAI Registered Note. Definitive IAI Registered Notes may, subject to compliance with all applicable restrictions, be transferred to a person who wishes to hold such Notes in the form of an interest in a Registered Global Note. No beneficial owner of an interest in a Registered Global Note will be able to transfer such interest, except in accordance with the applicable procedures of DTC, Euroclear and Clearstream in each case to the extent applicable.

Registered Notes are also subject to the restrictions on transfer set forth therein and will bear a legend regarding such restrictions. See "Subscription and Sale and Transfer and Selling Restrictions."

General

Pursuant to the Agency Agreement, the Principal Paying Agent shall arrange that, where a further Tranche of Notes is issued which is intended to form a single Series with an existing Tranche of Notes, the Notes of such further Tranche shall be assigned security number(s) (including, but not limited to, CUSIP number, CINS number, common code and ISIN) which are different from the security number(s) assigned to Notes of any other Tranche of the same Series until at least the expiry of the distribution compliance period (as defined in Regulation S) applicable to the Notes of such Tranche; provided further that a further Tranche of Notes that is intended to form a single Series with an existing Tranche of Notes must, if the existing Tranche of Notes was (or the further Tranche of Notes will be) issued in reliance on Rule 144A, be assigned security number(s) that are different from the security number(s) assigned to the existing Tranche of Notes unless the further Tranche of Notes is issued pursuant to a "qualified reopening" of the original Tranche of Notes, is otherwise treated as part of the same "issue" of debt instruments as the existing Tranche of Notes or is issued with no more than a *de minimis* amount of original issue discount, in each case for U.S federal income tax purposes.

Any reference herein to Euroclear and/or Clearstream and/or DTC shall, whenever the context so permits, be deemed to include a reference to any additional or alternative clearing system specified in the applicable Pricing Supplement or as may otherwise be approved by the Issuer, the Guarantor and the Principal Paying Agent or as applicable, the Registrar.

FORM OF APPLICABLE PRICING SUPPLEMENT

Set out below is the form of Pricing Supplement which will be completed for each Tranche of Notes issued under the Program.

[The Notes have not been and will not be registered under the United States Securities Act of 1933, as amended (the "**Securities Act**"), or any U.S. state securities laws and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons (as defined in Regulation S under the Securities Act ("**Regulation S**"))] [except to qualified institutional buyers (as defined in Rule 144A under the Securities Act ("**Rule 144A**")) in reliance on Rule 144A. Prospective purchasers that are qualified institutional buyers are hereby notified that the seller of the Notes may be relying on the exemption from the registration requirements of the Securities Act provided by Rule 144A.]

This document is for distribution to professional investors (as defined in Chapter 37 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited) ("**Professional Investors**") only.

[MIFID II product governance/Professional investors and ECPs only target market–Solely for the purposes of [the/each] manufacturer's product approval process, the target market assessment in respect of the Notes has led to the conclusion that: (i) the target market for the Notes is eligible counterparties and professional clients only, each as defined in [Directive 2014/65/EU (as amended, "**MiFID II**")][MiFID II]; and (ii) all channels for distribution of the Notes to eligible counterparties and professional clients are appropriate. Any person subsequently offering, selling or recommending the Notes (a "**distributor**") should take into consideration the manufacturer['s/s'] target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of the Notes (by either adopting or refining the manufacturer['s/s'] target market assessment) and determining appropriate distribution channels.]

[STABILIZATION—In connection with the issue of any Tranche of Notes, one or more of the Dealers named as Stabilization Manager(s) (or persons acting on behalf of any Stabilization Manager(s)) in this Pricing Supplement may over-allot Notes or effect transactions with a view to supporting the market price of the Notes at a level higher than that which might otherwise prevail. However, there is no assurance that the Stabilization Manager(s) (or persons acting on behalf of any Stabilization Manager(s)) will undertake stabilization action. Any stabilization action may begin on or after the date on which adequate public disclosure of the terms of the offer of the relevant Tranche of Notes is made and, if begun, may be ended at any time, but it must end no later than the earlier of 30 days after the issue date of the relevant Tranche of Notes and 60 days after the date of the allotment of the relevant Tranche of Notes. Any stabilization action or over-allotment must be conducted by the relevant Stabilization Manager(s) (or persons acting on behalf of any Stabilization Manager(s)) in accordance with all applicable laws and rules.]

[PROHIBITION OF SALES TO EEA RETAIL INVESTORS—The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the EEA. For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "**MiFID II**"); (ii) a customer within the meaning of Directive (EU) 2016/97 (as amended, the "**Insurance Distribution Directive**"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Regulation (EU) 2017/1129 (the "**Prospectus Regulation**"). Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the "**PRIIPs Regulation**") for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.]

[PROHIBITION OF SALES TO UNITED KINGDOM RETAIL INVESTORS—The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the United Kingdom. For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of United Kingdom domestic law by virtue of the European Union (Withdrawal) Act 2018 ("**EUWA**"); (ii) a customer within the meaning of the provisions of the Financial Services and Markets Act 2000 (as amended, the "**FSMA**") and any rules or regulations made under the FSMA to implement Directive (EU) 2016/97, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of United Kingdom domestic law by virtue of the EUWA; or (iii) not a qualified investor as defined in Article 2 of Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the EUWA. Consequently, no key information document required by Regulation (EU) No 1286/2014 as it forms part of United Kingdom domestic law by virtue of the EUWA (as amended, the "**UK PRIIPs Regulation**") for offering or selling the Notes or otherwise making them available to retail investors in the United Kingdom has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the United Kingdom may be unlawful under the UK PRIIPs Regulation.]

Where interest, discount income, prepayment fee, redemption premium or break cost is derived from any of the Notes by any person who (i) is not resident in Singapore and (ii) carries on any operation in Singapore through a permanent establishment in Singapore, the tax exemption available for qualifying debt securities (subject to certain conditions) under the Income Tax Act 1947 of Singapore (the "**ITA**") shall not apply if such person acquires such Notes using the funds and profits of such person's operations through a permanent establishment in Singapore. Any person whose interest, discount income, prepayment fee, redemption premium or break cost derived from the Notes is not exempt from tax (including for the reasons described above) shall include such income in a return of income made under the ITA.

[Notification under section 309B of the Securities and Futures Act 2001 of Singapore: The Notes are prescribed capital markets products (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).] [Note: this legend to be included if Notes are Excluded Investment Products, otherwise appropriate legend to be included.]

[NOTICE TO HONG KONG INVESTORS—The Issuer and the Guarantor confirm that the Notes are intended for purchase by Professional Investors only and will be so listed on that basis. Accordingly, the Issuer and the Guarantor confirm that the Notes are not appropriate as an investment for retail investors in Hong Kong. Investors should carefully consider the risks involved.]

[Date]

MISC Capital Two (Labuan) Limited

Issue of [Aggregate Nominal Amount of Tranche] [Title of Notes]

guaranteed by MISC Berhad

under its U.S.$3,000,000,000
Multi-currency Global Medium Term Note Program

This document constitutes the Pricing Supplement relating to the issue of Notes described herein. Terms used herein shall be deemed to be defined as such for the purposes of the terms and conditions (the "**Conditions**") set forth in the Offering Circular dated March 29, 2022 (the "**Offering Circular**"). This Pricing Supplement contains the final terms of the Notes and is supplemental to, and must be read in conjunction with, such Offering Circular.

[The following alternative language applies if the first tranche of an issue which is being increased was issued under an Offering Circular with an earlier date.

Terms used herein shall be deemed to be defined as such for the purposes of the terms and conditions (the "**Conditions**") set forth in the Offering Circular dated [original date]. This Pricing Supplement contains the final terms of the Notes and is supplemental to, and must be read in conjunction with, the Offering Circular dated [current date] (the "**Offering Circular**"), except in respect of the Conditions which are extracted from the Offering Circular dated [original date] and are attached hereto.]

[Include whichever of the following apply or specify as "Not Applicable" (N/A). Note that the numbering should remain as set out below, even if "Not Applicable" is indicated for individual paragraphs or subparagraphs. Italics denote directions for completing the Pricing Supplement]

[If the Notes have a maturity of less than one year from the date of their issue, the minimum denomination [must/may need to] be £100,000 or its equivalent in any other currency.]

1.	(a)	Issuer:	MISC Capital Two (Labuan) Limited
	(b)	Guarantor:	MISC Berhad
2.	(a)	Series Number:	[●]
	(b)	Tranche Number:	[●] *(If fungible with an existing Series, details of such Series, including the date on which the Notes become fungible)*
	(c)	Re-opening:	[Yes/No] [*Specify terms of initial or eventual fungibility*]
3.	Specified Currency or Currencies:		[●]
4.	Aggregate Nominal Amount:		
	(a)	Series:	[●]
	(b)	Tranche:	[●] *(If fungible with an existing Series, details of such Series, including the date on which the Notes become fungible)*

5.	(a)	Issue Price of Tranche:	[●]% of the Aggregate Principal Amount [plus accrued interest from [*Issue Date*] [*insert other date*] *(in the case of fungible issues only, if applicable)*]
	(b)	Net Proceeds:	[●] *(required only for listed issues)*
	(c)	Use of Proceeds:	[●] *(as described in the Offering Circular/describe)*
6.	(a)	Specified Denominations:	[●] *(N.B. In the case of Registered Notes, this means the minimum integral amount in which transfers can be made. For Registered Global Notes, consider including language substantially to the following effect (however, appropriate amendments should be made for different currencies) "€100,000 and integral multiples of €1,000 in excess thereof")* *(N.B. For Bearer Notes with a Specified Denomination and higher integral multiples above the minimum denomination, consider including language substantially to the following effect. However, appropriate amendments should be made for different currencies.)* ("[U.S.$200,000] and integral multiples of [U.S.$1,000] in excess thereof, up to and including [U.S.$399,000] and, for so long as the Notes are represented by a Global Note (as defined below) and Euroclear and Clearstream so permit, the Notes shall be tradable only in the minimum authorized denomination of [U.S.$200,000] and higher integral multiples of [U.S.$1,000], notwithstanding that no definitive notes will be issued with a denomination above [U.S.$399,000].") *(N.B. It should be noted that such Specified Denomination will not be permitted in relation to any issue of Notes which are to be represented on issue by a Temporary Global Note exchangeable for Definitive Notes.)*
	(b)	Calculation Amount: (*applicable to Notes in definitive form*)	[●] *(If only one Specified Denomination, insert the Specified Denomination. If there is more than one Specified Denomination, insert the highest common factor. N.B. There must be a common factor in the case of two or more Specified Denominations.)*
7.	(a)	Issue Date:	[●]
	(b)	Trade Date:	[●]
	(c)	Interest Commencement Date:	[*specify*/Issue Date/Not Applicable] *(N.B. An Interest Commencement Date will not be relevant for certain Notes, for example Zero Coupon Notes.)*

8.	Maturity Date:	[*Fixed rate—specify date/Floating rate*—Interest Payment Date falling in or nearest to [*specify month and year*]]
9.	Interest Basis:	[[●]% Fixed Rate] [[*specify reference rate*] +/- [●]% Floating Rate] [Zero Coupon] [Dual Currency Interest] [*specify other*] (further particulars specified below)
10.	Redemption/Payment Basis:	[Redemption at par] [Dual Currency Redemption] [Partly Paid] [Installment] [*specify other*]
11.	Change of Interest Basis or Redemption/Payment Basis:	[*Specify details of any provision for change of Notes into another Interest Basis or Redemption/Payment Basis*]
12.	Put/Call Options:	[Change of Control Put Option (in accordance with Condition 4.2)] [Investor Put] [Issuer Call] [(further particulars specified below)]
13.	Listing:	[[*name of Stock Exchange(s)*]/None]
14.	(a) Status of the Notes:	Senior Guaranteed Notes
	(b) Status of the Guarantee:	Senior
	(c) Date of the Issuer's Board approval for the issuance of Notes obtained:	[[●]/None required]
	(d) Date of the Guarantor's Board approval for the making of the Guarantee obtained:	[[●]/None required] (*N.B. Only relevant where Board (or similar) authorization is required for the particular Tranche of Notes or related Guarantee*)
15.	Method of distribution:	[Syndicated/Non-syndicated]

PROVISIONS RELATING TO INTEREST (IF ANY) PAYABLE

16.	Fixed Rate Note Provisions:	[Applicable]/[Not Applicable] *(If not applicable, delete the remaining subparagraphs of this paragraph)*
	(a) Rate(s) of Interest:	[●]% per annum [payable [annually/semi-annually/ quarterly/other (*specify*)] in arrear] *(If not "per annum", consider amending Condition 5 (Interest))*
	(b) Interest Payment Date(s):	[●] in each year up to and including the Maturity Date] [adjusted in accordance with *[specify Business Day Convention and any applicable Additional Business Center(s) for the definition of "Business Day"]* /not adjusted]/[*specify other*] *(N.B. This will need to be amended in the case of long or short coupons)*
	(c) Fixed Coupon Amount(s): *(applicable to Notes in definitive form)*	[●] per Calculation Amount

	(d)	Broken Amount(s): *(applicable to Notes in definitive form)*	[●] per Calculation Amount, payable on the Interest Payment Date falling [in/on] [●] [*Insert particulars of any initial or final broken interest amounts which do not correspond with the Fixed Coupon Amount*]
	(e)	Broken Amount:	[●] per Calculation Amount, payable on the Interest Payment Date falling [in/on] [●] [*Insert particulars of any initial or final broken interest amounts which do not correspond with the Fixed Coupon Amount*]
	(f)	Day Count Fraction:	[30/360 or Actual/Actual (ICMA) or [*specify other*]]
	(g)	Screen Rate Determination:	[●] in each year [*Insert regular interest payment dates, ignoring issue date or maturity date in the case of a long or short first or last coupon. N.B. This will need to be amended in the case of regular interest payment dates which are not of equal duration. N.B. Only relevant where Day Count Fraction is Actual/Actual (ICMA))*]
	(h)	Other terms relating to the method of calculating interest for Fixed Rate Notes:	[None/*Give details*]
17.	Floating Rate Note Provisions:		[Applicable]/[Not Applicable] *(If not applicable, delete the remaining subparagraphs of this paragraph)*
	(a)	Specified Period(s)/Specified Interest Payment Dates:	[●]
	(b)	Business Day Convention:	Business Day Convention: [Floating Rate Convention/ Following Business Day Convention/Modified Following Business Day Convention/Preceding Business Day Convention/[*specify other*]]
	(c)	Additional Business Center(s):	[●] *(Insert New York City for U.S. dollar denominated Notes to be held through DTC and for non-U.S. dollar denominated Notes where exchange into U.S. dollars is contemplated for DTC participants holding through Euroclear and Clearstream)*
	(d)	Manner in which the Rate of Interest and Interest Amount is to be determined:	[Screen Rate Determination]/[Screen Rate Determination (SOFR)]/[ISDA Determination]/[*specify other*]
	(e)	Party responsible for calculating the Rate of Interest and Interest Amount (if not the Principal Paying Agent):	[●]

(f)	Screen Rate Determination:	
	Reference Rate:	[[●] *(Either EURIBOR, HIBOR, CNH HIBOR, or other, although additional information is required if other—including fallback provisions in the Agency Agreement)*]
	Interest Determination Date(s):	[[●] *(first day of each Interest Period if Sterling or Hong Kong dollar and the second day on which the TARGET2 System is open prior to the start of each Interest Period if EURIBOR)] [Other]*
	Relevant Screen Page:	[●] *(In the case of EURIBOR, if not Reuters EURIBOR01 ensure it is a page which shows a composite rate or amend the fallback provisions appropriately)*
(g)	Screen Rate Determination (SOFR):	
	Reference Rate:	SOFR Benchmark—[Simple SOFR Average]/[Compounded Daily SOFR]/[SOFR Compounded Index]
	Compounded Daily SOFR Method:	[[Not Applicable]/[SOFR Observation Lag]/[SOFR Observation Shift]/[SOFR Payment Delay]/[SOFR Lockout]—*used for Compounded Daily SOFR only*]
	Interest Determination Date(s):	[The [●] U.S. Government Securities Business Day prior to the last day of each Interest Period—*only applicable in the case of Simple SOFR Average/SOFR Observation Lag/SOFR Observation Shift/SOFR Lockout/ SOFR Compounded Index*] [The Interest Period Date at the end of each Interest Period, provided that the Interest Determination Date with respect to the final Interest Period will be the U.S. Government Securities Business Day immediately following the relevant SOFR Rate Cut-Off Date—*only applicable in the case of SOFR Payment Delay*]
	Lookback Days:	[[●] U.S. Government Securities Business *Days—used for SOFR Lag only*]/[Not Applicable]
	SOFR Observation Shift Days:	[[●] U.S. Government Securities Business Days—*used for the SOFR Observation Shift or SOFR Compounded Index only*]/[Not Applicable]
	SOFR Rate Cut-Off Date:	[The date falling [●] Business Days prior to the end of each Interest Period, the Maturity Date or the date fixed for redemption, as applicable—*used for only Simple SOFR Average (if applicable), Compounded Daily SOFR (if applicable)—SOFR Payment Delay or SOFR Lockout only*]/ [Not Applicable]
	Interest Payment Delay Days:	[●] Business Days—*used for SOFR Payment Delay only*]/[Not Applicable]

	(h)	ISDA Determination:	
		Floating Rate Option:	[●] (*If not on the same basis as the floating rate under a notional interest rate swap transaction in the relevant Specified Currency governed by an agreement incorporating the 2006 ISDA Definitions, the Issuer shall describe the basis here)*
		Designated Maturity:	[●]
		Reset Date:	[●]
	(i)	Margin(s):	[+/-] [●]% per annum
	(j)	Minimum Rate of Interest:	[●]% per annum
	(k)	Maximum Rate of Interest:	[●]% per annum
	(l)	Day Count Fraction:	[Actual/Actual (ISDA) or Actual/Actual] [Actual/365 (Fixed)] [Actual/365 (Sterling)] [Actual/360] [30/360, 360/360 or Bond Basis] [30E/360 or Eurobond Basis] [30E/360 (ISDA)] [*Other*] *(See Condition 5 (Interest) for alternatives)*
	(m)	Fallback provisions, rounding provisions and any other terms relating to the method of calculating interest on Floating Rate Notes, if different from those set out in the Conditions:	[●]
18.	Zero Coupon Note Provisions:		[Applicable]/[Not Applicable] *(If not applicable, delete the remaining subparagraphs of this paragraph)*
	(a)	Accrual Yield:	[●]% per annum
	(b)	Reference Price:	[●]
	(c)	Any other formula/basis of determining amount payable:	[●]
	(d)	Day Count Fraction in relation to Early Redemption Amounts and late payment:	[Conditions 8.6 (*Redemption and Purchase–Early Redemption Amounts*) and 8.11 (*Redemption and Purchase—Late payment on Zero Coupon Notes) apply/ specify other*] *(Consider applicable day count fraction if not U.S. dollar denominated)*
19.	Dual Currency Interest Note Provisions:		[Applicable]/[Not Applicable] *(If not applicable, delete the remaining subparagraphs of this paragraph)*
	(a)	Rate of Exchange/method of calculating Rate of Exchange:	[*Give or annex details*]

(b)	Party, if any, responsible for calculating the principal and/or interest due (if not the Principal Paying Agent):	[●]
(c)	Provisions applicable where calculation by reference to Rate of Exchange impossible or impracticable:	[*Need to include a description of market disruption or settlement disruption events and adjustment provisions*]
(d)	Person at whose option Specified Currency(ies) is/are payable:	[●]
(e)	Day Count Fraction:	[Actual/Actual (ISDA) or Actual/Actual] [Actual/365 (Fixed)] [Actual/365 (Sterling)] [Actual/360] [30/360, 360/360 or Bond Basis] [30E/360 or Eurobond Basis] [30E/360 (ISDA)] [*Other*] *(See Condition 5 (Interest) for alternatives)*

PROVISIONS RELATING TO REDEMPTION

20.	Issuer Call:	[Applicable]/[Not Applicable] *(If not applicable, delete the remaining subparagraphs of this paragraph)*
(a)	Optional Redemption Date(s):	[●]
(b)	Optional Redemption Amount of each Note and method, if any, of calculation of such amount(s):	[[●] per Calculation Amount/*specify other*]
(c)	If redeemable in part:	
(i)	Minimum Redemption Amount:	[●] per Calculation Amount
(ii)	Maximum Redemption Amount:	[●] per Calculation Amount
(d)	Notice period (if other than as set out in the Conditions):	*[●] (N.B. If setting notice periods which are different to those provided in the Conditions, the Issuer and the Guarantor are advised to consider the practicalities of distribution of information through intermediaries, for example, clearing systems and custodians, as well as any other notice requirements which may apply, for example, as between the Issuer, the Guarantor and the Principal Paying Agent)*
21.	Investor Put:	[Applicable]/[Not Applicable] *(If not applicable, delete the remaining subparagraphs of this paragraph)*
(a)	Optional Redemption Date(s):	[●]

(b) Optional Redemption Amount of each Note and method, if any, of calculation of such amount(s):	[[●] per Calculation Amount/*specify other*]
(c) Notice period (if other than as set out in the Conditions):	[●] *(N.B. If setting notice periods which are different to those provided in the Conditions, the Issuer and the Guarantor are advised to consider the practicalities of distribution of information through intermediaries, for example, clearing systems and custodians, as well as any other notice requirements which may apply, for example, as between the Issuer, the Guarantor and the Principal Paying Agent)*
22. Final Redemption Amount:	[[●] per Calculation Amount/*specify other*/see Appendix]
23. Early Redemption Amount payable on redemption for taxation reasons or on event of default and/or the method of calculating the same (if required or if different from that set out in Condition 8.6 *(Redemption and Purchase—Early Redemption Amounts)*):	[[●] per Calculation Amount/*specify other*/see Appendix]

GENERAL PROVISIONS APPLICABLE TO THE NOTES

24. Form of Notes:	[Bearer Notes: Temporary Bearer Global Note exchangeable for a Permanent Bearer Global Note which is exchangeable for Definitive Notes [on 60 days' notice given at any time/only upon an Exchange Event]] [Bearer Notes: Temporary Bearer Global Note exchangeable for Definitive Notes on and after the Exchange Date] [Bearer Notes: Permanent Bearer Global Note exchangeable for Definitive Notes [on 60 days' notice given at any time/only upon an Exchange Event/at any time at the request of the Issuer]] [Registered Notes: Regulation S Global Note (U.S.$[●] nominal amount) registered in the name of a nominee for [DTC/a common depositary for Euroclear and Clearstream]/Rule 144A Global Note (U.S.$[●] principal amount) registered in the name of a nominee for [DTC/ Definitive IA Registered Notes] (*specify principal amounts*)]

(Ensure that this is consistent with the wording in the "Form of the Notes" section in the Offering Circular and the Notes themselves. N.B. The exchange upon notice/at any time options for bearer Notes should not be expressed to be applicable if the Specified Denomination of the Notes in paragraph 6 includes language substantially to the following effect:"[U.S.$200,000] and integral multiples of[U.S.$1,000] in excess thereof, up to and including [U.S.$399,000]." *Furthermore, such Specified Denomination construction is not permitted in relation to any issue of Notes which is to be represented on issue by a Temporary Global Note exchangeable for Definitive Notes.)*

("[U.S.$200,000] and integral multiples of[U.S.$1,000] in excess thereof, up to and including [U.S.$399,000] and, for so long as the Notes are represented by a Global Note (as defined below) and Euroclear and Clearstream so permit, the Notes shall be tradable only in the minimum authorized denomination of[U.S.$200,000] and higher integral multiples of[U.S.$1,000], notwithstanding that no definitive notes will be issued with a denomination above[U.S.$399,000].")

25.	Additional Financial Center(s) or other special provisions relating to Payment Days:	[Not Applicable/*give details*] *(Note that this paragraph relates to the place of payment and not Interest Period end dates to which sub-paragraphs 16(b) and 17(c) relate)*
26.	Talons for future Coupons or Receipts to be attached to Definitive Bearer Notes (and dates on which such Talons mature):	[Yes/No. *If yes, give details*]
27.	Details relating to Partly Paid Notes: amount of each payment comprising the Issue Price and date on which each payment is to be made and consequences of failure to pay, including any right of the Issuer to forfeit the Notes and interest due on late payment:	[Not Applicable/*give details*] *(N.B. A new form of Temporary Global Note and/or Permanent Global Note may be required for Partly Paid issues)*
28.	Details relating to Installment Notes:	
	(a) Installment Amount(s):	[Not Applicable/*give details*]
	(b) Installment Date(s):	[Not Applicable/*give details*]
29.	Other terms:	[Not Applicable/*give details*]

Distribution

30.	(a) If syndicated, names of Managers:	[Not Applicable/*give names*]
	(b) Stabilizing Managers (if any):	[Not Applicable/*give name*]
31.	If not syndicated, name of Relevant Dealer:	[Not Applicable/*give name*]
32.	U.S. Selling Restrictions:	[Regulation S Category [[1]/[2]] [TEFRA D/TEFRA C/TEFRA not applicable *(for Bearer Notes with a maturity of one year or less (including unilateral rollovers and extensions) or Registered Notes)*] [Notes may be offered and sold to [QIBs]/[QIBs and Institutional Accredited Investors]] [No sales permitted in the U.S.]
33.	Additional selling restrictions:	[Not Applicable/*give details*]

Operational Information

34.	Any clearing system(s) other than Euroclear and Clearstream and the relevant identification number(s):	[Not Applicable/*give name(s) and number(s)*]
35.	Delivery:	Settlement with Issuer is delivery [against/free of] payment
36.	Additional Paying Agent(s) (if any):	[●]
	ISIN:	[●]
	Common Code:	[●]
	CUSIP:(*insert here any other relevant codes such as CINS*)	[Not Applicable/*specify*]

LISTING AND ADMISSION TO TRADING APPLICATION

This Pricing Supplement comprises the pricing supplement required to list the issue of Notes described herein pursuant to the U.S.$3,000,000,000 Multi-currency Global Medium Term Note Program of the Issuer and the Guarantor.

[The [name of Stock Exchange] (the "[●] Stock Exchange") assumes no responsibility for the correctness of any of the statements made or opinions or reports contained in this Pricing Supplement. Approval in-principle from, admission of the Notes to [the Official List] of, and the listing and quotation of the Notes on, the [●] Stock Exchange is not to be taken as an indication of the merits of the Issuer or the Guarantor, the Program or the Notes.][1]

Subject to change depending on requirement of the Stock Exchange for listing the Notes.

RESPONSIBILITY

The Issuer accepts responsibility for the information contained in this Pricing Supplement. Signed on behalf of the Issuer:

By:____________________________

Duly authorized

Signed on behalf of the Guarantor:

By:____________________________

Duly authorized

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1 Subject to change depending on requirement of the Stock Exchange for listing the Notes.

TERMS AND CONDITIONS OF THE NOTES

*The following are the Terms and Conditions (the "**Conditions**") of the Notes (as defined below) which will be incorporated by reference into each Global Note (as defined below) and each definitive Note, in the latter case only if permitted by the rules of the relevant stock exchange or other relevant authority (if any) and agreed by the Issuer, the Guarantor and the Relevant Dealer(s) at the time of issue but, if not so permitted and agreed, such definitive Note will have endorsed thereon or attached thereto such Conditions. The applicable Pricing Supplement in relation to any Tranche of Notes may specify other terms and conditions which shall, to the extent so specified or to the extent inconsistent with the following Conditions, replace or modify the following Conditions for the purpose of such Notes (except that terms of all Tranches constituting a Series of Notes will be identical in all respects except for their respective Issue Dates, Interest Commencement Dates (if applicable) and/or Issue Prices (if applicable)). The applicable Pricing Supplement (or the relevant provisions thereof) will be endorsed upon, or attached to, each Global Note and definitive Note. Reference should be made to "Form of the Notes" for a description of the content of the Pricing Supplements which will specify which of such terms are to apply in relation to the relevant Notes.*

This Note is one of a Series (as defined below) of Notes issued by MISC Capital Two (Labuan) Limited or any additional issuer which is a Wholly-Owned Subsidiary of MISC Berhad (as defined below) and has acceded to the Program by executing an accession agreement pursuant to the terms of the Agency Agreement (as defined below) (each of MISC Capital Two (Labuan) Limited and such additional issuers, in relation to the Notes issued by it, the "**Issuer**"). The Notes will be guaranteed by MISC Berhad (in such capacity, the "**Guarantor**") pursuant to the terms of the Agency Agreement.

References herein to the "**Notes**" shall be references to the Notes of this Series and shall mean:

(a) in relation to any Notes represented by a global Note (a "Global Note"), units of the lowest Specified Denomination in the Specified Currency (as defined below);

(b) any Global Note;

(c) any definitive Notes in bearer form ("**Bearer Notes**"), issued in exchange for a Global Note in bearer form; and

(d) any definitive Notes in registered form ("**Registered Notes**") (whether or not issued in exchange for a Global Note in registered form).

The Notes, and in the case of the Bearer Notes, the Receipts (as defined below) and the Coupons (as defined below), are issued pursuant to, and have the benefit of, an agency agreement dated March 29, 2022, (such agency agreement as amended and/or supplemented and/or restated from time to time, (the "**Agency Agreement**")), and made among the Issuer, the Guarantor, Citibank N.A., London Branch, as principal paying agent (the "**Principal Paying Agent**", which term includes any successor thereto appointed pursuant to the terms of the Agency Agreement, and collectively (and together with the Paying Agents and Exchange Agents (both as defined below), the DTC Registrar and the Euroclear/Clearstream Registrar (each as defined below and a "**Registrar**"), the "**Agents**"), Citibank N.A., London Branch, as paying agent (a "**Paying Agent**", which term includes any successor thereto or additional paying agent appointed pursuant to the terms of the Agency Agreement), exchange agent (an "**Exchange Agent**", which term includes any successor thereto or additional exchange agent appointed pursuant to the terms of the Agency Agreement), transfer agent (a "**Transfer Agent**", which term includes any successor thereto or additional transfer agent appointed pursuant to the terms of the Agency Agreement) and DTC registrar (the "**DTC Registrar**", which term includes any successor thereto), and Citibank N.A., London Branch, as the Euroclear/Clearstream registrar (the "**Euroclear/Clearstream Registrar**", which term includes any successor thereto) and Transfer Agent).

Interest-bearing definitive Bearer Notes have (unless otherwise indicated in the applicable Pricing Supplement) interest coupons ("**Coupons**") and, if indicated in the applicable Pricing Supplement, talons for further Coupons ("**Talons**") attached on issue. Any reference herein to Coupons or coupons shall, unless the context otherwise requires, be deemed to include a reference to Talons or talons. Definitive Bearer Notes repayable in installments have receipts ("**Receipts**") for the payment of the installments of principal (other than the final installment) attached on issue. Registered Notes and Global Notes do not have Receipts, Coupons or Talons attached on issue.

The Pricing Supplement for this Note (or the relevant provisions thereof) is attached to or endorsed on this Note and supplements these Conditions, and may specify other terms and conditions which shall, to the extent so specified or to the extent inconsistent with these Conditions, replace or modify these Conditions for the purposes of this Note. References to the "**applicable Pricing Supplement**" are to the Pricing Supplement (or the relevant provisions thereof) attached to or endorsed on this Note.

Any reference to "**Noteholders**" or "**holders**" in relation to any Notes shall mean (in the case of Bearer Notes) the holders of the Notes and (in the case of Registered Notes) the persons in whose name the Notes are registered and shall, in relation to any Notes represented by a Global Note, be construed as provided below. Any reference herein to "**Receiptholders**" shall mean the holders of the Receipts, and any reference herein to "**Couponholders**" shall mean the holders of the Coupons and shall, unless the context otherwise requires, include the holders of the Talons.

As used herein, "**Tranche**" means Notes which are identical in all respects (including as to listing and admission to trading), and "**Series**" means a Tranche of Notes together with any further Tranche(s) of Notes which are (a) expressed to be consolidated and form a single series and (b) identical in all respects (including as to listing and admission to trading) except for their respective Issue Dates, Interest Commencement Dates (if applicable) and/or Issue Prices (if applicable).

Copies of the Agency Agreement are available for inspection between 10:00 a.m. and 4:00 p.m., Monday to Friday (except on public holidays) at the specified office of each of the Paying Agents. Copies of the applicable Pricing Supplement are available for inspection during normal business hours at the specified office of each of the Paying Agents except that, if this Note is an unlisted Note of any Series, the applicable Pricing Supplement will only be available for inspection by a Noteholder holding one or more unlisted Notes of such Series and such Noteholder must produce evidence satisfactory to the relevant Paying Agent as to its holding of such Notes and its identity. The Noteholders, the Receiptholders and the Couponholders are deemed to have notice of, and are entitled to the benefit of, all the provisions of the Agency Agreement and the applicable Pricing Supplement which are applicable to them. The statements in these Conditions include summaries of, and are subject to, the detailed provisions of the Agency Agreement.

Words and expressions defined in the Agency Agreement or used in the applicable Pricing Supplement shall have the same meanings when used in these Conditions unless the context otherwise requires or unless otherwise stated and provided that, in the event of inconsistency between the Agency Agreement and the applicable Pricing Supplement, or between these Conditions and the applicable Pricing Supplement, the applicable Pricing Supplement will prevail.

1. FORM, DENOMINATION AND TITLE

The Notes may be issued in bearer form or in registered form as specified in the applicable Pricing Supplement and, in the case of definitive Notes, will be serially numbered, in the Specified Currency and the Specified Denomination(s). Notes of one Specified Denomination may not be exchanged for Notes of another Specified Denomination, and Bearer Notes may not be exchanged for Registered Notes and vice versa. Registered Notes are represented by registered certificates and, except as provided in Condition 2.3 (*Registration of transfer upon partial redemption*), each such certificate shall represent the entire holding of Registered Notes by the same holder.

This Note may be a Fixed Rate Note, a Floating Rate Note, a Zero Coupon Note, a Dual Currency Interest Note or a combination of any of the foregoing, depending upon the Interest Basis shown in the applicable Pricing Supplement.

This Note may be an Installment Note, a Dual Currency Redemption Note, a Partly Paid Note or a combination of any of the foregoing, depending upon the Redemption/Payment Basis shown in the applicable Pricing Supplement. This Note may also be a Limited Recourse Note, as indicated in the applicable Pricing Supplement.

Definitive Bearer Notes are issued with Coupons attached and (if applicable) Receipts and Talons attached, unless they are Zero Coupon Notes in which case references to Coupons and Couponholders in these Conditions are not applicable.

Subject as set out below, title to Bearer Notes, Receipts and Coupons will pass by delivery and title to Registered Notes will pass upon registration of transfers in accordance with the provisions of the Agency Agreement. The Issuer, the Guarantor and any Agent will (except as otherwise required by law) deem and treat the bearer of any Bearer Note, Receipt or Coupon and the registered holder of any Registered Note as the absolute owner thereof (whether or not overdue and notwithstanding any notice of ownership or writing thereon or notice of any previous loss or theft thereof) for all purposes but, in the case of any Global Note, without prejudice to the provisions set out in the next succeeding paragraph, and no person shall be liable for so treating the holder.

For so long as any of the Notes is represented by a Global Note held on behalf of Euroclear Bank SA/NV as operator of the Euroclear system ("**Euroclear**") and/or Clearstream Banking S.A. ("**Clearstream**"), each person (other than Euroclear or Clearstream) who is for the time being shown in the records of Euroclear or Clearstream as the holder of a particular principal amount of such Notes (in which regard any certificate or other document issued by Euroclear or Clearstream as to the principal amount of such Notes standing to the account of any person shall be conclusive and binding for all purposes save in the case of manifest error) shall be treated by the Issuer, the Guarantor and the Agents as the holder of such principal amount of such Notes for all purposes other than with respect to the payment of principal or interest on such principal amount of such Notes, for which purpose the bearer of the relevant Bearer Global Note or the registered holder of the relevant Registered Global Note shall be treated by the Issuer, the Guarantor and any Agent as the holder of such principal amount of such Notes in accordance with and subject to the terms of the relevant Global Note. For so long as The Depository Trust Company ("**DTC**") or its nominee is the registered owner or holder of a Registered Global Note, DTC or such nominee, as the case may be, will be considered the sole owner or holder of the Notes represented by such Registered Global Note for all purposes under the Agency Agreement and the Notes except to the extent that in accordance with DTC's published rules and procedures any ownership rights may be exercised by its participants or beneficial owners through participants. In each of the cases referred to above, the expressions "**Noteholder**" and "**holder of Notes**" and related expressions shall be construed accordingly.

Notes which are represented by a Global Note will be transferable only in accordance with the rules and procedures for the time being of DTC, Euroclear and Clearstream, as the case may be. References to DTC, Euroclear and/or Clearstream shall, whenever the context so permits, be deemed to include a reference to any additional or alternative clearing system specified in the applicable Pricing Supplement.

2. TRANSFERS OF REGISTERED NOTES

2.1 *Transfers of interests in Registered Global Notes*

Transfers of beneficial interests in Registered Global Notes will be effected by DTC, Euroclear or Clearstream, as the case may be, and, in turn, by other participants and, if appropriate, indirect participants in such clearing systems acting on behalf of beneficial transferors and transferees of such interests. A beneficial interest in a Registered Global Note will, subject to compliance with all applicable legal and regulatory restrictions, be transferable for Notes in definitive form or for a beneficial interest in another Registered Global Note only in the authorized denominations set out in the applicable Pricing Supplement and only in accordance with the rules and operating procedures for the time being of DTC, Euroclear or Clearstream, as the case may be, and in accordance with the terms and conditions specified in the Agency Agreement. Transfers of a Registered Global Note registered in the name of a nominee for DTC shall be limited to transfers of such Registered Global Note, in whole but not in part, to another nominee of DTC or to a successor of DTC or such successor's nominee.

2.2 ***Transfers of Registered Notes in definitive form***

Subject as provided in Conditions 2.5 (*Transfers of Registered Notes—Transfers of interests in Regulation S Global Notes*), 2.6 (*Transfers of Registered Notes—Transfers of interests in Legended Notes*) and 2.7 (*Transfers of Registered Notes—Exchanges and transfers of Registered Notes generally*), upon the terms and subject to the conditions set forth in the Agency Agreement, a Registered Note in definitive form may be transferred in whole or in part in the authorized denominations set out in the applicable Pricing Supplement. In order to effect any such transfer (i) the holder(s) must (A) surrender the Registered Note for registration of the transfer of the Registered Note, or the relevant part of the Registered Note, at the specified office of the Registrar or any Transfer Agent, with the form of transfer thereon duly executed by the holder(s) thereof or his or their attorney(s) duly authorized in writing, and (B) complete and deposit such other certifications as may be required by the Registrar or, as the case may be, the relevant Transfer Agent, and (ii) the Registrar or, as the case may be, the relevant Transfer Agent must, after due and careful enquiry, be satisfied with the documents of title and the identity of the person making the request. Any such transfer will be subject to such reasonable regulations as the Issuer, the Guarantor and the Registrar may from time to time prescribe (the initial such regulations being set out in Schedule 8 to the Agency Agreement). Subject as provided above, the Registrar or, as the case may be, the relevant Transfer Agent will, within five business days (being for this purpose a day on which banks are open for business in the city where the specified office of the Registrar or, as the case may be, the relevant Transfer Agent is located) of the request (or such longer period as may be required to comply with any applicable fiscal or other laws or regulations), authenticate and make available for collection at the specified office of the Transfer Agent, or deliver, or procure the authentication and delivery of, at its specified office to the transferee or (at the risk of the transferee) send by uninsured mail, to such address as the transferee may request, a new Registered Note in definitive form of a like aggregate principal amount to the Registered Note (or the relevant part of the Registered Note) transferred. In the case of the transfer of part only of a Registered Note in definitive form, a new Registered Note in definitive form in respect of the balance of the Registered Note not transferred will be so authenticated and delivered or (at the risk of the transferor) sent to the transferor.

2.3 ***Registration of transfer upon partial redemption***

In the event of a partial redemption of Notes under Condition 8 (*Redemption and Purchase*), the Issuer shall not be required to register the transfer of any Registered Note, or part of a Registered Note, called for partial redemption.

2.4 ***Costs of registration***

Neither the Agents nor the Noteholders will be required to bear the costs and expenses of effecting any registration of transfer as provided above, except that Noteholders shall bear any costs or expenses of delivery other than by regular uninsured mail and the Issuer (or the Guarantor) may require the payment by the Noteholders of a sum sufficient to cover any stamp duty, tax or other governmental charge that may be imposed in relation to the registration.

2.5 ***Transfers of interests in Regulation S Global Notes***

Prior to expiry of the applicable Distribution Compliance Period (as defined below), transfers by the holder of, or of a beneficial interest in, a Regulation S Global Note (as defined below) to a transferee in the United States or who is a U.S. person will only be made:

(a) in the case of a Series which specifies Rule 144A Notes or IAI Registered Notes in the applicable Pricing Supplement, upon receipt by the Registrar of a written certification substantially in the form set out in the Agency Agreement, amended as appropriate (a "**Transfer Certificate**"), copies of which are available from the specified office of the Registrar or any Transfer Agent, from the transferor of the Note or beneficial interest therein to the effect that such transfer is being made:

(i) to a person whom the transferor reasonably believes is a QIB (as defined below) in a transaction meeting the requirements of Rule 144A (as defined below); or

(ii) to a person who is an Institutional Accredited Investor, in which case the Transfer Certificate must be accompanied by a duly executed investment letter from the relevant transferee substantially in the form set out in Schedule 3 of the Agency Agreement (an "**IAI Investment Letter**"); or

(b) otherwise pursuant to the Securities Act (as defined below) or an exemption therefrom, subject to receipt by the Issuer and the Guarantor of such satisfactory evidence as the Issuer and the Guarantor may reasonably require, which may include an opinion of U.S. counsel, that such transfer is in compliance with any applicable federal securities laws of the United States or any applicable securities laws of any state of the United States,

and, in each case, in accordance with any applicable securities laws of any state of the United States or any other jurisdiction.

In the case of (i) above, such transferee may take delivery through a Legended Note (as defined below) in global or definitive form, and, in the case of (ii) above, such transferee may take delivery only through a Legended Note in definitive form. After expiry of the applicable Distribution Compliance Period such certification requirements will no longer apply to such transfers.

2.6 ***Transfers of interests in Legended Notes***

Transfers of Legended Notes or beneficial interests therein may be made:

(a) to a transferee who takes delivery of such interest through a Regulation S Global Note, upon receipt by the Registrar of a duly completed Transfer Certificate from the transferor to the effect that such transfer is being made in accordance with Regulation S (as defined below); or

(b) to a transferee who takes delivery of such interest through a Legended Note:

(i) where the transferee is a person whom the transferor reasonably believes is a QIB in a transaction meeting the requirements of Rule 144A, without certification; or

(ii) where the transferee is an Institutional Accredited Investor, subject to delivery to the Registrar of a Transfer Certificate from the transferor to the effect that such transfer is being made to an Institutional Accredited Investor, together with a duly executed IAI Investment Letter from the relevant transferee; or

(c) otherwise pursuant to the Securities Act or an exemption therefrom, subject to receipt by the Issuer and the Guarantor of such satisfactory evidence as the Issuer and the Guarantor may reasonably require, which may include an opinion of U.S. counsel, that such transfer is in compliance with any applicable federal securities laws of the United States or any applicable securities laws of any state of the United States,

and, in each case, in accordance with any applicable securities laws of any state of the United States or any other jurisdiction.

Notes transferred by Institutional Accredited Investors to QIBs pursuant to Rule 144A or outside the United States pursuant to Regulation S will be eligible to be held by such QIBs or non-U.S. investors through DTC, Euroclear or Clearstream, as appropriate, and the Registrar will arrange for any Notes which are the subject of such a transfer to be represented by the appropriate Registered Global Note, where applicable.

Upon the transfer, exchange or replacement of Legended Notes, or upon specific request for removal of the Legend, the Registrar shall deliver only Legended Notes or refuse to remove the Legend, as the case may be, unless there is delivered to the Issuer and the Guarantor such satisfactory evidence as may reasonably be required by the Issuer and the Guarantor, which may include an opinion of U.S. counsel, that neither the Legend nor the restrictions on transfer set forth therein are required to ensure compliance with the provisions of the Securities Act.

2.7 ***Exchanges and transfers of Registered Notes generally***

Holders of Registered Notes in definitive form, other than Institutional Accredited Investors, may exchange such Notes for interests in a Registered Global Note of the same type, subject to compliance with applicable legal and regulatory restrictions and upon the terms and conditions set forth in the Agency Agreement.

2.8 ***Closed Periods***

No Noteholder may require the transfer of a Registered Note to be registered (i) during the period of 15 days ending on the due date for any redemption, payment of principal or interest or other payment on such Note, (ii) during the 15 days before any dates on which Notes may be called for redemption by the Issuer at its option pursuant to Condition 8.3 (*Redemption and Purchase—Redemption at the option of the Issuer ("Issuer Call")*), (iii) after any such Note has been called for redemption or (iv) during the period of seven days ending on (and including) any Record Date (as defined below).

2.9 ***Definitions***

In this Condition, the following expressions shall have the following meanings:

"**Distribution Compliance Period**" means the period that ends 40 days after the completion of the distribution of each Tranche of Notes, as certified by the Relevant Dealer(s) (in the case of a non-syndicated issue) or the relevant Lead Manager (in the case of a syndicated issue);

"**Institutional Accredited Investor**" means "**accredited investors**" (as defined in Rule 501(a)(1), (2), (3) or (7) under the Securities Act) that are institutions;

"**Legended Note**" means Registered Notes in definitive form that are issued to Institutional Accredited Investors and Registered Notes (whether in definitive form or represented by a Registered Global Note) sold in private transactions to QIBs in accordance with the requirements of Rule 144A;

"**QIB**" means a "**qualified institutional buyer**" within the meaning of Rule 144A; "**Regulation S**" means Regulation S under the Securities Act;

"**Regulation S Global Note**" means a Registered Global Note representing Notes sold outside the United States in reliance on Regulation S;

"**Rule 144A**" means Rule 144A under the Securities Act; and

"**Securities Act**" means the United States Securities Act of 1933, as amended.

3. STATUS OF THE NOTES; GUARANTEE

3.1 ***Notes***

The Notes and any Receipts and Coupons relating thereto are direct, unconditional, unsubordinated and (subject to Condition 4 (*Certain Covenants*)) unsecured general obligations of the relevant Issuer and shall at all times rank pari passu, without any preference among themselves and equally with all other unsecured and unsubordinated general obligations of the Issuer, from time to time outstanding. It is understood that this provision shall not be construed so as to require the Issuer to make payments under the Notes, Receipts and Coupons ratably with payments being made under any other indebtedness of the Issuer.

The Notes and any Receipts and Coupons relating thereto are guaranteed as to payment of principal and interest by the Guarantor as set forth in Condition 3.2 below.

3.2 *Guarantee*

The Guarantor unconditionally and irrevocably guarantees to each holder of the Notes and any Receipts and Coupons relating thereto the payment of the principal of and premium, if any, and interest, if any, on the Notes and the related Receipts and Coupons, when and as the same shall become due and payable, subject to any applicable grace period, whether at maturity, by acceleration, redemption or otherwise. The Guarantor's obligations in that respect with respect to each Tranche shall be contained in a guarantee (the "**Guarantee**") to be dated as at the Issue Date in respect of the relevant Tranche to be issued by the Guarantor.

The Guarantee is a guarantee of payment and not a guarantee of collection.

The Guarantee is a direct, unconditional, unsubordinated and (subject to Condition 4 (*Certain Covenants*)) unsecured general obligation of the Guarantor and shall at all times rank pari passu and equally with all other unsecured and unsubordinated general obligations of the Guarantor, from time to time outstanding. It is understood that this provision shall not be construed so as to require the Guarantor to make payments under the Guarantee ratably with payments being made under any other indebtedness of the Guarantor.

The Guarantor has agreed that its obligations under the Guarantee will be as if it were principal debtor and not merely surety, and will be enforceable irrespective of any invalidity, irregularity or unenforceability of the Notes. In addition, the Guarantor has expressly waived any right to require any holder of the Notes to pursue or exhaust its legal or equitable remedies against the Issuer prior to exercising its rights under the Guarantee. The Guarantee will not be discharged with respect to any Note except by complete performance of the Guarantor's obligations to the holders of the Notes. Moreover, if at any time any payment of principal of, or interest on, any Note is restored or otherwise returned, whether as required by any court or otherwise, the Guarantee will be reinstated with respect to such payments as though such payments had not been made.

4. CERTAIN COVENANTS

4.1 *Negative Pledge*

So long as any of the Notes of this Series are outstanding, the Issuer and the Guarantor will ensure that no International Investment Securities of the Issuer, the Guarantor or any of the Principal Subsidiaries of the Guarantor will be secured by any mortgage, pledge, lien, charge, encumbrance or any other security interest ("**Lien**") upon the whole or any part of its property or assets, present or future, or to secure for the benefit of the holders thereof any guarantee or indemnity in respect thereof, without, in any such case, effectively providing that the Notes and the Guarantee relating to the Notes of this Series shall be secured equally and ratably with or prior to such International Investment Securities (or such guarantee or indemnity in respect thereof).

Provided that, the foregoing restriction will not apply to:

(i) any Lien upon, or with respect to, any of the present or future business, undertaking, assets or revenues (including any uncalled capital) of any person, entity or Subsidiary of the Guarantor existing at such time as such person, entity or Subsidiary becomes a Principal Subsidiary of the Guarantor, provided that such Liens were not created in anticipation of such entity becoming a Principal Subsidiary of the Guarantor;

(ii) any Lien on any property or asset securing International Investment Securities incurred or assumed for the purpose of financing the purchase price thereof or the cost of construction, improvement or repair of all or any part thereof, provided that such Lien attaches to such property concurrently with or within 12 months after the acquisition thereof or completion of construction, improvement or repair thereof;

(iii) any Lien on any (i) floating production storage and offloading ("**FPSO**"), (ii) floating storage and offloading ("**FSO**") system, or (iii) other offshore asset used in the Guarantor's offshore business segment (or any successor segment) of a Principal Subsidiary securing International Investment Securities incurred or assumed for the purpose of refinancing the purchase price thereof or the cost of construction, improvement or repair of all or any part thereof, provided that such Lien attaches to such property concurrently with or within 60 months after the acquisition thereof or completion of construction, improvement or repair thereof;

(iv) any Lien arising out of the refinancing, extension, renewal or refunding of any International Investment Securities secured by any Lien permitted by any of the foregoing clauses, provided that such indebtedness is not increased and is not secured by any additional property or assets.

4.2 ***Change of Control Put Option***

If so specified in the applicable Pricing Supplement, so long as any of the Notes of the relevant Series are outstanding, if there occurs a Change of Control Triggering Event (as defined below) (a "**Change of Control Put Event**"), each Noteholder will have the option (the "**Change of Control Put Option**") (unless, prior to the giving of the Change of Control Put Event Notice (as defined below), the Issuer gives notice to redeem the Notes under Condition 8.2 (*Redemption for tax reasons*) or 8.3 (*Redemption at the option of the Issuer*) to require the Issuer to redeem or, at the Issuer's option, to procure the purchase of, all or part of its Notes, on the Optional Redemption Date at 101% of the principal amount outstanding of such Notes together with (or where purchased, together with an amount equal to) interest accrued to, but excluding, the Optional Redemption Date, or such other amount specified in the applicable Pricing Supplement.

Promptly upon the Issuer or the Guarantor becoming aware that a Change of Control Put Event has occurred, the Issuer or the Guarantor shall give notice (a "**Change of Control Put Event Notice**") to the Noteholders and the Principal Paying Agent in accordance with Condition 15 (*Notices*) specifying (i) the nature of the Change of Control Put Event and the circumstances giving rise to it, (ii) that the Change of Control Put Option must be exercised by the Noteholders within 45 days of the date of the Change of Control Put Event Notice (the "**Change of Control Put Period**"), (iii) that the Optional Redemption Date for the Change of Control Put Option will be the date which is five business days following the end of the Change of Control Put Period; and (iv) the procedure for exercising the Change of Control Put Option contained in Condition 8.5 (*Put Notices*).

4.3 ***Certain Definitions***

In these Conditions, the following expressions have the following meanings:

"**Change of Control**" mean any "person" or "group" (as such terms are used in Sections 13(d) and 14(d) of the Exchange Act), (other than Petroliam Nasional Berhad (PETRONAS) and/or any federal statutory body and/or state-owned enterprise in Malaysia and/or the Government of Malaysia), becomes the beneficial owner (as such term is used in Rule 13d-3 and Rule 13d-5 under the Exchange Act), directly or indirectly, of 33.00 percent or more of the issued and outstanding capital stock of the Guarantor;

"**Change of Control Triggering Event**" means a Change of Control, provided that, in the event that the Notes are, on the Rating Date, rated Investment Grade by two Rating Agencies, a Change of Control Triggering Event shall mean the occurrence of both a Change of Control and a Rating Downgrade;

"**International Investment Securities**" means debentures, notes, bonds or other similar investment securities (present or future) evidencing indebtedness, sukuk obligations or interests with a maturity of not less than one year which (a) either (i) are by their terms payable, or confer a right to receive payment, in any currency other than in Ringgit or (ii) are denominated or payable in Ringgit and more than 50 percent of the aggregate principal amount thereof is initially distributed outside Malaysia by or with the authorization of the Guarantor or the Issuer, and (b) are for the time being, or are capable of being, quoted, listed, ordinarily dealt in or traded on any stock exchange, quotation system or over-the counter or other similar securities market outside Malaysia;

"**Investment Grade**" means a rating of "AAA", "AA", "A" or "BBB", as modified by a "+" or "-" indication, or an equivalent rating representing one of the four highest rating categories, by S&P or any of its successors or assigns; a rating of "Aaa", or "Aa", "A" or "Baa", as modified by a "1", "2" or "3" indication, or an equivalent rating representing one of the four highest rating categories, by Moody's, or any of its successors or assigns; or the equivalent ratings of any internationally recognized rating agency or agencies, as the case may be, which shall have been designated by the Principal Paying Agent as having been substituted for S&P or Moody's or any combination thereof, as the case may be;

"**Principal Subsidiary**" means any corporation or other business entity more than 50 percent of the outstanding voting stock of which is for the time being owned directly or indirectly by the Guarantor and either (a) the gross profit plus other income of which, as shown by the accounts (consolidated in the case of an entity which itself has Subsidiaries) of such entity upon which the latest audited consolidated accounts of the Guarantor have been based, are at least 10 percent of the gross profit plus other income of the Guarantor and its Subsidiaries, if any, as shown by such audited consolidated accounts, or (b) the gross assets of which, as shown by the aforementioned accounts, are at least 10 percent of the gross assets of the Guarantor and its Subsidiaries, if any, as shown by such audited consolidated accounts.

"**Rating Agencies**" means (i) Moody's Investors Service, Inc. ("**Moody's**"); (ii) Standard & Poor's Rating Services, a division of the McGraw-Hill Companies, Inc. ("**S&P**"); and (iii) if either or both of Moody's or S&P shall not make a rating of the Notes publicly available, an internationally recognized securities rating agency or agencies, as the case may be, selected by the Guarantor, which shall be substituted for Moody's, S&P or both, as the case may be;

"**Rating Date**" means in connection with a Change of Control Triggering Event, that date which is 90 days prior to the earlier of (x) a Change of Control and (y) a public notice of the occurrence of a Change of Control or of the intention by the Guarantor or any other person or persons to effect a Change of Control;

"**Rating Downgrade**" means in connection with a Change of Control Triggering Event, the Notes cease to be rated Investment Grade by both Rating Agencies rating the Notes on, or within six months after, the date of, or public notice of the occurrence of, a Change of Control or the intention by the Guarantor or any other person or persons to effect a Change of Control (which period shall be extended (by no more than an additional three months after the consummation of the Change of Control) so long as the rating of the Notes is under publicly announced consideration for possible downgrade by either of the Rating Agencies);

"S**ubsidiary**" means, with respect to any person, at any particular time, any entity subject to consolidation with the financial statements of such person;

4.4 ***Merger or Consolidation***

(a) *Issuer Merger or Consolidation*

Nothing contained in the Agency Agreement or in the Notes of any Series shall prevent any consolidation (which shall include an amalgamation) of the Issuer with, or merger of the Issuer into, any other corporation or corporations (whether or not affiliated with the Issuer), or successive consolidations or mergers to which the Issuer or its successor or successors shall be a party or parties, or shall prevent any sale, transfer, lease or conveyance of the property of the Issuer as an entirety or substantially as an entirety; provided that:

(i) in case the Issuer shall consolidate with or merge into another corporation, or sell, transfer, lease or convey its property as an entirety or substantially as an entirety to any corporation, the corporation formed by such consolidation or into which the Issuer is merged or the corporation which acquires by sale, transfer, lease or conveyance the property of the Issuer as an entirety or substantially as an entirety shall be a corporation organized under the laws of Malaysia, and shall expressly assume, by an agreement supplemental hereto executed and delivered to, and in form reasonably satisfactory to, the Principal Paying Agent, the due and punctual payment of the principal and premium, if any, of and interest on the Notes of any Series then outstanding, and any additional amounts, according to their tenor, and the due and punctual performance and observance of all of the covenants and conditions of the Agency Agreement, and the Notes of any Series then outstanding on the part of the Issuer to be performed or observed;

(ii) immediately after giving effect to such transaction and treating any indebtedness which becomes an obligation of the Issuer as a result of such transaction as having been incurred by the Issuer at the time of such transaction, no Event of Default, and no event which, after notice or lapse of time or both, would become an Event of Default, shall have occurred and be continuing; and

(iii) the Issuer has delivered to the Principal Paying Agent an officer's certificate and an opinion of counsel as to matters of law stating that such consolidation, merger, sale, transfer, lease or conveyance and, if a supplemental agreement is required in connection with such transaction, such supplemental agreement comply with the Agency Agreement and the Notes of all Series then outstanding and that all conditions precedent herein provided for relating to such transaction have been complied with.

(b) *Guarantor Merger or Consolidation*

Nothing contained in the Agency Agreement or in the Notes of any Series shall prevent any consolidation of the Guarantor with, or merger of the Guarantor into, any other corporation or corporations (whether or not affiliated with the Guarantor), or successive consolidations or mergers to which the Guarantor or its successor or successors shall be a party or parties, or shall prevent any sale, transfer, lease or conveyance of the property of the Guarantor as an entirety or substantially as an entirety; provided that:

(i) in case the Guarantor shall consolidate with or merge into another corporation, or sell, transfer, lease or convey its property as an entirety or substantially as an entirety to any corporation, the corporation formed by such consolidation or into which the Guarantor is merged or the corporation which acquires by sale, transfer, lease or conveyance the property of the Guarantor as an entirety or substantially as an entirety shall be a corporation organized under the laws of Malaysia and shall expressly assume, by an agreement supplemental hereto executed and delivered to, and in form reasonably satisfactory to, the Principal Paying Agent, the due and punctual payment of the principal and premium, if any, of and interest on the Notes of any Series then outstanding, and any additional amounts, according to their tenor, and the due and punctual performance and observance of all of the covenants and conditions of the Agency Agreement, the notes of any Series and the Guarantee then outstanding on the part of the Guarantor to be performed or observed;

(ii) immediately after giving effect to such transaction and treating any indebtedness which becomes an obligation of the Guarantor as a result of such transaction as having been incurred by the Guarantor at the time of such transaction, no Event of Default, and no event which, after notice or lapse of time or both, would become an Event of Default, shall have occurred and be continuing;

(iii) if, as a result of any such consolidation or merger or such sale, transfer, lease or conveyance, properties or assets of the Guarantor would become subject to a Lien which would not be permitted by the Notes of any Series or the Guarantee then outstanding, the Guarantor or such successor corporation, as the case may be, shall take such steps as shall be necessary effectively to secure the Guarantee (together with, if the Guarantor shall so determine, any other indebtedness of the Guarantor then existing or thereafter created which is not subordinate to the Guarantee) equally and ratably with (or prior to) all indebtedness secured thereby; and

(iv) the Guarantor has delivered to the Principal Paying Agent an officer's certificate and an opinion of counsel as to matters of law stating that such consolidation, merger, sale, transfer, lease or conveyance and, if a supplemental agreement is required in connection with such transaction, such supplemental agreement complies with the Agency Agreement and the Guarantee and that all conditions precedent herein provided for relating to such transaction have been complied with.

4.5 ***Provision of Information to Noteholders***

Each of the Issuer and the Guarantor covenants that for so long as any of the Notes are "restricted securities" within the meaning of Rule 144 under the Securities Act, it will, at any time when it is not subject to either the periodic reporting requirements of Section 13 or Section 15(d) of the Exchange Act or the requirements of Rule 12g3-2(b) thereunder, provide to any Noteholder or prospective purchaser of Notes designated by such Noteholder, upon the request of such Noteholder or prospective purchaser, the information required to be provided by Rule 144A(d)(4) under the Securities Act.

4.6 ***Ownership and Operations of the Issuer***

The Guarantor will cause the Issuer to at all times during which any Note of this Series is outstanding remain a Wholly-Owned Subsidiary of the Guarantor. For the purposes of these Conditions, "**Wholly-Owned Subsidiary of the Guarantor**" means a subsidiary of the Guarantor 100% of the outstanding capital stock or other ownership interests of which (other than directors' qualifying shares or such minimum number of shares of capital stock owned by another person that is necessary to meet the shareholder requirements under applicable law) shall at the time be owned by the Guarantor or by one or more Wholly-Owned Subsidiaries of the Guarantor.

5. INTEREST

5.1 ***Interest on Fixed Rate Notes***

Each Fixed Rate Note bears interest on its outstanding principal amount (or, if it is a Partly Paid Note, the amount paid up) from (and including) the Interest Commencement Date at the rate(s) per annum (expressed as a percentage) equal to the Rate(s) of Interest. Interest will be payable in arrears on the Interest Payment Date(s) in each year up to (and including) the Maturity Date.

If the Notes are in definitive form, except as provided in the applicable Pricing Supplement, the amount of interest payable on each Interest Payment Date in respect of the Fixed Interest Period ending on (but excluding) such date will amount to the Fixed Coupon Amount. Payments of interest on any Interest Payment Date will, if so specified in the applicable Pricing Supplement, amount to the Broken Amount so specified.

Except in the case of Notes in definitive form where a Fixed Coupon Amount or Broken Amount is specified in the applicable Pricing Supplement, interest shall be calculated in respect of any period by applying the Rate of Interest to:

(A) in the case of Fixed Rate Notes which are represented by a Global Note, the aggregate outstanding principal amount of the Fixed Rate Notes represented by such Global Note (or, if they are Partly Paid Notes, the aggregate amount paid up); or

(B) in the case of Fixed Rate Notes in definitive form, the Calculation Amount;

and, in each case, multiplying such sum by the applicable Day Count Fraction, and rounding the resultant figure to the nearest sub-unit of the relevant Specified Currency, half of any such sub-unit being rounded upwards or otherwise in accordance with applicable market convention. Where the Specified Denomination of a Fixed Rate Note in definitive form comprises more than one Calculation Amount, the amount of interest payable in respect of such Fixed Rate Note shall be the aggregate of the amounts (determined in the manner provided above) for each Calculation Amount comprising the Specified Denomination without any further rounding.

In these Conditions:

"**Day Count Fraction**" means, in respect of the calculation of an amount of interest, in accordance with this Condition 5.1:

(a) if "**Actual/Actual (ICMA)**" is specified in the applicable Pricing Supplement:

   (i) in the case of Notes where the number of days in the relevant period from (and including) the most recent Interest Payment Date (or, if none, the Interest Commencement Date) to (but excluding) the relevant payment date (the "**Accrual Period**") is equal to or shorter than the Determination Period during which the Accrual Period ends, the number of days in such Accrual Period divided by the product of (1) the number of days in such Determination Period (as defined below) and (2) the number of Determination Dates (as specified in the applicable Pricing Supplement) that would occur in one calendar year; or

   (ii) in the case of Notes where the Accrual Period is longer than the Determination Period during which the Accrual Period ends, the sum of:

      (A) the number of days in such Accrual Period falling in the Determination Period in which the Accrual Period begins divided by the product of (x) the number of days in such Determination Period and (y) the number of Determination Dates that would occur in one calendar year; and

      (B) the number of days in such Accrual Period falling in the next Determination Period divided by the product of (x) the number of days in such Determination Period and (y) the number of Determination Dates that would occur in one calendar year; and

(b) if "**30/360**" is specified in the applicable Pricing Supplement, the number of days in the period from (and including) the most recent Interest Payment Date (or, if none, the Interest Commencement Date) to (but excluding) the relevant payment date (such number of days being calculated on the basis of a year of 360 days with 12 30-day months) divided by 360.

"**Determination Period**" means each period from (and including) a Determination Date to but excluding the next Determination Date (including, where either the Interest Commencement Date or the final Interest Payment Date is not a Determination Date, the period commencing on the first Determination Date prior to, and ending on the first Determination Date falling after, such date);

"**Fixed Interest Period**" means the period from (and including) an Interest Payment Date (or the Interest Commencement Date) to (but excluding) the next (or first) Interest Payment Date; and

"**sub-unit**" means, with respect to any currency other than Euro, the lowest amount of such currency that is available as legal tender in the country of such currency and, with respect to Euro, one cent.

5.2 ***Interest on Floating Rate Notes***

(a) *Interest Payment Dates*

Each Floating Rate Note bears interest on its outstanding principal amount (or, if it is a Partly Paid Note, the amount paid up) from (and including) the Interest Commencement Date and such interest will be payable in arrears on either:

(i) the Specified Interest Payment Date(s) in each year specified in the applicable Pricing Supplement; or

(ii) if no Specified Interest Payment Date(s) is/are specified in the applicable Pricing Supplement, each date (each such date, together with each Specified Interest Payment Date, an "**Interest Payment Date**") which falls the number of months or other period specified as the Specified Period in the applicable Pricing Supplement after the preceding Interest Payment Date or, in the case of the first Interest Payment Date, after the Interest Commencement Date.

Such interest will be payable in respect of each Interest Period (which expression shall, in these Conditions, mean the period from (and including) an Interest Payment Date (or the Interest Commencement Date) to (but excluding) the next (or first) Interest Payment Date).

If a Business Day Convention is specified in the applicable Pricing Supplement and (x) if there is no numerically corresponding day on the calendar month in which an Interest Payment Date should occur or (y) if any Interest Payment Date would otherwise fall on a day which is not a Business Day (as defined below), then, if the Business Day Convention specified is:

(A) in any case where Specified Periods are specified in accordance with Condition 5.2 (*Interest—Interest on Floating Rate Notes—(a)(ii)*) above, the Floating Rate Convention, such Interest Payment Date (a) in the case of (x) above, shall be the last day that is a Business Day in the relevant month and the provisions of (ii) below shall apply mutatis mutandis or (b) in the case of (y) above, shall be postponed to the next day which is a Business Day unless it would thereby fall into the next calendar month, in which event (i) such Interest Payment Date shall be brought forward to the immediately preceding Business Day, and (ii) each subsequent Interest Payment Date shall be the last Business Day in the month which falls in the Specified Period after the preceding applicable Interest Payment Date occurred; or

(B) the Following Business Day Convention, such Interest Payment Date shall be postponed to the next day which is a Business Day; or

(C) the Modified Following Business Day Convention, such Interest Payment Date shall be postponed to the next day which is a Business Day unless it would thereby fall into the next calendar month, in which event such Interest Payment Date shall be brought forward to the immediately preceding Business Day; or

(D) the Preceding Business Day Convention, such Interest Payment Date shall be brought forward to the immediately preceding Business Day.

In these Conditions, "**Business Day**" means a day which is both:

(x) a day on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealing in foreign exchange and foreign currency deposits) in London, New York and any Additional Business Center specified in the applicable Pricing Supplement; and

(y) either (i) in relation to any sum payable in a Specified Currency other than Euro and Renminbi, a day on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealing in foreign exchange and foreign currency deposits) in the principal financial center of the country of the relevant Specified Currency (if other than London, New York and any Additional Business Center and which, if the Specified Currency is Canadian dollars, Australian dollars or New Zealand dollars, shall be Toronto, Melbourne or Wellington, respectively); or (ii) in relation to any sum payable in Euro, a day on which the Trans-European Automated Real-Time Gross Settlement Express Transfer (TARGET2) System (the "**TARGET2 System**") is open; or in relation to any sum payable in Renminbi, a day (other than a Saturday, Sunday or public holiday) on which commercial banks and foreign exchange markets in Hong Kong are open for general business and settlement of payments in Renminbi.

(b) *Rate of Interest*

The Rate of Interest payable from time to time in respect of Floating Rate Notes will be determined in the manner specified in the applicable Pricing Supplement, which may be "ISDA Determination," "Screen Rate Determination" or "Screen Rate Determination (SOFR)", as described below.

(i) ISDA Determination for Floating Rate Notes

Where ISDA Determination is specified in the applicable Pricing Supplement as the manner in which the Rate of Interest is to be determined, the Rate of Interest for each Interest Period will be the relevant ISDA Rate (as defined below) plus or minus (as indicated in the applicable Pricing Supplement) the Margin (if any). For the purposes of this sub-paragraph (i), "**ISDA Rate**" for an Interest Period means a rate equal to the Floating Rate that would be determined by the Calculation Agent for that swap transaction under the terms of an agreement incorporating the 2006 ISDA Definitions, as published by the International Swaps and Derivatives Association, Inc. and as amended and updated as at the Issue Date of the first Tranche of the Notes of this Series (the "**ISDA Definitions**") and under which:

(1) the Floating Rate Option is as specified in the applicable Pricing Supplement;

(2) the Designated Maturity is a period specified in the applicable Pricing Supplement; and

(3) the relevant Reset Date is either (i) if the applicable Floating Rate Option is based on the Euro-zone inter-bank offered rate ("**EURIBOR**") or the Hong Kong inter-bank offered rate ("**HIBOR**"), the first day of that Interest Period or (ii) in any other case, as specified in the applicable Pricing Supplement.

For the purposes of this sub-paragraph (i), "**Floating Rate**", "**Calculation Agent**", "**Floating Rate Option**", "**Designated Maturity**" and "**Reset Date**" have the meanings given to those terms in the ISDA Definitions.

(ii) Screen Rate Determination for Floating Rate Notes (other than Floating Rate Notes which specify the Reference Rate as SOFR)

(A) Where Screen Rate Determination is specified in the applicable Pricing Supplement as the manner in which the Rate of Interest is to be determined, the Rate of Interest for each Interest Period will, subject as provided below, be either:

(1) the offered quotation; or

(2) the arithmetic mean (rounded if necessary to the fifth decimal place, with 0.000005 being rounded upwards) of the offered quotations,

(expressed as a percentage rate per annum) for the Reference Rate which appears or appear, as the case may be, on the Relevant Screen Page as at 11:00 a.m. (Brussels time, in the case of EURIBOR, or Hong Kong time, in the case of HIBOR), or at 11:15 a.m. (Hong Kong time) or if, at or around that time it is notified that the fixing will be published at 2:30 p.m. (Hong Kong time), then at 2:30 p.m. (in the case of CNH Hong Kong inter-bank offered rate, or "**CNH HIBOR**") (such time, the "**Specified Time**") on the Interest Determination Date in question plus or minus (as indicated in the applicable Pricing Supplement) the Margin (if any), all as determined by the Calculation Agent. If five or more of such offered quotations are available on the Relevant Screen Page, the highest (or, if there is more than one such highest quotation, one only of such quotations) and the lowest (or, if there is more than one such lowest quotation, one only of such quotations) shall be disregarded by the Calculation Agent for the purpose of determining the arithmetic mean (rounded as provided above) of such offered quotations.

(B) If the Relevant Screen Page is not available as at the Specified Time or, if in the case of Condition 5.2(b)(ii)(A)(1) above, no such offered quotation appears or, in the case of Condition 5.2(b)(ii)(A)(2) above, fewer than three such offered quotations appear, in each case as at the Specified Time, the Issuer (or an independent adviser, appointed by the Issuer) shall request each of the Reference Banks (as defined below) to provide the Calculation Agent with its offered quotation (expressed as a percentage rate per annum) for the Reference Rate at approximately the Specified Time on the Interest Determination Date in question. If two or more of the Reference Banks provide the Calculation Agent with such offered quotations, the Rate of Interest for such Interest Period shall be the arithmetic mean (rounded if necessary to the fifth decimal place with 0.000005 being rounded upwards) of such offered quotations plus or minus (as appropriate) the Margin (if any), all as determined by the Calculation Agent. "**Reference Banks**" means, in the case of Condition 5.2(b)(ii)(A)(1) above, those banks whose offered rates were used to determine such quotation when such quotation last appeared on the Relevant Screen Page and, in the case of Condition 5.2(b)(ii)(A)(2) above, those banks whose offered quotations last appeared on the Relevant Screen Page when no fewer than three such offered quotations appeared; and shall be (in the case of a determination of EURIBOR) the principal Euro-zone office of four major banks in the Euro-zone inter-bank market, (in the case of a determination of HIBOR) the principal Hong Kong office of four major banks in the Hong Kong inter-bank market, and (in the case of a determination of CNH HIBOR) the principal Hong Kong office of four major banks dealing in Renminbi in the Hong Kong inter-bank market, in each case selected by the Issuer and the Guarantor or as specified in the applicable Pricing Supplement.

(C) If on any Interest Determination Date fewer than two Reference Banks provide the Calculation Agent with such offered quotations as provided in the preceding paragraph, the Rate of Interest for the relevant Interest Period shall be the rate per annum which the Calculation Agent determines as being the arithmetic mean (rounded if necessary to the fifth decimal place, with 0.000005 being rounded upwards) of the rates, as communicated to (and at the request of the Issuer (or an independent adviser, appointed by the Issuer)) the Calculation Agent by the Reference Banks or any two or more of them, at which such banks were offered, at approximately the Specified Time on the relevant Interest Determination Date, deposits in the Specified Currency for a period equal to that which would have been used for the Reference Rate by leading banks in the Euro-zone inter-bank market (if the Reference Rate is EURIBOR) or the Hong Kong inter-bank market (if the Reference Rate is HIBOR or CNH HIBOR) plus or minus (as appropriate) the Margin (if any) or, if fewer than two of the Reference Banks provide the Calculation Agent with such offered rates, the offered rate for deposits in the Specified Currency for a period equal to that which would have been used for the Reference Rate, or the arithmetic mean (rounded as provided above) of the offered rates for deposits in the Specified Currency for a period equal to that which would have been used for the Reference Rate, at which, at approximately the Specified Time on the relevant Interest Determination Date, any one or more banks (which bank or banks is or are in the opinion of the Issuer and the Guarantor suitable for such purpose) informs the Calculation Agent it is quoting to leading banks in the Euro-zone interbank market (if the Reference Rate is EURIBOR) or the Hong Kong inter-bank market (if the Reference Rate is HIBOR or CNH HIBOR) plus or minus (as appropriate) the Margin (if any), provided that, if the Rate of Interest cannot be determined in accordance with the foregoing provisions of this paragraph, the Rate of Interest shall be determined as at the last preceding Interest Determination Date (though substituting, where a different Margin or Maximum or Minimum Rate of Interest is to be applied to the relevant Interest Period from that which applied to the last preceding Interest Period, the Margin or Maximum or Minimum Rate of Interest relating to the relevant Interest Period, in place of the Margin or Maximum or Minimum Rate of Interest relating to that last preceding Interest Period).

(D) If the Reference Rate from time to time in respect of Floating Rate Notes is specified in the applicable Pricing Supplement as being other than EURIBOR, HIBOR or CNH HIBOR, the Rate of Interest in respect of such Notes will be determined as provided in the applicable Pricing Supplement.

(iii) Screen Rate Determination in the case of Floating Rate Notes where the Reference Rate is specified as being SOFR Benchmark

(A) If Screen Rate Determination is specified in the relevant Pricing Supplement as the manner in which the Rate of Interest is to be determined where the Reference Rate is SOFR Benchmark, the Rate of Interest applicable to the Floating Rate Notes for each Interest Period will, subject as provided below, be equal to the sum of the relevant SOFR Benchmark plus or minus (as specified in the relevant Pricing Supplement) the Margin (if any), all as determined by the Calculation Agent on the relevant Interest Determination Date.

(B) The "**SOFR Benchmark**" will be determined based on Simple SOFR Average, Compounded Daily SOFR or SOFR Compounded Index (as specified in the relevant Pricing Supplement), as follows (subject in each case to Condition 5.2(h)):

(1) If Simple SOFR Average ("**Simple SOFR Average**") is specified in the relevant Pricing Supplement as the manner in which the SOFR Benchmark will be determined, the SOFR Benchmark for each Interest Period shall be the arithmetic mean of the SOFR reference rates for each day during such Interest Period, as calculated by the Calculation Agent, and where, if applicable and as specified in the relevant Pricing Supplement, the SOFR reference rate on the SOFR Rate Cut-Off Date shall be used for the days in the relevant Interest Period from (and including) the SOFR Rate Cut-Off Date to (but excluding) the last day of that Interest Period.

(2) If Compounded Daily SOFR ("**Compounded Daily SOFR**") is specified in the relevant Pricing Supplement as the manner in which the SOFR Benchmark will be determined, the SOFR Benchmark for each Interest Period shall be equal to the compounded average of daily SOFR reference rates for each day during the relevant Interest Period (where SOFR Observation Lag, SOFR Payment Delay or SOFR Lockout is specified in the relevant Pricing Supplement to determine Compounded Daily SOFR) or the SOFR Observation Period (where SOFR Observation Shift is specified as applicable in the relevant Pricing Supplement to determine Compounded Daily SOFR). Compounded Daily SOFR shall be calculated by the Calculation Agent in accordance with one of the formulas referenced below depending upon which is specified in the relevant Pricing Supplement:

i. SOFR Observation Lag:

$$\left(\prod_{i=1}^{d_o}\left(1+\frac{SOFR_{i-xUSBD}\times n_i}{360}\right)-1\right)\times\frac{360}{d}$$

with the resulting percentage being rounded, if necessary, to the nearest one hundred-thousandth of a percentage point (with 0.000005 percent being rounded upwards) (e.g., 9.876541 percent (or 0.09876541) being rounded down to 9.87654 percent (or 0.0987654) and 9.876545 percent (or 0.09876545) being rounded up to 9.87655 percent (or 0.0987655)) and where:

"**SOFRi$_{\mathbf{-xUSBD}}$**" for any U.S. Government Securities Business Day (i) in the relevant Interest Period, is equal to the SOFR reference rate for the U.S. Government Securities Business Day falling the number of Lookback Days prior to that U.S. Government Securities Business Day (i);

"**Lookback Days**" means such number of U.S. Government Securities Business Days as specified in the relevant Pricing Supplement;

"**d**" means the number of calendar days in the relevant Interest Accrual Period;

"**d$_{\mathbf{o}}$**" for any Interest Period, means the number of U.S. Government Securities Business Days in the relevant Interest Period;

"**i**" means a series of whole numbers ascending from one to d_o, each representing the relevant U.S. Government Securities Business Day in chronological order from (and including) the first U.S. Government Securities Business Day in the relevant Interest Period (each, a "**U.S. Government Securities Business Day(i)**"); and

"**n$_{\mathbf{i}}$**" for any U.S. Government Securities Business Day(i), means the number of calendar days from (and including) such U.S. Government Securities Business Day(i) up to (but excluding) the following U.S. Government Securities Business Day.

ii. SOFR Observation Shift:

$$\left(\prod_{i=1}^{d_o}\left(1+\frac{SOFR_i \times n_i}{360}\right)-1\right)\times\frac{360}{d}$$

with the resulting percentage being rounded, if necessary, to the nearest one hundred-thousandth of a percentage point (with 0.000005 percent being rounded upwards) (e.g., 9.876541 percent (or 0.09876541) being rounded down to 9.87654 percent (or 0.0987654) and 9.876545 percent (or 0.09876545) being rounded up to 9.87655 percent (or 0.0987655)) and where:

"**SOFR$_{\mathbf{i}}$**" for any U.S. Government Securities Business Day(i) in the relevant SOFR Observation Period, is equal to the SOFR reference rate for that U.S. Government Securities Business Day(i);

"**SOFR Observation Period**" means, in respect of an Interest Period, the period from (and including) the date falling the number of SOFR Observation Shift Days prior to the first day of such Interest Period to (but excluding) the date falling the number of SOFR Observation Shift Days prior to the Interest Period Date of such Interest Period;

"**SOFR Observation Shift Days**" means the number of U.S. Government Securities Business Days as specified in the relevant Pricing Supplement;

"**d**" means the number of calendar days in the relevant SOFR Observation Period;

"$\mathbf{d_o}$" for any SOFR Observation Period, means the number of U.S. Government Securities Business Days in the relevant SOFR Observation Period;

"**i**" means a series of whole numbers ascending from one to d_o, each representing the relevant U.S. Government Securities Business Day in chronological order from (and including) the first U.S. Government Securities Business Day in the relevant SOFR Observation Period (each, a "**U.S. Government Securities Business Day(i)**"); and

"$\mathbf{n_i}$" for any U.S. Government Securities Business Day(i), means the number of calendar days from (and including) such U.S. Government Securities Business Day(i) up to (but excluding) the following U.S. Government Securities Business Day.

iii. SOFR Payment Delay:

$$\left(\prod_{i=1}^{d_o}\left(1+\frac{SOFR_i \times n_i}{360}\right)-1\right)\times\frac{360}{d}$$

with the resulting percentage being rounded, if necessary, to the nearest one hundred-thousandth of a percentage point (with 0.000005 percent being rounded upwards) (e.g., 9.876541 percent (or 0.09876541) being rounded down to 9.87654 percent (or 0.0987654) and 9.876545 percent (or 0.09876545) being rounded up to 9.87655 percent (or 0.0987655)) and where:

"$\mathbf{SOFR_i}$" for any U.S. Government Securities Business Day(i) in the relevant Interest Period, is equal to the SOFR reference rate for that U.S. Government Securities Business Day(i);

"**Interest Payment Date**" shall be the number of Interest Payment Delay Days following each Interest Period Date; provided that the Interest Payment Date with respect to the final Interest Period will be the Maturity Date or the relevant date for redemption, as applicable;

"**Interest Payment Delay Days**" means the number of Business Days as specified in the relevant Pricing Supplement;

"**d**" means the number of calendar days in the relevant Interest Period;

"$\mathbf{d_o}$" for any Interest Period, means the number of U.S. Government Securities Business Days in the relevant Interest Period;

"**i**" means a series of whole numbers ascending from one to d_o, each representing the relevant U.S. Government Securities Business Day in chronological order from (and including) the first U.S. Government Securities Business Day in the relevant Interest Period (each, a "**U.S. Government Securities Business Day(i)**"); and

"$\mathbf{n^i}$" for any U.S. Government Securities Business Day(i), means the number of calendar days from (and including) such U.S. Government Securities Business Day(i) up to (but excluding) the following U.S. Government Securities Business Day.

For the purposes of calculating Compounded Daily SOFR with respect to the final Interest Period where SOFR Payment Delay is specified in the relevant Pricing Supplement, the SOFR reference rate for each U.S. Government Securities Business Day in the period from (and including) the SOFR Rate Cut-Off Date to (but excluding) the Maturity Date or the relevant date for redemption, as applicable, shall be the SOFR reference rate in respect of such SOFR Rate Cut-Off Date.

iv. SOFR Lockout:

$$\left(\prod_{i=1}^{d_o}\left(1+\frac{SOFR_i \times n_i}{360}\right)-1\right)\times\frac{360}{d}$$

with the resulting percentage being rounded, if necessary, to the nearest one hundred-thousandth of a percentage point (with 0.000005 percent being rounded upwards) (e.g., 9.876541 percent (or 0.09876541) being rounded down to 9.87654 percent (or 0.0987654) and 9.876545 percent (or 0.09876545) being rounded up to 9.87655 percent (or 0.0987655)) and where:

"$\mathbf{SOFR_i}$" for any U.S. Government Securities Business Day(i) in the relevant Interest Period, is equal to the SOFR reference rate for that U.S. Government Securities Business Day(i) except that the SOFR for any U.S. Government Securities Business Day(i) in respect of the period from (and including) the SOFR Rate Cut-Off Date to (but excluding) the last day of such Interest Period shall be the SOFR reference rate in respect of such SOFR Rate Cut-Off Date;

"**d**" means the number of calendar days in the relevant Interest Period;

"$\mathbf{d_o}$" for any Interest Period, means the number of U.S. Government Securities Business Days in the relevant Interest Period;

"**i**" means a series of whole numbers ascending from one to d_o, representing each relevant U.S. Government Securities Business Day from (and including) the first U.S. Government Securities Business Day in the relevant Interest Period (each, a "U.S. Government Securities Business Day(i)"); and

"$\mathbf{n_i}$" for any U.S. Government Securities Business Day(i), means the number of calendar days from (and including) such U.S. Government Securities Business Day(i) up to (but excluding) the following U.S. Government Securities Business Day.

(3) The following defined terms shall have the meanings set out below for purpose of Conditions 5.3(b)(iii)(1) and 5.3(b)(iii)(2):

"**Bloomberg Screen SOFRRATE Page**" means the Bloomberg screen designated "SOFRRATE" or any successor page or service;

"**Reuters Page USDSOFR=**" means the Reuters page designated "USDSOFR=" or any successor page or service;

"**SOFR**" means, with respect to any U.S. Government Securities Business Day, the reference rate determined by the Calculation Agent in accordance with the following provision:

(i) the Secured Overnight Financing Rate published at the SOFR Determination Time as such reference rate is reported on the Bloomberg Screen SOFRRATE Page; the Secured Overnight Financing Rate published at the SOFR Determination Time as such reference rate is reported on the Reuters Page USDSOFR=; or the Secured Overnight Financing Rate published at the SOFR Determination Time on the SOFR Administrator's Website;

(ii) if the reference rate specified in (i) above does not appear and a SOFR Benchmark Transition Event and its related SOFR Benchmark Replacement Date have not occurred, the SOFR reference rate shall be the reference rate published on the SOFR Administrator's Website for the first preceding U.S. Government Securities Business Day for which SOFR was published on the SOFR Administrator's Website; or

(iii) if the reference rate specified in (i) above does not appear and a SOFR Benchmark Transition Event and its related SOFR Benchmark Replacement Date have occurred, the provisions set forth in Condition 5.2(h) shall apply;

"**SOFR Determination Time**" means approximately 3:00 p.m. (New York City time) on the immediately following the relevant U.S. Government Securities Business Day.

(4) If SOFR Compounded Index ("**SOFR Compounded Index**") is specified as applicable in the relevant Pricing Supplement, the SOFR Benchmark for each Interest Period shall be equal to the compounded average of daily SOFR reference rates for each day during the relevant SOFR Observation Period as calculated by the Calculation Agent as follows:

with the resulting percentage being rounded, if necessary, to the nearest one hundred-thousandth of a percentage point (with 0.000005 percent being rounded upwards) (e.g., 9.876541 percent (or 0.09876541) being rounded down to 9.87654 percent (or 0.0987654) and 9.876545 percent (or 0.09876545) being rounded up to 9.87655 percent (or 0.0987655)) and where:

$$\left(\frac{SOFR\ Index_{End}}{SOFR\ Index_{Start}} - 1\right) \times \left(\frac{360}{d_c}\right)$$

"**SOFR Index**", with respect to any U.S. Government Securities Business Day, means the SOFR Index value as published on the SOFR Administrator's Website at the SOFR Index Determination Time on such U.S. Government Securities Business Day, *provided that* if such SOFR Index value is not available and:

(i) if a SOFR Benchmark Transition Event and its related SOFR Benchmark Replacement Date have not occurred, the "**SOFR Compounded Index**" shall be calculated on any Interest Determination Date with respect to an Interest Period, in accordance with the Compounded Daily SOFR formula described above in Condition 5.2(b)(iii)(B)(2)(ii) (SOFR Observation Shift); or

(ii) if a SOFR Benchmark Transition Event and its related SOFR Benchmark Replacement Date have occurred, the provisions set forth in Condition 5.2(h) shall apply;

"**SOFR IndexEnd**" means, in respect of an Interest Period, the SOFR Index value on the date that is SOFR Observation Shift Days prior to the Interest Period Date for such Interest Period (or in the final Interest Period, the Maturity Date);

"**SOFR IndexStart**" means, in respect of an Interest Period, the SOFR Index value on the date that is SOFR Observation Shift Days prior to the first date of such Interest Period;

"**SOFR Index Determination Time**" means, in relation to any U.S. Government Securities Business Day, approximately 3:00 p.m. (New York City time) on such U.S. Government Securities Business Day;

"**SOFR Observation Period**" means, in respect of an Interest Period, the period from (and including) the date falling the number of SOFR Observation Shift Days prior to the first day of such Interest Period to (but excluding) the date falling the number of SOFR Observation Shift Days prior to the Interest Period Date for such Interest Period;

"**SOFR Observation Shift Days**" means the number of U.S. Government Securities Business Days as specified in the relevant Pricing Supplement; and

"$\mathbf{d_c}$" means the number of calendar days in the applicable SOFR Observation Period.

If the Notes become due and payable in accordance with Condition 11, the final Interest Determination Date shall, notwithstanding any Interest Determination Date specified in the relevant Pricing Supplement, be deemed to be the date on which the Notes became due and payable and the Rate of Interest on the Notes shall, for so long as the Notes remain outstanding, be that determined on such date.

The following defined terms shall have the meanings set out below for purpose of this Condition 5.2(b)(iii)(B)(4):

"**SOFR Administrator's Website**" means the website of the Federal Reserve Bank of New York (currently, being https://www.newyorkfed.org/markets/reference-rates/sofr-averages-and-index), or any successor source;

"**SOFR Benchmark Replacement Date**" means the date of occurrence of a Benchmark Event with respect to the then-current Benchmark;

"**SOFR Benchmark Transition Event**" means the occurrence of a Benchmark Event with respect to the then-current Benchmark;

"**SOFR Rate Cut-Off Date**" has the meaning given in the relevant Pricing Supplement; and

"**U.S. Government Securities Business Day**" or "**USBD**" means any day except for a Saturday, a Sunday or a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in U.S. government securities.

(c) *Minimum Rate of Interest and/or Maximum Rate of Interest*

If the applicable Pricing Supplement specifies a Minimum Rate of Interest for any Interest Period, then, in the event that the Rate of Interest in respect of such Interest Period determined in accordance with the provisions of paragraph (b) above is less than such Minimum Rate of Interest, the Rate of Interest for such Interest Period shall be such Minimum Rate of Interest.

If the applicable Pricing Supplement specifies a Maximum Rate of Interest for any Interest Period, then, in the event that the Rate of Interest in respect of such Interest Period determined in accordance with the provisions of paragraph (b) above is greater than such Maximum Rate of Interest, the Rate of Interest for such Interest Period shall be such Maximum Rate of Interest.

(d) *Determination of Rate of Interest and Calculation of Interest Amounts*

The Calculation Agent, in the case of certain Floating Rate Notes, will at or as soon as practicable after each time at which the Rate of Interest is to be determined, determine the Rate of Interest for the relevant Interest Period, subject to any Minimum Rate of Interest or Maximum Rate of Interest specified in the applicable Pricing Supplement. The Calculation Agent will notify the Principal Paying Agent of the Rate of Interest for the relevant Interest Period as soon as practicable after calculating the same.

The Calculation Agent will calculate the amount of interest (the "**Interest Amount**") payable on the Floating Rate Notes for the relevant Interest Period by applying the Rate of Interest to:

(A) in the case of Floating Rate Notes which are represented by a Global Note, the aggregate outstanding principal amount of the Notes represented by such Global Note (or, if they are Partly Paid Notes, the aggregate amount paid up); or

(B) in the case of Floating Rate Notes in definitive form, the Calculation Amount;

and, in each case, multiplying such sum by the applicable Day Count Fraction, and rounding the resultant figure to the nearest sub-unit of the relevant Specified Currency, half of any such sub-unit being rounded upwards or otherwise in accordance with applicable market convention. Where the Specified Denomination of a Floating Rate Note in definitive form comprises more than one Calculation Amount, the Interest Amount payable in respect of such Note shall be the aggregate of the amounts (determined in the manner provided above) for each Calculation Amount comprising the Specified Denomination without any further rounding.

"**Day Count Fraction**" means, in respect of the calculation of an amount of interest in accordance with this Condition 5.2:

(1) if "**Actual/Actual (ISDA)**" or "**Actual/Actual**" is specified in the applicable Pricing Supplement, the actual number of days in the Interest Period divided by 365 (or, if any portion of that Interest Period falls in a leap year, the sum of (A) the actual number of days in that portion of the Interest Period falling in a leap year divided by 366 and (B) the actual number of days in that portion of the Interest Period falling in a non-leap year divided by 365);

(2) if "**Actual/365 (Fixed)**" is specified in the applicable Pricing Supplement, the actual number of days in the Interest Period divided by 365;

(3) if "**Actual/365 (Sterling)**" is specified in the applicable Pricing Supplement, the actual number of days in the Interest Period divided by 365, or in the case of an Interest Payment Date falling in a leap year, 366;

(4) if "**Actual/360**" is specified in the applicable Pricing Supplement, the actual number of days in the Interest Period divided by 360;

(5) if "**30/360**", "**360/360**" or "**Bond Basis**" is specified in the applicable Pricing Supplement, the number of days in the Interest Period divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \text{ x } (Y_2 - Y_1)] + [30 \text{ x } (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

Y_1 is the year, expressed as a number, in which the first day of the Interest Period falls;

Y_2 is the year, expressed as a number, in which the day immediately following the last day of the Interest Period falls;

M_1 is the calendar month, expressed as a number, in which the first day of the Interest Period falls;

M_2 is the calendar month, expressed as a number, in which the day immediately following the last day of the Interest Period falls;

D_1 is the first calendar day, expressed as a number, of the Interest Period, unless such number is 31, in which case D1 will be 30; and

D_2 is the calendar day, expressed as a number, immediately following the last day included in the Interest Period, unless such number would be 31 and D_1 is greater than 29, in which case D_2 will be 30;

(6) if "**30E/360**" or "**Eurobond Basis**" is specified in the applicable Pricing Supplement, the number of days in the Interest Period divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \text{ x } (Y_2 - Y_1)] + [30 \text{ x } (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

Y_1 is the year, expressed as a number, in which the first day of the Interest Period falls;

Y_2 is the year, expressed as a number, in which the day immediately following the last day of the Interest Period falls;

M_1 is the calendar month, expressed as a number, in which the first day of the Interest Period falls;

M_2 is the calendar month, expressed as a number, in which the day immediately following the last day of the Interest Period falls;

D_1 is the first calendar day, expressed as a number, of the Interest Period, unless such number is 31, in which case D_1 will be 30; and

D_2 is the calendar day, expressed as a number, immediately following the last day included in the Interest Period, unless such number would be 31, in which case D_2 will be 30;

(7) if "**30E/360 (ISDA)**" is specified in the applicable Pricing Supplement, the number of days in the Interest Period divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \text{ x } (Y_2 - Y_1)] + [30 \text{ x } (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

Y_1 is the year, expressed as a number, in which the first day of the Interest Period falls;

Y_2 is the year, expressed as a number, in which the day immediately following the last day of the Interest Period falls;

M_1 is the calendar month, expressed as a number, in which the first day of the Interest Period falls;

M_2 is the calendar month, expressed as a number, in which the day immediately following the last day of the Interest Period falls;

D_1 is the first calendar day, expressed as a number, of the Interest Period, unless (i) that day is the last day of February or (ii) such number would be 31, in which case D_1 will be 30; and

D_2 is the calendar day, expressed as a number, immediately following the last day included in the Interest Period, unless (i) that day is the last day of February but not the Maturity Date or (ii) such number would be 31 and D_2 will be 30.

(e) *Notification of Rate of Interest and Interest Amounts*

The Calculation Agent will cause the Rate of Interest and each Interest Amount for each Interest Period and the relevant Interest Payment Date to be notified to the Issuer and any stock exchange on which the relevant Floating Rate Notes are for the time being listed and, except where the relevant Notes are unlisted and are in global form and held in their entirety on behalf of DTC, Euroclear or Clearstream, in which event there may be substituted for such publication the delivery of such notice to DTC, Euroclear or Clearstream, as applicable, for communication to the holders of the Notes, notice thereof to be published in accordance with Condition 15 (*Notices*) as soon as practicable after their determination but in no event later than the fourth London Business Day (as defined below) thereafter, provided that such notification details are provided by the Issuer to the Agent, or in accordance with Annex D of the Procedures Memorandum, as may be amended and restated from time to time. Each Interest Amount and Interest Payment Date so notified may subsequently be amended (or appropriate alternative arrangements made by way of adjustment) without prior notice in the event of an extension or shortening of the Interest Period. Any such amendment will be promptly notified to the Issuer and each stock exchange on which the relevant Floating Rate Notes are for the time being listed and to the Noteholders in accordance with Condition 15 (*Notices*). For the purposes of this paragraph, the expression "**London Business Day**" means a day (other than a Saturday or a Sunday) on which banks and foreign exchange markets are open for general business in London.

(f) *Certificates to be Final*

All certificates, communications, opinions, determinations, calculations, quotations and decisions given, expressed, made or obtained for the purposes of the provisions of this Condition 5.2, whether by the Principal Paying Agent or, if applicable, the Calculation Agent, shall (in the absence of willful misconduct, fraud or gross negligence) be binding on the Issuer, the Guarantor, the Principal Paying Agent, the Calculation Agent (if applicable), the other Agents and all Noteholders, Receiptholders and Couponholders and (in the absence as aforesaid) no liability to the Issuer, the Guarantor, the Noteholders, the Receiptholders or the Couponholders shall attach to the Principal Paying Agent or the Calculation Agent (if applicable) in connection with the exercise or non-exercise by it of its powers, duties and discretions pursuant to such provisions.

(g) *Benchmark Discontinuation (other than Floating Rate Notes which specify the Reference Rate as SOFR)*

In addition, notwithstanding the provisions above in this Condition 5.2, if a Benchmark Event occurs in relation to a Reference Rate when any Rate of Interest (other than SOFR) (or the relevant component part thereof) remains to be determined by such Reference Rate, then the following provisions shall apply:

(i) the Issuer shall use reasonable endeavors to appoint, as soon as reasonably practicable, an Independent Adviser to determine (acting in good faith and in a commercially reasonable manner), no later than five Business Days prior to the relevant Interest Determination Date relating to the next succeeding Interest Period (the "**IA Determination Cut-off Date**"), a Successor Rate (as defined below) or, alternatively, if there is no Successor Rate, an Alternative Reference Rate (as defined below) for purposes of determining the Rate of Interest (or the relevant component part thereof) applicable to the Notes;

(ii) if the Issuer is unable to appoint an Independent Adviser, or the Independent Adviser appointed by it fails to determine a Successor Rate or an Alternative Reference Rate prior to the IA Determination Cut-off Date, the Issuer (acting in good faith and in a commercially reasonable manner) may determine a Successor Rate or, if there is no Successor Rate, an Alternative Reference Rate;

(iii) if a Successor Rate or, failing which, an Alternative Reference Rate (as applicable) is determined in accordance with the preceding provisions, such Successor Rate or, failing which, such Alternative Reference Rate (as applicable) shall be the Reference Rate for each of the future Interest Periods (subject to the subsequent operation of, and to adjustment as provided in, this Condition 5.2(g)); *provided, however*, that if sub-paragraph (ii) applies and the Issuer is unable to or does not determine a Successor Rate or an Alternative Reference Rate prior to the relevant Interest Determination Date, the Rate of Interest applicable to the next succeeding Interest Period shall be equal to the Rate of Interest last determined in relation to the Notes in respect of the preceding Interest Period (or alternatively, if there has not been a first Interest Payment Date, the Rate of Interest shall be the initial Rate of Interest (if any)) (subject, where applicable, to substituting the Margin (as defined below) that applied to such preceding Interest Period for the Margin that is to be applied to the relevant Interest Period); for the avoidance of doubt, the proviso in this sub-paragraph (iii) shall apply to the relevant Interest Period only and any subsequent Interest Periods are subject to the subsequent operation of, and to adjustment as provided in, this Condition 5.2(g);

(iv) if the Independent Adviser or the Issuer determines a Successor Rate or, failing which, an Alternative Reference Rate (as applicable) in accordance with the above provisions, the Independent Adviser or the Issuer (as applicable), may also specify changes to these Conditions, including but not limited to the Day Count Fraction, Relevant Screen Page, Business Day Convention, Business Days, Interest Determination Date and/or the definition of Reference Rate applicable to the Notes, and the method for determining the fallback rate in relation to the Notes, in order to follow market practice in relation to the Successor Rate or the Alternative Reference Rate (as applicable). If the Independent Adviser (in consultation with the Issuer) or the Issuer (as applicable) determines that an Adjustment Spread (as defined below) is required to be applied to the Successor Rate or the Alternative Reference Rate (as applicable) and determines the quantum of, or a formula or methodology for determining, such Adjustment Spread, then such Adjustment Spread shall be applied to the Successor Rate or the Alternative Reference Rate (as applicable). If the Independent Adviser or the Issuer (as applicable) is unable to determine the quantum of, or a formula or methodology for determining, such Adjustment Spread, then such Successor Rate or Alternative Reference Rate (as applicable) will apply without an Adjustment Spread. For the avoidance of doubt, the Principal Paying Agent shall, at the direction and expense of the Issuer, effect such consequential amendments to the Agency Agreement and these Conditions as may be required in order to give effect to this

Condition 5.2(g). Noteholder consent shall not be required in connection with effecting the Successor Rate or Alternative Reference Rate (as applicable) or such other changes, including for the execution of any documents or other steps by the Principal Paying Agent (if required). In connection with any such variation in accordance with this Condition 5.2(g)(iv), the Issuer shall comply with the rules of any Stock Exchange on which the Notes are for the time being listed or admitted to trading; and

(v) the Issuer shall promptly, following the determination of any Successor Rate or Alternative Reference Rate (as applicable) and any related Adjustment Spread, give notice thereof to the Principal Paying Agent and the Noteholders, which shall specify the effective date(s) for such Successor Rate or Alternative Reference Rate (as applicable) and any related Adjustment Spread and any consequential changes made to these Conditions.

For the purposes of this Condition 5.2(g):

Adjustment Spread means a spread (which may be positive, negative or zero) or formula or methodology for calculating a spread, which the Independent Adviser (in consultation with the Issuer) or the Issuer (as applicable), determines is required to be applied to the Successor Rate or the Alternative Reference Rate (as applicable) in order to reduce or eliminate, to the extent reasonably practicable in the circumstances, any economic prejudice or benefit (as applicable) to Noteholders, Receiptholders and Couponholders as a result of the replacement of the Reference Rate with the Successor Rate or the Alternative Reference Rate (as applicable) and is the spread, formula or methodology which:

(i) in the case of a Successor Rate, is formally recommended in relation to the replacement of the Reference Rate with the Successor Rate by any Relevant Nominating Body;

(ii) in the case of a Successor Rate for which no such recommendation has been made or in the case of an Alternative Reference Rate, the Independent Adviser (in consultation with the Issuer) or the Issuer (as applicable) determines is recognized or acknowledged as being in customary market usage in international debt capital markets transactions which reference the Reference Rate, where such rate has been replaced by the Successor Rate or the Alternative Reference Rate (as applicable); or

(iii) if no such customary market usage is recognized or acknowledged, the Independent Adviser (in consultation with the Issuer) or the Issuer in its discretion (as applicable), determines (acting in good faith and in a commercially reasonable manner) to be appropriate.

Alternative Reference Rate means the rate that the Independent Adviser or the Issuer (as applicable) determines has replaced the relevant Reference Rate in customary market usage in the international debt capital markets for the purposes of determining rates of interest in respect of bonds denominated in the Specified Currency and of a comparable duration to the relevant Interest Period, or, if the Independent Adviser or the Issuer (as applicable) determines that there is no such rate, such other rate as the Independent Adviser or the Issuer (as applicable) determines in its discretion (acting in good faith and in a commercially reasonable manner) is most comparable to the relevant Reference Rate.

Benchmark Event means:

(i) the relevant Reference Rate ceasing to be published for a period of at least five Business Days or ceasing to exist;

(ii) a public statement by the administrator of the relevant Reference Rate that it will, by a specified date within the following six months, cease publishing the relevant Reference Rate permanently or indefinitely (in circumstances where no successor administrator has been appointed that will continue publication of the relevant Reference Rate);

(iii) a public statement by the supervisor of the administrator of the relevant Reference Rate, that the relevant Reference Rate has been or will, by a specified date within the following six months, be permanently or indefinitely discontinued;

(iv) a public statement by the supervisor of the administrator of the relevant Reference Rate as a consequence of which the relevant Reference Rate will be prohibited from being used either generally, or in respect of the Notes, in each case within the following six months;

(v) it has become unlawful for any Paying Agent, Calculation Agent, the Issuer or other party to calculate any payments due to be made to any Noteholder using the relevant Reference Rate; or

(vi) the making of a public statement by the supervisor of the administrator of the relevant Reference Rate announcing that such Reference Rate is no longer representative or may no longer be used.

Independent Adviser means an independent financial institution of international repute or other independent financial adviser experienced in the international debt capital markets, in each case appointed by the Issuer at its own expense.

Margin means Margin as indicated in the applicable Pricing Supplement, if any.

Original Reference Rate means the originally-specified Reference Rate in the applicable Pricing Supplement.

Relevant Nominating Body means, in respect of a Reference Rate:

(i) the central bank for the currency to which the Reference Rate relates, or any central bank or other supervisory authority which is responsible for supervising the administrator of the Reference Rate; or

(ii) any working group or committee sponsored by, chaired or co-chaired by or constituted at the request of (A) the central bank for the currency to which the Reference Rate relates, (B) any central bank or other supervisory authority which is responsible for supervising the administrator of the Reference Rate, (C) a group of the aforementioned central banks or other supervisory authorities, or (D) the Financial Stability Board or any part thereof.

Successor Rate means the rate that the Independent Adviser or the Issuer (as applicable) determines is a successor to or replacement of the Reference Rate which is formally recommended by any Relevant Nominating Body.

(h) Benchmark Replacement (SOFR): The following provisions shall apply if Benchmark Event (SOFR) is specified as applicable in the relevant Pricing Supplement:

(i) Benchmark Replacement: If the Issuer or its designee determines on or prior to the relevant Reference Time that a Benchmark Event and its related Benchmark Replacement Date have occurred with respect to the-then current Benchmark, the Benchmark Replacement will replace the then-current Benchmark for all purposes relating to the Notes in respect of all determinations on such date and for all determinations on all subsequent dates.

(ii) Benchmark Replacement Conforming Changes: In connection with the implementation of a Benchmark Replacement, the Issuer or its designee will have the right to make Benchmark Replacement Conforming Changes from time to time. For the avoidance of doubt, any of the Agents shall, at the direction and expense of the Issuer, effect such consequential amendments to the Agency Agreement and these Conditions as may be required to give effect to this Condition 5.2(h). Noteholders' consent shall not be required in connection with effecting any such changes, including the execution of any documents or any steps to be taken by any of the Agents (if required). Further, none of the Agents shall be responsible or liable for any determinations, decisions or elections made by the Issuer or its designee with respect to any Benchmark Replacement or any other changes and shall be entitled to rely conclusively on any certifications provided to each of them in this regard.

(iii) Decisions and Determinations: Any determination, decision or election that may be made by the Issuer or its designee pursuant to this Condition 5.2(h), including any determination with respect to a tenor, rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain from taking any action or any selection (i) will be conclusive and binding absent manifest error, (ii) will be made in the sole discretion of the Issuer or its designee, as applicable, and (iii) notwithstanding anything to the contrary in the documentation relating to the Notes, shall become effective without consent from the holders of the Notes or any other party.

(iv) Definitions: The following defined terms shall have the meanings set out below for purpose of Conditions 5(b)(iii) and 5.2(h):

"**Benchmark**" means, initially, the relevant SOFR Benchmark specified in the relevant Pricing Supplement; provided that if the Issuer or its designee determines on or prior to the Reference Time that a Benchmark Event and its related Benchmark Replacement Date have occurred with respect to the relevant Benchmark (including any daily published component used in the calculation thereof) or the then-current Benchmark, then "Benchmark" means the applicable Benchmark Replacement;

"**Benchmark Event**" means the occurrence of one or more of the following events with respect to the then-current Benchmark (including any daily published component used in the calculation thereof):

(I) a public statement or publication of information by or on behalf of the administrator of the Benchmark (or such component) announcing that such administrator has ceased or will cease to provide the Benchmark (or such component), permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the Benchmark (or such component); or

(II) a public statement or publication of information by the regulatory supervisor for the administrator of the Benchmark (or such component), the central bank for the currency of the Benchmark (or such component), an insolvency official with jurisdiction over the administrator for the Benchmark (or such component), a resolution authority with jurisdiction over the administrator for the Benchmark (or such component) or a court or an entity with similar insolvency or resolution authority over the administrator for the Benchmark, which states that the administrator of the Benchmark (or such component) has ceased or will cease to provide the Benchmark (or such component) permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the Benchmark (or such component); or

(III) a public statement or publication of information by the regulatory supervisor for the administrator of the Benchmark announcing that the Benchmark is no longer representative;

"**Benchmark Replacement**" means the first alternative set forth in the order below that can be determined by the Issuer or its designee as of the Benchmark Replacement Date:

(I) the sum of:

(a) the alternate reference rate that has been selected or recommended by the Relevant Governmental Body as the replacement for the then current Benchmark (including any daily published component used in the calculation thereof); and

(b) the Benchmark Replacement Adjustment;

(II) the sum of:

(a) the ISDA Fallback Rate; and

(b) the Benchmark Replacement Adjustment; or

(III) the sum of:

(a) the alternate reference rate that has been selected by the Issuer or its designee as the replacement for the then-current Benchmark (including any daily published component used in the calculation thereof) giving due consideration to any industry-accepted reference rate as a replacement for the then-current Benchmark (including any daily published component used in the calculation thereof) for U.S. dollar denominated Floating Rate Notes at such time; and

(b) the Benchmark Replacement Adjustment;

"**Benchmark Replacement Adjustment**" means the first alternative set forth in the order below that can be determined by the Issuer or its designee as of the Benchmark Replacement Date:

(I) the spread adjustment, or method for calculating or determining such spread adjustment, (which may be a positive or negative value or zero) that has been selected or recommended by the Relevant Governmental Body for the applicable Unadjusted Benchmark Replacement;

(II) if the applicable Unadjusted Benchmark Replacement is equivalent to the ISDA Fallback Rate, the ISDA Fallback Adjustment; or

(III) the spread adjustment (which may be a positive or negative value or zero) that has been selected by the Issuer or its designee giving due consideration to any industry-accepted spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of the then-current Benchmark (including any daily published component used in the calculation thereof) with the applicable Unadjusted Benchmark Replacement for U.S. dollar-denominated Floating Rate Notes at such time;

"**Benchmark Replacement Conforming Changes**" means, with respect to any Benchmark Replacement, any technical, administrative or operational changes (including changes to the timing and frequency of determining rates and making payments of interest, rounding of amounts or tenors, and other administrative matters) that the Issuer or its designee decides may be appropriate to reflect the adoption of such Benchmark Replacement in a manner substantially consistent with market practice (or, if the Issuer or its designee decides that adoption of any portion of such market practice is not administratively feasible or if the Issuer or its designee determines that no market practice for use of the Benchmark Replacement exists, in such other manner as the Issuer or its designee determines is reasonably necessary);

"**Benchmark Replacement Date**" means the earliest to occur of the following events with respect to the then-current Benchmark (including any daily published component used in the calculation thereof):

(I) in the case of sub-paragraph (I) or (II) of the definition of "Benchmark Event", the later of: the date of the public statement or publication of information referenced therein; and (xi) the date on which the administrator of the Benchmark permanently or indefinitely ceases to provide the Benchmark (or such component); or

(II) in the case of sub-paragraph (III) of the definition of "Benchmark Event", the date of the public statement or publication of information referenced therein.

For the avoidance of doubt, if the event giving rise to the Benchmark Replacement Date occurs on the same day as, but earlier than, the Reference Time in respect of any determination, the Benchmark Replacement Date will be deemed to have occurred prior to the Reference Time for such determination;

"**designee**" means a designee as selected and separately appointed by the Issuer in writing;

"**ISDA Definitions**" means the 2006 ISDA Definitions published by the International Swaps and Derivatives Association, Inc. or any successor thereto, as amended or supplemented from time to time, or any successor definitional booklet for interest rate derivatives published from time to time;

"**ISDA Fallback Adjustment**" means the spread adjustment (which may be a positive or negative value or zero) that would apply for derivatives transactions referencing the ISDA Definitions to be determined upon the occurrence of an index cessation event with respect to the Benchmark;

"**ISDA Fallback Rate**" means the rate that would apply for derivatives transactions referencing the ISDA Definitions to be effective upon the occurrence of an index cessation date with respect to the Benchmark (including any daily published component used in the calculation thereof) for the applicable tenor excluding the applicable ISDA Fallback Adjustment;

"**Reference Time**" with respect to any determination of the Benchmark means (1) if the Benchmark is the SOFR Benchmark, the SOFR Determination Time (where Simple SOFR Average or Compounded Daily SOFR is specified in the relevant Pricing Supplement) or SOFR Index Determination Time (where SOFR Compounded Index is specified in the relevant Pricing Supplement); or (2) if the Benchmark is not the SOFR Benchmark, the time determined by the Issuer or its designee after giving effect to the Benchmark Replacement Conforming Changes;

"**Relevant Governmental Body**" means the Federal Reserve Board and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Federal Reserve Board and/or the Federal Reserve Bank of New York or any successor thereto; and

"**Unadjusted Benchmark Replacement**" means the Benchmark Replacement excluding the Benchmark Replacement Adjustment.

5.3 ***Zero Coupon Notes***

Where a Note the Interest Basis of which is specified to be Zero Coupon is repayable prior to the Maturity Date and is not paid when due, the amount due and payable prior to the Maturity Date shall be the Early Redemption Amount (as defined below) of such Note. As from the Maturity Date, the Rate of Interest for any overdue principal of such Note shall be a rate per annum (expressed as a percentage) equal to the Accrual Yield (as described in paragraph (c) of Condition 8.6 (*Early Redemption Amounts*)).

5.4 ***Interest on Dual Currency Interest Notes***

The rate or amount of interest payable in respect of Dual Currency Interest Notes shall be determined in the manner specified in the applicable Pricing Supplement.

5.5 ***Interest on Partly Paid Notes***

In the case of Partly Paid Notes (other than Partly Paid Notes which are Zero Coupon Notes), interest will accrue as aforesaid on the paid-up principal amount of such Notes and otherwise as specified in the applicable Pricing Supplement.

5.6 ***Accrual of Interest***

Each Note (or in the case of the redemption of part only of a Note, that part only of such Note) will cease to bear interest (if any) from the date for its redemption unless, upon due presentation thereof, payment of principal is improperly withheld or refused. In such event, interest will continue to accrue until whichever is the earlier of:

(a) the date on which all amounts due in respect of such Note have been paid; and

(b) the date on which the full amount of the moneys payable in respect of such Note has been received by the Principal Paying Agent or the Registrar, as the case may be, and notice to that effect has been given to the Noteholders in accordance with Condition 15 (*Notices*).

6. LIMITED RECOURSE

The amounts payable in respect of the Limited Recourse Notes shall be determined in the manner specified in the applicable Pricing Supplement.

7. PAYMENTS

7.1 ***Method of payment***

Subject as provided below:

(a) payments in a Specified Currency other than Euro and Renminbi will be made by credit or transfer to an account in the relevant Specified Currency (which, in the case of a payment in Japanese yen to a non-resident of Japan, shall be a non-resident account) maintained by the payee with, or, at the option of the payee, by a check in such Specified Currency drawn on, a bank in the principal financial center of the country of such Specified Currency (which, if the Specified Currency is Canadian dollars, Australian dollars or New Zealand dollars, shall be Toronto, Melbourne or Wellington, respectively);

(b) payments in Euro will be made by credit or transfer to a Euro account (or any other account to which Euro may be credited or transferred) specified by the payee or, at the option of the payee, by a Euro check; and

(c) payments in Renminbi will be made by a transfer to a Renminbi account maintained by or on behalf of the payee with a bank in Hong Kong.

Payments will be subject in all cases to any fiscal or other laws and regulations applicable thereto in the place of payment, but without prejudice to the provisions of Condition 9 (*Taxation*). References to "**Specified Currency**" will include any successor currency under applicable law and exclude the Malaysian ringgit.

7.2 *Presentation of definitive Bearer Notes, Receipts and Coupons*

Payments of principal in respect of definitive Bearer Notes will (subject as provided below) be made in the manner provided in Condition 7.1 (*Payments—Method of payment*) above only against presentation and surrender (or, in the case of part payment of any sum due, endorsement) of definitive Bearer Notes, and payments of interest in respect of definitive Bearer Notes will (subject as provided below) be made as aforesaid only against presentation and surrender (or, in the case of part payment of any sum due, endorsement) of Coupons, in each case at the specified office of any Paying Agent outside the United States (which expression, as used herein, means the United States of America (including the States and the District of Columbia, its territories, its possessions and other areas subject to its jurisdiction)) and in each case payments will not be made by a transfer of funds to an account maintained by the payee in the United States or mailed to an address in the United States.

Payments of installments of principal (if any) in respect of definitive Bearer Notes, other than the final installment, will (subject as provided below) be made in the manner provided in Condition 7.1 (*Payments—Method of payment*) above only against presentation and surrender (or, in the case of part payment of any sum due, endorsement) of the relevant Receipt in accordance with the preceding paragraph. Payment of the final installment will be made in the manner provided in Condition 7.1 (*Payments—Method of payment*) above only against presentation and surrender (or, in the case of part payment of any sum due, endorsement) of the relevant Bearer Note in accordance with the preceding paragraph. Each Receipt must be presented for payment of the relevant installment together with the definitive Bearer Note to which it appertains. Receipts presented without the definitive Bearer Note to which they appertain do not constitute valid obligations of the Issuer. Upon the date on which any definitive Bearer Note becomes due and repayable, unmatured Receipts (if any) relating thereto (whether or not attached) shall become void and no payment shall be made in respect thereof.

Fixed Rate Notes in definitive bearer form (other than Dual Currency Notes or Long Maturity Notes (as defined below)) should be presented for payment together with all unmatured Coupons appertaining thereto (which expression shall for this purpose include Coupons falling to be issued on exchange of matured Talons), failing which the amount of any missing unmatured Coupon (or, in the case of payment not being made in full, the same proportion of the amount of such missing unmatured Coupon as the sum so paid bears to the sum due) will be deducted from the sum due for payment. Each amount of principal so deducted will be paid in the manner mentioned above against surrender of the relative missing Coupon at any time before the expiry of 10 years after the Relevant Date (as defined in Condition 9 (*Taxation*)) in respect of such principal (whether or not such Coupon would otherwise have become void under Condition 10 (*Prescription*)) or, if later, five years from the date on which such Coupon would otherwise have become due, but in no event thereafter.

Upon any Fixed Rate Note in definitive bearer form becoming due and repayable prior to its Maturity Date, all unmatured Talons (if any) appertaining thereto will become void and no further Coupons will be issued in respect thereof.

Upon the date on which any Floating Rate Note, Dual Currency Note or Long Maturity Note in definitive bearer form becomes due and repayable, unmatured Coupons and Talons (if any) relating thereto (whether or not attached) shall become void and no payment or, as the case may be, exchange for further Coupons shall be made in respect thereof. A "**Long Maturity Note**" is a Fixed Rate Note (other than a Fixed Rate Note which on issue had a Talon attached) whose principal amount on issue is less than the aggregate interest payable thereon provided that such Note shall cease to be a Long Maturity Note on the Interest Payment Date on which the aggregate amount of interest remaining to be paid after that date is less than the principal amount of such Note.

If the due date for redemption of any definitive Bearer Note is not an Interest Payment Date, interest (if any) accrued in respect of such Note from (and including) the preceding Interest Payment Date or, as the case may be, the Interest Commencement Date shall be payable only against surrender of the relevant definitive Bearer Note.

7.3 ***Payments in respect of Bearer Global Notes***

Payments of principal and interest (if any) in respect of any Notes represented by any Global Note in bearer form will (subject as provided below) be made in the manner specified above in relation to definitive Bearer Notes and otherwise in the manner specified in the relevant Global Note against presentation or surrender, as the case may be, of such Global Note at the specified office of any Paying Agent outside the United States. A record of each payment made against presentation or surrender of any Global Note in bearer form, distinguishing between any payment of principal and any payment of interest, will be made on such Global Note by the relevant Paying Agent to which it was presented and such record shall be prima facie evidence that the payment in question has been made.

7.4 ***Payments in respect of Registered Notes***

Payments of principal (other than installments of principal prior to the final installment) in respect of each Registered Note (whether or not in global form) will be made against presentation and surrender (or, in the case of part payment of any sum due, endorsement) of the Registered Note at the specified office of the Registrar or any of the Paying Agents. Such payments will be made by transfer to the Designated Account (as defined below) of the holder (or the first named of joint holders) of the Registered Note appearing in the register of holders of the Registered Notes maintained by the Registrar (the "**Register**"), (i) where the Notes are in global form, at the close of the business day (being for this purpose, a day on which Euroclear, Clearstream or DTC, as the case may be, are open for business in respect of Notes cleared through Euroclear, Clearstream or DTC, as the case may be) before the relevant due date and (ii) where the Notes are in definitive form, at the close of business on the third business day (being for this purpose a day on which banks are open for business in the city where the specified office of the Registrar is located) before the relevant due date. Notwithstanding the previous sentence, if (a) a holder does not have a Designated Account or (b) the principal amount of the Notes held by a holder is less than U.S.$250,000 (or its approximate equivalent in any other Specified Currency), payment will instead be made by a check in the Specified Currency drawn on a Designated Bank (as defined below). For these purposes, "**Designated Account**" means the account (which, in the case of a payment in Japanese yen to a non-resident of Japan, shall be a non-resident account and, in the case of payment in Renminbi, means a Renminbi account maintained by or on behalf of the payee with a bank in Hong Kong, details of which appear on the Register at the close of business on the fifth Hong Kong business day before the due date for payment) maintained by a holder with a Designated Bank and identified as such in the Register and "**Designated Bank**" means (in the case of payment in a Specified Currency other than Euro and Renminbi) a bank in the principal financial center of the country of such Specified Currency (which, if the Specified Currency is Canadian dollars, Australian dollars or New Zealand dollars, shall be Toronto, Melbourne or Wellington, respectively), (in the case of a payment in Euro) any bank which processes payments in Euro, and (in the case of a payment in Renminbi) a bank in Hong Kong that settles payments in Renminbi.

Payments of interest and payments of installments of principal (other than the final installment) in respect of each Registered Note (whether or not in global form) will be made (A) in the case of payments of interest in a Specified Currency other than Renminbi, by a check in the Specified Currency drawn on a Designated Bank and mailed by uninsured mail on the business day in the city where the specified office of the Registrar is located immediately preceding the relevant due date to the holder (or the first named of joint holders) of the Registered Note appearing in the relevant Register, or (B) in the case of payments of interest in Renminbi, by transfer to a Renminbi account maintained by or on behalf of the payee with a bank in Hong Kong, in each case (i) where the Notes are in global form, at the close of business day (being for this purpose, a day on which Euroclear, Clearstream, or DTC, as the case may be, are open for business in respect of Notes cleared through Euroclear, Clearstream, or DTC, as the case may be) before the relevant due date and (ii) where the Notes are in definitive form, at the close of business on the fifth Hong Kong business day (in the case of Renminbi) or on the fifteenth day (in the case of a Specified Currency other than Renminbi, whether or not such day is a business day) before the relevant due date (the "**Record Date**") at his address shown in the Register on the Record Date and at his risk. Upon application of the holder to the specified office of the Registrar not less than three business days in the city where the specified office of the Registrar is located before the due date for any payment of interest or an installment of principal (other than the final installment) in respect of a Registered Note, the payment may be made by transfer on the due date in the manner provided in the preceding paragraph. Any such application for transfer shall be deemed to relate to all future payments of interest (other than interest due on redemption) and installments of principal (other than the final installment) in respect of the Registered Notes which become payable to the holder who has made the initial application until such time as the Registrar is notified in writing to the contrary by such holder. Payment of the interest due in respect of each Registered Note on redemption and the final installment of principal will be made in the same manner as payment of the principal amount of such Registered Note.

Holders of Registered Notes will not be entitled to any interest or other payment for any delay in receiving any amount due in respect of any Registered Note as a result of a check posted in accordance with this Condition arriving after the due date for payment or being lost in the post. No commissions or expenses shall be charged to such holders by the Registrar in respect of any payments of principal or interest in respect of the Registered Notes.

All amounts payable to DTC or its nominee as registered holder of a Registered Global Note in respect of Notes denominated in a Specified Currency other than U.S. dollars shall be paid by transfer by the Registrar to an account in the relevant Specified Currency of the Exchange Agent on behalf of DTC or its nominee for conversion into and payment in U.S. dollars in accordance with the provisions of the Agency Agreement.

None of the Issuer, the Guarantor or any of the Agents will have any responsibility or liability for any aspect of the records relating to, or payments made on account of, beneficial ownership interests in the Registered Global Notes or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

7.5 ***General provisions applicable to payments***

The holder of a Global Note shall be the only person entitled to receive payments in respect of Notes represented by such Global Note and the Issuer (and the Guarantor) will be discharged by payment to, or to the order of, the holder of such Global Note in respect of each amount so paid. Each of the persons shown in the records of DTC, Euroclear or Clearstream, as the beneficial holder of a particular principal amount of Notes represented by such Global Note must look solely to DTC, Euroclear or Clearstream, as the case may be, for his share of each payment so made by the Issuer or, as the case may be, the Guarantor to, or to the order of, the holder of such Global Note.

Notwithstanding the foregoing provisions of this Condition, if any amount of principal and/or interest in respect of Bearer Notes is payable in U.S. dollars, such U.S. dollar payments of principal and/or interest in respect of such Notes will be made at the specified office of a Paying Agent in the United States if:

(a) the Issuer and the Guarantor have appointed Paying Agents with specified offices outside the United States with the reasonable expectation that such Paying Agents would be able to make payment in U.S. dollars at such specified offices outside the United States of the full amount of principal and interest on the Bearer Notes in the manner provided above when due;

(b) payment of the full amount of such principal and interest at all such specified offices outside the United States is illegal or effectively precluded by exchange controls or other similar restrictions on the full payment or receipt of principal and interest in U.S. dollars; and

(c) such payment is then permitted under United States law without involving, in the opinion of the Issuer and the Guarantor, adverse tax consequences to the Issuer or the Guarantor.

7.6 *Payment Day*

If the date for payment of any amount in respect of any Note, Receipt or Coupon is not a Payment Day (as defined below), the holder thereof shall not be entitled to payment until the next following Payment Day in the relevant place and shall not be entitled to further interest or other payment in respect of such delay.

For these purposes, "**Payment Day**" means any day which (subject to Condition 10 (*Prescription*)) is:

(a) a day on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealing in foreign exchange and foreign currency deposits) in:

 (i) in the case of Notes in definitive form only, the relevant place of presentation;

 (ii) London and New York; and

 (iii) any Additional Financial Center specified in the applicable Pricing Supplement; and

(b) either (1) in relation to any sum payable in a Specified Currency other than Euro and Renminbi, a day on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealing in foreign exchange and foreign currency deposits) in the principal financial center of the country of the relevant Specified Currency (which if the Specified Currency is Canadian dollars, Australian dollars or New Zealand dollars shall be Toronto, Melbourne or Wellington, respectively) or (2) in relation to any sum payable in Euro, a day on which the TARGET2 System is open; or (3) in relation to any sum payable in Renminbi, a day on which commercial banks and foreign exchange markets in Hong Kong are open for general business and settlement of payments in Renminbi.

7.7 *Interpretation of principal and interest*

Any reference in these Conditions to principal in respect of the Notes shall be deemed to include, as applicable:

(a) any additional amounts which may be payable with respect to principal under Condition 9 (*Taxation*);

(b) the Final Redemption Amount of the Notes;

(c) the Early Redemption Amount of the Notes;

(d) the Optional Redemption Amount(s) (if any) of the Notes;

(e) in relation to Notes redeemable in installments, the Installment Amounts;

(f) in relation to Zero Coupon Notes, the Amortized Face Amount (as defined in Condition 8.6 (*Redemption and Purchase—Early Redemption Amounts*)); and

(g) any premium and any other amounts (other than interest) which may be payable by the Issuer under or in respect of the Notes.

Any reference in the Conditions to interest in respect of the Notes shall be deemed to include, as applicable, any additional amounts which may be payable with respect to interest under Condition 9 (*Taxation*).

7.8 ***Currency of Payment***

If any payment in respect of this Note is payable in a Specified Currency other than U.S. dollars that is no longer used by the government of the country issuing such currency for the payment of public and private debts or used for settlement of transactions by public institutions in such country or within the international banking community, or in a Specified Currency that is not expected to be available, when any payment on this Note is due as a result of circumstances beyond the control of the Issuer and the Guarantor, the Issuer and the Guarantor shall be entitled to satisfy their obligations in respect of such payment by making such payment in U.S. dollars on the basis of the noon buying rate in U.S. dollars in New York City for wire transfers for such Specified Currency as published by the Federal Reserve Bank of New York on the second Business Day prior to such payment or, if such rate is not available on such second Business Day or is not so published, on the basis of the rate most recently available to the Calculation Agent on or prior to such second Business Day. Any payment made by the Issuer or the Guarantor under such circumstances in such other currency or U.S. dollars will constitute valid payment, and will not constitute a default in respect of this Note. For the purpose of this Condition 7.8, "Business Day" means a day on which the Federal Reserve Bank of New York is open for business in New York City.

8. REDEMPTION AND PURCHASE

8.1 ***Redemption at maturity***

Unless previously redeemed or purchased and cancelled as specified below, each Note (including each Dual Currency Redemption Note) will be redeemed by the Issuer at its Final Redemption Amount specified in, or determined in the manner specified in, the applicable Pricing Supplement in the relevant Specified Currency on the Maturity Date.

8.2 ***Redemption for tax reasons***

The Notes may be redeemed at the option of the Issuer in whole, but not in part, at any time (if this Note is neither a Floating Rate Note or a Dual Currency Interest Note) or on any Interest Payment Date (if this Note is either a Floating Rate Note or a Dual Currency Interest Note), on giving not less than 30 nor more than 60 days' notice to the applicable Agent and, in accordance with Condition 15 (*Notices*), the Noteholders (which notice shall be irrevocable), if:

(a) the Issuer or (if the Guarantor is required to make payments under the Guarantee) the Guarantor has or will become obligated to pay the additional amounts as provided or referred to in Condition 9 (*Taxation*) as a result of any change in, or amendment to, the laws or regulations of a Tax Jurisdiction (as defined in Condition 9 (*Taxation*)) or any regulations or rulings promulgated thereunder, or any change in the official application or official interpretation of such laws or regulations or rulings, or any change in the official application or official interpretation of, or any execution of or amendment to, any treaty or treaties affecting in taxation to which the Tax Jurisdiction is a party, which change or amendment becomes effective on or after the date on which agreement is reached to issue the first Tranche of the Notes of the relevant Series; and

(b) such obligation cannot be avoided by the Issuer or the Guarantor, taking reasonable measures available to it,

provided that no such notice of redemption shall be given earlier than 90 days prior to the earliest date on which the Issuer or the Guarantor would be obligated to pay such additional amounts were a payment in respect of the Notes (or the Guarantee), then due.

Prior to the publication of any notice of redemption pursuant to this Condition, the Issuer or the Guarantor shall deliver to the Principal Paying Agent a certificate signed by an authorized officer of the Issuer or the Guarantor, stating that the Issuer or the Guarantor is entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to the right of the Issuer or the Guarantor so to redeem have occurred.

Notes redeemed pursuant to this Condition 8.2 will be redeemed at their Early Redemption Amount referred to in Condition 8.6 (*Redemption and Purchase—Early Redemption Amounts*) below together (if appropriate) with interest accrued to (but excluding) the date of redemption.

8.3 ***Redemption at the option of the Issuer ("Issuer Call")***

If Issuer Call is specified in the applicable Pricing Supplement, the Issuer may, having given:

(a) not less than 15 nor more than 60 days' notice to the Noteholders in accordance with Condition 15 (*Notices*); and

(b) not less than three Business Days before the giving of the notice referred to in (a) above, notice to the Principal Paying Agent and, in the case of a redemption of Registered Notes, the Registrar; (which notices shall be irrevocable and shall specify the date fixed for redemption), redeem all or some only of the Notes then outstanding on any Optional Redemption Date and at the Optional Redemption Amount(s) specified in, or determined in the manner specified in, the applicable Pricing Supplement together, if appropriate, with interest accrued to (but excluding) the relevant Optional Redemption Date. Any such redemption must be of a principal amount not less than the Minimum Redemption Amount and not more than the Maximum Redemption Amount, in each case as may be specified in the applicable Pricing Supplement. In the case of a partial redemption of Notes, the Notes to be redeemed ("**Redeemed Notes**") will be selected individually by lot, in the case of Redeemed Notes represented by definitive Notes, and in accordance with the rules of DTC, Euroclear and/or Clearstream, in the case of Redeemed Notes represented by a Global Note, not more than 30 days prior to the date fixed for redemption (such date of selection being hereinafter called the "**Selection Date**"). In the case of Redeemed Notes represented by definitive Notes, a list of the serial numbers of such Redeemed Notes will be published in accordance with Condition 15 (*Notices*) not less than 15 days prior to the date fixed for redemption. The aggregate principal amount of Redeemed Notes represented by definitive Notes shall bear the same proportion to the aggregate principal amount of all Redeemed Notes as the aggregate principal amount of definitive Notes outstanding bears to the aggregate principal amount of the Notes outstanding, in each case on the Selection Date, provided that, such first mentioned principal amount shall, if necessary, be rounded downwards to the nearest integral multiple of the Specified Denomination and the aggregate principal amount of Redeemed Notes represented by a Global Note shall be equal to the balance of the Redeemed Notes. No exchange of the relevant Global Note will be permitted during the period from (and including) the Selection Date to (and including) the date fixed for redemption pursuant to this Condition 8.3 and notice to that effect shall be given by the Issuer to the Noteholders in accordance with Condition 15 (*Notices*) at least five days prior to the Selection Date.

8.4 ***Redemption at the option of the Noteholders ("Investor Put")***

If Investor Put is specified in the applicable Pricing Supplement, then, if and to the extent specified in the applicable Pricing Supplement, upon the holder of any Note, giving to the Issuer, in accordance with Condition 15 (Notices), not less than 15 nor more than 30 days' notice (or such other notice period as is specified in the applicable Pricing Supplement) (which notice shall be irrevocable), the Issuer will, upon the expiry of such notice, redeem, subject to, and in accordance with, the terms specified in the applicable Pricing Supplement in whole (and not in part), such Note on the Optional Redemption Date and at the relevant Optional Redemption Amount as specified in, or determined in the manner specified in, the applicable Pricing Supplement, together, if applicable, with interest accrued to (but excluding) the relevant Optional Redemption Date. It may be that before an Investor Put can be exercised, certain conditions and/or circumstances will need to be satisfied. Where relevant, the provisions relating to such conditions and circumstances will be set out in the applicable Pricing Supplement. Registered Notes may be redeemed under this Condition 8.4 in any multiple of their lowest Specified Denomination.

While any Bearer Note that was issued in accordance with TEFRA D is held in the form of a Temporary Bearer Global Note, the right described in this Condition 8.4 will be available only to the extent that non-U.S. beneficial ownership certification has been received by the relevant Issuer or its agent pursuant to TEFRA D.

8.5 ***Put Notices***

To exercise the right to require redemption of this Note pursuant to Condition 8.4 (*Redemption and Purchase—Redemption at the option of the Noteholders ("Investor Put")*), the Noteholder must deliver, at the specified office of the relevant Paying Agent (in the case of Bearer Notes) or the relevant Registrar (in the case of Registered Notes), at any time during normal business hours of such Paying Agent or, as the case may be, the Registrar falling within the notice period, the Note (except for a Global Note) together with a duly signed and completed notice of exercise in the form (for the time being current) obtainable from the specified office of the Paying Agent or, as the case may be, the Registrar (a "**Put Notice**") and in which the holder must specify a bank account (or, if payment is required to be made by check, an address) to which payment is to be made under this Condition or evidence satisfactory to the Paying Agent concerned or, as the case may be, the Registrar that the Note will, following delivery of the Put Notice, be held to its order or under its control and, in the case of Registered Notes, the principal amount thereof to be redeemed and, if less than the full principal amount of the Registered Notes so surrendered is to be redeemed, an address to which a new Registered Note in respect of the balance of such Registered Notes is to be sent subject to and in accordance with the provisions of Condition 2.2 (*Transfers of Registered Notes—Transfers of Registered Notes in definitive form*). If this Note is in definitive form, the Put Notice must be accompanied by this Note or evidence satisfactory to the relevant Paying Agent concerned that this Note will, following delivery of the Put Notices, be held to its order or under its control.

If this Note is represented by a Global Note or is in definitive form and held through DTC, Euroclear or Clearstream, to exercise the right to require redemption of this Note the holder of this Note must, within the notice period, give notice to the Paying Agent of such exercise in accordance with the standard procedures of DTC, Euroclear and/or Clearstream (as the case may be) (which may include notice being given on his instruction by DTC, Euroclear and/or Clearstream or any common depositary for them to the relevant Paying Agent by electronic means) in a form acceptable to DTC, Euroclear and/or Clearstream (as the case may be) from time to time and at the same time present or procure the presentation of the relevant Global Note to the Paying Agent for notation accordingly.

Any Put Notice or other notice given in accordance with the standard procedures of DTC, Euroclear and/or Clearstream given by a holder of any Note pursuant to Condition 8.4 (*Redemption and Purchase—Redemption at the option of the Noteholders ("Investor Put")*) shall be irrevocable except where, prior to the due date of redemption, an Event of Default has occurred and is continuing, in which event, such holder, at its option, may elect by notice to the Issuer to withdraw the notice given pursuant to Condition 8.4 (*Redemption and Purchase—Redemption at the option of the Noteholders ("Investor Put")*) and instead to declare such Note forthwith due and payable pursuant to Condition 11 (*Events of Default*).

8.6 ***Early Redemption Amounts***

For the purpose of Condition 8.2 (*Redemption and Purchase–Redemption for tax reasons*) above and Condition 11 (*Events of Default*), each Note will be redeemed at its Early Redemption Amount calculated as follows:

(a) in the case of a Note with a Final Redemption Amount equal to the Issue Price, at the Final Redemption Amount thereof;

(b) in the case of a Note (other than a Zero Coupon Note but including an Installment Note and a Partly Paid Note) with a Final Redemption Amount which is or may be less or greater than the Issue Price or which is payable in a Specified Currency other than that in which the Note is denominated, at the amount specified in, or determined in the manner specified in, the applicable Pricing Supplement or, if no such amount or manner is so specified in the applicable Pricing Supplement, at its principal amount; or

(c) in the case of a Zero Coupon Note, at an amount (the "**Amortized Face Amount**") calculated in accordance with the following formula:

Early Redemption Amount = RP x $(1+AY)^y$

where:

"**RP**" means the Reference Price;

"**AY**" means the Accrual Yield expressed as a decimal; and

"**y**" is a fraction the numerator of which is equal to the number of days (calculated on the basis of a 360-day year consisting of 12 months of 30 days each) from (and including) the Issue Date of the first Tranche of the Notes of the relevant Series to (but excluding) the date fixed for redemption or (as the case may be) the date upon which such Note becomes due and repayable and the denominator of which is 360, or on such other calculation basis as may be specified in the applicable Pricing Supplement.

8.7 ***Installments***

Installment Notes will be redeemed in the Installment Amounts and on the Installment Dates. The outstanding principal amount of each such Note shall be reduced by the Installment Amount (or, if such Installment Amount is calculated by reference to a proportion of the principal amount of such Note, such proportion) for all purposes with effect from the related Installment Date, unless payment of the Installment Amount is improperly withheld or refused, in which case, such amount shall remain outstanding until the Relevant Date (as defined in Condition 9 (*Taxation*)) relating to such Installment Amount. In the case of early redemption, the Early Redemption Amount will be determined pursuant to Condition 8.6 (*Redemption and Purchase—Early Redemption Amounts*) above.

8.8 ***Partly Paid Notes***

Partly Paid Notes will be redeemed, whether at maturity, early redemption or otherwise, in accordance with the provisions of this Condition and the applicable Pricing Supplement.

8.9 ***Purchases***

The Issuer, the Guarantor and any of their respective Subsidiaries may at any time purchase Notes (provided that, in the case of definitive Bearer Notes, all unmatured Receipts, Coupons and Talons appertaining thereto are purchased therewith) by tender (available to all Noteholders alike) or in the open market at any price. If the Issuer, the Guarantor or any of their respective Subsidiaries shall acquire any Notes, such acquisition shall not operate as or be deemed for any purpose to be a satisfaction of the indebtedness represented by such Notes unless and until such Notes are delivered to the relevant Paying Agent and/or the Registrar for cancellation and are cancelled and retired by such Paying Agent and/or the Registrar. Notes purchased or otherwise acquired or held by or on behalf of the Issuer, the Guarantor or any of their respective Subsidiaries may be held, reissued, resold or, at their discretion, surrendered to any Paying Agent and/or the Registrar for cancellation. Notes purchased or otherwise acquired or held by or on behalf of the Issuer, the Guarantor or any of their respective Subsidiaries shall not have voting rights at meetings of Noteholders and shall not be deemed to be outstanding for the purposes of calculating quorums at meetings of Noteholders.

8.10 ***Cancellation***

All Notes which are redeemed will forthwith be cancelled (together with all unmatured Receipts, Coupons and Talons attached thereto or surrendered therewith at the time of redemption). All Notes so cancelled and the Notes purchased and cancelled pursuant to Condition 8.9 (*Redemption and Purchase—Purchases*) above (together with all unmatured Receipts, Coupons and Talons cancelled therewith) shall be forwarded to the Principal Paying Agent (which shall notify the Registrar of such cancelled Notes in the case of Registered Notes) and cannot be reissued or resold.

8.11 ***Late payment on Zero Coupon Notes***

If the amount payable in respect of any Zero Coupon Note upon redemption of such Zero Coupon Note pursuant to Condition 8.1 (*Redemption and Purchase—Redemption at maturity*), 8.2 (*Redemption and Purchase—Redemption for tax reasons*), 8.3 (*Redemption and Purchase—Redemption at the option of the Issuer ("Issuer Call")*, or 8.4 (*Redemption and Purchase—Redemption at the option of the Noteholders ("Investor Put")* above or upon its becoming due and repayable as provided in Condition 11 (*Events of Default*) is improperly withheld or refused, the amount due and repayable in respect of such Zero Coupon Note shall be the amount calculated as provided in paragraph (c) of Condition 8.6 (*Redemption and Purchase—Early Redemption Amounts*) above as though the references therein to the date fixed for the redemption or the date upon which such Zero Coupon Note becomes due and payable were replaced by references to the date which is the earlier of:

(a) the date on which all amounts due in respect of such Zero Coupon Note have been paid; and

(b) the date on which the full amount of the moneys payable in respect of such Zero Coupon Notes has been received by the Principal Paying Agent or, in the case of Registered Notes, the Registrar and notice to that effect has been given to the Noteholders in accordance with Condition 15 (*Notices*).

8.12 ***Obligation to redeem***

Upon the expiry of any notice as is referred to in Condition 4.2 (*Change of Control Put Option*), 8.2 (*Redemption and Purchase—Redemption for tax reasons*), 8.3 (*Redemption and Purchase—Redemption at the option of the Issuer ("Issuer Call")*), or 8.4 (*Redemption and Purchase—Redemption at the option of the Noteholders ("Investor Put")*) above, the Issuer, failing whom, the Guarantor, shall be bound to redeem the Notes to which the notice referred at the relevant redemption price applicable at the date of such redemption together with, if appropriate, interest accrued to (but excluding) the relevant redemption date.

9. TAXATION

All payments of principal and interest in respect of the Notes, Receipts and Coupons or under the Guarantee by or on behalf of the Issuer or the Guarantor will be made without withholding or deduction for or on account of any present or future taxes or duties of whatever nature imposed or levied by or on behalf of the relevant Tax Jurisdiction unless such withholding or deduction is required by law. In such event, the Issuer (or the Guarantor) will pay such additional amounts as shall be necessary in order that the net amounts received by the holders of the Notes, Receipts or Coupons after such withholding or deduction shall equal the respective amounts of principal and interest which would otherwise have been receivable in respect of the Notes, Receipts or Coupons, as the case may be, in the absence of such withholding or deduction; except that no such additional amounts shall be payable with respect to any Note, Receipt or Coupon:

(a) where such withholding or deduction is imposed on a payment to a holder or beneficial owner of such Note, Receipt or Coupon by reason of such holder or beneficial owner being or having been connected with the relevant Tax Jurisdiction (or any political subdivision thereof) other than merely by holding such Note, Receipt or Coupon or receiving principal or interest or other payments in respect thereof; or

(b) where the holder or any other person who holds an interest in the Note, Receipt or Coupon is a fiduciary, a partnership or any person other than the sole beneficial owner of such payment, and such withholding or deduction would not have been imposed had the beneficiary or settlor with respect to such fiduciary, member of such partnership or beneficial owner of such payment been the actual holder of the Note, Receipt or Coupon; or

(c) presented for payment (where presentation is required) more than 30 days after the Relevant Date (as defined below) except to the extent that the holder thereof would have been entitled to an additional amount on presenting the same for payment on such thirtieth day assuming that day to have been a Payment Day (as defined in Condition 7.6 (*Payments—Payment Day*)); or

(d) where such withholding or deduction is imposed pursuant to FATCA; or

(e) presented for payment (where presentation is required) by or on behalf of a holder or any other person if such holder or other person would be able to avoid such withholding or deduction by presenting the relevant Note, Receipt or Coupon to another Paying Agent in a member state of the European Union; or

(f) where such withholding or deduction is imposed on a payment to a holder or beneficial owner or any other person who would not be liable or subject to the withholding or deduction by making a declaration of non-residence or other similar claim for exemption to the relevant tax authority if the Principal Paying Agent has been notified in writing by the Issuer (or the Guarantor) of the opportunity to make such a declaration or claim (such notice to be provided by the Principal Paying Agent to the relevant clearing organization); or

(g) any combination of paragraphs (a), (b), (c), (d), (e) or (f), above.

As used herein:

(i) "**Tax Jurisdiction**" means, with respect to the Issuer and the Guarantor, Malaysia or any political subdivision or any authority thereof or therein (including Labuan) having power to tax or any other jurisdiction or any political subdivision or any authority thereof or therein having power to tax to which the Issuer or the Guarantor is or becomes subject in respect of payments made by it of principal and interest on the Notes, Receipts or Coupons or under the Guarantee, as the case may be, by reason of being organized or resident for tax purposes in or making payments from or through such jurisdiction;

(ii) the "**Relevant Date**" means the date on which such payment first becomes due, except that, if the full amount of the moneys payable has not been duly received by the relevant Agent or the relevant Registrar, as the case may be, on or prior to such due date, it means the date on which, the full amount of such moneys having been so received, notice to that effect is duly given to the Noteholders in accordance with Condition 15 (*Notices*); and

(iii) "**FATCA**" means Sections 1471 through 1474 of the Internal Revenue Code of 1986, as amended, or any successor or amended version of these provisions, any agreement with the U.S. Treasury entered into with respect thereto, any U.S. Treasury regulation issued thereunder or any other official interpretations or guidance issued with respect thereto; any intergovernmental agreement entered into with respect thereto, and any law, regulation, or other official interpretation or guidance promulgated pursuant to such intergovernmental agreement.

The obligation to pay additional amounts shall not apply to (a) any estate, inheritance, gift, sales, transfer, personal property or any similar tax, assessment or other governmental charge or (b) any tax, assessment or other governmental charge which is payable otherwise than by deduction or withholding from payments of principal of, or interest or premium on, the Notes, Receipts or Coupons; provided that, except as otherwise set forth in these Conditions and in the Agency Agreement, the Issuer (or the Guarantor, as applicable) shall pay all stamp and other duties, if any, which may be imposed by Malaysia, Labuan, the United States or any respective political subdivision thereof or any taxing authority of or in the foregoing, with respect to the Agency Agreement or as a consequence of the issuance of the first Tranche of the Notes of the relevant Series.

Whenever there is mentioned in any context the payment of principal of, and any premium or interest on, any Note, Receipt or Coupon, such mention shall be deemed to include payment of additional amounts to the extent that, in such context, additional amounts are, were or would be payable in respect thereof.

10. PRESCRIPTION

Any monies paid by the Issuer or the Guarantor to the Paying Agents for the payment of the principal of or interest on any Notes and remaining unclaimed at the end of two years after such principal or interest shall have become due and payable shall then be repaid to the Issuer or the Guarantor, and upon such repayment, all liability of the Paying Agent with respect to such monies shall thereupon cease and any Holder representing a claim therefor shall thereafter look only to the Issuer or the Guarantor for payment thereof.

Under New York law, any legal action upon the Notes must be commenced within six years after the payment thereof is due. Thereafter, the Notes will generally become unenforceable.

11. EVENTS OF DEFAULT

The occurrence and continuance of the following will constitute events of default with respect to the Notes ("**Events of Default**"):

(a) default in the payment of any installment of interest upon any of the Notes as and when the same shall become due and payable, and continuance of such default for a period of 30 days; or

(b) default in the payment of all or any part of the principal of any of the Notes as and when the same shall become due and payable, whether at maturity, upon redemption, issuer call, investor put or otherwise; or

(c) failure on the part of the Issuer duly to observe or perform any of the other covenants or agreements on the part of the Issuer contained in the Notes of the relevant Series or in the Agency Agreement for a period of 60 days after the date on which written notice specifying such failure, stating that such notice is a "Notice of Default" under the Notes of the relevant Series and demanding that the Issuer remedy the same, shall have been given by registered or certified mail, return receipt requested, to the Issuer at the office of the Principal Paying Agent by the holders of at least 10 percent in aggregate principal amount of the Notes of the relevant Series at the time outstanding; or

(d) failure on the part of the Guarantor to duly observe or perform any other of the covenants or agreements on the part of the Guarantor contained in the Guarantee or the Agency Agreement for a period of 60 days after the date on which written notice specifying such failure, stating that such notice is a "Notice of Default" hereunder and demanding that the Guarantor remedy the same, shall have been given by registered or certified mail, return receipt requested, to the Guarantor at its specified office with a copy to the Principal Paying Agent at its specified office by the holders of at least 10 percent in aggregate principal amount of the Notes of the relevant Series at the time outstanding; or

(e) any indebtedness of the Issuer for borrowed money in the aggregate outstanding principal amount of U.S.$50,000,000 (or its equivalent in any other currency or currencies) or more either (i) becoming due and payable prior to the due date for payment thereof by reason of acceleration thereof following default by the Issuer or (ii) not being repaid at, and remaining unpaid after, maturity as extended by the period of grace, if any, applicable thereto, or any guarantee given by the Issuer in respect of any indebtedness of any other person in the aggregate outstanding principal amount of U.S.$50,000,000 (or its equivalent in any other currency or currencies) or more not being honored when, and remaining dishonored after becoming, due and called; provided that, if any such default under any such indebtedness shall be cured or waived, then any default by reason thereof shall be deemed to have been cured and waived; or

(f) any indebtedness of the Guarantor for borrowed money in the aggregate outstanding principal amount of U.S.$125,000,000 (or its equivalent in any other currency or currencies) or more either (i) becoming due and payable prior to the due date for payment thereof by reason of acceleration thereof following default by the Guarantor or (ii) not being repaid at, and remaining unpaid after, maturity as extended by the period of grace, if any, applicable thereto, or any guarantee given by the Guarantor in respect of any indebtedness of any other person in the aggregate outstanding principal amount of U.S.$125,000,000 (or its equivalent in any other currency or currencies) or more not being honored when, and remaining dishonored after becoming, due and called; provided that, if any such default under any such indebtedness shall be cured or waived, then any default by reason thereof shall be deemed to have been cured and waived; or

(g) a court or administrative or other governmental agency or body having jurisdiction in the premises shall enter a decree or order for relief in respect of the Issuer or the Guarantor in an involuntary case under any applicable bankruptcy, insolvency, reorganization, compulsory composition or other similar law now or hereafter in effect, or appointing a receiver, liquidator, assignee, custodian, trustee, sequestrator (or similar official) of the Issuer or the Guarantor or for any substantial part of its property or ordering the winding up, dissolution or liquidation of its affairs, or shall otherwise adjudicate or find the Issuer or the Guarantor to be bankrupt or insolvent, and such decree or order shall remain unstayed and in effect for a period of 120 consecutive days; or

(h) the Issuer or the Guarantor shall commence a voluntary case under any applicable bankruptcy, insolvency, reorganization, compulsory composition or other similar law now or hereafter in effect, or consent to the entry of an order for relief in an involuntary case under any such law, or consent to the appointment or taking possession by a receiver, liquidator, assignee, custodian, trustee, sequestrator or similar official of the Issuer or the Guarantor or for any substantial part of its property, or cease to carry on the whole or substantially the whole of its business or make any general assignment for the benefit of creditors, or enter into any composition with its creditors, or take corporate action in furtherance of any such action.

If an Event of Default with respect to the Notes of a given Series at the time outstanding occurs, the holders of not less than 25 percent in aggregate principal amount of the Notes of such Series then outstanding, by written demand to the Issuer and the Guarantor at their specified offices with a copy to the Principal Paying Agent at its specified address, may declare the principal (or, if the Notes of such Series are Original Issue Discount Notes (as defined below), such portion of the principal amount as may be specified in the terms of such Notes) of all the Notes of such Series and the interest accrued thereon immediately due and payable.

However, the Notes of such Series shall not be due and payable immediately if, prior to the time when the Issuer and the Guarantor receives such notice, all Events of Default provided for herein in respect of the Notes of such Series shall have been cured. Upon such declaration, the Principal Paying Agent shall give notice thereof to the Issuer or the Guarantor and to the holders of the Notes of such Series, by mail and publication as provided herein. If, at any time after any such declaration and before any judgment or decree for the payment of the monies due shall have been obtained or entered, the Issuer or the Guarantor pays or deposits with the Principal Paying Agent all amounts then due with respect to the Notes of such Series (other than amounts due solely because of such declaration) and cures all other Events of Default with respect to the Notes of such Series, such defaults may be waived and such declaration may be annulled and rescinded by the holders of more than 50 percent in aggregate outstanding principal amount of the Notes of such Series by written notice thereof to the Issuer or the Guarantor at their specified offices with a copy to the Principal Paying Agent at its specified office.

For the purpose of this Condition 11, "**Original Issue Discount Notes**" mean any Notes of a Series that provide for an amount less than the principal amount thereof to be due and payable upon a declaration of acceleration of the maturity thereof.

For the purposes of Conditions 11(e) and (f) above, any indebtedness which is in a currency other than U.S. dollars may be translated into U.S. dollars at the spot rate of the sale of U.S. dollars against the purchase of the relevant currency quoted by any leading bank on any day when a quotation is required for such purposes.

The Principal Paying Agent need not do anything to ascertain whether any Event of Default has occurred or is continuing and will not be responsible to the Issuer, the Guarantor, the Noteholders or any other person for any loss arising from any failure by it to do so, and, unless and until the Principal Paying Agent otherwise has received notice in writing to the contrary, the Principal Paying Agent may assume that no such event has occurred and that the Issuer is performing all its obligations under the Conditions.

12. REPLACEMENT OF NOTES, RECEIPTS, COUPONS AND TALONS

Should any Note, Receipt, Coupon or Talon be lost, stolen, mutilated, defaced or destroyed, it may be replaced, subject to applicable laws, regulations and stock exchange or other relevant authority regulations, at the specified office of the relevant Paying Agent (in the case of Bearer Notes, Receipts or Coupons) or the Registrar (in the case of Registered Notes) upon payment by the claimant of such costs and expenses as may be incurred in connection therewith and on such terms as to evidence and indemnity as the Issuer and the Agents may reasonably require. Mutilated or defaced Notes, Receipts, Coupons or Talons must be surrendered before replacements will be issued.

13. AGENTS

The names of the initial Agents and their initial specified offices are set out below.

The Issuer and the Guarantor are entitled to vary or terminate the appointment of any Agent and/or appoint additional or other Agents and/or approve any change in the specified office through which any Agent acts, provided that:

(a) there will at all times be a Principal Paying Agent and a Registrar;

(b) so long as the Notes are listed on any Stock Exchange or admitted to trading by any other relevant authority, there will at all times be (in the case of Bearer Notes) a Paying Agent, which may be the Principal Paying Agent, and (in the case of Registered Notes) a Transfer Agent, which may be the Registrar, with a specified office in such place as may be required by the rules and regulations of the relevant Stock Exchange or any other relevant authority (and in the case of Bearer Notes, outside the United States); and

(c) so long as any of the Registered Global Notes payable in a Specified Currency other than U.S. dollars are held through DTC or its nominee, there will at all times be an Exchange Agent with a specified office in New York, London or Hong Kong.

In addition, the Issuer and the Guarantor shall immediately appoint a Paying Agent having a specified office in New York City in the circumstances described in Condition 7.5 (*Payments—General provisions applicable to payments*). Any variation, termination, appointment or change shall only take effect (other than in the case of insolvency, when it shall be of immediate effect) after not less than 30 nor more than 45 days' prior notice thereof shall have been given to the Noteholders in accordance with Condition 15 (*Notices*).

In acting under the Agency Agreement, the Agents act solely as agents of the Issuer and do not assume any obligation to, or relationship of agency or trust with, any Noteholders, Receiptholders or Couponholders. The Agency Agreement contains provisions permitting any entity into which any Agent is merged or converted or with which it is consolidated or to which it transfers all or substantially all of its assets to become the successor agent.

14. EXCHANGE OF TALONS

On and after the Interest Payment Date on which the final Coupon comprised in any Coupon sheet matures, the Talon (if any) forming part of such Coupon sheet may be surrendered at the specified office of the Principal Paying Agent or any other Paying Agent in exchange for a further Coupon sheet including (if such further Coupon sheet does not include Coupons to (and including) the final date for the payment of interest due in respect of the Note to which it appertains) a further Talon, subject to the provisions of Condition 10 (*Prescription*). Each Talon shall, for the purpose of these Conditions, be deemed to mature on the Interest Payment Date on which the final Coupon comprised in the relative Coupon sheet matures.

15. NOTICES

All notices regarding the Bearer Notes will be deemed to be validly given if published by the Issuer or the Guarantor in a leading English language daily newspaper of general circulation in London (which is expected to be the Financial Times) and in a leading English language daily newspaper of general circulation in the United States (which is expected to be the Wall Street Journal), or if publication in either such newspaper is not practicable, notice shall be given in such other English language newspaper of general circulation in Europe or in the United States, as the case may be, as the Principal Paying Agent may approve. The Issuer or the Guarantor, shall also ensure that notices are duly published in a manner which complies with the rules and regulations of any stock exchange (or any other relevant authority) on which the Bearer Notes are for the time being listed or by which they have been admitted to trading. Any such notice will be deemed to have been given on the date of the first publication or, where required to be published in more than one newspaper, on the date of the first publication in all required newspapers.

All notices regarding the Registered Notes will be deemed to be validly given if (a) sent by first class mail or (if posted to an address overseas) by airmail to the holders (or the first named of joint holders) at their respective addresses recorded in the Register and will be deemed to have been given on the fourth day after mailing, and (b) in addition, if and for so long as the Registered Notes are listed on a stock exchange or are admitted to trading by another relevant authority and the rules of that stock exchange or relevant authority so require, such notice will be published in a daily newspaper of general circulation in the place or places required by those rules.

Until such time as any definitive Notes are issued, there may, so long as any Global Notes representing the Notes are held in their entirety on behalf of DTC, Euroclear and/or Clearstream, be substituted for such publication in such newspaper(s) the delivery of the relevant notice to DTC, Euroclear and/or Clearstream, as applicable, for communication by them to the holders of the Notes and, in addition, for so long as any Notes are listed on a stock exchange or are admitted to trading by another relevant authority and the rules of that stock exchange or any other relevant authority so require, such notice will be published in a manner specified by those rules. Any such notice shall be deemed to have been given to the holders of the Notes one day after the day on which the said notice was given to DTC, Euroclear and/or Clearstream.

Notices to be given by any Noteholder shall be in writing and given by lodging the same, together (in the case of any Note in definitive form) with the relative Note or Notes, with the Principal Paying Agent (in the case of Bearer Notes) or the Registrar (in the case of Registered Notes). So long as any of the Notes are represented by a Global Note, such notice may be given by any holder of a Note to the Principal Paying Agent or the Registrar through DTC, Euroclear and/or Clearstream, as the case may be, in such manner as the Principal Paying Agent, the Registrar and DTC, Euroclear and/or Clearstream, as the case may be, may approve for this purpose.

Receiptholders and Couponholders will be deemed for all purposes to have notice of the contents of any notice given to the Noteholders in accordance with this condition.

16. MEETINGS OF NOTEHOLDERS, MODIFICATION AND WAIVER

16.1 *Meetings of Noteholders*

The Agency Agreement contains provisions for convening meetings of the Noteholders to consider any matter affecting their interests, including the sanctioning by Extraordinary Resolution of a modification of the Notes, the Receipts, the Coupons or any of the provisions of the Agency Agreement. Such a meeting may be convened by the Issuer and the Guarantor or upon a requisition in writing of Noteholders holding not less than 25% in principal amount of the Notes of the applicable Series for the time being outstanding after such Notes shall have become due and payable due to an Event of Default. The quorum at any such meeting for passing an Extraordinary Resolution is one or more persons holding or representing not less than 50% in principal amount of the Notes of the applicable Series for the time being outstanding, or at any adjourned meeting one or more persons being or representing Noteholders whatever the principal amount of the Notes of the applicable Series so held or represented. However, at any meeting the business of which includes the modification of certain provisions of the Notes, Receipts or Coupons (including modifying the due date for payment of principal, premium, redemption amount or interest thereof, reducing the amount of principal, premium or redemption amount or the rate of interest payable in respect of the Notes, varying the method of or basis for calculating redemption amount, altering the currency of payment of the principal, premium, redemption amount or interest of the Notes, Receipts or Coupons, modifying or cancelling the Guarantee, modifying the majority required to pass an Extraordinary Resolution, or sanctioning any scheme or proposal for the exchange or sale of the Notes), the quorum shall be one or more persons holding or representing not less than 75% in principal amount of the Notes for the time being outstanding, or at any adjourned such meeting one or more persons holding or representing not less than 25%, in principal amount of the Notes for the time being outstanding. Any resolution passed at any meeting of the Noteholders shall be binding on all the Noteholders, whether or not they are present at the meeting and whether or not they are voting, and on all Receiptholders and Couponholders.

16.2 ***Modifications and Waivers***

The Agents, the Issuer and the Guarantor may agree, without the consent of the Noteholders, Receiptholders or Couponholders, to:

(a) any modification (except as mentioned above) of the Notes, the Receipts, the Coupons, the Conditions, the Agency Agreement or the Guarantee which is not materially prejudicial to the interests of the Noteholders; or

(b) any modification of the Notes, the Receipts, the Coupons, the Conditions, the Agency Agreement or the Guarantee which is of a formal, minor or technical nature or is made to correct a manifest error or to comply with mandatory provisions of the law.

Any such modification shall be binding on the Noteholders, the Receiptholders and the Couponholders and any such modification shall be notified to the Noteholders in accordance with Condition 15 (*Notices*) as soon as practicable thereafter. For the avoidance of doubt, the Agents shall not have any responsibility or liability whatsoever with respect to any determination as to material prejudice to the interests of the Noteholders, the Receiptholders and the Couponholders pursuant to this Condition 16.2.

17. FURTHER ISSUES

The Issuer may from time to time without the consent of the Noteholders, the Receiptholders or the Couponholders, create and issue further Notes with the same terms and conditions as the Notes in all respects except for the amount and date of the first payment of interest thereon so that such further issue shall be consolidated and form a single Series with the outstanding Notes; provided that, in the case of Bearer Notes initially represented by interests in a Temporary Bearer Global Note exchangeable for interests in a Permanent Bearer Global Note or definitive Bearer Notes, such consolidation will occur only upon certification of non-U.S. beneficial ownership and exchange of interests in the Temporary Bearer Global Note for interests in the Permanent Bearer Global Note or definitive Bearer Notes; provided further that any further Notes that are not Bearer Notes must, if the existing Notes were (or the further Notes will be) issued in reliance on Rule 144A, be assigned security number(s) that are different from the security number(s) assigned to the existing Notes unless the further Notes are issued pursuant to a "qualified reopening" of the existing Notes, are otherwise treated as part of the same "issue" of debt instruments as the existing Notes or are issued with no more than a *de minimis* amount of original issue discount, in each case for U.S. federal income tax purposes.

18. GOVERNING LAW AND SUBMISSION TO JURISDICTION

18.1 ***Governing law***

The Agency Agreement, the Notes, the Guarantee, the Receipts and the Coupons are governed by, and shall be construed in accordance with, the law of the State of New York.

18.2 ***Submission to jurisdiction; Waiver of immunity; Appointment of Agent***

Each of the Issuer and the Guarantor (a) agrees that any legal suit, action or proceeding arising out of or based upon the Notes, the Guarantee, the Receipts/or the Coupons may be instituted in any state or federal court in the State and County of New York, United States of America, (b) irrevocably waives, to the fullest extent permitted by law, any objection which it may have now or hereafter to the laying of the venue of any such suit, action or proceeding and any claim of inconvenient forum, and (c) irrevocably submits to the jurisdiction of any such court in any such suit, action or proceeding. To the extent that the Issuer or the Guarantor has or hereafter may acquire any immunity from any jurisdiction of any court or from any legal process with respect to itself or its property, each of the Issuer and the Guarantor hereby irrevocably waives such immunity in respect of its obligations under the Notes, the Guarantee, the Receipts and/or the Coupons and, without limiting the generality of the foregoing, agrees that such immunities are waived to the fullest extent permitted under the Foreign Sovereign Immunities Act of 1976 of the United States of America and that such waivers are intended to be irrevocable for purposes of such Act. Each of the Issuer and the Guarantor hereby designates Law Debenture Corporate Services Inc. as its authorized agent to accept and acknowledge on its behalf service of any and all process which may be served in any such suit, action or proceeding in any such court and agrees that service of process upon said agent at its office at 801 2nd Avenue, Suite 403, New York, NY 10017, United States of America (or at such other address in the Borough of Manhattan, New York City, as such agent may designate by written notice to the Issuer, the Guarantor and the Principal Paying Agent), and written notice of said service to the Issuer or the Guarantor, mailed or delivered to it, at the addresses provided above, shall be deemed in every respect effective service of process upon the Issuer or the Guarantor in any such suit, action or proceeding and shall be taken and held to be valid personal service upon the Issuer or the Guarantor, whether or not the Issuer or the Guarantor shall then be doing, or at any time shall have done, business within the State of New York, and that any such service of process shall be of the same force and validity as if service were made upon it according to the laws governing the validity and requirements of such service in such State, and waives all claim of error by reason of any such service. Neither such appointment nor acceptance of jurisdiction shall be interpreted to include actions brought under the United States federal securities laws.

18.3 ***Other documents***

In the Agency Agreement, the Issuer and the Guarantor submitted to the jurisdiction of the courts of the State of New York and appointed an agent for service of process in terms substantially similar to those set out above.

USE OF PROCEEDS

Unless otherwise stated in the applicable Pricing Supplement, MISC Capital Two (Labuan) Limited intends to provide substantially all of the net proceeds from its issue of Notes to MISC and/or its subsidiaries and/or associated companies. MISC and/or its subsidiaries and/or associated companies are expected to, in turn, use the proceeds for general corporate purposes, including but not limited to financing capital expenditures, working capital and refinancing of existing borrowings. Some of the Dealers and/or their affiliates act as coordinating lead arrangers, lenders and/or agents under certain MISC credit facilities and debt instruments. As a result, certain of the Dealers and/or their affiliates may receive proceeds from the issue of Notes under the Program.

GLOSSARY OF SHIPPING INDUSTRY TERMS

These definitions are provided for convenience only. For an understanding of each term as used in this Offering Circular, you should rely on the usage and explanation of that term in its context.

Aframax	A medium-size crude oil tanker of approximately 80,000 to 120,000 dwt. Because of their size, Aframaxes are able to operate on many different routes, including from Latin America and the North Sea to the United States. They are also used in lightering (transferring cargo from larger tankers, typically VLCCs, to mid-sized tankers, principally Aframaxes, for discharge in ports from which the larger tankers are restricted). Aframaxes typically transport from 500,000 to 800,000 barrels of crude oil.
Annual survey.	An annual inspection of a vessel by a classification society surveyor to ensure that the vessel meets the standards of that society.
Anti-fouling	Treatment of a vessel's hull with a paint or similar substance designed to prevent fouling, which is an accumulation of undesired material (either biotic or abiotic) on the vessel's surface.
Ballast water.	Fresh water or saltwater held in the ballast tanks to help keep the vessel more stable.
Bareboat charter	A charter under which a charterer pays a fixed daily or monthly rate for a fixed period of time for use of the vessel plus all voyage and vessel expenses. In this arrangement, the shipowner relinquishes the majority of rights and responsibilities in respect of the vessel and the charterer becomes the disponent owner (and provides both master and crew) for this period. The charterer is generally responsible for all operating expenses including crewing and insurance. Bareboat charters are usually long-term.
Berth	To moor a ship in its allotted place.
Bunkering.	The provision of marine fuel and diesel oil to operate a vessel.
Cbm.	Cubic meter.
CERCLA	The United States Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended.
Charter.	The hiring of a vessel either (i) by demise (see "bareboat charter"), (ii) for a period of time (see "time charter") or (iii) for a specific voyage or voyages (see "voyage charter"). A vessel is "chartered in" by a lessee or charterer and "chartered out" by a lessor.
Charterer	The entity hiring the vessel from the shipowner.

Charterhire	A sum of money paid to the shipowner by a charterer under a time or a bareboat charter for use of the vessel.
Charterparty	The contract between the shipowner and the charterer for the charter of a ship, stipulating in detail each party's responsibilities under the contract.
Classification societies	Organizations that establish and administer standards for the design, construction and operational maintenance of vessels, such as Lloyds Register, Det Norske Veritas, the American Bureau of Shipping and Nippon Kaiji Kyokai. As a practical matter, vessels cannot operate unless they meet these standards.
COA or Contract of affreightment	COA is the abbreviation for "contract of affreightment," which is an agreement providing for the transportation of a specific quantity of cargo over a specific time period but without designating specific vessels or voyage schedules, thereby allowing flexibility in scheduling. COAs can either have a fixed rate or a market-related rate.
Deadweight ton or dwt	A unit of a vessel's capacity for cargo, fuel oil, stores and crew, measured in metric tons of 1,000 kilograms. A vessel's dwt or total deadweight is the total weight the vessel can carry when loaded to a particular load line.
Demurrage	Additional revenue paid to a shipowner by the charterer on its voyage charters for delays experienced in loading and/or unloading cargo beyond that provided for in the charterparty, which are not deemed to be the responsibility of the shipowner, calculated in accordance with specific charter terms.
Double-hull	Hull construction design in which a vessel has an inner and outer side and bottom separated by void space, usually several feet in width, providing a separation between the cargo and the environment. This feature is designed to prevent the vessel's cargo from escaping, in the event of a grounding, collision or other failure of the cargo containment system.
DPST	Dynamic positioning shuttle tanker, a vessel that possesses dynamic positioning technology to carry crude oil from offshore production facilities to the shore for storage or distribution.
Dry dock	A dock which can be drained of water to allow the inspection and repair of a ship's hull.
Drydocking.	An out-of-service period during which planned repairs and maintenance are carried out, including all underwater maintenance such as external hull painting. During the drydocking, mandatory classification society inspections are carried out and relevant certifications issued. Normally, as the age of a vessel increases, the cost of drydocking increases.
Fixed platform	A shallow-water rig that can be physically attached to the sea floor.

FPS . . . . Semi-submersible floating production system, large pontoon-like structure submerged below the sea surface at a predetermined depth with an FPS that receives fluids such as crude oil, water and others from a subsea reservoir through risers. The topside production facilities separate the fluids into crude oil, natural gas, water and impurities.

FPSO . . . . Floating production, storage and offloading units, or floating platforms fabricated from oil tanker hulls for developing deep offshore oil resources that include production equipment.

FSO . . . . Floating storage and offloading units, or floating platforms fabricated from oil tanker hulls for developing deep offshore oil resources.

Freight . . . . A sum of money paid to the shipowner by a charterer under a voyage charter for use of the vessel, typically in the form of a lump sum amount or calculated on a per-metric-ton basis dependent on the quantity of cargo carried.

Hull . . . . Shell or body of a ship.

IGC Code . . . . The International Code of the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk. IGC Code is published by the IMO, which provides a standard for the safe carriage of LNG, liquid ethane and certain other liquid gases by prescribing the design and construction standards of vessels involved in such carriage.

IMO . . . . IMO is the abbreviation for International Maritime Organization, an agency of the United Nations that is the body responsible for the administration of internationally developed maritime safety and pollution treaties, including MARPOL 73/78.

ISM Code . . . . International Safety Management Code for the Safe Operation of Ships and Pollution Prevention. A safety management system that includes policy statements, manuals, standard procedure and lines of communication.

ISPS Code . . . . International Ship and Port Facility Security Code, which details security obligations on cargo vessels over 500 gross tons and port facility.

Jumboization. . . . . Extension of vessels, rigs and production platforms, usually by adding a segment or segments.

Laden . . . . A vessel is laden when it is carrying cargo.

LBV . . . . LNG bunkering vessel, a small scale LNG vessel used to supply LNG as marine fuel (bunker) to LNG-fueled vessels via ship-to-ship transfer operation.

Lightering. . . . . The process of discharging cargo from a large vessel into smaller vessels, typically to facilitate the transportation of the cargo to draft-constrained ports.

LNG carrier or LNGC	Liquefied natural gas carrier.
LPG carrier or LPGC	Liquefied petroleum gas carrier.
LR2 tanker	Long range 2 tanker. Product tanker, of approximately 80,000 dwt, too large to pass through the old Panama Canal.
LSV	Lightering support vessel, a vessel that transports mooring equipment and crew to conduct lightering operations.
MARPOL	International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, includes regulations aimed at preventing and minimizing pollution from ships by accident and by routine operations. It is administrated by the IMO.
Master	The captain of a vessel licensed by the country in which the vessel is registered.
MCV	Molecular capture vessel, a vessel that that combines FPSO and dynamic positioning technology. The MCV forms part of an innovative marine system solution designed to respond to a subsea well control incident.
Membrane-type LNG carrier	One of the two major types of LNG carrier. A membrane-type LNG carrier is more space-efficient and is able to have high capacity than a Moss-type vessel (the other major type of LNG carrier) of the same dimension.
MLC	Maritime Labor Convention as adopted by the International Labor Conference of the International Labor Organization, which sets out seafarers' rights to decent conditions of work.
MOPU	Mobile offshore production unit, a mobile structure for offshore well production, operating in shallow waters. It has production facilities to process oil and natural gas and export oil through subsea pipeline to an FSO.
Moss-type LNG carrier	One of the two major types of LNG carrier. A Moss-type vessel has self-supporting spherical tanks making it more robust and resistant to sloshing. It provides a higher degree of operational flexibility for worldwide trading capability including the ability to load cargoes at a floating liquefied natural gas (FLNG) unit.
Newbuilding	A new vessel under construction.
Off-hire	Period during which a vessel is temporarily incapable of trading due to drydocking, maintenance, repair or breakdown or otherwise. Under a time charter, hire fees are not normally payable when a vessel is off-hire.
OPA 90	The United States Oil Pollution Act of 1990 and the related extensive regulatory and liability regime for the protection of the environment from oil spills.

Panamax	A bulk carrier or tanker of between approximately 60,000 and 80,000 dwt, the maximum size capable of passing through the Panama Canal when fully laden.
Protection and indemnity insurance	Insurance against specific third-party liabilities obtained through a mutual assurance association formed by ship owners to provide protection from large financial loss to one member by contributing towards that loss by all members.
Scrap and scrapping	Scrapping is the process by which, at the end of its life, a vessel is sold to a shipbreaker who strips the ship and sells the steel as "scrap."
Shuttle tanker	A tanker, usually with special fittings for mooring, which lifts oil from offshore fields and transports it to a shore storage or refinery terminal on repeated trips.
SPAR	A SPAR is a marine structure, used for floating oil/gas platforms. Named after navigation channel Spar buoys, SPAR platforms were developed as an extreme deepwater alternative to conventional platforms.
Spot market	The market for chartering a vessel for single voyages.
STCW	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers as adopted by the IMO.
Suezmax	A large crude oil tanker of approximately 120,000 to 200,000 dwt. Modern Suezmaxes can generally transport about one million barrels of crude oil.
Tanker	A ship designed for the carriage of liquid cargoes in bulk with cargo space consisting of many tanks. Tankers carry a variety of products including crude oil, refined products, liquid chemicals and liquid gas. Tankers load their cargo by gravity from the shore or by shore pumps and discharge cargo using their own pumps.
Tension-leg platform	A vertically moored floating structure normally used for the offshore production of oil or gas, and is particularly suited for water depths greater than 300 meters and less than 1500 meters
Time charter	The contract for the hire of a ship for a specific period of time. Under a time charter the owner retains the management and control of the vessel, but the charterer designates the ports of call and the cargo carried. The shipowner provides the ship with crew, stores and provisions, ready in all aspects to load cargo and proceed on a voyage. While the shipowner furnishes the master and crew, the master is under the orders of the charterer. Besides the time charterhire paid to the shipowner, the charterer pays for bunkering and all voyage-related expenses, including canal tolls, port charges and fuel. The parties may agree that the length of the time charter will be measured by the duration of one or more voyages but ordinarily the duration will be a specific period of time.
Ton-miles	Tons carried by a vessel multiplied by the distance traveled.

Tonne	A metric tonne; equal to 1,000 kilograms.
Utilization rate	Calculated by dividing earning days by operating days, where earning days refer to the number of days the vessel is earning revenue, while operating days refer to the number of days that the vessel is operating.
VLCC	Very Large Crude Carrier, a large crude oil tanker exceeding 200,000 dwt. Modern VLCCs can generally transport two million barrels or more of crude oil. These vessels are mainly used on the longest (long-haul) routes from the Arabian Gulf to North America, Europe, and Asia, and from West Africa to the United States and East Asian destinations.
VLEC	Very Large Ethane Carrier, a specialized gas carrier which transports very large quantity liquified ethane trading over long distances, for example between North America and the Far East. The vessel transports ethane at -94° Celsius in membrane tanks and equipped with dual-fuel propulsion and reliquefaction systems.
Voyage charter	A contract for the use of a ship for a specific voyage or voyages. Under the voyage charter the shipowner provides a ship, master and crew, and places them at the disposal of the charterer for the carriage of cargo for one, or sometimes more than one, voyage to a designated port or ports. The voyage charterer may charter all of the vessel for the voyage or he may charter only a part of the vessel. Under this type of charter, the ship owner pays for all the operating costs of the ship including crew, maintenance of ships and insurance and voyage-specific expenses, including port costs, canal tolls, bunker expenses and brokerage commissions. Freight is generally paid per unit of cargo, such as per pallet or boxes, or ton or per cubic foot, based on an agreed quantity, or as a lump sum irrespective of the quantity loaded.

Investing in the Notes offered through this Offering Circular involves risk. You should carefully consider the risks set forth below as well as the other information contained in this Offering Circular before investing in the Notes.

I. Risks Relating to Our Business and Our Company

The global demand for oil and gas is cyclical and volatile and depends on global economic growth. Demand and supply of many of our shipping and other energy related services may be accordingly impacted.

Our business consists of four principal business segments, including the Gas Assets Solutions, Petroleum and Product Shipping, Offshore Business, and Marine and Heavy Engineering. Our business segments participate in various sectors of the global economy; they are driven by different macro-level factors, and each of them is exposed to cyclicality, which can affect them differently. We transport raw materials such as LNG, ethane, crude oil and intermediate products such as petrochemicals, oil products and vegetable oils. We offer offshore and marine and heavy engineering solutions to the upstream activities related to development and production of oil and gas. The highly cyclical nature of the energy markets can make it a challenge to generate predictable cash flows and earnings to sustain our borrowings and capital expenditures. For our energy shipping business, any decrease in demand or supply of LNG, crude oil and other related products, as well as tonnage oversupply in the petroleum and LNG shipping sectors, can drive down demand for our shipping services. For our offshore and marine and heavy engineering segments, continued low and volatile oil price environment may result in reduced business opportunities as oil and gas companies may step back from venturing into new upstream oil and gas projects.

Accordingly, if economic conditions deteriorate in the Americas, Europe or the Asia-Pacific basin, which are the main geographic areas that generate oil and gas demand, demand for our energy shipping and other services may decrease.

In 2019, 2020 and 2021, energy-related shipping services, which primarily consist of LNG shipping, petroleum shipping and product shipping, accounted for a majority of our revenues of the same year. Demand for these services, which in turn affects our profitability and ability to charter or re-charter our vessels or to sell them on the expiration or termination of their charters, depends on global factors that are beyond our control, including:

- changes in the global oil and gas production profile, in particular the relative contributions from OPEC and non-OPEC countries and the impact of such changes on the LNGC and petroleum tanker business;
- export and import levels in the world oil and gas trade that affect oil and gas transport distances and thus ton-mile demand;
- worldwide demand for energy products, particularly gas, petroleum and associated products, which in turn may depend on the world economy in general and the economies of countries including the U.S., China and India specifically;
- trends in the global efforts to reduce GHG emissions and competition from, and supply and demand for, alternative sources of energy;
- oil and gas inventory levels, particularly in importing countries;
- seasonal changes in the demand for oil and gas;

- governmental policies, particularly with regards to shipping;
- environmental regulation and requirements, including port controls;
- national policies regarding strategic oil and gas inventories (including if strategic reserves are set at a lower level in the future);
- increases in refining facilities and capacities in countries and regions that produce crude oil;
- changes in seaborne trading and distribution patterns of oil and gas, which are primarily influenced by the relative advantage of the various sources of production, locations of consumption, pricing differentials and seasonality;
- social and political instability in producing or importing countries, which may include labor strikes, port and canal closures, and wars;
- acts of terrorism and sanctions or embargoes on products and countries;
- the availability and reliability of shipping routes, which may be affected by factors including piracy, labor strikes, wars and acts of terrorism, countries' policies or self-regulatory organizations' rules and regulations affecting the shipping and freedom of navigation, weather and natural disasters, and congestion in, or closures of, ports and/or canals;
- change in energy transportation and delivery patterns, including availability of alternative transportation and delivery paths such as pipelines and railroads; and
- shipping policies and requirements, including those related to environmental, social and governance ("**ESG**") policies, imposed by energy companies or other significant customers.

The factors that influence the supply of energy-related shipping services include:

- shipyard capacity affecting the supply of new ships;
- the number of newbuilding orders and deliveries;
- the availability of financing for shipping activity;
- and decisions to scrap old ships and the degree of recycling of older vessels, which in turn depends on recycling rates and international recycling regulations;
- the number of tankers converted to other uses;
- the number of vessels that are out of service, laid up, dry-docked or used as storage units; and
- environmental concerns and regulations.

Any material decline in the demand, increase in supply or in the market prices for energy-related shipping services may materially adversely affect our business and results of operations.

Our exposure to the spot voyage market may result in fluctuations in revenue.

In 2019, 2020 and 2021, 15.3%, 10.9% and 5.8%, respectively, of our revenue was derived from time charters and COAs at spot market rates. Spot time charters and COAs in the various shipping markets in which we operate vary significantly depending upon factors such as the number of vessels in the world fleet, their deployment, the delivery of new ships and scrapping of old ships, regulatory changes and the demand for the products carried. Although revenues from our Gas Assets and Solutions segment and Offshore Business segment are primarily derived from long-term charters, in 2019, 2020 and 2021, 31.7%, 26.5% and 19.3%, of our revenue derived from petroleum and product shipping was based on spot market rates. In contrast to the revenue derived from time charters or COAs that provide for carriage at fixed rates, revenue derived from spot rates is generally more volatile and there have been periods when spot charter rates have declined below the level of operating costs. Spot rates are based upon time charter and COA rates prevailing in the market from time to time, which in turn depend upon the supply and demand dynamics of both the vessels and cargo. The successful operation of our vessels in the competitive spot charter market, depends on, among other things, obtaining profitable spot charters and minimizing, to the extent possible, time spent waiting for charters, time spent traveling unladen to pick up cargos and time spent waiting in the ports to unload cargo. If spot charter rates decline, we may be unable to operate our vessels trading in the spot market profitably, meet our obligations, including payments on indebtedness, or pay dividends. Furthermore, as charter rates for spot charters are fixed for a single voyage which may last up to several weeks, during periods in which spot charter rates are rising, we will generally experience delays in realizing the benefits from such increases.

While the LNG market is traditionally dominated by long-term contracts, it has been evolving in recent years, it is now characterized by shorter duration LNG contracts, with an increasing participation of commodity traders and a growing spot and short-term market. As a result, the LNG shipping market is also changing, with shorter charter periods, new counterparties, and a more liquid spot market. The competition level in the LNG shipping market is also expected to rise with the participation of new entrants. If the LNG shipping market develops a sizable proportion of spot market and if we derive a significant portion of revenue from LNG shipping spot market business, our LNG shipping business may be increasingly subject to risks similar to that of our petroleum shipping business.

To the extent that a portion of our business is exposed to spot rates, any decline in prevailing rates in a given period generally will result in a decline in our operating results for that period.

PETRONAS is our single largest customer, and we are therefore exposed to any adverse changes in PETRONAS' business or in our relationship with PETRONAS. In addition, the Government of Malaysia, principally through PETRONAS, owns an indirect controlling interest in our Company.

PETRONAS is our largest customer and over time we have benefited significantly from the business that we have secured from PETRONAS. In 2019, 2020 and 2021, 34.9%, 40.4% and 35.1%, respectively, of our revenue was derived from PETRONAS and its other subsidiaries and associated companies. This included RM2,354.8 million (US$565.3 million) relating to our Gas Assets and Solutions segment (or 81.7% of our Gas Assets & Solutions segment's revenue), RM68.7 million (US$16.5 million) relating to our Petroleum and Product Shipping segment (or 2.1% of our the Petroleum and Product Shipping segment's revenue), RM141.1 million (US$33.9 million) relating to our Offshore Business segment (or 4.6% of our Offshore Business segment's revenue) and RM1,134.7 million (US$272.4 million) relating to our Marine and Heavy Engineering segment (or 77.3% of our the Marine and Heavy Engineering segment's revenue) for 2021. We expect that PETRONAS, its other subsidiaries and associated companies will continue to be major customers for the Gas Assets and Solutions and the Marine and Heavy Engineering segments for the foreseeable future, and, as a result, any detrimental changes in PETRONAS' business or our relationship with PETRONAS could have an adverse effect on us. However, there can be no assurance that we will remain a subsidiary of PETRONAS or that PETRONAS and its subsidiaries and associated companies will remain as our major customers. If PETRONAS and its subsidiaries and associated companies were to decrease the amount of business they do with us, we may have difficulty finding alternative business of similar scale, which could have a material adverse impact on our operating results, financial position and business prospects.

The Government of Malaysia is the sole shareholder of PETRONAS, and PETRONAS is our controlling shareholder. As our controlling shareholder, PETRONAS controls the approval of all corporate matters requiring a simple majority for shareholder resolutions under the Malaysian Companies Act 2016. As the sole shareholder of PETRONAS, the Government of Malaysia exercises similar control over

PETRONAS and, thus, indirectly, over us. The interests of our controlling shareholder may differ from or conflict with your interest as a holder of the Notes.

Volatility in global economic conditions, including that caused by the recent COVID-19 outbreak, could have an adverse impact on our results of operations and financial condition.

Our business and profitability are affected by the overall level of demand for our vessels and other services, which in turn is affected by trends in global economic conditions. There has historically been a strong link between the development of the world economy and demand for energy, including oil and gas and related services. In the past, declines in global economic activity significantly reduced the level of demand for our vessels. The world economy continues to face a number of challenges, and an extended period of deterioration in the outlook for the world economy could reduce the overall demand for oil and gas and for our services. Global public health threats, such as COVID-19, influenza and other highly communicable diseases or viruses, outbreaks of which have from time to time occurred in various parts of the world in which we operate could adversely impact our operations, as well as the operations of our customers. Since the outbreak of COVID-19, governments around the world have implemented numerous policies and measures to mitigate the spread of the virus, including its variants. These measures have resulted in a significant reduction in global economic activity and substantial volatility in the global financial markets. The ongoing COVID-19 pandemic has caused delays and uncertainties relating to energy transportation, newbuildings, drydockings and asset construction schedules. The ongoing COVID-19 pandemic and the governments' implementation of lockdown and other restrictive measures in response to it, have severely disrupted the global supply chain network, in areas including the entry to ports and the loading/offloading procedure and efficiency. These measures, and future prevention and mitigation measures, are likely to have an adverse impact on global economic conditions, which could materially and adversely affect our future operations. Uncertainties regarding the economic impact of COVID-19 are likely to result in sustained market turmoil, which could also negatively affect our business, financial condition and cash flows. As a result of these measures, our vessels may not be able to call on ports, or may be restricted from disembarking from ports, that are located in regions affected by the outbreak. The constructing, conversion and refurbishing of onshore and offshore assets may also be delayed or disrupted. In addition, we may experience severe operational disruptions and delays in general, including limited access to equipment, supplies and personnel, disruptions to crew change, quarantine of ships and/or crew, and disruption in the business operations of our suppliers, customers and business partners.

The COVID-19 pandemic and measures to contain its spread have negatively impacted regional and global economies and trade patterns in markets in which we operate, the way we operate our business, and the businesses of our charterers and suppliers. These negative impacts could continue or worsen, even after the pandemic itself diminishes or ends. Companies and governments have also taken precautions, such as requiring employees to work remotely and imposing travel restrictions. Moreover, we face significant risks to our personnel and operations due to the COVID-19 pandemic. Our crews face risk of exposure to COVID-19 as a result of travel to ports in which cases of COVID-19 have been reported. They may further suffer from COVID-19-induced psychological pressure and mental health problems. Our shore-based personnel likewise face risk of such exposure, as we maintain offices in areas that have been impacted by the spread of COVID-19. Measures against COVID-19 in a number of countries have restricted crew rotations on our vessels, which may continue or become more severe. As a result, we experienced and may continue to experience disruptions to our normal vessel operations caused by increased deviation time associated with positioning our vessels to countries in which we can undertake crew rotations in compliance with such measures. Delays in crew rotations have led to issues with crew fatigue and may continue to do so, which may result in delays or other operational issues. We have had and expect to continue to have increased expenses due to incremental fuel consumption and days in which our vessels are unable to earn revenue in order to deviate to certain ports on which we would ordinarily not call during a typical voyage. We may also incur additional expenses associated with testing, personal protective equipment, quarantines, and travel expenses such as airfare costs in order to perform crew rotations in the current environment.

At present, it is not possible to ascertain the overall impact of COVID-19 on our business and our industry in general. The extent of the COVID-19 outbreak's effect on our operational and financial performance will depend on future developments, including the duration, spread and intensity of the outbreak, any resurgence or mutation of the virus, the availability of vaccines and their global deployment, the development of effective treatments, the imposition of effective public safety and other protective measures and the public's response to such measures. There continues to be a high level of uncertainty relating to how the pandemic will evolve, how governments and consumers will react and progress on the approval and distribution of vaccines, all of which are uncertain and difficult to predict considering the rapidly evolving landscape. As a result, the ultimate severity of the COVID-19 outbreak is uncertain at this time and therefore we cannot predict the impact it may have on our future operations, which impact could be material and adverse, particularly if the pandemic continues to evolve into a severe worldwide health crisis.

The global demand and supply for oil and gas and other petrochemical products have also been significantly affected by a number of environmental, economic and geopolitical factors, including the actions of OPEC members and other major oil and gas producers. We expect that uncertainty in the demand and supply of oil and other factors will continue to cause volatility in the commodity markets. In addition, macroeconomic factors including unfavorable interest rates or low oil price environment could result in the value of our vessels and other assets being impaired and impair our ability to borrow amounts under our revolving credit facilities or to access to credit and capital markets in the future on favorable terms or at all. The scale and duration of the impact of these factors remains unknown but could have a material impact on our earnings, cash flow and financial condition.

In particular, continued economic slowdown in the Asia Pacific region may exacerbate the effect on us. For example, following the emergence of the COVID-19 virus, countries around the Asia Pacific region experienced reduced industrial activity with temporary closures of factories and other facilities, labor shortages and restrictions on travel. The continuing and escalating geopolitical tensions among major economies around the world, including those between the United States and China, the United States and Russia, and the European Union and China, could exert additional pressure on the world economy and slow down its recovery from the impacts of COVID-19. Prolonged volatility in global economic conditions resulting from any of the foregoing reasons could have a material adverse effect on our business, cash flows and results of operations.

A shift in consumer demand from oil and gas towards other energy sources or changes to trade patterns for oil, gas and related products may have a material adverse effect on our business.

Our earnings are primarily related to the oil and gas industry, including energy shipping and other related services, and our focus could affect the demand for our services. As we currently rely principally on oil and gas shipping and other related services for the generation of revenue and cash flow, adverse developments in the oil and gas industry that may decrease the demand for our service offering may have a significantly greater impact on our financial condition and results of operations than if we maintained more diverse assets or lines of business. Adverse developments in the oil and gas industry could therefore reduce our ability to meet our payment obligations and our profitability.

The continuing shift in consumer demand from oil towards other energy resources such as wind, solar, hydrogen energy or nuclear energy, may be accelerating as a result of changing domestic and international political considerations, changes in laws, rules, regulations or policies, and shifts in government commitments and support for energy transition programs. Political leaders and governments around the world, including those of the United States, the European Union, China and India, are making commitments and pledges in achieving carbon peaking and carbon neutrality for their countries, despite oil and gas being a prominent part of their economic and industrial structure. Achieving these goals will likely result in significant reductions in the use of oil, gas and petrochemicals. These types of developments may materially and adversely affect the level of activities in the development and production of oil and gas, as well as the demand for oil and gas and related services. Any material decline in the demand for oil and gas, as well as in the production activities, may have a material adverse effect on our future performance, results of operations, cash flows and financial position.

We operate vessels, assets and facilities worldwide, and as a result, we are exposed to inherent operational and other risks that may adversely affect our business and financial condition.

We face risks inherent in operating vessels and other assets and facilities, such as offshore floating assets. Our assets are at risk of being damaged or lost because of events such as marine disasters, severe weather conditions and other acts of God, business interruptions caused by mechanical failures, grounding, fire, explosions and collisions, human error, war, terrorism, piracy and other circumstances or events. From time to time, changing economic, regulatory and political conditions in some countries, including political and military conflicts, have also resulted in attacks on vessels, mining of waterways, seizure and expropriation of assets, piracy, terrorism, labor strikes and boycotts. In extreme cases, these types of occurrences result in loss of human life or serious injury, environmental pollution, and significant damage to equipment and machinery, and if these events affect us, we may be subject to subsequent government investigation and litigation risks. In addition, the operation of vessels and other assets has unique operational risks associated with the production and transportation of oil and gas. An oil spill may cause severe environmental pollution, and the associated costs could exceed the insurance coverage available to us. Compared to other types of vessels, the vessels we operate are also exposed to a higher risk of damage and loss by fire—whether ignited by a terrorist attack, collision, or other cause—due to the high flammability and high volume of the cargo transported in these vessels. Any of these events may result in loss of revenues, increased costs and other adverse consequences to our business.

Our FPSO and FSO activities are subject to various risks specific to their operations, including delays, cost overruns, unavailability of supplies, employee negligence, defects in machinery, collisions, service damage to vessels, damage or loss to freight, piracy, war, political tensions or strikes. In case of delays in delivering an FPSO or FSO asset under service contract to the end-user, we may be required to pay liquidated damages or penalties and the relevant contracts can be amended or terminated. Moreover, the operation of FPSO or FSO asset is subject to the inherent possibility of maritime disasters, such as oil spills and other environmental accidents, and to the obligations arising from the ownership and management of vessels in international trade. We have established current insurance against possible accidents and environmental damage and pollution that complies with applicable law and standard practices in the sector. However, we cannot assure you that, in the future, this insurance will remain available at rates that are regarded as reasonable by us or that this insurance will remain sufficient to cover all losses incurred or the cost of each compensation claim made against us. Should compensation claims be made against us, our vessels may be impounded or subject to other judicial procedures, which would adversely affect our results of operations and financial condition.

We consider our safety and performance record to be critical to our business reputation. For example, our lightering operations are subject to special risks arising from the difficulty of bringing two large, moving tankers next to each other on the open sea and mooring them together so that oil can be transferred. Lightering involves not only the technical expertise of the operators of the lightering vessels but also factors outside the control of the operators such as mechanical failure, operator error on the part of the discharging tanker and bad weather. Major oil companies that are our principal customers increasingly prefer modern vessels operated by ship management companies with reputations for safety and environmental compliance. Any incident involving our vessels that results in environmental damage or pollution could harm our reputation for safety and environmental compliance, damage customer relationships, decrease demand for our services, and subject us to litigation or regulatory action, which could harm our business.

If our assets are damaged, they may need to be repaired, the process of which involve further risks and uncertainties. Damaged vessels may need to be repaired at a drydocking facility. The costs of drydock repairs are unpredictable and may be substantial. We may have to pay drydocking costs that our insurance does not fully cover. The loss of revenues while these vessels are being repaired and repositioned, as well as the actual cost of the repairs, may adversely affect our business and financial condition. In addition, space at drydocking facilities is sometimes limited and not all drydocking facilities are conveniently located. We may be unable to find space at a suitable drydocking facility or our vessels may be forced to travel to a drydocking facility that is not conveniently located to our vessels' positions. The loss of earnings while these vessels are forced to wait for space or to travel to more distant drydocking facilities may adversely affect our business and financial condition.

Our other business segments, including offshore business and marine and heavy engineering services, also own or operate assets and facilities. If these assets are damaged, we may need to send our own technicians or engineers or contract external parties for repair. However, we cannot assure you that such qualified parties will be available or that we can send the needed qualified personnel in a timely manner, if at all. We also cannot assure you that any such damaged assets will be able to be repaired in a timely or cost-effective manner. These types of issues may result in prolonged off-hire periods, asset breakdowns or even total destruction for our assets, which may adversely affect our business and financial condition.

If we are unable to adequately maintain, safeguard or repair our assets, we may be subject to damage, costs, or loss which could harm our reputation as a safe, reliable and high-quality service provider in the oil and gas industry, and materially and adversely impact our business, financial condition and results of operations.

We may not be able to compete effectively.

We face keen competition in each of our business segments. For our energy shipping businesses, competition for charters and cargoes is based on such factors as charterhire or contract rates, vessel availability, size, age and condition of the vessel, relationships with charterers and others and the quality, experience and reputation of the ship operator. The charterhire rates and the conditions and operational life of a vessel are determined by a number of factors including the vessel's efficiency, operational flexibility and physical life. Efficiency includes speed, fuel economy and the ability to load and discharge cargo quickly. Flexibility includes the ability to enter harbors, utilize related docking facilities and pass through canals and straits. The length of a vessel's physical life is related to its original design and construction, its maintenance and the impact of the stress of operations. We also expect customers will place increasing emphasis on ESG practices of their shippers, including their ability to offer low-carbon or potentially carbon-neutral operations. If new vessels available in the market are more efficient or more flexible or have longer physical lives than our vessels or offer better ESG profiles, competition from these vessels could adversely affect the amount of charterhire payments we receive for our vessels and the resale value of our vessels could significantly decrease. If we are unable to compete effectively in any of these respects, particularly in our principal energy-related shipping businesses, our financial condition and results of operations may be materially adversely affected.

In addition, the oil and energy industry, especially the offshore business sector, is an increasingly technology-based industry. For example, as offshore operations are moving into deeper waters, our customers may demand vessels with higher specifications and equipment with greater technological capabilities and larger capacities to support their operations. The introduction of fast-moving technology in the maritime industry may lead to accelerated asset obsolescence and require us to retool and reskill our workforce. If we fail to efficiently and cost-effectively invest adequate capital and resources to upgrade our technology and transform internal processes and systems to accommodate the increasing use and demand of new technologies, we may become unable to meet the requirements of our customers and our competitors may be able to provide similar services with greater efficiency and in a more cost-effective manner. This may affect our customers' confidence in our ability to provide safe and high-quality service and our revenue and profitability could be materially and adversely affected.

We depend on developing and retaining skilled employees.

Our business depends on skilled employees to maintain and improve our reputation as a high-quality, reliable operator of vessels and energy related service provider and to develop and expand our business. In addition, in the fast and evolving environment, we and our joint venture partners are further required to equip our employees with up-to-date knowledge and skills to support our effective implementation of strategic objectives. If we or our joint venture partners are unable to attract, train or retain a sufficient quantity of qualified employees, including ships' officers, technicians and engineers, it could have a material adverse effect on our business.

We may make substantial capital expenditures to expand and maintain our fleet and construct or acquire other new assets. Depending on whether we finance our expenditures through cash from operations or by incurring debt, our financial leverage could increase.

Our business is capital intensive. We regularly incur significant capital expenditures to expand our business and implement our strategic initiatives, including purchasing newbuild or existing LNGCs and tankers, constructing, converting or refurbishing offshore floating assets, and acquiring or leasing various onshore and offshore assets and facilities; we are also required to incur capital expenditures to maintain our assets. To fund our capital expenditures, we will be required to use cash from operations or incur borrowings. Our ability to obtain bank or capital markets financing or access to project financing may be limited by our financial condition at the time of any such financing as well as by market conditions that are beyond our control. Our failure to obtain funds for necessary future capital expenditures could have a material adverse effect on our business, results of operations and financial condition. Even if we are successful in obtaining necessary funds, incurring additional debt may significantly increase our interest expense and financial leverage, which could limit our financial flexibility, make us more vulnerable to adverse developments and limit our ability to pursue other business opportunities.

In particular, in respect of our capital expenditures for newbuilds, although delivery of a completed vessel for our Gas Assets and Solutions and Petroleum and Product Shipping segments will not occur until approximately 24 to 30 months from the time the order is placed, we typically must pay an initial installment when signing the purchase contract. Furthermore, during the construction period, we generally are required to make milestone payments on newbuilds prior to their delivery, in addition to incurring financing, miscellaneous construction and project management costs, but we do not derive any income from the vessel until after its delivery. If we finance these payments by issuing debt, we will incur additional interest payment prior to generating cash from the operation of the newbuilding.

We face risks in relation to our project management, including delayed or prolonged construction progress and project overspending.

We offer a wide range of services in the oil and gas industry and are continuously managing projects that involve construction and heavy engineering, including construction of or upgrading our own assets, conversion of vessels and floaters, construction of offshore structures, and ship repair and maintenance. These are time-consuming and technically complex projects that may take longer than scheduled or incur more costs than budgeted as a result of various reasons that may be beyond our control, including:

- changes in laws, regulations, rules, professional and technical standards, and policies by the relevant governmental authorities and/or international organizations;
- shortages of equipment, materials or skilled labor;
- unscheduled delays in the delivery of ordered materials and equipment;
- construction, design or engineering changes; and
- natural or man-made disasters.

For example, the occurrence and resurgence of the COVID-19 outbreaks and governments' responses in controlling the outbreaks led to the temporary closure of our facilities and construction sites and triggered restrictions on movement of people and goods, causing delays in certain of our projects. From time to time, we may also experience unexpected severe weather conditions that may result in delays in our operations; evacuation of personnel and curtailment of services; increased labor and material costs or shortages; inability to deliver materials, equipment and personnel to job sites in accordance with contract schedules; and loss of productivity. To the extent we are conducting these projects for our customers, we may remain obligated to perform our services despite the unexpected delays, unless a force majeure or other contractual provision provides us with relief from our obligations. The extra costs incurred as a result of these events may not be reimbursed by our customers, while the potential delay in project completion, cost overruns and quality shortcomings may result in our delayed earnings, missed business opportunities, liquidated damages and penalties, reputation loss and future litigation, which may materially and adversely affect our business and results of operations.

Increases in marine fuel prices may adversely affect our results.

In 2019, 2020 and 2021, marine fuel accounted for 12.5%, 8.0% and 6.3%, respectively, of our total cost of sales. The cost of marine fuel is subject to many economic and political factors that are beyond our control, including geopolitical developments, supply and demand for oil and gas, regulatory and other efforts to restrict GHG emissions and other environmental concerns, actions by OPEC and other oil and gas producers, war and unrest in oil producing countries and regions, and regional production patterns. A significant increase in the cost of marine fuel may adversely affect our business, results of operations and financial condition.

Changes in regulations affecting the industries in which we operate may adversely affect our business and increase costs.

Our operations are affected by a variety of international conventions, national, federal and state laws, and national and international regulations, in force in the jurisdictions in which we operate and in the countries in which our vessels are registered. These laws and regulations are subjected to continuous changes in response to the evolving environmental, economic and political concerns. In addition, compliance with recommendations and guidelines issued by industry and international organizations may also have financial implications. Furthermore, our customers may have their own requirements that exceed the relevant legal and regulatory requirements and industry guidelines. These are complex requirements that have caused us to incur, and may cause us to continue to incur, additional costs in our business operations.

In addition, the relevant policies, laws, regulations, industry standards and guidelines, and our customers' own requirement that may implicate our business operations may be made more stringent, particularly in areas of health, safety, security and the environment as well as antitrust regulation. As a result, we may incur additional costs in order to comply with these evolving requirements and obligations. For example, the International Maritime Organization ("**IMO**") holds regular discussion and meetings in which various new regulations are introduced and adopted, and enforced by various national and maritime authorities across the industry. The IMO's new sulfur emission requirements under Annex VI of the International Convention for the Prevention of Marine Pollution from Ships ("**MARPOL**") became effective January 1, 2020 and instituted a global cap on sulfur in marine fuel of 0.5% (lowered from 3.5%). Similarly, two additional amendments to MARPOL Annex VI were adopted in June 2021, and are expected to enter into force on January 1, 2023. These amendments impose certain requirements including adopting an Energy Efficiency Existing Ships Index ("**EEXI**"), which is a technical design parameter for in-service vessels that measures CO_2 emission per transport work, and a Carbon Intensity Index ("**CII**"), which is a measure of how efficiently a ship transports goods against CO_2 emitted per deadweight capacity per distance travelled. Governments have introduced, and may continue to revise, measures to incentivize the shift in the energy mix away from fossil fuels, including carbon pricing schemes such as carbon tax and carbon emission trading. These requirements and initiatives are designed to improve maritime safety and security, address environmental concerns and reduce pollution risk. See "*Business—Regulation*" for more information on recent examples on these requirements. However, our compliance with new requirements may require additional investments and incur additional costs to retrofit new equipment onboard and recycle our vessels, meet new maintenance and inspection regime, and obtain additional insurance coverage where applicable. These additional regulations and other restriction could increase the cost of maintenance and operations, which may materially and adversely affect our operations and the financial performance of the business.

We also face the risk of unilateral governmental action and regulation in the territories where we operate, including sanctions that prohibit trade in particular areas, restrictive actions such as vessel arrest, local cabotage or local ownership requirements, loss of contractual rights and restrictions of our foreign subsidiaries to transfer funds. The impact of these regulations and/or sanctions can increase the cost of operating vessels or even preclude the operation of vessels in certain trades, both of which could have a material adverse impact on our profitability.

Existing regulations and other requirements that have not entered into force may also lead to additional cost once they are ratified. For example, the 2009 Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships (the "**Hong Kong Convention**") aims to ensure ships being recycled once they reach the end of their operational lives, do not pose any unnecessary risks to the environment, human health and safety. The Hong Kong Convention has yet to be ratified by the required number of countries to enter into force. We are committed to strictly abiding by the Hong Kong Convention, including maintaining an Inventory of Hazardous Materials on each of our vessels as required by the convention. However, once these regulatory requirements become officially adopted, they may lead to cost escalation by shipyards, repair yards and recycling yards. This may then result in a decrease in the residual recycling value of a vessel, which could potentially not cover the cost to comply with the latest requirements, which may have an adverse effect on our future performance, results of operations, cash flows and financial position.

Furthermore, we are required to satisfy insurance and financial responsibility requirements for potential oil (including marine fuel) spills and other pollution incidents. Although we have arranged insurance to cover certain environmental risks, there can be no assurance that this insurance will be sufficient to cover all such risks. Environmental requirements can also affect the resale value or useful lives of our vessels, could require a reduction in cargo capacity, ship modifications or operational changes or restrictions, could lead to decreased availability of insurance coverage for environmental matters or could result in the denial of access to certain jurisdictional waters or ports or detention in certain ports. Under local, national and foreign laws, as well as international treaties and conventions, we could incur material liabilities, including clean-up obligations and natural resource damages liability, if there is a release of hazardous materials from our vessels or otherwise in connection with our operations. Environmental laws often impose strict liability for remediation of spills and releases of oil and hazardous substances, which could subject us to liability without regard to whether we were negligent or at fault. We could also become subject to personal injury or property damage claims relating to the release of hazardous substances associated with our existing or historic operations. Violations of, or liabilities under, environmental requirements can result in substantial penalties, fines and other sanctions, including, in certain instances, seizure or detention of our vessels, and could harm our reputation with current or potential charterers of our tankers.

We are subject to critical laws and regulations such as international sanctions, antitrust, anti-bribery, anti-corruption, anti-money laundering and data protection laws that carry significant fines and expose us and/or our employees to criminal sanctions and civil suits.

Our investment in certain countries and our dealings with or involvement with certain countries, entities and individuals could result in adverse consequences under existing or future trade or investment sanctions. The effect of any such sanctions would depend on their nature, but if sanctions were imposed on us, or one of our subsidiaries or associated companies, it could affect the market for the Notes or the securities of that company or impair our ability to access the U.S. capital markets and other international financing. In addition, antitrust, anti-bribery, anti-corruption, anti-money laundering and data protection laws apply to us and our joint ventures and associates in the vast majority of countries in which they operate. Failure to comply with these laws could expose us to regulatory investigations which may result in fines and penalties. Violation of these laws is also a criminal offense in certain countries, and individuals may either be imprisoned or fined. Furthermore, our violation of any applicable and relevant international sanctions, anti-bribery, anti-corruption and anti-money laundering legislation could have a material adverse effect on our reputation, business, financing abilities, financial condition and results of operations.

Increasing scrutiny and changing expectations from investors, lenders and other market participants with respect to our Environmental, Social and Governance policies may impose additional costs on us or expose us to additional risks.

Companies across all industries are facing increasing scrutiny relating to their ESG policies. Investor advocacy groups, certain institutional investors, investment funds, lenders and other market participants are increasingly focused on ESG practices and in recent years have placed increasing importance on the implications and social cost of their investments. The increased focus and activism related to ESG and similar matters may hinder access to capital, as investors and lenders may decide to reallocate capital or to not commit capital as a result of their assessment of a company's ESG profile and practices. Companies that do not adapt to or comply with investor, lender or other industry shareholder expectations and standards, which are evolving, or that are perceived to have not responded appropriately to the growing concern for ESG issues, may suffer from reputational damage and the business and financial condition of such a company could be materially and adversely affected.

We may face more demanding requests and increasing pressures from customers, investors, lenders and other stakeholders, who are increasingly focused on climate change in particular and ESG matters in general, to prioritize climate change-related matters, promote sustainable energy practices, reduce our carbon footprint and other ESG measures, which may incur significant costs and not always being in the best interest of our business operations. If we do not meet these standards, our business and/or our ability to access capital could be adversely affected. Furthermore, it is likely that we will incur additional costs and require additional resources to monitor, report and comply with wide ranging and rapidly evolving ESG requirements.

Additionally, certain investors and lenders may broadly exclude companies engaged in energy-related businesses, such as us, from their investment portfolios altogether due to ESG factors. If those markets are unavailable, or if we are unable to access alternative means of financing on acceptable terms, or at all, our ability to implement our business strategy may be adversely affected, which could have a material adverse effect on our financial condition and results of operation.

We are exposed to risks associated with our overseas operations.

Our business operations are global in scope. In addition to our shipping businesses, which operate vessels across various countries, we, in our Offshore Business segment in particular, own and operate assets that are fixed in foreign jurisdictions, including Brazil. These countries have different legal frameworks and government policies. Our business, financial condition and results of operations are subject to risks and uncertainties relating to the relevant countries in which we operate or have investments, including but not limited to:

- exposure to international, regional and local economic and political conditions and regulatory policies;
- exposure to different legal standards and ability to enforce contracts in some jurisdictions;
- changes in legal developments and enforcement risks;
- control of foreign exchange and fluctuations in foreign exchange rates;
- developments in labor law and increases in staff cost;
- failure to negotiate collective labor agreements on satisfactory terms with trade unions;
- restrictions or requirements relating to foreign investments;
- asset expropriation by the local or national governments;

- limitations on repatriation of earnings, including withholding and other taxes on remittances and other payments by subsidiaries;

- compliance with the requirements of applicable sanctions, anti-bribery and related laws and regulations;

- failure to protect our reputation from negative publicity against us; and

- limitation on ability of non-nationals to reside and work in such countries.

There can be no assurance that economic, political or legal systems of those places will not develop in a way that is detrimental to our financial results and condition.

Changes to shipping tax exemption laws or increases tonnage fee or tax on our owned vessels would increase the costs of our operations.

As at December 31, 2021, approximately 41.7% of our owned vessels tonnage were registered in Malaysia. Our other vessels are currently registered in various maritime jurisdictions including Singapore, Bahamas, France, Isle of Man, Liberia, Malta, Marshall Islands, Panama, the United States, Norway and Uruguay.

Pursuant to Section 54A of the Malaysian Income Tax Act 1967, shipping statutory income derived from sea—going Malaysian registered ships shall be exempted from tax. Due to the change in tax law, the benefit of the tax exemption has been reduced from 100% to 70% of the statutory income effective from Year of Assessment ("**YA**") 2012. However, the Malaysian Government has granted a deferment on the reduction in the tax exemption up to YA 2023, subject to certain conditions.

One of the abovementioned conditions for the reinstatement of the 100% shipping tax exemption is the introduction of annual tonnage fees for Malaysian flagged vessels. As of the date of this offering circular, the Malaysian government has not provided further details on the implementation of tonnage fee in Malaysia.

The other maritime jurisdictions mentioned above provide for tax exemptions on international shipping operations and impose annual fee and/or tax based on the tonnage of each of the vessels. There can be no assurance that such tax exemptions will not be reduced or withdrawn or such tonnage fees and/or taxes, will not increase in the future.

Any such change in tax exemption laws and imposition or increase in the tonnage fee and/or tonnage tax would likely increase the cost of our operations.

Our systems and management resources may not develop sufficiently to manage our growth.

Growth of our business has placed, and will continue to place, significant demands on management as well as on our operational and financial resources. As at December 31, 2021, we had contracts for delivery between 2021 and 2023 of five new VLCCs, six new DPSTs and two LNGCs. We may also acquire or construct additional vessels. In addition, we expect one FPSO to be installed in Brazil. While we expect to realize financial and operating benefits as a result of the expansion of our fleet and facilities, there can be no assurance that this will be the case. As we expand our operational scale and the size of our fleet, we must effectively manage and monitor operations, control costs and maintain effective quality control in geographically dispersed markets, which will increase our operating complexity. Our future growth and financial performance will also depend on our ability to:

- effectively service the needs of all of our major customers;

- identify new markets and achieve acceptance by new customers;

- effectively compete in new markets;
- identify, complete and engage in suitable strategic alliances, joint venture arrangements and acquisitions on acceptable terms;
- recruit, train, upskill, manage and motivate our employees to support our expanded operations;
- continue to improve our customer support, financial controls and information systems;
- successfully integrate and manage any future strategic acquisitions; and
- take advantage of economies of scale which may result from operation of a large global fleet of vessels.

Our efforts to achieve the steps outlined above may not be successful and may not occur in a timely or cost-effective manner. Failure to effectively manage our growth and the transitions required by expansion in a cost-effective manner may adversely impact our business.

Our insurance may not be sufficient to cover losses that may occur to our property or as a result of our operations.

While we maintain insurance coverage for various aspects of our business, as with other shipping companies, a catastrophic oil spill or other significant incident involving our vessels could exceed our insurance coverage and have a material adverse effect on our financial condition and results of operations. In addition, due to increased concern about possible terrorism, piracy, environmental or other risks, ship owners may not be able to procure adequate insurance coverage at commercially reasonable rates, and we cannot assure you that any particular claim we have will be paid. For example, more stringent environmental regulations have led in the past to increased costs for, and in the future may result in the lack of availability of, insurance against risks of environmental damage or pollution. In addition, our vessels may be deployed in regions that are characterized by insurers as "enhanced risk" zones or "war risk" zones or "war and strikes" listed areas by the Joint War Committee, and premiums payable for such coverage could increase significantly and such insurance coverage may be more difficult to obtain. Changes in the insurance markets attributable to structural changes in insurance markets, economic factors, the impact of the COVID-19 pandemic or other outbreaks of communicable diseases, terrorist attacks, environmental catastrophes or political changes may also make certain types of insurance more difficult for us to obtain, or may be available only at significantly higher price or with more restrictive terms than our existing coverage. In the event of a loss, even if there is insurance that covers our direct damages, we may sustain other damages, such as loss of business or injury to reputation, that are not covered. As a member of protection and indemnity clubs, we may be subject to calls, or premiums, in amounts based not only on our own claim records but also the claim records of all other members. In addition, our insurance may be voidable by the insurers as a result of certain of our actions, such as our ships failing to maintain certification with applicable maritime regulatory organizations.

Acts of piracy and maritime terrorism on ocean-going vessels could adversely affect our business.

Acts of piracy and maritime terrorism, including attacks on vessels and the mining of waterways, as well as territorial disputes and other efforts to disrupt international shipping, have historically affected ocean-going vessels trading in regions of the world such as the South China Sea, the Indian Ocean, the Gulf of Aden off the coast of Somalia and in particular the Gulf of Guinea region off Nigeria, where our ships are frequently present. Some of these regions continued to experience increased and more violent incidents of piracy in 2020 and 2021. These uncertainties could also adversely affect our ability to operate vessels and provide services in certain countries and region, and may further adversely affect our ability to obtain additional financing on terms acceptable to us or at all. If piracy attacks occur in regions in which our vessels are deployed that are characterized by insurers as "enhanced risk" zones or "war risk" zones or "war and strikes" listed areas by the Joint War Committee, the premiums we pay for insurance coverage could increase significantly and such insurance coverage may be more difficult to obtain. In addition, crew and security equipment costs, as well as costs that may be incurred to the extent we employ onboard security armed guards or to the extent we hire in military patrol boats to escort the vessels, could increase in such circumstances. We may not be adequately insured to cover losses from these incidents, which could have a material adverse effect on us. In addition, detention or hijacking as a result of an act of piracy, or increases in cost associated with seeking to avoid such events (including increased bunker costs resulting from vessels being rerouted or traveling at increased speeds as recommended by best management practices 5, or BMP5), or unavailability of insurance for our vessels, could have a material adverse impact on our business, results of operations, cash flows and financial condition and may result in loss of revenues, increased costs and decreased cash flows to our customers, which could impair their ability to make payments to us under our charters.

Our investment in joint ventures and associated companies may reduce our degree of influence as well as our ability to identify and manage risks.

Some of our major projects and operations are conducted through joint ventures or associated companies. In some of our joint ventures, we may have limited influence over and control of the behavior, performance and cost of operations in which we or any of our subsidiaries hold an equity interest. Additionally, our partners or members of a joint venture or associated company (particularly local partners in developing countries) may not be able to meet their financial or other obligations to the projects, potentially resulting in legal liability or significant delays in operations and ultimately threatening the viability of a given project. Some of our major projects are carried out over long periods of time, and the interests of joint venture partners may diverge as a result of changes in market conditions, strategy or due to operational issues, and any such developments could result in renegotiation of joint venture terms, changes in ownership interests or partners exiting from joint ventures. Any of these factors could cause our major projects to be less successful than originally anticipated, negatively affect our results of operations, cash flow, financial condition and business prospects and increase our capital expenditure requirements.

Unfavorable results of legal proceedings could harm our business and result in substantial costs.

We are subject to various claims, suits, and arbitration and legal proceedings that arise from time to time. Additional legal claims or regulatory matters may arise and could involve shareholder, labor, intellectual property, contracts, tax and other matters. Disputes and legal proceedings in which we may be involved are subject to many uncertainties, and their outcomes are often difficult to predict. The defense of any such claims and any associated settlement costs could be substantial, even with respect to claims that have no merit. In addition, adverse judgments arising from litigation could result in restrictions or limitations on our operations or result in a material adverse impact on our reputation or financial condition.

Due to the inherent uncertainty of the litigation and dispute resolution process, there is no assurance that the resolution of any particular legal proceeding or dispute will not have a material adverse effect on our business operations, future cash flow, results of operations or financial condition. See "*Business—Legal*" for more information on our material litigation and arbitration cases that are currently ongoing.

We have substantial debt levels and may incur additional debt.

As at December 31, 2021, our consolidated total interest-bearing loans and borrowings was RM17.0 billion (US$4.1 billion) and we have an additional RM4,230.1 million (US$1,015.6 million) available under our revolving credit facilities to meet any contingency funding requirement. We may use the revolving credit facilities for general corporate purposes, including to fund capital expenditure and working capital expenses. Our consolidated total interest-bearing loans and borrowings could also increase substantially to meet our business expansion or maintenance plans. We will continue to have the ability to incur additional debt, subject to limitations in our gearing ratio requirements and banks' credit risk appetite. We are also exposed to interest rate risk as a portion of our debt uses floating interest rate terms, and so higher market interest rates could increase our financing costs. Our level of debt could have important consequences to us, including:

- our ability to obtain additional financing, if necessary, for working capital, capital expenditures, acquisitions or other purposes, and our ability to refinance our credit facilities may be impaired or such financing may not be available on favorable terms, if at all;

- we will need to use a substantial portion of our cash flow to make principal and interest payments on our debt, reducing the funds that would otherwise be available for operations, future business opportunities, repurchases of equity securities and dividends to shareholders;

- our debt level may make us more vulnerable than our competitors with less debt to competitive pressures or a downturn in our industry or the economy generally; and

- our debt level may limit our flexibility in obtaining additional financing, pursuing other business opportunities and responding to changing business and economic conditions.

Developments in the economic environment and in the oil and gas industry and other factors, including force majeure events, have resulted, and may result, in us incurring substantial impairment losses that would negatively affect our earnings and financial position.

We operate our vessels around the world and provide services to customers in various countries and regions. Accordingly, our business, results of operations, cash flows and financial condition may be adversely affected by changing economic, political and government conditions in such countries and regions. We may be required to record non-cash impairment losses on our vessels and other assets, to the extent that the carrying value of any of these assets exceeds its recoverable amount. Events or changes in circumstances, including the realization of certain of the risks outlined in this Offering Circular and force majeure events, may require our management to assess or re-evaluate the recoverability of the carrying value of our assets. These types of events or changes may include substantial or extended declines in the prices of crude oil and related oil and gas products, a lower oil and natural gas demand outlook, the increasing concerns over carbon emissions and climate change, which could in turn lead to the increasing adoption of alternative sources of energy and evolving legal and regulatory requirements, technological breakthroughs that make our facilities and vessels less competitive or obsolete, a significant decrease in the market value of our assets, or significant changes in the economic conditions, business climate, political developments and other changes in applicable laws and regulations in the jurisdictions where we operate. In addition, we operate in a sector of the economy that is likely to be adversely impacted by the effects of political conflicts, including the current political instability in the Middle East and the South China Sea region and other countries and areas, geopolitical events such as terrorism, piracy or other attacks, war (or threatened war) or international hostilities, such as those between the United States and North Korea, and tensions over the Taiwan Straits. Terrorist attacks, piracy activities, and the response of nations to these attacks and activities, as well as the threat of future piracy and terrorist attacks around the world, continue to cause uncertainty in the world's business environment and financial markets. In arriving at these impairment loss amounts, we use a range of long-term assumptions including prices, volumes, costs, growth rates and discount rates. An impairment loss is reversed, which is recorded as an impairment writeback, only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized. In 2019, we recognized impairment losses of RM195.3 million, which was primarily related to our ships, offshore floating assets, other property, plant and equipment and right-of-use assets. In 2020, we recognized impairment losses of RM331.4 million, which was primarily related to other property, plant and equipment and right-of-use assets in the Marine and Heavy Engineering segment. In 2021, we recognized impairment losses of RM111.9 million (US$26.9 million), which was primarily due to expired charter contracts or contracts that are approaching the expiry date for certain vessels under our Gas Assets and Solutions segment. Substantial impairment losses would negatively affect our earnings and financial position.

Maritime claimants could arrest or attach our vessels, which would have a negative effect on our cash flows.

Crew members, suppliers of goods and services to a vessel, shippers of cargo, lenders, and other parties may be entitled to a maritime lien against a vessel for unsatisfied debts, claims or damages. In many jurisdictions, a maritime lien holder may enforce its lien by arresting or attaching a vessel through foreclosure proceedings. The arrest or attachment of one or more of our vessels could interrupt our business or require us to pay large sums of money to have the arrest lifted, which would have a negative effect on our cash flows.

In addition, in some jurisdictions, such as South Africa, under the "sister ship" theory of liability, a claimant may arrest both the vessel which is subject to the claimant's maritime lien and any "associated" vessel, which is any vessel owned or controlled by the same owner. Claimants could try to assert "sister ship" liability against one vessel in our fleet for claims relating to another of our ships.

Governments could requisition our vessels during a period of war or emergency, which may negatively impact our business, financial condition, results of operations and available cash.

A government could requisition one or more of our vessels for title or hire. Requisition for title occurs when a government takes control of a vessel and becomes its owner. Also, a government could requisition our vessels for hire. Requisition for hire occurs when a government takes control of a vessel and effectively becomes the charterer at dictated charter rates. Generally, requisitions occur during a period of war or emergency. Government requisition of one or more of our vessels may negatively impact our business, financial condition, results of operations and available cash.

Breakdowns in our information technology, including as a result of cyberattacks, may negatively impact our business, including our ability to service customers, and may have a material adverse effect on our future performance, results of operations, cash flows and financial position.

Our ability to operate our business and serve our customers is dependent on the continued operation of our information technology ("**IT**") systems, including those relate to the location, operation, maintenance and employment of our vessels. As we continue digitalizing and automating our business operations, of which has been further expedited with the implementation of alternative working arrangements such as work-from-home arrangement, has increased our exposure to cybersecurity risk and risks related to the breakdown of IT systems.

In recent years, there has been an increase in cyberattacks in the shipping and oil and gas industry. Cyberattacks could cause disclosure and destruction of sensitive business information. As cyberattacks become increasingly sophisticated, and as hacking tools and resources become more readily available to malicious third parties, there are no guarantee that our actions, and security controls designed to prevent, detect or respond to intrusion, data theft and data leakage can provide sufficient security against cyber threats. Protection against increasingly sophisticated and prevalent cyberattacks may result in significant management costs, or other costs, including the deployment of additional cybersecurity technologies, engaging third-party experts, deploying additional personnel and training of employees. In response to new regulations and intensified cyberattacks across the globe, we have introduced a company cybersecurity governance framework and control standards that define the required capabilities for effective detection and management of cybersecurity. However, as cyber threats continue to evolve, our controls and procedures may become inadequate, and we may be required to devote additional resources to enhance our cybersecurity controls and systems in the future. These cyberattacks, and the expenses incurred in response to such attacks, may have an adverse effect on our future performance, results of operations, cash flows and financial position.

In addition, any breakdown in our IT systems, including system failures or breaches or other compromises of information security, whether or not involving a cyberattack, may lead to lost revenues resulting from a loss in competitive advantage due to the unauthorized disclosure, alteration, destruction or use of proprietary information, the failure to retain or attract customers, the disruption of critical business processes, and the diversion of management's attention and resources. These types of breakdowns could also result in significant remediation costs, including repairing system damages, engaging third-party experts, deploying additional personnel, training employees and other compensation involving third parties affected by the system breakdowns. We may also be subject to legal claims or legal proceedings, including regulatory investigations and actions, and the attendant legal fees as well as potential settlements, judgments and fines. Any such occurrences could have a material adverse effect on our future performance, results of operations, cash flows and financial position.

Changes in the exchange rate between the U.S. dollar and the Malaysian ringgit may have a negative impact on our financial condition and results of operations.

Changes in the U.S. dollar to Malaysian ringgit exchange rate could have an adverse impact on our results of operations and financial condition, including as a result of translation adjustments in converting U.S. dollar amounts to Malaysian ringgit for financial statement reporting purposes. In addition, as a global company doing business in many countries, we are also exposed to changes in the value of other currencies.

The market values of our vessels and other assets may decrease, which could limit the amount of funds that we can borrow or trigger certain financial covenants under our current or future debt facilities, and we may incur a loss if we sell vessels or other assets following a decline in their market value.

The fair market values of our vessels have experienced high volatility. These value fluctuations depend on a number of factors, including the prevailing level of charter rates and day rates, general economic and market conditions affecting the international shipping industry, the types, sizes and ages of vessels, supply and demand for vessels, availability of or developments in other modes of transportation, competition from other energy shipping companies, cost of newbuilds, applicable governmental or other regulations and technological advances. The fair market value of our offshore floating assets and other assets may also be affected by a number of factors including the economic factors affecting the oil and gas industry, the price of oil and gas and the availability of and development in alternative facilities. In addition, as vessels and assets grow older, they generally decline in value. If the fair market values of these assets decline, some of which are pledged to the lenders, we may not be in compliance with certain covenants contained in our secured credit facilities, which may result in an event of default. In such circumstances, we may not be able to refinance our debt, obtain additional financing or make distributions to our shareholders and our subsidiaries may not be able to make distributions to us. In addition, our ability to extend existing credit facilities and/or obtain additional financing arrangement that can be secured with our current and future assets may be adversely affected; these financing arrangements may also not be available on favorable terms, or at all. The prepayment of certain debt facilities may be necessary to cause us to maintain compliance with certain covenants in the event that the value of the vessels falls below certain levels. If we are not able to comply with the covenants in our secured credit facilities, and are unable to remedy the relevant breach, our lenders could accelerate our debt and foreclose on our assets.

Additionally, if we sell one or more of our vessels at a time when vessel prices have fallen, the sale price may be less than the vessel's carrying value on our consolidated financial statements, resulting in a loss on sale or an impairment loss being recognized, ultimately leading to a reduction in earnings. Furthermore, if vessel values fall significantly, this could indicate a decrease in the recoverable amount for the vessel which may result in an impairment adjustment in our financial statements, which could adversely affect our financial results and condition.

II. Risk Related to the Structure of a Particular Issue of Notes

The Notes may be subject to optional redemption by the Issuer.

An optional redemption feature is likely to limit the market value of the Notes. During any period when the Issuer may elect to redeem Notes, the market value of those Notes generally will not rise substantially above the price at which they can be redeemed. This also may be true prior to any redemption period.

The Issuer may be expected to redeem Notes when its cost of borrowing is lower than the interest rate on the Notes. At those times, an investor generally would not be able to reinvest the redemption proceeds at an effective interest rate as high as the interest rate on the Notes being redeemed and may only be able to do so at a significantly lower rate. Potential investors should consider reinvestment risk in light of other investments available at that time.

The Issuer may issue Dual Currency Notes.

The Issuer may issue Notes with principal or interest payable in one or more currencies which may be different from the currency in which the Notes are denominated. Potential investors should be aware that:

- the market price of such Notes may be volatile;
- they may receive no interest;
- payment of principal or interest may occur at a different time or in a different currency that expected; and
- they may lose all or a substantial portion of their principal.

The Issuer may issue Partly Paid Notes.

The Issuer may issue Notes where the issue price is payable in more than one installment. Failure to pay any subsequent installment could result in an investor losing all of its investment.

The Issuer may issue variable rate Notes with a multiplier or other leverage factor.

Notes with variable interest rates can be volatile investments. If they are structured to include multipliers or other leverage factors, or caps or floors, or any combination of those features or other similar related features, their market values may be even more volatile than those for securities that do not include those features.

Inverse Floating Rate Notes.

Inverse Floating Rate Notes have an interest rate equal to a fixed rate minus a rate based upon a reference rate such as SOFR. The market values of these Notes are typically more volatile than market values of other conventional floating rate debt securities based on the same reference rate (and with otherwise comparable terms). Inverse Floating Rate Notes are more volatile because an increase in the reference rate not only decreases the interest rate of the Notes, but may also reflect an increase in prevailing interest rates, which further adversely affects the market value of these Notes.

Fixed/Floating Rate Notes.

Fixed/Floating Rate Notes may bear interest at a rate that converts from a fixed rate to a floating rate, or from a floating rate to a fixed rate. Where the Issuer has the right to effect such a conversion, this will affect the secondary market and the market value of the Notes since the Issuer may be expected to convert the rate when it is likely to produce a lower overall cost of borrowing. If the Issuer converts from a fixed rate to a floating rate in such circumstances, the spread on the Fixed/Floating Rate Notes may be less favorable than prevailing spreads on comparable floating rate notes tied to the same reference rate. In addition, the new floating rate at any time may be lower than the rates on other notes. If the Issuer converts from a floating rate to a fixed rate in such circumstances, the fixed rate may be lower than then prevailing rates on its Notes.

The investment in the Notes is subject to interest rate risks.

The Notes may carry a fixed or variable interest rate, or a combination of fixed and variable interest rates. Where the issuance carries a variable interest rate, the investor of the Notes should be aware of the variability in the coupon payments at each interval period due to the interest rate volatility of short term interest rates.

Notes may be issued at a substantial discount or premium.

The market values of securities issued at a substantial discount or premium from their principal amount tend to fluctuate more in relation to general changes in interest rates than do prices for conventional interest-bearing securities. Generally, the longer the remaining term of the securities, the greater the price volatility as compared to conventional interest-bearing securities with comparable maturities.

The regulation and reform of "benchmark" rates of interest and indices may adversely affect the value of Notes linked to or referencing such "benchmarks".

Interest rates and indices which are deemed to be or used as "benchmarks", are the subject of recent national, international regulatory and other regulatory guidance and proposals for reform. Some of these reforms are already effective whilst others are still to be implemented. These reforms may cause such benchmarks to perform differently than in the past or to disappear entirely, or have other consequences which cannot be predicted. Any such consequence could have a material adverse effect on any Note linked to or referencing such a benchmark. Regulation (EU) 2016/1011 (the "**EU Benchmarks Regulation**") applies, subject to certain transitional provisions, to the provision of benchmarks, the contribution of input data to a benchmark and the use of a benchmark within the EU. Among other things, it (i) requires benchmark administrators to be authorized or registered (or, if non-EU-based, to be subject to an equivalent regime or otherwise recognized or endorsed) and (ii) prevents certain uses by European Union supervised entities of benchmarks of administrators that are not authorized or registered (or, if non-European Union based, not deemed equivalent or recognized or endorsed). Regulation (EU) 2016/1011 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018 (the "**UK Benchmarks Regulation**") among other things, applies to the provision of benchmarks and the use of a benchmark in the UK. Similarly, it prohibits the use in the UK by UK supervised entities of benchmarks of administrators that are not authorized by the United Kingdom Financial Conduct Authority ("**FCA**") or registered on the FCA register (or, if non-UK based, not deemed equivalent or recognized or endorsed). The EU Benchmarks Regulation and/or the UK Benchmarks Regulation, as applicable could have a material impact on any Notes linked to or referencing a benchmark in particular, if the methodology or other terms of the benchmark are changed in order to comply with the requirements of the EU Benchmarks Regulation and/or the UK Benchmarks Regulation, as applicable. Such changes could, among other things, have the effect of reducing, increasing or otherwise affecting the volatility of the published rate or level of the relevant benchmark. More broadly, any of the international, national, or other proposals, for reforms or the general increased regulatory scrutiny of benchmarks, could increase the costs and risks of administering or otherwise participating in the setting of a benchmark and complying with any such regulations or requirements. For example, the sustainability of the London interbank offered rate ("**LIBOR**") has been questioned as a result of the absence of relevant active underlying markets and possible disincentives (including as a result of regulatory reforms) for market participants to continue contributing to such benchmarks. On July 27, 2017, the United Kingdom Financial Conduct Authority announced that it will no longer persuade or compel banks to submit rates for the calculation of the LIBOR benchmark after 2021 (the "**FCA Announcement**"). The FCA Announcement indicated that the continuation of LIBOR on the current basis cannot and will not be guaranteed after 2021. On March 5, 2021, the FCA announced that (i) the publication of 24 LIBOR settings (as detailed in the FCA announcement) will cease immediately after December 31, 2021, (ii) the publication of the overnight and 12-month U.S. dollar LIBOR settings will cease immediately after June 30, 2023, (iii) immediately after December 31, 2021, the 1-month, 3-month and 6-month sterling LIBOR settings will no longer be representative of the underlying market and economic reality that they are intended to measure and representativeness will not be restored (and the FCA will consult on requiring the ICE Benchmark Administration Limited (the "**IBA**") to continue to publish these settings on a synthetic basis, which will no longer be representative of the underlying market and economic reality they are intended to measure, for a further period after end 2021) and (iv) immediately after June 30, 2023, the 1-month, 3-month and 6-month U.S. dollar LIBOR settings will no longer be representative of the underlying market and economic reality that they are intended to measure and representativeness will not be restored (and the FCA will consider the case for using its proposed powers to require IBA to continue publishing these settings on a synthetic basis, which will no longer be representative of the underlying market and economic reality they are intended to measure, for a further period after end June 2023). Separately, the euro risk free-rate working group for the Euro area has published a set of guiding principles and high level recommendations for fallback provisions in, among other things, new Euro denominated cash products (including bonds) referencing EURIBOR. The guiding principles indicate, among other things, that continuing to reference EURIBOR in relevant contracts (without robust fallback provisions) may increase the risk to the Euro area financial system.

The potential elimination of the LIBOR benchmark or any other benchmark, or changes in the manner of administration of any benchmark, could require an adjustment to the Terms and Conditions of the Notes, or result in other consequences, in respect of any Notes linked to such benchmark. Such factors may have the following effects on certain benchmarks: (i) discourage market participants from continuing to administer or contribute to the benchmark; (ii) trigger changes in the rules or methodologies used in the benchmark or (iii) lead to the disappearance of the "benchmark". Any of the above changes or any other consequential changes as a result of international or national reforms or other initiatives or investigations, could have a material adverse effect on the value of and return on any Notes linked to or referencing a benchmark. The Terms and Conditions of the Notes provide for certain fallback arrangements in the event that a Benchmark Event occurs, including if an inter-bank offered rate (such as LIBOR or EURIBOR) or other relevant reference rate and/or any page on which such benchmark may be published (or any successor service) becomes unavailable, or if any Paying Agent, Calculation Agent, the Issuer or other party is no longer permitted lawfully to calculate interest on any Notes by reference to such benchmark. Such fallback arrangements include the possibility that the rate of interest could be set by reference to a Successor Rate or an Alternative Rate (both as defined in the Terms and Conditions of the Notes), with or without the application of an Adjustment Spread (as defined in the Terms and Conditions of the Notes). Adjustment Spread is the spread or a formula or methodology for calculating a spread which (i) is formally recommended in relation to the replacement of the Reference Rate (as defined in the Terms and Conditions of the Notes) with the Successor Rate by any Relevant Nominating Body (as defined in the Terms and Conditions of the Notes); (ii) if no such recommendation has been made or in the case of an Alternative Rate, the spread, formula or methodology which the Independent Adviser (as defined in the Terms and Conditions of the Notes) (in consultation with the Issuer) or the Issuer (acting in a reasonable manner) (as applicable) determines is recognized or acknowledged as being in customary market usage in international debt capital markets transactions which reference the Reference Rate, where such rate has been replaced by the Successor Rate or the Alternative Rate (as applicable); or (iii) if the Independent Adviser (in consultation with the Issuer) or the Issuer (acting in a reasonable manner) (as applicable) determines that no such customary market usage is recognized or acknowledged, the spread, formula or methodology which the Independent Adviser (in consultation with the Issuer) or the Issuer in its discretion (as applicable), determines (acting in a reasonable manner) to be appropriate, having regard to the objective, so far as is reasonably practicable in the circumstances, of reducing or eliminating any economic prejudice or benefit (as the case may be) to the Noteholders. There is no guarantee that any Adjustment Spread will be determined or applied. If no Adjustment Spread is determined, a Successor Rate or Alternative Rate may nonetheless be used to determine the Rate of Interest. The use of any such Successor Rate or Alternative Rate or, if applied, Adjustment Spread to determine the Rate of Interest may result in Notes linked to or referencing the initial inter-bank offered rate or other relevant reference rate performing differently (including paying a lower Rate of Interest) than they would do if the initial inter-bank offered rate or other relevant reference rate (as applicable) were to continue to apply in its current form. Under these fallback arrangements, the Issuer will use all reasonable endeavors to appoint, as soon as reasonably practicable, an Independent Adviser (as defined in the Terms and Conditions of the Notes) to determine the Successor Rate or Alternative Rate (as applicable), no later than five business days prior to the relevant Interest Determination Date (the "**IA Determination Cut-off Date**"), but in the event that the Issuer is unable to appoint an Independent Adviser, or such Independent Adviser fails to determine the Successor Rate or Alternative Rate (as applicable) prior to the relevant IA Determination Cut-off Date, the Issuer (acting in a reasonable manner) will have discretion to, amongst other things, determine the relevant Successor Rate or Alternative Rate (as applicable). There can be no assurance that such Successor Rate or Alternative Rate (as applicable) determined by the Issuer will be set at a level which is on terms commercially acceptable to all Noteholders.

In certain circumstances, the ultimate fallback for the purposes of calculation of Rate of Interest for a particular Interest Accrual Period may result in the Rate of Interest for the last preceding Interest Accrual Period being used. This may result in the effective application of a fixed rate for Floating Rate Notes based on the rate which was last observed on the Relevant Screen Page. Due to the uncertainty concerning the availability of Successor Rates and Alternative Rates, any determinations that may need to be made by the Issuer with the involvement of an Independent Adviser entails a risk that the relevant fallback provisions may not operate as intended at the relevant time. Moreover, any of the above matters or any other significant change to the setting or existence of any relevant reference rate could affect the ability of the Issuer to meet its obligations under the Floating Rate Notes or could have a material adverse effect on the value or liquidity of, and the amount payable under, the Floating Rate Notes. Investors should consult their own independent advisers and make their own assessment about the potential risks imposed by Benchmarks Regulation (EU) 2016/1011 or any other international or national reforms, in making any investment decision with respect to any Notes linked to or referencing a benchmark.

The use of Secured Overnight Financing Rate ("SOFR") as a reference rate is subject to important limitations.

The rate of interest on the Floating Rate Notes may be calculated on the basis of SOFR (as further described under Condition 5.2(b)(iii) of the Terms and Conditions of the Notes). In June 2017, the New York Federal Reserve's Alternative Reference Rates Committee (the "**ARRC**") announced SOFR as its recommended alternative to U.S. dollar LIBOR. However, the composition and characteristics of SOFR are not the same as those of LIBOR. SOFR is a broad U.S. Treasury repo financing rate that represents overnight secured funding transactions. This means that SOFR is fundamentally different from LIBOR for two key reasons. First, SOFR is a secured rate, while LIBOR is an unsecured rate. Second, SOFR is an overnight rate, while LIBOR represents interbank funding over different maturities. As a result, there can be no assurance that SOFR will perform in the same way as LIBOR would have at any time, including, without limitation, as a result of changes in interest and yield rates in the market, market volatility or global or regional economic, financial, political, or regulatory events. For example, since publication of SOFR began in April 2018, daily changes in SOFR have, on occasion, been more volatile than daily changes in comparable benchmark or other market rates. As SOFR is an overnight funding rate, interest on SOFR-based Notes with interest periods longer than overnight will be calculated on the basis of either the arithmetic mean of SOFR over the relevant interest period or compounding SOFR during the relevant interest period. As a consequence of this calculation method, the amount of interest payable on each interest payment date will only be known a short period of time prior to the relevant interest payment date. Noteholders therefore will not know in advance the interest amount which will be payable on such Notes. Although the Federal Reserve Bank of New York has published historical indicative SOFR information going back to 2014, such prepublication of historical data inherently involves assumptions, estimates and approximations. Noteholders should not rely on any historical changes or trends in the SOFR as an indicator of future changes in the SOFR. The Federal Reserve Bank of New York notes on its publication page for SOFR that use of the SOFR is subject to important limitations and disclaimers, including that the Federal Reserve Bank of New York may alter the methods of calculation, publication schedule, rate revision practices or availability of the SOFR at any time without notice. In addition, SOFR is published by the Federal Reserve Bank of New York based on data received from other sources. There can be no guarantee that the SOFR will not be discontinued or fundamentally altered in a manner that is materially adverse to the interests of the Noteholders. If the manner in which the SOFR is calculated is changed or if SOFR is discontinued, that change or discontinuance may result in a reduction or elimination of the amount of interest payable on the Notes and a reduction in the trading prices of the Notes which would negatively impact the Noteholders who could lose part of their investment.

The Terms and Conditions of the Notes provide for certain fallback arrangements in the event that a SOFR Benchmark Event occurs, which is based on the ARRC recommended language. There is however no guarantee that the fallback arrangements will operate as intended at the relevant time or operate on terms commercially acceptable to all Noteholders. Investors should consult their own independent advisers and make their own assessment about the potential risks in making any investment decision with respect to any Notes linked to SOFR.

The market continues to develop in relation to SOFR as a reference rate for Floating Rate Notes.

Investors should be aware that the market continues to develop in relation to SOFR and its adoption as an alternative to U.S. dollar LIBOR. Market participants and relevant working groups are exploring alternative reference rates based on SOFR (which seek to measure the market's forward expectation of a SOFR rate over a designated term). The market or a significant part thereof may adopt an application of SOFR that differs significantly from that set out in the Terms and Conditions of the Notes. In addition, the manner of adoption or application of SOFR in the bond markets may differ materially compared with the application and adoption of SOFR in other markets, such as the derivatives and loan markets. Investors should carefully consider how any mismatch between the adoption of SOFR in the bond, loan and derivatives markets may impact any hedging or other financial arrangements which they may put in place in connection with any acquisition, holding or disposal of Notes referencing SOFR. The use of SOFR as a reference rate for bonds is nascent, and may be subject to change and development, both in terms of the substance of the calculation and in the development and adoption of market infrastructure for the issuance and trading of bonds referencing such rates. Notes referencing SOFR may have no established trading market when issued, and an established trading market may never develop or may not be very liquid which, in turn, may reduce the trading price of such Notes or mean that investors in such Notes may not be able to sell such Notes at all or may not be able to sell such Notes at prices that will provide them with a yield comparable to similar investments that have a developed secondary market, and may consequently suffer from increased pricing volatility and market risk. Investors should consider these matters when making their investment decision with respect to Notes referencing SOFR.

It may be difficult to serve process on or enforce a United States judgment against us, our assets or our officers and directors because we are a foreign corporation.

The Issuer and the Guarantor are limited liability corporations formed under the laws of Labuan, Malaysia and Malaysia, respectively, and all of our directors and officers are located outside the United States. In addition, a substantial majority of our assets and the assets of our directors and officers are located outside of the United States. While we have appointed a process agent for service of process in the United States, you may have difficulty serving legal process within the United States upon our officers and directors. You may also have difficulty enforcing, either in or outside the United States, judgments you may obtain in U.S. courts against us, our assets or any of these persons in any action. For example, under current Malaysian law, any judgment obtained for a fixed sum against us or the Issuer in a court of a foreign jurisdiction with which Malaysia has no arrangement for reciprocal enforcement of judgments, after due service of process, may, at the discretion of the courts of Malaysia be actionable in the courts of Malaysia by way of a suit on a debt if such judgment is final and conclusive. However, such action may be met with defenses. There is currently no agreement for reciprocal enforcement of judgments between Malaysia and the United States, and as such the United States is not a reciprocating country under the First Schedule of the Enforcement Act and the Enforcement Act does not apply to judgments obtained in the United States. Accordingly, even if a United States court were to rule in an investor's favor, it may be difficult to enforce such a judgment in Malaysia. Due to the absence of reciprocal arrangements, judgments obtained in a United States court will only be enforced in Malaysia in accordance with the common law principles and new proceedings must be instituted by the judgment creditor and upon re-litigation and re-examination of the issues.

III. Risks Relating to the Notes

MISC Capital Two (Labuan) Limited is a special purpose vehicle with no business activities of its own and will be dependent on funds from the Guarantor and/or its subsidiaries and/or its associates to make payments under the Notes.

The Issuer is a financing vehicle for the Guarantor with no other operations or any subsidiaries. Unless otherwise stated in the applicable Pricing Supplement, the Issuer will provide substantially all proceeds of its borrowings to the Guarantor and/or its subsidiaries and/or its associated companies. The Issuer does not and will not have any material assets but it will receive repayments from the Guarantor and/or its subsidiaries and associated companies in respect of loans made by the Issuer. As a result, the Issuer is subject to all the risks to which the Guarantor and/or its subsidiaries and/or its associates is subject, to the extent that such risks could limit their ability to satisfy in full and on a timely basis their respective obligations to the Issuer under any such loans.

The ratings of the Notes may be lowered, suspended or withdrawn; changes in such credit ratings or the credit ratings of the Guarantor may adversely affect the value of the Notes.

The Notes are expected to be assigned a rating of BBB by S&P and Baa2 by Moody's. Ratings are limited in scope, and do not address all material risks relating to an investment in the Notes, but rather reflect only the view of each rating agency at the time the rating is issued. The Guarantor's credit ratings may also adversely affect the value of the Notes. The Guarantor's credit ratings are impacted by its business performance and leverage and other factors such as the prevailing world price of oil and Malaysian domestic energy prices for gas, environmental and regulatory developments and other factors beyond its control. Actual or anticipated changes or downgrades in the Guarantor's credit ratings, including any announcement that its ratings are under further review for a downgrade, could affect the market value of your Notes.

Ratings are not recommendations to buy, sell or hold securities, and there can be no assurance that ratings will remain in effect for any given period of time or that ratings will not be lowered, suspended or withdrawn entirely by the rating agencies, if, in each rating agency's judgment, circumstances so warrant. Each rating should be evaluated independently of any other rating.

Developments in other markets may adversely affect the market price of the Notes.

The market price of the Notes may be adversely affected by declines in the international financial markets and world economic conditions. The market for Malaysian securities is, to varying degrees, influenced by economic and market conditions in other markets, especially those in Asia. Although economic conditions are different in each country, investors' reactions to developments in one country can affect the securities markets and the securities of issuers in other countries, including Malaysia. Since the global financial crisis in 2008, the international financial markets have experienced significant volatility. If similar developments occur in the international financial markets in the future, the market price of the Notes could be adversely affected.

The Notes are a new issue of securities for which there is currently no public market; you may be unable to sell the Notes if a trading market for the Notes does not develop or if the Notes have limited liquidity.

The Notes are a new issuance of securities with no established trading market. If a trading market does not develop or is not maintained, holders of the Notes may experience difficulty in reselling the Notes or may be unable to sell them at all. The liquidity of any market for the Notes will depend on the number of holders of the Notes, the interest of securities dealers in making a market in the Notes and other factors.

If the Notes are traded, they may trade at a discount from their initial offering price depending upon prevailing interest rates, the market for similar securities, general economic conditions, the Guarantor's performance and business prospects and other factors. No assurance can be given as to the development of, liquidity of, or the continuation of a trading market for the Notes. If an active trading market does not develop, the market price and liquidity of the Notes may be adversely affected.

The Notes will be unsecured obligations, will be structurally subordinated to the claims of creditors of the Guarantor's other subsidiaries and will be subordinated to the claims of the Guarantor's secured creditors.

The claims of all existing and future third-party creditors of subsidiaries of the Guarantor (other than the Issuer) as to the cash flows and assets of such companies will have priority over the claims of the shareholders of such subsidiaries, including the Guarantor, and the creditors of such shareholders (such as holders of the Notes seeking to enforce the Guarantee). As at December 31, 2021, the total debt (excluding lease liabilities) of the Guarantor's subsidiaries was US$4.0 billion, of which US$3.1 billion was secured. The terms and conditions of the Notes do not contain any restrictions on the ability of MISC Capital Two (Labuan) Limited, the Guarantor or its subsidiaries to incur additional indebtedness.

The Notes are subject to restrictions on resales and transfers.

The Notes have not been registered under the Securities Act or any U.S. state securities laws or under the securities laws of any other jurisdiction and are being issued and sold in reliance upon exemptions from registration provided by such laws. No Notes may be sold or transferred unless such sale or transfer is exempt from the registration requirements of the Securities Act (for example, in reliance on the exemptions provided by Rule 144A or Regulation S under the Securities Act) and applicable state securities laws. For certain restrictions on resales and transfers, see "*Subscription and Sale and Transfer and Selling Restrictions—Transfer Restrictions.*"

A listing of the Notes on a securities exchange cannot be guaranteed.

With respect to any Notes that may be issued by the Issuer pursuant to the Program and which are agreed at or prior to the time of issue thereof to be listed, approval in-principle has been obtained (a) for listing of such Notes on, and admission to the Official List of, the Labuan International Financial Exchange and (b) for listing of such Notes on, and admission to the Official List of, Bursa Malaysia under the Bursa Malaysia (Exempt Regime) and application has been made for the listing and quotation of the Notes on the SGX-ST. The offering and settlement of the Notes are not conditional on obtaining this listing or the listing of the Notes on any exchange or trading market. Moreover, even if the Notes are so listed at the time of issuance, we may seek an alternative listing for such Notes on another stock exchange, but there can be no assurance that such alternative listing will be obtained.

Bearer Notes where denominations involve integral multiples; definitive Bearer Notes.

In relation to any issue of Bearer Notes which have denominations consisting of a minimum specified denomination plus one or more higher integral multiples of another smaller amount, it is possible that such Notes may be traded in amounts that are not integral multiples of such minimum specified denomination. In such a case, a holder who, as a result of trading such amounts, holds an amount which is less than the minimum specified denomination in its account with the relevant clearing system at the relevant time may not receive a definitive Bearer Note in respect of such holding (should definitive Bearer Notes be printed), and would need to purchase a principal amount of Notes such that its holding amounts to a specified denomination.

If definitive Notes are issued, holders should be aware that definitive Notes which have a denomination that is not an integral multiple of the minimum specified denomination may be illiquid and difficult to trade.

Modifications and waivers may be made in respect of the terms and conditions of the Notes by the Agents, the Issuer and the Guarantor without the consent of the Noteholders and Extraordinary Resolutions may be passed without the consent of each affected Noteholder.

The terms and conditions of the Notes will provide that the Agents, the Issuer and the Guarantor may (but shall not be obliged to), without the consent of Noteholders, agree to any modification of the terms and conditions of the Notes which will not be materially prejudicial to the interests of the Noteholders or which is of a formal, minor or technical nature, to correct a manifest error or to comply with mandatory provisions of the law. In addition, the terms and conditions of the Notes and the Agency Agreement will provide that an Extraordinary Resolution may be passed (i) as a written resolution signed by or on behalf of holders of not less than 75% in principal amount of the Notes for the time being outstanding or (ii) at a meeting of Noteholders attended by one or more persons holding or representing not less than 75% in principal amount of the Notes for the time being outstanding, or at any adjourned such meeting one or more persons holding or representing not less than 25%, in principal amount of the Notes for the time being outstanding, upon a majority of not less than 75% of the persons voting on such Extraordinary Resolution. A duly passed Extraordinary Resolution may amend the terms of the Notes, including modifying the due date for payment of principal, premium, redemption amount or interest thereof, reducing the amount of principal, premium or redemption amount or the rate of interest payable in respect of the Notes, varying the method of or basis for calculating redemption amount, altering the currency of payment of the principal, premium, redemption amount or interest of the Notes, modifying or cancelling the Guarantee, modifying the majority required to pass an Extraordinary Resolution, or sanctioning any scheme or proposal for the exchange or sale of the Notes. As such, an Extraordinary Resolution may be passed without the consent of each affected Noteholder.

Holders of the Notes may not continue to enjoy tax concessions in Singapore.

The Notes to be issued by the Issuer from time to time under the Program, during the period from the date of this Offering Circular to December 31, 2023 are intended to be "qualifying debt securities" for the purposes of the Income Tax Act 1947 of Singapore ("**ITA**"), subject to the fulfillment of certain conditions more particularly described in "*Taxation—Singapore Tax Considerations*."

However, there is no assurance that the holders of such Notes will continue to enjoy the tax concessions in connection therewith should the relevant tax laws be amended or revoked at any time.

IV. Risks relating to Notes Denominated in Renminbi

Renminbi is not freely convertible; there are significant restrictions on remittance of Renminbi into or out of the PRC.

Renminbi is not freely convertible at present. The PRC government continues to regulate conversion between Renminbi and foreign currencies, including the U.S. dollar, despite the significant reduction over the years by the PRC government of control over routine foreign exchange transactions under current accounts. Participating banks in Hong Kong have been permitted to engage in the settlement of RMB trade transactions under a pilot scheme introduced in July 2009. This represents a current account activity. The pilot scheme was extended in August 2011 to cover the whole nation and to make RMB trade and other current account item settlement available in all countries worldwide. On April 7, 2011, the SAFE promulgated the Circular on Issues Concerning the Capital Account Items in connection with Cross-Border Renminbi (國家外匯管理局綜合司關於規範跨境人民幣資本項目業務操作有關問題的通知) (the "**SAFE Circular**"), which became effective on May 1, 2011. According to the SAFE Circular, in the event that foreign investors intend to use cross-border Renminbi (including offshore Renminbi and onshore Renminbi held in the accounts of non-PRC residents) to make contribution to an onshore enterprise or make payment for the transfer of equity interest of an onshore enterprise by a PRC resident, such onshore enterprise shall be required to submit the relevant prior written consent from the MOFCOM to the relevant local branches of SAFE of such onshore enterprise and register for a foreign invested enterprise status. Further, the SAFE Circular clarifies that the foreign debts borrowed, and the external guarantee provided, by an onshore entity (including a financial institution) in RMB shall, in principle, be regulated under the current PRC foreign debt and external guarantee regime.

On October 13, 2011, the PBOC issued the Measures on Administration of the RMB Settlement in relation to Foreign Direct Investment (外商直接投資人民幣結算業務管理辦法) (the "**PBOC RMB FDI Measures**") which was revised on May 29, 2015, to commence the PBOC's detailed RMB FDI administration system, which covers almost all aspects of RMB FDI, including capital injection, payment of purchase price in the acquisition of PRC domestic enterprises, repatriation of dividends and distribution, as well as RMB denominated cross-border loans. Under the PBOC RMB FDI Measures, special approval for RMB FDI and shareholder loans from the PBOC which was previously required by the PBOC Circular (as defined in "**PRC Currency Controls**") is no longer necessary. The MOFCOM RMB FDI Circular and the PBOC RMB FDI Measures, which are new regulations, will be subject to interpretation and application by the relevant PRC authorities.

On December 3, 2013, MOFCOM promulgated the "Circular on Issues in relation to Cross-border Renminbi Foreign Direct Investment"(商務部關於跨境人民幣直接投資有關問題的公告) (the "**MOFCOM RMB FDI Circular**"), which became effective on January 1, 2014, to further facilitate FDI by simplifying and streamlining the applicable regulatory framework. The MOFCOM Circular replaced the "Notice on Issues in relation to Cross-border Renminbi Foreign Direct Investment" (商務部關於跨境人民幣直接投資有關問題的通知) promulgated by MOFCOM on October 12, 2011 (the "**2011 MOFCOM Notice**"). Pursuant to the MOFCOM RMB FDI Circular, written approval from the appropriate office of MOFCOM and/or its local counterparts specifying "**Renminbi Foreign Direct Investment**" and the amount of capital contribution is required for each FDI. Compared with the 2011 MOFCOM Notice, the MOFCOM RMB FDI Circular no longer contains the requirements for central level MOFCOM approvals for investments of RMB300 million or above, or in certain industries, such as financial guarantee, financial leasing, micro-credit, auction, foreign invested investment companies, venture capital and equity investment vehicles, cement, iron and steel, electrolyse aluminium, ship building and other industries under the state macro-regulation. Unlike the 2011 MOFCOM Notice, the MOFCOM RMB FDI Circular has also removed the approval requirement for foreign investors who intend to change the currency of their existing capital contribution from a foreign currency to Renminbi.

The reforms which are being introduced and will be introduced in the Shanghai Free Trade Zone (the "**Shanghai FTZ**") aim to upgrade cross-border trade, liberalise foreign exchange control, increase the convenience of cross-border use of Renminbi, and promote the internationalization of Renminbi. However, given that the Shanghai FTZ is still in its infancy, how the reforms will be implemented and whether (and if so when) the reforms will be rolled out throughout China remain uncertain.

To support the development of the Shanghai FTZ, the Shanghai Head Office of the PBOC issued the Circular on Supporting the Expanded Cross-border Utilisation of Renminbi in the Shanghai FTZ (關於支持中國(上海)自由貿易試驗區擴大人民幣跨境使用的通知) (the "**PBOC Shanghai FTZ Circular**") on February 20, 2014, which allows banks in Shanghai to settle FDI based on a foreign investor's instruction. In respect of FDI in industries that are not on the "negative list" of the Shanghai FTZ, the MOFCOM approval that was previously required has been replaced by a filing. However, the application of the Shanghai FTZ Circular is limited to the Shanghai FTZ.

In addition, the MOFCOM RMB FDI Circular also clearly prohibits FDI funds from being used for any investments in securities and financial derivatives (except for investments in PRC listed companies by strategic investors) or for entrustment loans in the PRC.

As the MOFCOM RMB FDI Circular and the PBOC RMB FDI Measures are relatively new circulars, they will be subject to interpretation and application by the relevant authorities in the PRC.

Although starting from October 1, 2016, the Renminbi was added to the Special Drawing Rights basket created by the International Monetary Fund and policies further improving accessibility to Renminbi to settle cross-border transactions in foreign currencies were implemented by the PBOC in 2018, there is no assurance that the PRC government will continue to gradually liberalise the control over cross-border RMB remittances in the future, that the pilot scheme introduced in July 2009 will not be discontinued or that new PRC regulations will not be promulgated in the future which have the effect of restricting or eliminating the remittance of Renminbi into or outside the PRC. In the event that funds cannot be repatriated outside the PRC in Renminbi, this may affect the overall availability of Renminbi outside the PRC and the ability of the Issuer to source Renminbi to finance its obligations under RMB Notes.

The availability of Renminbi outside the PRC may be limited, which may affect the liquidity of RMB Notes and the Issuer's ability to source Renminbi outside the PRC to service such RMB Notes.

As a result of the restrictions by the PRC government on cross-border Renminbi fund flows, the availability of Renminbi outside the PRC is limited. Since February 2004, in accordance with arrangements between the PRC central government and the Hong Kong government, licensed banks in Hong Kong may offer limited Renminbi-denominated banking services to Hong Kong residents and specified business customers. Hong Kong residents are permitted to convert limited amounts of foreign currencies, including Hong Kong dollars, into Renminbi at such banks on a per-day basis. The PBOC has also established a Renminbi clearing and settlement system for participating banks in Hong Kong.

On July 19, 2010, further amendments were made to the Settlement Agreement on the Clearing of RMB Business (the "**Settlement Agreement**") between the PBOC and Bank of China (Hong Kong) Limited (the "**RMB Clearing Bank**") to further expand the scope of RMB business for participating banks in Hong Kong. Pursuant to the revised arrangements, all corporations are allowed to open RMB accounts in Hong Kong; there is no longer any limit on the ability of corporations to convert RMB; and there will no longer be any restriction on the transfer of RMB funds between different accounts in Hong Kong. However, the current size of Renminbi-denominated financial assets outside the PRC is limited. Renminbi business participating banks do not have direct Renminbi liquidity support from the PBOC. They are only allowed to square their open positions with the RMB Clearing Bank after consolidating the RMB trade position of banks outside Hong Kong that are in the same bank group of the participating banks concerned with their own trade position and the RMB Clearing Bank only has access to onshore liquidity support from the PBOC to square open positions of participating banks for limited types of transactions, including open positions resulting from conversion services for corporations relating to cross-border trade settlement and for individual customers of up to RMB20,000 per person per day and for the designated business customers relating to the RMB received in providing their services. The RMB Clearing Bank is not obliged to square for participating banks any open positions resulting from other foreign exchange transactions or conversion services and the participating banks will need to source Renminbi from the offshore market to square such open positions.

Although it is expected that the offshore Renminbi market will continue to grow in depth and size, its growth is subject to many constraints as a result of PRC laws and regulations on foreign exchange. There is no assurance that new PRC regulations will not be promulgated or the Settlement Agreement will not be terminated or amended in the future which will have the effect of restricting availability of Renminbi offshore. The limited availability of Renminbi outside the PRC may affect the liquidity of the Issuer's RMB Notes. To the extent the Issuer is required to source Renminbi in the offshore market to service its RMB Notes, there is no assurance that the Issuer will be able to source such Renminbi on satisfactory terms, if at all.

Investment in RMB Notes is subject to exchange rate risks.

The value of the Renminbi against the U.S. dollar and other foreign currencies fluctuates and is affected by changes in the PRC and international political and economic conditions and by many other factors. The Issuer will make all payments of interest and principal with respect to the RMB Notes in Renminbi. As a result, the value of these Renminbi payments in U.S. dollar or other applicable foreign currency terms may vary with changes in the prevailing exchange rates in the marketplace. If the value of Renminbi depreciates against the U.S. dollar or other applicable foreign currency between then and when the Issuer pays back the principal of the RMB Notes in Renminbi at maturity, the value of a Noteholder's investment in U.S. dollar or other applicable foreign currency terms will have declined.

Payments for the RMB Notes will only be made to investors in the manner specified in the RMB Notes.

Investors may be required to provide certifications and other information (including Renminbi account information) in order to be allowed to receive payments in Renminbi in accordance with the Renminbi clearing and settlement system for participating banks in Hong Kong. All Renminbi payments to investors in respect of the RMB Notes will be made solely (i) for so long as the RMB Notes are represented by a temporary Global Note, a permanent Global Note or a Global Certificate held with the common depositary for Clearstream, Luxembourg and Euroclear Bank or with a sub-custodian for the CMU or any alternative clearing system by transfer to a Renminbi bank account maintained in Hong Kong, or (ii) for so long as the RMB Notes are in definitive form, by transfer to a Renminbi bank account maintained in Hong Kong in accordance with the prevailing rules and regulations. The Issuer cannot be required to make payment by any other means (including in any other currency or by transfer to a bank account in the PRC).

There may be PRC tax consequences with respect to an investment in the RMB Notes.

In considering whether to invest in the RMB Notes, investors should consult their individual tax advisers with regard to the application of PRC tax laws to their particular situation as well as any tax consequences arising under the laws of any other tax jurisdictions. The value of the holder's investment in the RMB Notes may be materially and adversely affected if the holder is required to pay PRC tax with respect to acquiring, holding or disposing of and receiving payments under those RMB Notes.

CAPITALIZATION

The following table sets forth the consolidated total non-current borrowings and shareholders' equity as at December 31, 2021. This table should be read in conjunction with MISC's consolidated financial statements and the accompanying notes included elsewhere in this Offering Circular.

	As at December 31, 2021	
	(in millions)	
Long-term borrowings		
Secured:		
Term loans		
Fixed rate	RM7,211.9	US$1,731.5
Floating rate	—	—
Unsecured:		
Term loans		
Floating rate	1,408.6	338.2
Revolving credit	—	—
Lease liabilities	99.1	23.8
Subtotal	8,719.6	2,093.5
Shareholders' equity:		
Share capital	8,923.3	2,142.4
Treasury shares	(0.3)	(0.1)
Other reserves	6,653.6	1,597.5
Retained profits	18,586.1	4,462.4
Total equity attributable to shareholders of MISC	34,162.7	8,202.3
Total capitalization	RM42,882.3	US$10,295.8

On February 17, 2022, the Board of Directors of MISC declared dividends of Malaysian ringgit 12 sen per ordinary share to shareholders of record as of 5:00 pm on March 4, 2022. Such dividends are payable on March 16, 2022. Except as disclosed herein, there have been no material changes in the consolidated total capitalization of MISC since December 31, 2021.

SELECTED CONSOLIDATED FINANCIAL DATA

The selected consolidated financial data as of and for each of the years ended December 31, 2019, 2020 and 2021 set forth below have been derived from MISC's audited consolidated financial statements included elsewhere in this Offering Circular. The selected consolidated financial data should be read in conjunction with our audited financial statements and notes thereto as well as the section entitled "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" included elsewhere in this Offering Circular.

	Year Ended December 31,			
	2019	2020	2021	
	(in millions)			
Selected Consolidated Statements of Profit or Loss Information:				
Revenue[(1)]	RM8,962.7	RM9,401.2	RM10,671.7	US$2,562.2
Cost of sales	(6,215.6)	(6,521.4)	(8,054.2)	(1,933.8)
Gross profit	2,747.1	2,879.8	2,617.5	628.5
Other operating income	118.9	141.7	369.5	88.7
General and administrative expenses	(1,105.9)	(1,116.9)	(1,086.8)	(261.0)
Impairment provisions	(214.9)	(331.4)	(111.9)	(26.9)
Gain on disposal of ships	7.9	25.1	31.6	7.6
Loss from deconsolidation of a subsidiary	—	—	(2.3)	(0.6)
Gain on acquisition of a business	23.7	—	—	—
Gain on disposal of interest in joint ventures	—	—	25.1	6.0
Write off of trade receivables and loss on re-measurement of finance lease receivables	—	(846.2)	—	—
Provision for litigation claims	—	(1,049.2)	—	—
Finance income	169.2	112.6	48.3	11.6
Finance costs	(484.3)	(368.1)	(417.3)	(100.2)
Share of profit of joint ventures	250.6	428.8	297.4	71.4
Share of profit of associates	—	0.2	3.7	0.9
Profit/(loss) before taxation	1,512.3	(123.6)	1,774.7	426.0
Taxation	(76.1)	(46.2)	(41.1)	(9.9)
Profit/(loss) for the year	RM1,436.2	RM(169.8)	RM1,733.6	US$416.1

	As at December 31,			
	2019	2020	2021	
	(in millions)			
Selected Consolidated Statements of Financial Position Information:				
Non-current assets:				
Ships	RM20,975.9	RM21,088.4	RM21,496.3	US$5,161.2
Offshore floating assets	82.4	51.3	25.5	6.1
Other property, plant and equipment	2,228.9	2,169.5	1,889.9	453.8
Prepaid lease payments on land and buildings	219.8	212.5	205.5	49.3
Intangible assets	840.7	819.2	1,060.9	254.7
Investments in associates	0.5	0.7	21.0	5.1
Investments in joint ventures	925.7	873.1	1,047.5	251.5
Other non-current assets	225.9	389.5	3,289.2	789.7
Finance lease receivables	15,008.0	13,754.5	15,439.5	3,707.0
Deferred tax assets	103.5	104.4	101.9	24.5
Derivative assets	—	—	103.0	24.7
Total non-current assets	RM40,611.3	RM39,463.1	RM44,680.3	US$10,727.6
Current assets:				
Inventories	RM165.7	RM91.4	RM120.0	US$28.8
Trade and other receivables	3,930.7	5,406.7	4,754.3	1,141.5
Cash, deposits and bank balances	7,030.8	6,855.0	7,952.4	1,909.3
Non-current assets classified as held of sale	125.3	4.8	14.3	3.4
Total current assets	RM11,252.5	RM12,357.9	RM12,841.1	US$3,083.1
Current liabilities:				
Trade and other payables	RM2,186.6	RM3,509.2	RM4,041.7	US$970.4
Deferred liabilities	1.6	11.7	56.9	13.7
Short term interest-bearing loans and borrowings(2)	5,599.5	2,005.5	8,309.3	1,995.0
Provision for taxation	14.1	23.3	19.9	4.8
Total current liabilities	RM7,801.8	RM5,549.7	RM12,427.8	US$2,983.9
Net current assets	3,450.7	6,808.2	413.3	99.2
	RM44,062.0	RM46,271.3	RM45,093.6	US$10,826.8

	As at December 31,			
	2019	2020	2021	
	(in millions)			
Equity:				
Equity attributable to equity holders of the Corporation				
Share capital	RM8,923.3	RM8,923.3	RM8,923.3	US$2,142.4
Treasury shares	(0.3)	(0.3)	(0.3)	(0.1)
Other reserves	6,060.2	5,122.0	6,653.6	1,597.5
Retained profits	19,744.0	18,227.8	18,586.1	4,462.4
Total equity attributable to equity holders of the Corporation	34,727.2	32,272.8	34,162.7	8,202.3
Non-controlling interests	1,026.5	878.3	762.2	183.0
Total equity	RM35,753.7	RM33,151.1	RM34,924.9	US$8,385.3
Non-current liabilities:				
Long term interest-bearing loans and borrowings[2]	RM7,552.7	RM11,434.9	RM8,719.7	US$2,093.6
Deferred tax liabilities	30.9	7.8	6.8	1.6
Derivative liabilities	158.4	527.0	161.2	38.7
Deferred income	566.3	1,150.5	1,105.0	265.3
Other non-current liabilities	—	—	176.0	42.2
Total non-current liabilities	RM8,308.3	RM13,120.2	RM10,168.7	US$2,441.5
	RM44,062.0	RM46,271.3	RM45,093.6	US$10,826.8

	As at and for the Year Ended December 31,			
	2019	2020	2021	
	(in millions except for ratios and %)			
Other Financial Data:				
Interest Coverage Ratio[3]	3.9	5.8	5.4	5.4
Adjusted Cash Flow From Operating Activities[4]	RM5,579.1	RM5,587.9	RM4,034.7	US$968.7
Ratio of Adjusted Cash Flow From Operating Activities to Total Interest Expenses[5]	12.2	16.1	10.3	10.3
Adjusted EBITDA[6]	RM4,252.0	RM4,462.9	RM4,234.4	US$1,016.6
Total Debt[7] to Adjusted EBITDA	3.1	3.0	4.0	4.0
Net Debt[8] to Adjusted EBITDA	1.4	1.5	2.1	2.1
Pledged Ships[9] to Total Ships	30.0%	42.6%	42.9%	42.9%
Pledged Ships to Total Assets	12.1%	17.4%	16.0%	16.0%
Cash Flow Return on Asset ("CFROA")[10]	10.8%	10.8%	7.0%	7.0%
Capital Commitment[11]	RM4,228.5	RM6,637.5	RM3,416.8	US$820.4

(1) See "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" for a breakdown of the major sources of MISC's revenue.

(2) Consists of secured and unsecured term loans, revolving credits and lease liabilities. See note 20(c) to the notes to the financial statements included elsewhere in this Offering Circular.

(3) Interest coverage ratio is computed as Adjusted Earnings Before Interest and Taxes ("Adjusted EBIT") divided by Total Interest Expense. A reconciliation of profit/(loss) for the year to Adjusted EBIT is provided below:

	Year Ended December 31,			
	2019	2020	2021	
	(in millions)			
Profit/(Loss) for the year	RM1,436.2	RM(169.8)	RM1,733.6	US$416.1
Add:				
Taxation	76.1	46.2	41.1	9.9
Profit/(Loss) before taxation	1,512.3	(123.6)	1,774.7	426.0
Add:				
Total interest expenses	458.1	346.6	390.3	93.7
Write-off of trade receivables and loss on re-measurement of finance lease receivables	–	846.2	–	–
Provision for litigation claims	–	1,049.2	–	–
Less:				
Finance income	169.2	112.6	48.3	11.6
Adjusted EBIT	RM1,801.2	RM2,005.8	RM2,116.7	US$508.1

(4) Adjusted Cash Flow From Operating Activities consists of net cash generated from operating activities excluding payments for costs relating to the turnkey activities for the conversion of a vessel to an FPSO facility which amounted to RM1,126.1 million (US$270.4 million) in 2021; there were no such adjustment for 2020 or 2019. These payments are disclosed as part of cash flows from operating activities as the turnkey activities contribute to the recognition of contract assets per MFRS 15: Revenue from Contract with Customers. However, we consider these payments as capital expenditure payments, and internally classify them as an outflow from our investing activities in measuring our performance and allocation of resources.

Adjusted Cash Flow From Operating Activities should not be viewed as an alternative measure of operating results or cash flows from operating activities as determined in accordance with MFRS. Adjusted Cash Flow From Operating Activities presented herein may not be comparable to similarly titled measures presented by other companies. Investors should not compare our Adjusted Cash Flow From Operating Activities to adjusted cash flow from operating activities presented by other companies because not all companies use the same definition.

(5) Ratio is calculated by dividing Adjusted Cash Flow From Operating Activities to Total Interest Expenses.

(6) Adjusted EBITDA consists of profit/(loss) for the year before tax expenses, with the addition of amounts previously deducted for depreciation and amortization, total interest expenses, impairment losses, write off of trade receivables and loss on re-measurement of finance lease receivables, provision for litigation claims, and the exclusion of finance income. A reconciliation of profit/(loss) for the year to Adjusted EBITDA is provided below:

	Year Ended December 31,			
	2019	2020	2021	
	(in millions)			
Profit/(Loss) for the year	RM1,436.2	RM(169.8)	RM1,733.6	US$416.1
Add:				
Taxation	76.1	46.2	41.1	9.9
Profit/(Loss) before taxation	1,512.3	(123.6)	1,774.7	426.0
Add:				
Depreciation and amortization[(a)]	2,255,5	2,125.7	2,005.8	481.6
Total interest expenses	458.1	346.6	390.3	93.7
Impairment losses[(b)]	195.3	331.4	111.9	26.9
Write-off of trade receivables and loss on re-measurement of finance lease receivables	—	846.2	—	—
Provision for litigation claims	—	1,049.2	—	—

	Year Ended December 31,			
	2019	2020	2021	
	(in millions)			
Less:				
Finance income	169.2	112.6	48.3	11.6
Adjusted EBITDA	RM4,252.0	RM4,462.9	RM4,234.4	US$1,016.6

(a) Includes depreciation of ships, offshore floating assets, other property, plant and equipment and right-of-use assets as well as amortization of prepaid lease payments, upfront fees for borrowings and intangible assets.

(b) Includes impairment losses on ships, offshore floating assets, other property, plant and equipment and right-of-use assets, as well as non-current assets held for sale written down.

Adjusted EBITDA should not be viewed as an alternative measure of operating results or cash flows from operating activities as determined in accordance with MFRS. Adjusted EBITDA has been included because it is widely used as a financial measure of the potential capacity of a company to incur and service debt. Adjusted EBITDA presented herein may not be comparable to similarly titled measures presented by other companies. Investors should not compare our Adjusted EBITDA to adjusted EBITDA presented by other companies because not all companies use the same definition.

(7) Total Debt consists of total short term and long term interest-bearing loans and borrowings.

(8) Net Debt consists of total debt less cash, deposits and bank balances.

(9) Pledged Ships refer to the net carrying amounts of ships pledged as security for borrowings.

(10) CFROA is calculated as Adjusted Cash Flow from Operating Activities divided by total assets for the year. We use this ratio to assess our operational cash flow generation against our asset base. We believe that a metric based on cash flow would be more reflective of our performance as compared to accounting-based metrics. Total assets consists of non-current assets and current assets.

(11) Capital Commitment comprises capital expenditure approved and contracted for ships, offshore floating assets and other property, plant and equipment, and information and communication technology including our share of capital commitment of a joint venture. In 2020, the approved and contracted capital expenditure included an amount totaling RM1,591.8 million relating to the turnkey activities for the conversion of a vessel to an FPSO to be leased out to a customer under a time charter contract. Pursuant to MFRS 15: Revenue from Contract with Customers. For 2021, this excludes the approved and contracted amount relating to the vessel conversion as at December 31, 2021 of RM3,799.1 million (US$912.1 million); see note (4) above.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read in conjunction with the selected consolidated financial and operating data and our audited financial statements and notes thereto included elsewhere in this Offering Circular. Our financial statements have been prepared in accordance with MFRS and IFRS. References to"Gas Assets & Solutions" in the discussion below means "LNG Asset Solutions" as defined in our financial statements included elsewhere in this Offering Circular. The discussion below includes certain discussions of our operating profit/(loss), which consists of segment level results, other operating income, finance income, depreciation, amortisation of intangible assets and amortisation of prepaid lease payments on land and buildings. These discussions are based on unconsolidated results at the segment level; for additional information, see "Segment Information" in note 36 to our financial statements included elsewhere in this Offering Circular.

Overview

We are a world-leading provider of international energy-related maritime solutions and services. Our principal business include energy shipping and its related activities, owning and operating offshore floating solutions, marine repair and conversion, and engineering and construction works. Primarily in connection with these business lines, we also provide integrated marine services, port management and maritime services, as well as maritime education and training. We have an operating presence in 11 countries globally and move energy across six continents.

Our business consists of five business segments, which we use for financial reporting purposes:

- o Gas Assets and Solutions, which primarily engages in the transportation of LNG and ethane;
- o Petroleum and Product Shipping, which engages in the transportation of crude oil, petroleum products and chemicals;
- o Offshore Business segment, which provides comprehensive offshore solutions for the oil and gas industry and owns, leases, operates and maintains various offshore floating assets;
- o Marine and Heavy Engineering segment, which provides energy industry and marine solutions for a wide range of heavy engineering facilities and vessels in the oil and gas and other industries, including marine repair, marine conversions and engineering and construction works; and
- o Other businesses, which primarily includes our three strategic enablers: Integrated Marine Services, Port Management and Maritime Services, and Maritime Education and Training.

Our vision is to consistently provide better energy-related maritime solutions and services. In pursuing our mission to be consistently better, we strive to:

- Exceed the expectations of our customers,
- Promote individual and team excellence of our employees,
- Create positive differences in the lives of communities,
- Care for the environment and operate responsibly, and
- Drive sustainable value for our shareholders.

Across our organization, we promote our shared values of loyalty, integrity, professionalism and cohesiveness.

Our operations are built around a portfolio of modern, high quality assets, the substantial majority of which are on long-term charters or leases. In our Gas Assets and Solutions and Petroleum Shipping businesses, we own and operate a wide range of specialized ships for the energy transportation needs of our diverse client base. For Gas Assets and Solutions, this includes 30 owned LNG carriers ("**LNGCs**"), which accounted for approximately 4.3% of the global fleet as of December 31, 2021, making us one of the largest single owner-operator of LNGCs, and six very large ethane carriers ("**VLECs**"), which we have used to enter the newly developed market for transporting liquefied ethane. The other vessels include two Floating Storage Units ("**FSUs**") and one LNG bunker vessel ("**LBV**"). Our Petroleum Shipping business is helmed by our subsidiary AET Tanker Holding Sdn. Bhd. ("**AET**"), and as of December 31, 2021 had eight owned very large crude carriers ("**VLCC**"), and in the mid-size tanker segment our fleet consisted of 20 owned Aframaxes, two chartered-in Aframax, one chartered-in Panamax, three chartered-in long-range 2 ("**LR2s**") trading in the crude sector, and six owned Suezmaxes, two owned and three chartered-in LR2s, four chartered-in chemical tankers and seven owned and one chartered-in lightering support vessels ("**LSVs**"). As of December 31, 2021, we also owned specialized and technically advanced assets including 11 dynamic positioning shuttle tankers ("**DPSTs**") and two modular capture vessels ("**MCVs**"). In our Offshore business, as of December 31, 2021 we owned (including through joint ventures) 12 offshore floating facilities, consisting of six floating production, storage and offloading ("**FPSO**") facilities, five floating storage and offloading ("**FSO**") facilities, and one semi-submersible floating production system ("**Semi-FPS**"). In our Marine and Heavy Engineering Business, which is operating by our Bursa Malaysia-listed subsidiary Malaysia Marine and Heavy Engineering Holding Berhad ("**MHB**"), we own and operate Malaysia's largest operating yards, including the largest single fabrication yard in Southeast Asia (by area and annual production capacity) and one of the largest drydocks in Southeast Asia, with capacity to dock vessels up to 450,000 dwt.

Our other businesses are primarily strategic enablers that support our four core businesses, consisting of Integrated Marine Services, which provides shipmanagement solutions, Port Management and Maritime Services, which provides port and terminal management, marine assurance and consultancy services, and Maritime Education and Training, which manages Akademi Laut Malaysia ("**ALAM**"), one of the leading maritime institutions in the region. We conduct our Integrated Marine Services segment through our wholly-owned subsidiary Eaglestar Marine Holdings (L) Pte. Ltd. ("**Eaglestar**"), which technically manages our vessel operations. As of December 31, 2021, Eaglestar had a team of approximately 4,800 highly skilled, competent and dedicated professionals to support our core businesses by delivering a comprehensive range of solutions including fleet management, crew management and project management services for newbuild construction and conversion projects.

General

We derive our revenue primarily from four segments: Gas Assets and Solutions, Petroleum and Product Shipping, Offshore Business, and Marine and Heavy Engineering. In 2019, 2020 and 2021, we derived 28.8%, 28.2% and 27.0% of our revenue and 61.7%, 59.0% and 64.2% of our operating profit from the Gas Assets and Solutions segment, respectively, 48.0%, 41.1% and 30.0%, of our revenue and 18.7%, 23.3% and 14.4% of our operating profit from the Petroleum and Product Shipping segment, respectively, and 12.1%, 13.7% and 28.5% of our revenue and 25.7%, 28.1% and 41.3% of our operating profit from the Offshore Business segment, respectively. During the same years, we derived 11.3%, 16.7% and 13.7% of our revenue, but had an operating loss of RM40.5 million, RM100.1 million and RM252.2 million (US$60.5 million) from our Marine and Heavy Engineering segment, respectively.

The volatility of our revenue and operating profit depends to a significant extent on the relative amount of our business that we conduct under time charters, COAs, and lightering contracts, on the one hand, and under spot charters, on the other. Historically, our Petroleum and Product shipping segment was the only one of our segments with significant spot charter contracts. In 2019, 2020 and 2021, revenue in our Gas Assets and Solutions and Offshore Business segments were primarily derived from charters in excess of one year. Most of our revenue from our Marine and Heavy Engineering segments is derived from heavy engineering. We recognize most of this revenue on a progressive completion basis. Accordingly, this segment's revenue is not subject to the types of volatility factors applicable to spot contract arrangements.

For our Petroleum and Product Shipping segment, in 2019, 2020 and 2021, 68.3%, 73.5% and 80.7% of our revenue, respectively, was derived from time charters, COAs and lightering contracts. During these same respective periods, 88.9%, 89.7% and 90.6% of our revenue from Gas Assets and Solutions segment was derived from fixed rate time charters longer than one year, while all of the revenue in the Offshore Business was derived from long-term fixed rate charters.

Under these contracts, the rates for hire of vessels is typically agreed at the outset of the charter or contract and is not affected by fluctuations in spot market rates during the term of the hire. Fixed rate time charters have been, and are expected to continue to be, stable contributors to our revenue. Over time, our ability to continue to generate operating profit from our term business will depend upon our ability to arrange new charters or contracts at attractive rates, to minimize off-hire periods, to manage costs, to refurbish and re-charter vessels as charters and contracts expire and to obtain new, profitable charter and contract business.

We derived 15.3%, 10.9% and 5.8% of our total revenue in 2019, 2020 and 2021, respectively, from spot charters, which was contributed mainly by our Petroleum and Product Shipping segment, and during these same respective years, 31.7%, 26.5% and 19.3% of our revenue from the Petroleum and Product Shipping segment was derived from spot charters. In contrast to revenue we derive from fixed rate time charters, revenue we derive from contracts priced at spot rates is more volatile because it is based upon the charterhire and freight rates prevailing in the market from time to time, which can change significantly in a short time. Despite these factors, our Petroleum and Product Shipping segment maintained a utilization rate between 96.9% and 100% for its various vessel classes in 2019, 2020 and 2021.

COVID-19 Impact

In 2021 and the second half of 2020, the financial performance of our Petroleum and Product Shipping segment was affected by lower charterhire and freight rates under contracts priced at spot rates due to the impact of the COVID-19 pandemic on global oil demand. Following the recovery in the global economy and stronger growth in Asian economies in 2021, growth in demand for shipping of both oil and petrochemical products recovered, resulting in significant increase in spot rates. Higher demand for oil, and consequently for petroleum shipping services, also contributed to upward pressure on petroleum charterhire spot rates. Greater exposure to more volatile spot rates means, however, that downward movements in charterhire and freight rates could have a greater negative impact on our revenue and operating profit in those of our businesses exposed to the spot market, primarily petroleum shipping and product shipping.

The majority of our Gas Assets and Solutions segment's vessels are on long-term time charters although there were some off-hire days in this business due to the COVID-19 pandemic in 2021. Both our Gas Assets and Solutions and Petroleum and Product Shipping segments in 2021 and the second half of 2020 recorded some increase in their ship operating costs as a result of the COVID-19 pandemic, mainly in relation to quarantine and crew change activities.

For our Offshore Business segment, all of this segment's assets are on long-term charter contracts. However, the segment also incurred additional operating costs due to the COVID-19 pandemic, mainly as a result of crew change, quarantine and support activities in 2021.

In 2021, the operational performance of our Marine and Heavy Engineering segment was negatively affected by constraints related to the COVID-19 pandemic, and its productivity level has yet to reach pre-pandemic levels. We are aggressively pursuing recovery from our clients for costs related to the COVID-19 pandemic in order to mitigate the impact. Even with the recent easing of border restrictions, this segment remains at a disadvantage compared to the competing yards. Additionally, our Marine and Heavy Engineering segment was also impacted by the COVID-19 pandemic with losses that widened due to additional cost provisions made for on-going projects following the extended completion date and continuous border restrictions imposed by the Malaysian government. As a result of the extension project completion dates, certain heavy engineering projects may potentially be exposed to risks of significant liquidated damages. However, as the extended project completion dates were mainly caused by COVID-19, we expect to be able to defend against any claims for liquidated damages. Furthermore, the client for these projects has agreed in principle to extend certain project milestones which we are now striving to meet. As such, we did not recognize any impact of the potential liquidated damages in 2021. We are also pursuing COVID-19 cost recovery and other claims from the client on these same projects. Our Marine and Heavy Engineering segment recorded impairment losses in 2020 as a result of the COVID-19 pandemic and its effect on the market. At each reporting date, we are required to perform impairment test for assets of each of our segments to determine if there is any indication of impairment. We recognize an impairment loss if the carrying amount of an asset exceeds its recoverable amount. We recognize these losses in profit or loss. An impairment loss is reversed (that is, we record an impairment write-back) only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization. The COVID-19 pandemic adversely impacted our Marine and Heavy Engineering segment as a result of extended duration to our on-going heavy engineering projects and fewer repair jobs, which in turn were primarily due to the shutdown of yard operations, prolonged border control measures and our introduction of new Standard Operating Procedures addressing the evolving situation in light of the pandemic. In addition, due to the depressed oil price in 2020, most oil and gas companies postponed their upstream projects and reduced capital expenditure. As a result, we recorded a total impairment loss of RM300.0 million in 2020 in relation to other property, plant and equipment and right-of-use assets in the Marine and Heavy Engineering segment in anticipation of a prolonged recovery in the industry resulting from these events.

In terms of cash flow and liquidity, we have not experienced any significant delinquencies in our receivables relating to the COVID-19 pandemic.

Impact of Certain Accounting Standards

Our management uses certain non-MFRS measures of performance as we believe that our cash flow from operations MFRS-based measures may not always be reflective of our financial performance, including due to the treatment of finance lease as well as certain one-off non-cash items. For more details of our finance lease treatment, see "*—Critical Accounting Policies and Estimates—Lease—we as lessor.*" For addition information on our use of non-MFRS measures of performance. See "*Summary Consolidated Financial Information.*"

Our accounting treatment for finance leases creates a mismatch between cash flows and accounting profit recognized under finance lease. We have been able to consistently record high levels of cash flow from operations. However, our net profit after tax did not move entirely in tandem within 2019, 2020 and 2021, mainly due to how we recognize revenue and profit for contracts under finance lease accounting, as well as certain one-off non-cash items.

In the case of a finance lease, we recognize finance income over the lease term, based on a pattern reflecting a constant periodic rate of return on our net investment in the lease. We allocate the finance income over the lease term on a systematic and rational basis. We apply the lease payments relating to the period against the gross investment in the lease to reduce both the principal and the unearned finance income. This is applied in both our Gas Assets and Solutions and Offshore Business segments.

For time charter contracts for offshore floating assets that are structured as finance leases, where we are required to undertake the design, construction (or conversion), assembly, transportation and installation (such tasks collectively, the "vessel conversion") of an existing vessel into offshore floating assets to be delivered to the customers, we have applied turnkey accounting in these arrangements. This accounting treatment requires us to accelerate the recognition of revenues and profits during the construction phase of the asset while the asset generates cash only during the leasing phase, since that is the time we are entitled to start receiving the lease payments.

Functional and Reporting Currency

As a company listed on Bursa Malaysia, our financial statements are presented in Malaysian ringgit. While a portion of our revenue and expenses are denominated in Malaysian ringgit and other currencies, the majority of these are denominated in U.S. dollars and the functional currency of most of our subsidiaries is the U.S. dollar.

In preparing the financial statements of our individual entities, transactions in currencies other than the entity's functional currency (the "**foreign currencies**") are recorded using the exchange rates prevailing at the dates of the transactions. At each reporting date, monetary items denominated in foreign currencies are translated to the functional currency at the rates prevailing on the reporting date. Non-monetary items carried at fair value that are denominated in foreign currencies are translated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

A strengthening of the U.S dollar against the Malaysian ringgit generally has a positive effect on our results of operations, and a weakening of the U.S. dollar against the Malaysian ringgit has a negative effect on our results of operations. See "*Risk Factors—Changes in the exchange rate between the U.S. dollar and the Malaysian ringgit may have a negative impact on our financial condition and results of operations*."

Our Business Segments

We focus on five principal business segments: Gas Assets and Solutions segment, Petroleum and Product Shipping segment, Offshore Business segment, Marine and Heavy Engineering segment, and other businesses, which primarily consist of our three strategic enablers: Integrated Marine Services, Port Management and Maritime Services, and Maritime Education and Training.

Gas Assets and Solutions

Revenue and business make-up. In 2019, 2020 and 2021, 28.8%, 28.2% and 27.0% of our revenue, respectively, and 61.7%, 59.0% and 64.2% of our operating profit, respectively, were derived from our Gas Assets and Solutions business. Our LNGCs operate primarily on long-term time charters that provide a stable source of revenue. These time charters include a fixed element (capital hire) and an escalating element (operating hire), which is adjusted based on a cost index. We seek to set the fixed capital hire portion of the time charter rate in all of our LNG time charter contracts so that we are able to realize a return in excess of our investment in constructing or refurbishing each vessel under time charter. Our time charters for VLECs (discussed below) are structured similarly.

Time Charters for subsidiaries of PETRONAS. Of our 30 owned LNGCs, 22 are currently under long-term time charters with subsidiaries of PETRONAS, with an average remaining contract term of approximately 7 years as of December 31, 2021. PETRONAS' subsidiaries have chartered these vessels in connection with long-term LNG sales agreements between such subsidiaries and their customers. Our strategy is to continue to charter our LNGCs under long-term time charters by leveraging our reputation, experience and ship management know-how in this specialized sector through the pursuit of long-term time charters with third parties.

Revenue stream diversification. We have also steadily diversified our customer base, asset portfolio and service offerings. In 2019, we entered into a joint venture with Mitsubishi and Nippon Yusen Kabushiki Kaisha to co-own two newbuild LNG vessels on 18-year charter contract with Diamond Gas International Pte. Ltd. (a wholly owned subsidiary of Mitsubishi Corporation) to transport its LNG from Canada to customers globally. We have also entered the ethane carrier business by acquiring six newbuild VLECs; all six of our VLECs, which were delivered in 2020 and 2021 are on 15-year charter contracts to Satellite Chemical Co., Ltd ("**STL**"). We also added an LBV into our asset portfolio and service offerings in 2020, making us the region's first commercial operator and ship manager for an LBV.

Cost impact on newbuilding. The cost of LNG newbuildings has been increasing due to several factors including the higher demand for LNGCs, limited number of newbuilding slots and increases in the cost of raw materials, principally steel. However, we do not expect that increases in LNG newbuilding costs will impact us financially because our capital expenditure costs are agreed upfront prior to signing of ship building contracts. In addition, these agreements are structured as back-to-back arrangements between our term charter party agreements with the relevant charterers, which avoids exposure that might otherwise erode our return. We have two newbuildings scheduled for delivery in 2023. Both of these have been contracted on long-term charters for 15 years (firm period).

Strategy. We expect to grow our conventional LNGC business, in line with the expected growth in the LNG market with new projects or the expansion of LNG projects pursued by PETRONAS and other major LNG players globally. In addition, we will also pursue diversification by accelerating our entry into unconventional gas carriers (such as the ethane industry) and commercializing future options such as FSRUs, and FSR-P, as well as the emerging gas carriage solutions needed as part of ongoing global energy transition.

Petroleum and Product Shipping

In 2019, 2020 and 2021, 48.0%, 41.1%, and 30.0% of our revenue, respectively, and 18.7%, 23.3% and 14.4% of our operating profit, respectively, were derived from our Petroleum and Product Shipping business. The lower revenue and operating profit in 2020 and 2021 were largely due to the prolonged impact from the COVID-19 pandemic, and also due to a lower number of earning days and a reduction in shipping capacity.

We generate revenue from our Petroleum and Product Shipping segment predominantly by transporting petroleum, refined products and chemicals worldwide. Our petroleum tankers operate on spot charters, time charters and COAs. Historically, we have recorded high utilization rates for our vessels, where the utilization rate for our petroleum fleet has been approximately 99% over the past 3 years. In 2019, 2020 and 2021, we primarily derived our revenue for our Petroleum and Product Shipping segment from time charters, COAs, and lightering contracts. In 2019, 2020 and 2021, we derived 31.7%, 26.5% and 19.3% of our revenue from our Petroleum and Product Shipping segment, respectively, from spot charters, short-term contracts and contracts with freight rates linked to the spot market. Spot charters typically have a term of several days to several weeks and are subject to prevailing market rates. COAs in the petroleum shipping business generally are volume-based contracts with rates that are fixed or subject to adjustment based on the spot market. In order to provide enhanced revenue cover from significant rate volatility, a portion of our COAs include caps for floor rates and ceiling rates and committed minimum and maximum volumes. In addition to conventional shipping business, we are also market leaders in the operation of specialist lightering and have strong presence in the DPSTs space in Latin America and the North Sea. Although a portion of our lightering business is priced on a spot basis, the spot rates for lightering services are less volatile than that from most other spot shipping sectors because of the specialized nature of lightering services, in which higher skill levels are required and reputation and capabilities play a greater role in pricing. Furthermore, our rates for lightering services are based predominantly on COAs with minimum and/or maximum volumes. All of our DPSTs are currently on long-term charters with energy majors and NOCs.

Spot freight rates in petroleum shipping, which are typically volatile and subject to seasonal and cyclical fluctuations and to competitive forces, were higher in 2019 and 2020 but were significantly lower in 2021 compared to the historical averages between 2011 and 2020. Lower rates were principally a result of tanker supply outstripping demand for oil transportation. To mitigate the potential revenue volatility associated with a reliance on spot revenues, in 2019, 2020 and 2021, we gradually developed a more balanced portfolio of contracts with 68.3%, 73.5% and 80.7%, respectively, of revenue in this segment derived from time charters, COAs, and lightering contracts.

Utilization rates of our petroleum tankers are expected to remain high over the next several years, principally on the back of our ability to program and schedule our ships efficiently. Charterhire and freight rates are expected to continue to be the principal factor affecting our revenue in this segment.

Offshore Business

Our Offshore Business segment offers a comprehensive array of innovative offshore solutions in the FPS market, covering concept selection, engineering design, project management and operations and decommissioning. In 2019, 2020 and 2021, 12.1%, 13.7% and 28.5% of our revenue, respectively, and 25.7%, 28.1% and 41.3% of our operating profits, respectively, were derived from our Offshore Business segment. Similar to the revenue streams of our Gas Assets and Solutions business, this expanding business unit is characterized by fixed-rate term charters and provides us with a relatively stable and non-cyclical source of revenue. The time charters that we derive revenue from in this segment typically include a fixed element (capital hire) and an escalating element (operating hire), which is adjusted based on a cost index. The fixed capital hire portion of the time charter rate in these contracts is intended to enable us to realize a return in excess of our investment in constructing and leasing of the respective facilities.

The key demand factor for offshore production facilities is the price of oil. Generally, high oil prices lead to robust exploration and production expenditure, which allows oil and gas companies to tap stranded, marginal and deepwater offshore fields (those in depths in excess of 500 meters) with the use of FPSO/FSO facilities. The main function of these facilities is to treat raw reservoir hydrocarbon fluids (in the case of FPSOs), store processed crude oil in tanks onboard and offload the processed crude oil to shuttle tankers for shipment.

As of December 31, 2021, our Offshore Business segment owned and operated 12 assets located in Brazil, Thailand, Malaysia and Vietnam.

Marine and Heavy Engineering

We operate our Marine and Heavy Engineering business through our Bursa Malaysia-listed subsidiary, Malaysia Marine and Heavy Engineering Holdings Berhad ("**MHB**"). MHB is a relatively small contributor to our operating results, accounting for 11.3%, 16.7% and 13.7% of our revenue in 2019, 2020 and 2021, respectively. During these same respective years, MHB had an operating loss of RM40.5 million, RM100.1 million and RM252.2 million (US$60.5 million). We divide the services under our Marine and Heavy Engineering business into two principal businesses: heavy engineering business and marine business. We also provide other services such as plant turnaround and shutdown maintenance, fabrication of turrets, hook-up and commissioning for brownfield works and other offshore services.

Revenues from heavy engineering projects are derived on progressive completion, based on either a lump sum or cost-plus basis. The key demand factor for heavy engineering projects, much as in the case of the offshore business, is the price of oil, which at high levels leads to rising expenditures on exploration and production by oil and gas companies. With the rise in number of ships active in Asia, demand for marine repairs and dry docking has also increased in recent years.

Other Businesses

Our other businesses segment includes Integrated Marine Services, Port Management and Maritime Service, and Maritime Education and Training, which provide the substantial majority of their services to other companies within our group.

Integrated Marine Business

Our Integrated Marine Services sub-segment is conducted through our wholly owned subsidiary Eaglestar, which primarily derives revenue by providing ship management and technical advisory services to both internal and external ship owners. With a workforce of approximately 4,800 professionals, operating costs of this sub-segment primarily consist of employee costs and general and administrative expenses.

Port Management and Maritime Services

Our Port Management and Maritime Services sub-segment is conducted primarily through our wholly-owned subsidiary, MISC Maritime Services Sdn. Bhd. ("**MMS**"), which derives its revenue primarily from contract agreements and service fees related to port and terminal management and provision of maintenance and other related services, and service fees from vessel inspection and screening services related to maritime services. The operational cost of this sub-segment primarily consists of salary and wages, and lease expenses.

Maritime Education and Training

Our Maritime Education and Training sub-segment is operated through our wholly-owned maritime academy, ALAM, and income from this sub-segment does not currently contribute materially to our revenue or operating profit.

Results of Operations

2021 Compared to 2020

The following table presents a summary of our statement of profit or loss information and changes therein for 2021 and 2020.

	Year Ended December 31,			Increase/(Decrease)	
	2020	2021		Amount	%
	(RM in millions)		(US$ in millions)	(RM in millions, except percentages)	
Revenue	9,401.2	10,671.7	2,562.2	1,270.5	13.5
Cost of sales	(6,521.4)	(8,054.2)	(1,933.8)	1,532.8	23.5
Gross profit	2,879.8	2,617.5	628.5	(262.3)	(9.1)
Other operating income	141.7	369.5	88.7	227.8	160.7
General and administrative expenses	(1,116.9)	(1,086.8)	(261.0)	(30.1)	(2.7)
Impairment provisions	(331.4)	(111.9)	(26.9)	(219.5)	(66.2)
Gain on disposal of ships	25.1	31.6	7.6	6.5	25.9
Loss from deconsolidation of a subsidiary	—	(2.3)	(0.6)	2.3	100.0
Gain on disposal of interest in joint ventures	—	25.1	6.0	25.1	100.0
Write off of trade receivables and loss on re-measurement of finance lease receivables	(846.2)	—	—	(846.2)	(100.0)
Provision for litigation claims	(1,049.2)	—	—	(1,049.2)	(100.0)
Finance income	112.6	48.3	11.6	(64.3)	(57.1)
Finance costs	(368.1)	(417.3)	(100.2)	49.2	13.4
Share of profit of joint ventures	428.8	297.4	71.4	(131.4)	(30.6)
Share of profit of associates	0.2	3.7	0.9	3.5	1,750.0
(Loss)/profit before taxation	(123.6)	1,774.7	426.0	1,898.3	1,535.8
Taxation	(46.2)	(41.1)	(9.9)	(5.1)	(11.0)
(Loss)/profit for the year	(169.8)	1,733.6	416.1	1,903.4	1,121.0

Revenue

Revenue from our energy-related shipping and offshore businesses consists principally of amounts earned pursuant to charterhires, voyage, lightering, vessel conversion and other shipping contracts. In our Marine and Heavy Engineering business, we derive revenue principally from provision of engineering, procurement, construction, installation, commissioning, operations and maintenance, decommissioning and demobilization solutions, and marine repair. In our other businesses, revenue consists principally of amounts generated from the operation and maintenance of offshore floating assets, management of operation of ports, marine terminals and marine vessels, provision of marine support services and consulting services for marine matters.

The following table sets forth, for each of the years indicated, our revenue by geographic region and expresses each as a percentage of our total revenue for the period.

	Year Ended December 31,				
Source of revenue	**2020**	**% of Consolidated Revenue**	**2021**		**% of Consolidated Revenue**
	(RM in millions)	**%**	**(RM in millions)**	**(US$ in millions)**	**%**
By Business Segment					
Gas Assets and Solutions	2,652.7	28.2	2,882.8	692.1	27.0
Petroleum and Product Shipping	3,863.5	41.1	3,200.4	768.4	30.0
Offshore Business	1,288.5	13.7	3,038.9	729.6	28.5
Marine and Heavy Engineering	1,567.6	16.7	1,467.3	352.3	13.7
Other Businesses	1,460.6	15.5	380.4	91.3	3.6
Eliminations(1)	(1,431.7)	(15.2)	(298.1)	(71.6)	(2.8)
Total revenue	9,401.2	100.0%	10,671.7	2,562.2	100.0%
By Geographic Region(2)					
Malaysia	5,040.7	53.6	4,770.4	1,145.4	44.7
The Americas	4,259.2	45.3	5,538.3	1,329.7	51.9
Asia, Africa and Europe	101.3	1.1	363.0	87.2	3.4
Total revenue	9,401.2	100.0%	10,671.7	2,562.2	100.0%

(1) Eliminations reflect intra-company transactions.

(2) Based on the location of the asset or where the asset is managed or operated.

Revenue and Results—Overview

Our revenue increased by 13.5% to RM10,671.7 million (US$2,562.2 million) in 2021 from RM9,401.2 million in 2020. This increased revenue in 2021 was attributable to higher recognition of revenue from conversion of an FPSO following a higher level of vessel conversion progress in 2021 in the Offshore Business segment and higher earning days in the Gas Assets and Solutions segment from the deliveries of five VLECs in 2021 and one VLEC in the fourth quarter of 2020. This increase was offset in part by lower revenue from our Petroleum and Product Shipping segment due to lower freight rates and lower earning days following disposals and redeliveries in 2021 and the second half of 2020. Marine and Heavy Engineering segment also recorded lower revenue due to lower dry-docking activities as a result of the prolonged border restrictions imposed by the Malaysian government to curb the COVID-19 pandemic.

Our operating profit decreased by 3.4% to RM1,948.4 million (US$467.8 million) in 2021 from RM2,017.2 million in 2020. The decrease in operating profit was primarily due to lower margins on freight rates and lower earning days from disposals and redeliveries of the vessels in the Petroleum and Product Shipping segment in 2021 and the second half of 2020 as well as additional cost provisions we recognized for on-going projects in 2021 in the Marine and Heavy Engineering segment. The decrease in operating profit was offset in part by the higher profit in Gas Assets and Solutions from the higher number of vessels in operation and higher revenue from conversion of an FPSO in the Offshore Business.

Revenue and Results By Business Segment

Gas Assets and Solutions. Gas Assets and Solutions remained the largest contributor to operating profit in 2021, accounting for 64.2% of operating profit. Revenue from the Gas Assets and Solutions increased by 8.7% to RM2,882.8 million (US$692.1 million) in 2021 from RM2,652.7 million in 2020, mainly due to deliveries of five VLECs in 2021 and one VLEC in the fourth quarter of 2020. Operating profit attributable to Gas Assets and Solutions increased by 5.0% to RM1,250.8 million (US$300.3 million) in 2021 from RM1,191.0 million in 2020, mainly due to the higher revenue as mentioned above.

Petroleum and Product Shipping. Revenue from the petroleum shipping business decreased by 17.2% to RM3,200.4 million (US$768.4 million) in 2021 from RM3,863.5 million in 2020, mainly due to lower freight rates in 2021 and lower earning days from vessel disposals and redeliveries in 2021 and the second half of 2020. Operating profit in the Petroleum and Product Shipping business decreased by 40.2% in 2021 to RM280.6 million (US$67.4 million) from RM469.2 million in 2020, mainly due to lower margin on freight rates in 2021 as a result of low spot rates and lower earning days from vessel disposals and redeliveries in 2021 and the second half of 2020.

Offshore Business. Revenue from the Offshore Business segment increased significantly to RM3,038.9 million (US$729.6 million) in 2021 from RM1,288.5 million in 2020, mainly due to higher revenue from conversion of an FPSO in line with a higher level of vessel conversion progress in 2021. Operating profit in the Offshore Business increased by 42.3% in 2021 to RM805.3 million (US$193.3 million) from RM565.9 million in 2020, mainly due to the higher revenue as explained above.

Marine and Heavy Engineering. Revenue from Marine and Heavy Engineering decreased by 6.4% to RM1,467.3 million (US$352.3 million) in 2021 from RM1,567.6 million in 2020, mainly due to lower dry-docking activities in 2021 as a result of prolonged border restrictions imposed by the Malaysian government to curb the COVID-19 pandemic. Operating loss for the Marine and Heavy Engineering business increased significantly in 2021 to RM252.2 million (US$60.5 million) from an operating loss of RM100.1 million in 2020, mainly due to additional cost provisions related to on-going heavy engineering projects in 2021.

Revenue by Geographic Market

Malaysia. Malaysia accounted for 53.6% and 44.7% of our revenue in 2020 and 2021, respectively. Revenue from Malaysia decreased by 5.4% to RM4,770.4 million (US$1,145.4 million) in 2021 from RM5,040.7 million in 2020, mainly due to lower revenue from the Marine and Heavy Engineering segment as discussed above.

The Americas. The Americas remained a market of strategic importance for us, accounting for 45.3% and 51.9% of our revenue in 2020 and 2021, respectively. Revenue from the Americas increased by 30.0% to RM5,538.3 million (US$1,329.7 million) in 2021 from RM4,259.2 million in 2020, mainly due to higher recognition of revenue from conversion of an FPSO following a higher level of vessel conversion progress in 2021.

Asia, Africa and Europe. The Asia, Africa and Europe market was relatively small but expanding, accounting for 1.1% and 3.4% of our revenue in 2020 and 2021, respectively. Revenue from Asia, Africa and Europe increased significantly to RM363.0 million (US$87.2 million) in 2021 from RM101.3 million in 2020, mainly due to deliveries of five VLEC in 2021.

Cost of Sales

Cost of sales increased by 23.5% to RM8,054.2 million (US$1,933.8 million) in 2021 from RM6,521.4 million in 2020. The increase in 2021 was primarily due to higher costs incurred for an FPSO in the Offshore Business segment in tandem with higher level of work done during the year coupled with higher construction costs from additional costs provisions in the Marine and Heavy Engineering segment.

Gross Profit and Gross Profit Margin

Our gross profit decreased by 9.1% to RM2,617.5 million (US$628.5 million) in 2021 from RM2,879.8 million in 2020 primarily as a result of the higher cost of sales discussed above. Our gross profit margin was 24.5% in 2021, compared to 30.6% in 2020, primarily as a result of the higher cost of sales from our Offshore Business and Marine and Heavy Engineering segments as discussed above.

Other Operating Income

The principal components of our other operating income are, realized and unrealized foreign exchange gains, management services for the joint ventures, dividend income from equity investments, write-back of impairment loss on trade and other receivables and finance lease receivables, cadet course fees, government grants and miscellaneous income.

Our other operating income increased significantly to RM369.5 million (US$88.7 million) in 2021 from RM141.7 million in 2020. The increase in other operating income in 2021 was primarily due to a compensation for a contract renegotiation in 2021.

General and Administrative Expenses

Our general and administrative expenses decreased by 2.7% to RM1,086.8 million (US$261.0 million) in 2021 from RM1,116.9 million in 2020. The decrease in 2021 was primarily due to lower staff costs as a result of our reversal of staff costs that were over-provisioned for in 2020.

Impairment Provisions

Our impairment provisions are primarily related to those for ships, offshore floating assets, other property, plant and equipment and right-of-use assets. Impairment provisions decreased by 66.2% to RM111.9 million (US$26.9 million) in 2021 from RM331.4 million in 2020. The decrease in impairment provisions in 2021 was primarily because in 2020 we included an impairment in our Marine and Heavy Engineering segment as a result of COVID-19 pandemic and depressed oil price environment and did not recognize a similar provision in 2021.

Gain on Disposal of Ships

Gain on disposal of ships increased by 25.9% to RM31.6 million (US$7.6 million) in 2021 from RM25.1 million in 2020. The increase in gain on disposal of ships in 2021 was primarily due to higher vessel disposals in our Petroleum and Product Shipping and Gas and Assets Solutions segments.

Gain on Disposal of Interest in Joint Ventures

We recognized a gain on disposal of interest in joint venture of RM25.1 million (US$6.0 million) in 2021 in relation to our disposal of our entire shareholding in SBM Systems Inc. and FPSO Brasil Ventures S.A in 2021.

Loss from Deconsolidation of a Subsidiary

We recognized a loss from deconsolidation of a subsidiary of RM2.3 million (US$0.6 million) in 2021 in relation to our disposal of a portion of our equity interest in FPSO Ventures Sdn. Bhd., which ceased to be our subsidiary since our disposal in April 2021.

Write off of Trade Receivables and Loss on Re-measurement of Finance Lease Receivables and Provision of Litigation Claims

We recorded a write-off of trade receivables and loss on re-measurement of finance lease receivables of RM846.2 million in 2020, following the adverse decision on an arbitration proceeding involving Gumusut-Kakap Semi-Floating Production System (L) Limited ("**GKL**"), our wholly-owned subsidiary. We also recognized a provision for litigation claims amounting to RM1,049.2 million in 2020, representing an estimate of the outcome arising from the awards related to the same arbitration proceeding. See "*Business—Legal*" for more information on the arbitration proceeding. In 2021, we did not recognize either a write-off of trade receivables and loss on re-measurement of finance lease receivables or a provision of litigation.

Finance Income

Our finance income primarily consists of interest income from various sources and unwinding of discount on trade receivables. Finance income decreased by 57.1% to RM48.3 million (US$11.6 million) in 2021 from RM112.6 million in 2020. The decrease in finance income in 2021 was primarily due to the lower average interest rate in 2021.

Finance Costs

Our finance cost primarily consists of interest expense on loan and borrowings and interest on lease liabilities. Our finance costs increased by 13.4% to RM417.3 million (US$100.2 million) in 2021 from RM368.1 million in 2020. The increase in finance costs in 2021 was primarily due to higher level of borrowings.

Share of Profits of Joint Ventures

Our share of profits of joint ventures decreased by 30.6% to RM297.4 million (US$71.4 million) in 2021 from RM428.8 million in 2020. The decrease in share of profits of joint ventures in 2021 was primarily because in 2020 we recognized a gain from a contract extension secured for a jointly-owned FPSO which was higher than the gain recognized from contracts extension secured for different jointly-owned FPSOs in 2021.

Share of Profits of Associates

Our share of results of associates increased to RM3.7 million (US$0.9 million) in 2021 from RM0.2 million in 2020. The increase in share of profits of associates in 2021 was primarily due to recognition of FPSO Ventures Sdn. Bhd. as an associate since April 2021 following our disposal of a portion of our equity interest in this entity as discussed above.

Profit/(Loss) before Taxation

As a result of the factors discussed above, our profit before taxation in 2021 was RM1,774.7 million (US$426.0 million), compared to a loss before taxation of RM123.6 million in 2020.

Taxation

Our effective tax rate is lower than the statutory tax rate, principally because income derived from the operation of sea-going Malaysia-registered ships is exempted from income tax, as provided under the Malaysian Income Tax Act. This exemption was reduced from 100% to 70% effective from the year of assessment ("**YA**") 2012. The implementation of this amendment, however, was deferred and the extension of the 100% shipping tax exemption is now available up to YA 2023, subject to certain conditions. See note 11 to our consolidated financial statements included in this Offering Circular for more information. In addition, our Singapore-flagged vessels also qualify for full tax exemption as provided under the

Singapore Income Tax Act. Apart from Malaysia and Singapore, our vessels in other jurisdictions carrying on international shipping operations also generally qualify for tax exemption as accorded in their respective jurisdictions. Our taxation decreased by 11.0% to RM41.1 million (US$9.9 million) in 2021 from RM46.2 million in 2020. The decrease in taxation in 2021 was primarily attributable to a reversal of tax provision in a subsidiary following the finalization of a tax treatment with the tax authority of Malaysia.

Profit/(Loss) after Taxation

We recorded a profit after taxation of RM1,733.6 million (US$416.1 million) in 2021, as compared to a loss after taxation of RM169.8 million in 2020, for the reasons discussed above.

2020 Compared to 2019

The following table presents a summary of our statement of profit or loss information and changes therein for 2020 and 2019.

	Year Ended December 31,		Increase/(Decrease)	
	2019	2020	Amount	%
	(RM in millions, except percentages)			
Revenue	8,962.7	9,401.2	438.5	4.9
Cost of sales	(6,215.6)	(6,521.4)	305.8	4.9
Gross profit	2,747.1	2,879.8	132.7	4.8
Other operating income	118.9	141.7	22.8	19.2
General and administrative expenses	(1,105.9)	(1,116.9)	11.0	1.0
Impairment provisions	(214.9)	(331.4)	116.5	54.2
Gain on disposal of ships and an offshore floating asset	7.9	25.1	17.2	217.7
Gain on acquisition of a business	23.7	—	(23.7)	(100.0)
Write off of trade receivables and loss on re-measurement of finance lease receivables	—	(846.2)	846.2	100.0
Provision for litigation claims	—	(1,049.2)	1,049.2	100.0
Finance income	169.2	112.6	(56.6)	(33.5)
Finance costs	(484.3)	(368.1)	(116.2)	(24.0)
Share of profit of joint ventures	250.6	428.8	178.2	71.1
Share of profit of an associate	—	0.2	0.2	100.0
Profit/(loss) before taxation	1,512.3	(123.6)	(1,635.9)	(108.2)
Taxation	(76.1)	(46.2)	(29.9)	(39.3)
Profit/(loss) for the year	1,436.2	(169.8)	(1,606.0)	(111.8)

Revenue

The following table sets forth, for each of the years indicated, our revenue by business segment and geographic region and expresses each as a percentage of our total revenue for the period.

	Year Ended December 31,			
Source of revenue	**2019**	**% of Consolidated Revenue**	**2020**	**% of Consolidated Revenue**
	(RM in millions, except percentages)			
By Business Segment				
Gas Assets and Solution	2,582.1	28.8	2,652.7	28.2
Petroleum and Product Shipping	4,304.8	48.0	3,863.5	41.1
Offshore Business	1,086.2	12.1	1,288.5	13.7
Marine and Heavy Engineering	1,009.8	11.3	1,567.6	16.7
Other Businesses	1,527.7	17.0	1,460.6	15.5
Eliminations[1]	(1,547.9)	(17.3)	(1,431.7)	(15.2)
Total revenue	8,962.7	100.0%	9,401.2	100.0%
By Geographic Region				
Malaysia	4,570.5	51.0	5,040.7	53.6
The Americas	4,302.9	48.0	4,259.2	45.3
Asia, Africa and Europe	89.3	1.0	101.3	1.1
Total revenue	8,962.7	100.0%	9,401.2	100.0%

(1) Eliminations reflect intra-company transactions.

Revenue and Results—Overview

Our revenue increased by 4.9% to RM9,401.2 million in 2020 from RM8,962.7 million in 2019. This increase was attributable primarily due to the higher contribution from on-going heavy engineering projects in our Marine and Heavy Engineering segment, higher earning days in the Gas Assets and Solutions segment following fewer dry-dockings and the delivery of a VLEC and recognition of construction revenue for an FPSO in the Offshore Business, offset in part by lower revenue from our Petroleum and Product Shipping segment due to lower number of operating vessels following disposals and deliverables during the year.

Our operating profit increased by 4.6% to RM2,017.2 million in 2020 from RM1,929.3 million in 2019. This increase was driven primarily by higher margins on freight rates in our Petroleum and Product Shipping segment and higher profit in our Offshore segment with recognition of profit on our construction of an FPSO.

Revenue and Results by Business Segment

Gas Assets and Solutions. Revenue from Gas Assets and Solutions increased by 2.7% to RM2,652.7 million in 2020 from RM2,582.1 million in 2019, mainly due to higher earning days as we performed fewer dry dockings in 2020 and the delivery of a VLEC in the fourth quarter of 2020. Operating profit attributable to Gas Assets and Solutions increased by 0.1% to RM1,191.0 million in 2020 from RM1,190.4 million in 2019, mainly due to higher revenue as explained above.

Petroleum and Product Shipping. Revenue from the Petroleum and Product Shipping decreased by 10.3% to RM3,863.5 million in 2020 from RM4,304.8 million in 2019, mainly due to a lower number of operating vessels in 2020 as a result of disposals and redeliveries during the year. Operating profit in the Petroleum and Product Shipping business increased by 30.2% in 2020 to RM469.2 million from RM360.4 million in 2019, mainly due to higher margin on freight rates in 2020, as a result of less spot charter vessels, since we can pass voyage costs down to our customers.

Offshore Business. Revenue from Offshore Business increased by 18.6% to RM1,288.5 million in 2020 from RM1,086.2 million in 2019, mainly due to the recognition of construction revenue for one FPSO in 2020. Operating profit in the Offshore Business increased by 14.2% in 2020 to RM565.9 million from RM495.4 million in 2019, mainly due to the construction profit recognized for the same FPSO.

Marine and Heavy Engineering. Revenue from Marine and Heavy Engineering increased by 55.2% to RM1,567.6 million in 2020 from RM1,009.8 million in 2019, mainly due to higher revenue from on-going heavy engineering projects. Operating loss for the Marine and Heavy Engineering segment increased by 147.3% in 2020 to RM100.1 million from an operating loss of RM40.5 million in 2019, mainly due to additional cost provisions and associated higher unabsorbed overhead costs arising from the COVID-19 pandemic.

Revenue by Geographic Market

Malaysia. Malaysia remained our largest market, accounting for 51.0% and 53.6% of our revenue in 2019 and 2020, respectively. Revenue from Malaysia increased by 10.3% to RM5,040.7 million in 2020 from RM4,570.4 million in 2019, mainly due to higher revenue from the Marine and Heavy Engineering segment as discussed above.

The Americas. The Americas remained a market of strategic importance for us, accounting for 48.0% and 45.3% of our revenue in 2019 and 2020, respectively. Revenue from the Americas decreased by 1.0% to RM4,259.2 million in 2020 from RM4,302.9 million in 2019, mainly due to lower revenue from the Petroleum and Product Shipping segment as a result of fewer operating vessels in 2020.

Asia, Africa and Europe. The Asia, Africa and Europe market was relatively small but expanding, accounting for 1.0% and 1.1% of our revenue in 2019 and 2020, respectively. Revenue from Asia, Africa and Europe increased by 13.4% to RM101.3 million in 2020 from RM89.3 million in 2019, mainly due to the delivery of one VLEC in 2020.

Cost of Sales

Cost of sales increased by 4.9% to RM6,521.4 million in 2020 from RM6,215.6 million in 2019. The increase in 2020 was primarily due to the recognition of construction costs for an FPSO in the Offshore Business segment coupled with higher construction costs in the Marine and Heavy Engineering segment.

Gross Profit and Gross Profit Margin

Our gross profit increased by 4.8% to RM2,879.8 million in 2020 from RM2,747.1 million in 2019. Gross profit margin remained stable at 30.6% in 2020, compared to 30.7% in 2019.

Other Operating Income

Our other operating income increased by 19.2% to RM141.7 million in 2020 from RM118.9 million in 2019. The increase in other operating income in 2020 was primarily due to the increase in miscellaneous income from third parties, primarily related to reimbursement of engineering and maintenance costs incurred on behalf of customers, partially offset by the decrease in miscellaneous income from fellow subsidiaries (which are other companies that are subsidiaries of PETRONAS), as 2019 included non-recurring finance lease adjustments for additional charter payments secured for FSUs.

General and Administrative Expenses

Our general and administrative expenses increased by 1.0% to RM1,116.9 million in 2020 from RM1,105.9 million in 2019. The increase in 2020 was primarily due to higher staff costs due to higher headcount, higher information and communications technology costs and higher write-off brought about by higher de-recognition of replaced parts during vessel dry-docking and maintenance activities in 2020, offset in part by lower professional and consultancy services and lower business travelling expenses in 2020.

Impairment Provisions

Impairment provisions increased by 54.2% to RM331.4 million in 2020 from RM214.9 million in 2019. The impairment provisions in 2020 were primarily due to the impairment we recognized in our Marine and Heavy Engineering segment in anticipation of a prolonged recovery in the industry resulting from the COVID-19 pandemic and depressed oil prices.

Gain on Disposal of Ships and an Offshore Floating Asset

Gain on disposal of ships and an offshore floating asset increased significantly to RM25.1 million in 2020 from RM7.9 million in 2019. The increase in gain on disposal of ships and an offshore floating asset in 2020 was primarily due to the disposal of certain petroleum vessels.

Gain on Acquisition of a Business

We recognized gain on acquisition of a business of RM23.7 million in 2019 in relation to our purchase of an LNGC, *LNG Portovenere*. We did not recognize any gain on acquisition of a business in 2020.

Write-off of Trade Receivables and Loss on Re-Measurement of Finance Lease Receivables and Provision of Litigation claims

We recorded a write-off of trade receivables and loss on re-measurement of finance lease receivables of RM846.2 million in 2020, following an adverse decision on an arbitration proceeding involving Gumusut-Kakap Semi-Floating Production System (L) Limited ("GKL"), our wholly-owned subsidiary. We also recognized a provision for litigation claims amounting to RM1,049.2 million in 2020, representing an estimate of the outcome arising from the awards related to the same arbitration proceeding. See "*Business—Legal*" for more information on the arbitration proceeding. We did not recognize either a write-off of trade receivables and loss on re-measurement of finance lease receivables or provision of litigation in 2019.

Finance Income

Finance income decreased by 33.5% to RM112.6 million in 2020 from RM169.2 million in 2019. The decrease in finance income in 2020 was primarily due to lower interest income on deposits as a result of lower average cash balance and lower average interest rates.

Finance Costs

Our finance costs decreased by 24.0% to RM368.1 million in 2020 from RM484.3 million in 2019. The decrease in finance costs in 2020 was primarily due to the decrease in interest expenses on loans and borrowings from banks and financial institutions as a result of lower average financing cost attributable to lower LIBOR rates in 2020.

Share of Profits of Joint Ventures

Our share of profits of joint ventures increased by 71.1% to RM428.8 million in 2020 from RM250.6 million in 2019. The increase in share of profits of joint ventures in 2020 was primarily due to the recognition of a gain resulting from a contract extension secured for a jointly-owned FPSO in 2020.

Profit/(Loss) before Taxation

As a result of the factors discussed above, our loss before taxation in 2020 was RM123.6 million, compared to a profit before taxation of RM1,512.3 million in 2019.

Taxation

Our taxation decreased by 39.3% to RM46.2 million in 2020 from RM76.1 million in 2019. The decrease in taxation in 2020 was primarily attributable to the reversal of deferred tax liability that was previously recognized on interest income expected to be remitted into Singapore but did not materialize, reversal of tax expense following the recognition of the adverse decision on an arbitration proceeding that caused a loss before tax for our subsidiary, GKL, and lower tax expense from a subsidiary following its liquidation in 2019.

Profit/(Loss) after Taxation

We recorded a loss after taxation of RM169.8 million in 2020, as compared to a profit after taxation of RM1,436.2 million in 2019, for the reasons discussed above.

Liquidity and Capital Resources

General

Our liquidity requirements relate to funding working capital (including maintenance and operating expenses for vessels and other assets), capital expenditures (including funding investments for vessels and other projects), debt service and maintaining cash reserves. Net cash flows from operations are our main source of liquidity. Additional sources include bank loans. We operate in a capital-intensive industry requiring substantial investment in vessels and other assets. We fund our capital expenditures mainly from our internally generated funds and borrowings. After funding working capital, our primary use of cash is for capital expenditures, in particular newbuildings and conversions. We expect to continue to apply cash to regular debt servicing and repayment and may consider debt prepayments as opportunities arise. The classification of the conversion costs under cash flows from operating activities are determined on the basis that the conversion is a turnkey activity which contributes to the recognition of contract assets as per MFRS 15: Revenue from Contracts with Customers. The accounting treatment for the turnkey activity results in the acceleration of construction profits during the construction phase of the asset, although the asset starts to generate cash only after the construction and commissioning activities have been completed, as that is when we are entitled the lease payments.

Cash flows from operating activities were RM2,908.6 million (US$698.3 million) in 2021, 47.9% lower than the RM5,587.9 million in 2020, which remained relatively stable compared to RM5,579.1 million in 2019. The decrease in cash flow from operating activities in 2021 as compared to 2020 was mainly due to (i) the inclusion of payment for costs relating to the turnkey activities for the conversion of an FPSO in 2021 amounting to RM1,126.1 million (US$270.4 million) and (ii) positive adjustments after working capital in 2020, including RM619.4 million for net movement in deferred income (related to advanced charter payment received from a client in 2020), while we did not have similar positive adjustments in 2021. Cash flow from operating activities in 2020 remained relatively stable compared to 2019. Our cash flows from operating activities in 2020 were primarily attributable to operating profit before changes in working capital of RM4,068.4 million, which reflected an add-back of RM2,091.0 million for depreciation as well as write-off of trade receivables and loss on re-measurement of finance lease receivables of RM846.2 million and provision for litigation claims of RM1,049.2 million;

both of these latter two items were in relation to the adverse decision of the arbitration proceeding involving GKL. The adverse arbitration decision also resulted in lower cash collected in 2021 as the client continued to exercise its right to offset charter payment against the claims awarded to them by the Arbitration Tribunal. See "*Business—Legal*" for more information on the arbitration proceeding. In 2019 our cash flows from operating activities were RM5,579.1 million, primarily attributable to our operating profit before working capital changes of RM4,066.4 million.

Cash flows used in investing activities increased from RM1,533.0 million in 2019 to RM4,318.0 million in 2020, and decreased to RM3,135.2 million (US$752.7 million) in 2021. Expenditures for investing activities in 2021 predominantly reflected RM3,775.2 million (US$906.4 million) in purchases of ships and other property, plant and equipment which primarily related to the construction of VLECs and vessels for our Petroleum and Product Shipping segment. In 2020, cash flows used in investing activities predominantly reflected RM5,108.3 million in purchases of ships, offshore floating assets and other property, plant and equipment, which primarily related to the construction of petroleum and VLEC vessels. Expenditures for investing activities in 2019 predominantly reflected RM2,161.0 million in purchase of ships, offshore floating assets and other property, plant and equipment, which primarily related to the construction of petroleum vessels.

Cash flows used in financing activities decreased from RM3,772.7 million in 2019 to RM1,388.7 million in 2020, and further increased to RM1,499.0 million (US$360.0 million) in 2021. In 2021, amounts generated from financing activities consisted principally of the net drawdown of term loans and revolving credit of RM3,192.6 million (US$766.5 million). In 2020, amounts used in financing activities consisted principally of a net repayment of revolving credits of RM2,528.2 million and dividends of RM1,473.0 million, partially offset by a net drawdown of term loans of RM3,384.2 million. In 2019, amounts used in financing activities consisted primarily of dividends of RM1,339.1 million, placement of cash pledged with bank (restricted) on RM1,071.3 million and net repayment of term loans of RM604.3 million. Our placement of cash pledged with bank relates to cash reserves that we are required to set aside due to requirements in certain of our loans. These placements are recorded as cash outflows although we continue to be the beneficiary of the cash placed.

We believe that our financial resources are sufficient to meet our liquidity needs and that our existing capital resources, along with available sources of external financing will be sufficient to meet our currently anticipated capital expenditures. Our net debt-to-equity ratio increased marginally from 0.17 as at December 31, 2019 to 0.20 as at December 31, 2020, principally as a result of the increase of long term borrowings, partially offset by the decrease in short term borrowings. Our net debt-to-equity ratio increased further to 0.26 as at December 31, 2021, mainly due to higher drawdowns of term loans and revolving credit. Net debt-to-equity ratio is calculated as a ratio of net debts to total equity, and net debts are the sum of short term and long term borrowings with cash, deposits and bank balances subtracted. Our net debt to equity ratio is at a level that we consider to be low by industry norms.

The following table sets forth information with regard to our contractual obligations as of December 31, 2021 for each identified period.

	Payments Due by Period				
As of December 31, 2021	**Total**	**Within 1 year**	**More than 1, but less than 2 years**	**More than 2, but less than 5 years**	**More than 5 years**
			(RM in millions)		
Fixed Rate	12,044.1	4,733.0	901.6	2,824.8	3,584.7
Term loans	11,810.7	4,598.8	856.9	2,798.6	3,556.4
Lease liabilities	233.4	134.2	44.7	26.2	28.3
Floating Rate	4,985.0	3,576.4	—	1,408.6	—
Term loans	4,692.9	3,284.3	—	1,408.6	—
Revolving credits	292.1	292.1	—	—	—
Total	17,029.0	8,309.3	901.6	4,233.4	3,584.7

Long-term Debt

Our long-term borrowings amounted to RM7,552.7 million, RM11,434.9 million and RM8,719.7 million (US$2,093.6 million) as of December 31, 2019, 2020 and 2021, respectively. As of December 31, 2021, our total long-term borrowings represented 15.2% of our total assets. 95.5% of our total long-term borrowings outstanding as of December 31, 2021 were denominated in U.S. dollars, with the remainder denominated in Malaysian ringgit and other currencies. As of December 31, 2021, 78.9% of our total borrowings had maturities of less than five years and 24.0% was unsecured.

In 2021, we drew down an aggregate principal amount of RM5,099.2 million (US$1,224.3 million) from term loan facilities to finance our capital expenditure and acquisition of vessels.

Dividends

We are committed to generating a dividend yield on a sustainable basis. We paid dividends of RM1,339.1 million in 2019 (including a special dividend of RM133.9 million) and RM1,473.0 million in 2020. We have also declared dividends of RM1,473.0 million (US$353.7 million) in 2021. Our Board of Directors recommends the level of dividends to our shareholders, and we have historically paid out our dividend on a quarterly basis.

Restrictions Relating to Funding

Our existing loan agreements and the agreements governing our debt securities contain a number of covenants that could potentially impact our ability to incur additional indebtedness. We believe that these covenants are generally similar to covenants contained in loan agreements of similarly situated companies and include cross-default provisions, negative pledge provisions that restricts the creation of security interests over certain assets, gearing ratio and consolidated debt service coverage ratio requirements and certain financial covenants, including for the Guarantor to maintain at the relevant testing date a consolidated total debt to consolidated tangible net worth not to exceed 1:1, a consolidated total net debt to consolidated EBITDA not to exceed 5:1 and a consolidated total net debt to consolidated tangible net worth not to exceed 1:1.

Capital Expenditures and Commitments

We operate in a capital-intensive business, and our business strategy entails substantial future capital expenditures for our Gas Assets and Solutions, Petroleum and Product Shipping, Offshore Business, and Marine and Heavy Engineering businesses. Some of our planned projects, particularly in our Offshore Business segment, require capital expenditures for conversion and fabrication, which can be well before these projects begin to generate revenues and cash flows.

The following tables provide information regarding our capital expenditures and capital commitments for the years indicated.

	Year Ended December 31,			
Capital Expenditures	**2019**	**2020**	**2021**	
	(in millions)			
Approved and contracted for				
Ships, offshore floating assets and other property, plant and equipment	RM4,102.8	RM6,630.2	RM3,408.9	US$818.5
Information and communication technology.	9.9	7.3	7.9	1.9
Shares of capital commitment of a joint venture	115.8	—	—	—
Total.	RM4,228.5	RM6,637.5	RM3,416.8	US$820.3

We have substantial capital commitments that have been approved by our Board of Directors. The table above sets forth our outstanding approved and contracted capital commitments, as at the dates indicated. As of December 31, 2021. We had 12 vessels under newbuilding contracts for delivery between 2022 and 2024.

We also expect that in the ordinary course of our business we will enter into additional capital commitments not yet approved by our Board. The amount and timing of such additional capital commitments will depend upon a number of factors relating to the development of our business, which at this point in time cannot be ascertained.

In 2020, the approved and contracted capital expenditure included an amount totaling RM1,591.8 million relating to a vessel conversion into an FPSO to be leased out to a customer under a time charter contract. The vessel conversion is a turnkey activity which contributes to the recognition of contract assets as per MFRS 15: Revenue from Contracts with Customers. Accordingly, we excluded the amount relating to the vessel conversion from our approved and contracted capital expenditure in 2021; this accounts for a substantial portion of the difference in our total approved and contracted for capital expenditures as of December 31, 2021 as compared with the previous year. This exclusion is also consistent with our reclassification of the payments for costs on the conversion from cash flows from investing activities to cash flows from operating activities in 2021 as explained above. See "—*General.*"

Critical Accounting Policies and Estimates

We prepare our consolidated financial statement in accordance with Malaysian Financial Reporting Standards ("**MFRS**"), International Financial Reporting Standards ("**IFRS**") and the requirements on the Companies Act 2016 in Malaysia. Certain amounts included in or affecting these financial statements and related disclosure must be estimated, requiring our management to make assumptions with respect to values or conditions which cannot be known with certainty at the time the financial statements are prepared. We believe that the accounting policies set forth below comprise our most critical accounting policies. A "critical accounting policy" is one that is both important to the portrayal of the company's financial condition and results of operations and requires management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. We evaluate such policies on an ongoing basis, based upon historical results and experience, consultation with experts and other methods we consider reasonable in the particular circumstances, as well as our forecasts as to how the effect of our policies might change in the future. The disclosures below are summaries only. Please see our financial statements included elsewhere in this Offering Circular for a more complete discussion of our accounting policies.

Ships, offshore floating assets, other property, plant and equipment ("PPE") and depreciation

We initially record all ships, offshore floating assets and other PPE at cost. Subsequent costs are included in the asset's carrying amount or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to us and the cost of the item can be measured reliably.

We commence depreciation of ships and offshore floating assets from the date of delivery of these assets. Depreciation of ships and offshore floating assets in operation and other PPE is provided for on a straight-line basis to depreciate the cost of each asset to its residual value over the estimated useful life at the following annual rates:

The cost of ships and offshore floating assets is depreciated on a straight-line basis over the assets' estimated useful lives. We depreciate ships and offshore floating assets in operation and other PPE on a straight-line basis to depreciate the costs of each asset to its residual value over the estimated life at the following annual rates:

Ships	3.3% - 5.0%
Offshore floating assets	8.3% - 9.1%
Buildings	2.0% - 7.0%
Drydocks and waste plant	2.0% - 10.0%
Motor vehicles	10.0% - 33.3%
Furniture, fittings and equipment	10.0% - 33.3%
Computer software and hardware	15.0% - 33.3%
Plant and machineries	6.7% - 20.0%

We believe this is a prudent life expectancy applied in the shipping industry. Changes in the expected level of usage and regulations could impact the economic useful lives and the residual value of these assets, and therefore future depreciation charges could be revised. Ships, offshore floating assets, and other PPE are derecognized upon disposal, or when no future economic benefits are expected from their use or disposal.

Classification between associates, joint operations and joint ventures

Associates are entities in which we have significant influence including representation on their board of directors, but not control or joint control, over the financial and operating policies of the investee company. Joint arrangements are arrangements in which we have joint control, established by contracts requiring unanimous consent for decisions about the activities that significantly affect the arrangements' returns. A joint operation is classified when we have rights to the assets and obligations for the liabilities relating to an arrangement, while a joint venture is classified when we have rights to the net assets of the arrangement. Where there has been a change recognized directly in the equity of the joint venture, we recognize its share of such changes. The joint venture is equity accounted for from the date we obtain joint control until the date we cease to have joint control over the joint venture.

Impairment of non-financial assets

An asset's recoverable amount is estimated to determine the amount of impairment loss of non-financial assets if there is such indication of impairment exists. For purposes of impairment testing of these assets, the recoverable amount is usually determined on an individual asset basis. If an asset does not generate cash flows that are largely independent of those from other assets, recoverable amount is determined for the cash-generating-unit to which the asset belongs. In assessing value-in-use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

Impairment of financial assets

We recognize loss allowances for expected credit losses on financial assets measured at amortized cost and finance lease receivables. An impairment loss in respect of financial assets measured at amortized cost is recognized in profit or loss and the carrying amount of the asset is reduced through the use of an allowance account. An impairment loss in respect of debt investments measured at fair value through other comprehensive income is recognized in profit or loss and the allowance account is recognized in other comprehensive income.

Lease—we as lessor

We determine at lease inception whether each lease is a finance lease or an operating lease. We make an overall assessment of whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then it is an operating lease. If an arrangement contains lease and non-lease components, we apply MFRS 15 Revenue from Contracts with Customers to allocate the consideration in the contract based on the stand-alone selling price. We recognize assets held under a finance lease in our statement of financial position and presents them as a receivable at an amount equal to the net investment in the lease. We use the interest rate implicit in the lease to measure the net investment in the lease.

In contrast, in the case of our assets that we provide under operating leases, lease revenues and profits are recognized on a straight-line basis during the lease period, thereby more closely tracking our cash receipts.

Lease—we as lessee

We recognize a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the respective entities' incremental borrowing rate is used. Generally, our entities use their incremental borrowing rate as the discount rate.

Lease payments included in the measurement of the lease liability comprise the following:

- fixed payments, including in-substance fixed payments;

- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;

- amounts expected to be payable under a residual value guarantee;

- the exercise price under a purchase option that we are reasonably certain to exercise; and

- penalties for early termination of a lease unless we are reasonably certain not to early terminate the contract.

We exclude variable lease payments that linked to future performance or usage of the underlying asset from the lease liability. Instead, these payments are recognized in profit or loss in the period in which the performance or use occurs.

We assess at lease commencement whether it is reasonably certain to exercise the extension options in determining the lease term. We have elected not to recognize right-of-use assets and lease liabilities for short-term leases that have a lease term of 12 months or less and leases of low-value assets. We recognize the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

Deferred tax assets

We recognized deferred tax assets for all deductible temporary differences, carry forward of unused tax credits and unused tax losses, to the extent that is probable that taxable profit will be available and can be utilized, except:

- where the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination, and at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and

- in respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, deferred tax assets are recognized only to the extent that is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

Provisions

We recognize provisions when all of the following conditions have been satisfied:

- we have a present obligation (legal or constructive) as a result of a past event;

- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and

- a reliable estimate of the amount can be made.

Where the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability. When discounting is used, the accretion in the provision due to the passage of time is recognized as a finance cost.

Provision for warranty is made based on service histories to cover the estimated liability that may arise during the warranty period. Any surplus provision will be written back at the end of the warranty period, while additional provision is made as and when necessary.

Changes in Accounting Policies

In 2021, we further adopted certain new and revised MFRSs, as listed below:

Effective beginning on or after January 1, 2021

Amendments to MFRS 9:	Financial Instruments (Interest Rate Benchmark Reform—Phase 2)
Amendments to MFRS 139:	Financial Instruments: Recognition and Measurement (Interest Rate Benchmark Reform—Phase 2)
Amendments to MFRS 7:	Financial Instruments: Disclosures (Interest Rate Benchmark Reform—Phase 2)
Amendments to MFRS 4:	Insurance Contract (Interest Rate Benchmark Reform—Phase 2)
Amendments to MFRS 16:	Leases (Interest Rate Benchmark Reform—Phase 2)

Effective beginning on or after April 1, 2021

Amendments to MFRS 16:	Leases (COVID-19 Related Rent Concession beyond June 30, 2021)

For a discussion of possible impacts of the adoption of these policies, please see our financial statements included elsewhere in this Offering Circular.

Market-Related Risks

In connection with our business operations, we believe the following financial risks constitute our primary market-related risks.

Foreign currency exchange rate risk

We operate on a worldwide basis, and our functional currency is in U.S. dollars. Our revenue is predominantly denominated in U.S. dollars while our cost of sales are predominantly denominated in U.S. dollars or Malaysian ringgit, depending upon the relevant business unit. Our foreign currency exchange risks mainly comprise of transaction risk, which arises from day-to-day requirements to pay and to receive in currencies other than the functional currency.

For 2021, 97.2% of our revenue was denominated in our respective subsidiaries' functional currencies, and 97.1% of our cost of sales were denominated in our respective subsidiaries' functional currencies. To the extent that disproportionate amounts of our revenue and cost of sales operating expenses are denominated in a foreign currency, our results are exposed to foreign exchange risks. Assuming that we convert net financial receivables/payables, cash and bank balances not denominated in the functional currency in 2021 into Malaysian ringgit, a 10% appreciation/depreciation of the Malaysian ringgit against the U.S. dollar will result in a decrease/increase of RM5.4 million (US$1.3 million) in our profit before taxation.

Our vessels and containers are principally chartered-in or purchased in U.S. dollars, including those vessels acquired under the terms of long-term operating leases or other similar arrangements. Accordingly, we may be exposed to foreign exchange risks on our charterhire expenses and capital commitments. However, since the charter revenue and market value of the vessels and containers is denominated in U.S. dollars, we consider the dollar exposure related to the financing of vessels or containers to be an effective hedge.

We maintain a natural hedge, wherever possible, by borrowing in currencies that match the future revenue streams to be generated from our investments. We mainly borrow in U.S. dollars to meet our investment requirements that generate income in the same currency. We held forward currency contracts designated as hedges of expected future receipts and payments denominated in U.S. dollars, Great Britain Pounds and Euro for a subsidiary whose functional currency is Malaysian ringgit. We use the forward currency contracts to hedge the currency risk of transactions that contain firm commitment and anticipatory obligations. Other than the forward currency contracts, we do not actively use other foreign exchange derivative instruments as a means to hedge our transaction risks.

Interest rate risk

We are exposed to interest rate risk arising from the volatility of benchmark interest rates in our main borrowing currencies, the U.S. dollar, as all of our U.S. dollar borrowings are on a floating rate basis. As of December 31, 2021, the amount borrowed under such facilities before hedging was RM16,426.0 million (US$3,943.8 million).

We manage our interest rate exposure by maintaining a mix of fixed and floating rate borrowings, with 70.3% of our borrowings at fixed rates of interest as at December 31, 2021. To manage this mix in a cost-effective manner, we enter into interest rate swaps, in which we agree to exchange, at specified intervals, the difference between fixed and floating rate interest amounts calculated by reference to an agreed-upon notional principal amount. We have entered into interest rate swaps with total notional amount of RM11.5 billion as at December 31, 2021 with maturities ranging from one year to more than five years. The fixed interest rates relating to these interest rate swaps as at December 31, 2021 ranged from 0.46% to 3.19% per annum.

Each increase of 10.0 basis points in the benchmark interest rates applicable to our floating rate debt would have resulted in a decrease in profit before taxation of RM5.0 million (US$1.2 million) for the year ended December 31, 2021, based on our floating rate borrowings as of December 31, 2021.

Liquidity risk

We are exposed to liquidity risk when we have difficulty meeting our financial obligations due to shortage of funds. Our exposure to liquidity risk arises primarily from mismatches of the maturities of financial assets and liabilities, and we aim to maintain a balance between continuity of funding and flexibility through the use of bank loans and various other sources of funding.

Credit risk

Credit risk may arise when our counterparty defaults on its obligations. Our exposure to credit risk arises primarily from our operating activities, mainly in relation to trade receivables and finance lease receivables, and from our investing activities, including deposits with banks and financial institutions, foreign exchange transactions and other financial instruments.

Our maximum exposure to credit risk is represented by the carrying amount of each class of financial assets at each reporting date. We determine concentrations of credit risk by monitoring the profile of our receivables based on our business segments on an ongoing basis. We perform credit rating assessment of all of our counterparties to measure the expected credit loss of trade receivables for all segments using our credit rating assessment, which considers both quantitative assessment, including using our counterparties' financial statements, and qualitative assessment, including taking into considerations their reputation, competitive position, industry and geopolitical outlook.

We hold the majority of our cash and bank balances in the in-house account managed by PETRONAS Integrated Financial Shared Services Centre, which places a majority of the deposits with licensed banks with strong credit ratings in Malaysia. Credit risk from balances with banks and financial institutions is managed in accordance with our internal policy, which defines the parameters to guide investment activities to preserve capital while generating optimal returns.

Our past due receivables balances also consist of customers who are in dispute and under legal action and those who have never defaulted on payments but are slow paymasters. We monitor this category of receivables individually on a monthly basis.

Equity price risk

Equity price risk arises from our investment in quoted equity shares of Bintulu Port Holdings Berhad listed on Bursa Malaysia. As of December 31, 2021, the exposure to the investment carried at fair value was RM51.0 million.

OVERVIEW

We are a world-leading provider of international energy-related maritime solutions and services. Our principal business include energy shipping and its related activities, owning and operating offshore floating solutions, marine repair and conversion, and engineering and construction works. Primarily in connection with these business lines, we also provide integrated marine services, port management and maritime services, as well as maritime education and training. We have an operating presence in 11 countries globally and move energy across six continents.

As of December 31, 2021 our market capitalization was RM31.5 billion, (US$7.6 billion), making us one of the largest companies listed on Bursa Malaysia by market capitalization. We are a 51%-owned subsidiary of Petroliam Nasional Berhad (PETRONAS), a leading multinational, integrated energy company with a global presence in over 50 countries. We were incorporated in November 1968 and have been listed on the Bursa Malaysia since February 1987.

We are one of the world's highest internationally rated companies in the marine transport sector, as reflected in our corporate ratings of Baa2 by Moody's and BBB+ by S&P.

Our business consists of five business segments, which we use for financial reporting purposes:

o Gas Assets and Solutions, which primarily engages in the transportation of LNG and ethane;

o Petroleum and Product Shipping, which engages in the transportation of crude oil, petroleum products and chemicals;

o Offshore Business segment, which provides comprehensive offshore solutions for the oil and gas industry and owns, leases, operates and maintains various offshore floating assets;

o Marine and Heavy Engineering segment, which provides energy industry and marine solutions for a wide range of heavy engineering facilities and vessels in the oil and gas and other industries, including marine repair, marine conversions and engineering and construction works; and

o Other businesses, which primarily includes our three strategic enablers: Integrated Marine Services, Port Management and Maritime Services, and Maritime Education and Training.

Our vision is to consistently provide better energy-related maritime solutions and services. In pursuing our mission to be consistently better, we strive to:

- Exceed the expectations of our customers,
- Promote individual and team excellence of our employees,
- Create positive differences in the lives of communities,
- Care for the environment and operate responsibly, and
- Drive sustainable value for our shareholders.

Across our organization, we promote our shared values of loyalty, integrity, professionalism and cohesiveness.

In 2019, 2020 and 2021, we derived 28.8%, 28.2% and 27.0% of our revenue and 61.7%, 59.0% and 64.2% of our operating profit from the Gas Assets and Solutions segment, respectively, 48.0%, 41.1% and 30.0%, of our revenue and 18.7%, 23.3% and 14.4% of our operating profit from the Petroleum and Product Shipping segment, respectively, and 12.1%, 13.7% and 28.5% of our revenue and 25.7%, 28.1% and 41.3% of our operating profit from the Offshore Business segment, respectively. During these same years, we derived 11.3%, 16.7% and 13.7% of our revenue, but had an operating loss of RM40.5 million, RM100.1 million and RM252.2 million (US$60.5 million) from our Marine and Heavy Engineering segment, respectively. We consider these four segments as our principal businesses.

Our operations are built around a portfolio of modern, high quality assets, the substantial majority of which are on long-term charters or leases. In our Gas Assets and Solutions and Petroleum Shipping businesses, we own and operate a wide range of specialized ships for the energy transportation needs of our diverse client base. For Gas Assets and Solutions, this includes 30 owned LNGCs, which accounted for approximately 4.3% of the global fleet as of December 31, 2021, making us one of the largest single owner-operator of LNGCs, and six VLECs, which we have used to enter the newly developed market for transporting liquefied ethane. The other vessels include two FSUs and one LBV. Our Petroleum Shipping business is helmed by our subsidiary AET, and as of December 31, 2021 had eight owned VLCCs, and in the mid-size tanker segment our fleet consisted of 20 owned Aframaxes, two chartered-in Aframax, one chartered-in Panamax, three chartered-in LR2s trading in the crude sector, and six owned Suezmaxes, two owned and three chartered-in LR2s, four chartered-in chemical tankers and seven owned and one chartered-in LSVs. As of December 31, 2021, we also owned specialized and technically advanced assets including 11 DPSTs and two MCVs. In our Offshore business, as of December 31, 2021 we owned (including through joint ventures) 12 offshore floating facilities, consisting of six FPSO facilities, five FSO facilities, and one Semi-FPS. In our Marine and Heavy Engineering Business, which is operating by our Bursa Malaysia-listed subsidiary MHB, we own and operate Malaysia's largest operating yards, including the largest single fabrication yard in Southeast Asia (by area and annual production capacity) and one of the largest drydocks in Southeast Asia, with capacity to dock vessels up to 450,000 dwt.

Our other businesses are primarily strategic enablers that support our four core businesses, consisting of Integrated Marine Services, which provides shipmanagement solutions, Port Management and Maritime Services, which provides port and terminal management, marine assurance and consultancy services, and Maritime Education and Training, which manages ALAM, one of the leading maritime institutions in the region. We conduct our Integrated Marine Services segment through our wholly-owned subsidiary Eaglestar, which technically manages our vessel operations. As of December 31, 2021, Eaglestar had a team of approximately 4,800 highly skilled, competent and dedicated professionals to support our core businesses by delivering a comprehensive range of solutions including fleet management, crew management and project management services for newbuild construction and conversion projects.

As a world leading provider of international energy-related maritime solutions and services, we are committed to creating value for our stakeholders and contributing to the sustainability of our industry. In 2020, we undertook a comprehensive process, including extensive discussions and collaboration with our diverse workforce, suppliers and customers, to develop our 2021-2025 Sustainability Strategy. Through this process, we identified nine strategic priorities within the three ESG pillars–the environmental pillar, social pillar and governance pillar–and the fourth stakeholder engagement pillar. In addition, we included a Financial Pillar as part of our financial support to complete the Sustainability Strategy. Within our Environmental Pillar, we aspire to achieve decarbonized shipping operations by 2050, and this strategic priority aligns our carbon emission reduction commitments and exceeds the IMO's Initial Greenhouse Gas Strategy. We have planned out short to medium-term and long-term carbon reduction targets and, in connection with these targets, we have put in place concrete plans for both our shipping and non-shipping operations.

Competitive Strengths

We believe that our success is primarily attributable to the factors outlined below:

- **Our diversified portfolio of businesses provides a strong shield against market volatility and mitigates the standalone cyclicality of our individual businesses**

  We operate a diversified portfolio of maritime businesses. This diversification mitigates risks arising from specific sectors of our business. At the same time, these businesses provide us with synergistic value among them. We have four core businesses: Gas Assets and Solutions, Petroleum and Product Shipping, Offshore Business and Marine and Heavy Engineering. These core businesses are complemented and supported by our three strategic enablers: Integrated Marine Services, Port Management and Maritime Services, and Maritime Education and Training. In 2021, Gas Assets and Solutions provided 27.0% of our revenue and 64.2% of our operating profit; Petroleum and Product Shipping provided 30.0% of our revenue and 14.4% of our operating profit; Offshore Business provided 28.5% of our revenue and 41.3% of our operating profit; and Marine and Heavy Engineering provided 13.7% of our revenue, but recorded an operating loss of RM252.2 million (US$60.5 million). (These segment revenue and operating profit amounts and percentages are presented prior to the elimination of intersegment amounts.) Our Gas Assets and Solutions, Petroleum and Product Shipping and Offshore Businesses are also protected from market volatility by the substantial percentage of their revenues that are derived from long-term charters and COAs and lightering contracts, rather than spot market hires. In 2021, 90.6% of revenue from our Gas Assets and Solutions was derived from charters in excess of one year, and all of the revenue from our Offshore Business segment was derived from long-term charters. In the same year 80.7% of revenue from our Petroleum and Product Shipping segment was derived from charters, COAs and lightering contracts.

  In addition to the diversification among our businesses, we have also achieved geographic diversification, which also helps in mitigating risk. In 2021, 44.7% of our revenue was from Malaysia, 51.9% was from the Americas and 3.4% was from Asia, Africa and Europe. Recent initiatives that have improved our geographic diversification include our VLEC business, where we have added six VLECs that are now operating on long-term contracts transporting ethane from North America to China, and our floating offshore business's expansion to non-Malaysian markets, including Brazil, where we have one FPSO deployed and expect to deploy another in 2024.

- **Established customer relationships with key industry players**

  We have long-established relationships with key industry players across all of our businesses. These relationships are critical to our ability to maintain secure revenue streams, as they support our ability to obtain and renew long-term contracts and other stable revenue streams that rely on our expertise and reputation. In particular, we have a strategic relationship with PETRONAS, our parent company. In 1983, we started our LNG shipping operations with our first charter to a PETRONAS company, and as of December 31, 2021 our long-term charters to subsidiaries of PETRONAS included those for 22 of our LNG carriers and 2 FSUs.

  Across our various business, our other clients include energy majors and NOCs, such as Shell, TotalEnergies, ExxonMobil, Chevron, and Equinor (formerly Statoil, the Norwegian state-owned energy company). Some of these established relationships have translated into repeated contract awards. For example, we were awarded long-term charters from Shell for DPSTs, LNGCs and VLCCs in 2018, 2019 and 2021. For Equinor, we were awarded two long-term DPST charters in 2015 and an additional two in 2017. We have successfully leveraged these types of long-term relationships to grow our business and maintain stable sources of revenue.

And while we have a strong base of repeat customers, we have also expanded and diversified our customer relationships. For example, in 2018 in our Gas Assets and Solutions Business we added ENI for LNG shipping and in our Offshore Business added Idemitsu and Hess. In our Gas Assets and Solutions business, in 2019 we added Mitsubishi Corporation for LNG shipping and in 2020 added China's Satellite Petrochemical Co. Ltd. for ethane shipping.

- **Stable cash flow from term contracts complemented by discipline and rigor in risk and financial management**

  Our approach of securing long-term charters and other sources of secured revenue with strong counterparties has been the cornerstone of our ability to generate sustainable and recurring income. The consistent operational cash flow that we derive from secured revenue provides us resilience and enables us to service our debt obligations, absorb overhead costs and—during periods of business uncertainty such as the ongoing COVID-19 pandemic—withstand industry cyclicality and maintain stability. The visibility of our cash flows from operations allows us to confidently plan our growth to meet our strategic goals, regardless of the economic backdrop. In 2019, 2020 and 2021, in our Gas Assets and Solutions segment, we derived 88.9%, 89.7% and 90.6% of our revenue from charters in excess of one year and in our Petroleum and Product Shipping segment we derived 68.3%, 73.5% and 80.7% of our revenue from time charters, COAs and lightering contracts. In all of these periods, all of our revenue from our Offshore Business was from long-term charters.

  We analyze our asset investment opportunities under a rigorous process to ensure that we have the right assets and the ability to operate them with the highest standards of excellence–which is essential to securing the right long-term contracts for these assets with strong customers. To allocate our financial resources, we conduct a detailed risk assessment following a disciplined framework prior to each investment decision with the objective of ensuring an adequate level of expected returns commensurate with the risks we undertake.

  To ensure proper asset and liability management, we generally match our debts against the economic lives of our assets and contracts. For example, for the debts we use to finance most of the assets we use to generate fixed revenue, we match the debts used to finance these assets against the assets' economic lives or the relevant charter or lease contracts to ensure that these debts are fully paid off prior to the end of economic life or charter or lease maturity.

- **Healthy liquidity, backed by strong balance sheet**

  We have a record of robust financial performance, healthy cash flows and strong cash balances. Our cash flows from operations were RM5,579.1 million, RM5,587.9 million and RM2,908.6 million (US$698.3 million) in 2019, 2020 and 2021, respectively. We believe that CFROA represents a more meaningful metric of our cash generating performance than return on equity, and it was 10.8%, 10.8% and 7.0% in these same respective years; for additional details of our calculation and use of CFROA, see "*Summary Consolidated Financial Information.*" Our cash, deposits and bank balances as of the end of these same respective periods was RM7,030.8 million, RM6,855.0 million and RM7,952.4 million (US$1,909.3 million).

  We maintain prudent debt levels. Our debt-to-equity ratio was 0.37, 0.41 and 0.49 in 2019, 2020 and 2021, respectively, while our net debt-to-equity ratio for these same respective years was 0.17, 0.20 and 0.26. Debt-to-equity ratio is calculated as a ratio of total debt to total equity.

  We are one of the world's highest internationally rated companies in the marine transport sector, as reflected in our corporate ratings of Baa2 by Moody's and BBB+ by S&P.

  We are well capitalized, with a strong, unencumbered asset base, and we maintain strong long-term banking relationships with a well-diversified group of Malaysian and international lenders, including Singaporean, Japanese, European and American banks.

- **Successfully combining commercial viability and ESG priorities**

  As a world-leading provider of international energy-related maritime solutions and services, we are committed to contributing value to our stakeholders and contributing to the sustainability of our industry. We combine robust financial performance and strong balance sheet and cash flows with a deep commitment to our ESG priorities, including decarbonization targets exceeding those of the IMO. We have developed a Sustainability Framework, in which we are supported by our pillars of sustainability: financial, environment, social and governance, and each of these pillars include focused initiatives and programs supporting 11 of the 17 UN Sustainable Development Goals. Our Sustainability Framework has evolved from "knowing" to "doing" and from "compliance" to "competitive advantage."

  - ***Strong sustainability credit ratings***

    We have strong credentials and a proven track record in the ESG area, underpinned by our long-term commitment to sustainability. We have been a constituent of the FTSE4Good Bursa Malaysia Index for eight years—with a full four-star rating—and received a "low risk" rating from Sustainalytics. In 2021, we were included in the Dow Jones Sustainability Index ("**DJSI**") for the first time, and we were the only Malaysian transportation company to be included in the DJSI Emerging Market Index.

  - ***Environmental sustainability***

    We have made meaningful commitments to environmental sustainability, with our net-zero greenhouse gas ("**GHG**") emissions by 2050 aspiration and an interim GHG-intensity reduction target of a 50% reduction for shipping operations by 2030 (compared with a 2008 base year). Our interim GHG reduction target exceeds the IMO 2030 aspiration of a 40% carbon-intensity reduction for shipping operations by 2030 (compared with base year 2008).

    We are pursuing our sustainability goals through meaningful action, including our recent newbuild orders of several high-spec LNG dual-fuel vessels, which will substantially reduce emissions: sulfur by 100%, nitrogen oxide by 85% and carbon dioxide by 20%. Together with six other key maritime industry players, we are part of the Castor Initiative—a project to develop commercially viable ammonia-fuel deep-sea zero-carbon emission vessels. In 2020 this collaboration resulted in approval-in-principle for an ammonia-fueled tanker design with the aim of commercialization by 2024.

    We are also strongly supporting several externally developed economic, environmental and social charter principles. These include the Getting to Zero Coalition (a partnership with the Global Maritime Forum ("**GMF**"), Friends of the Ocean Action and the World Economic Forum that is committed to developing zero-carbon-emission vessels by 2030), the Neptune Declaration (a GMF initiative on seafarer wellbeing and dedicated to resolving the crew change crisis) and the Task Force on Climate-Related Financial Disclosures (developed by the Financial Stability Board to provide recommendations on how financially resilient a company is in facing the impacts of climate change). In 2019, we joined the Maritime Anticorruption Network as part of our efforts to oppose corruption in the maritime sector.

  - ***Social sustainability***

    We are committed to ensuring and promoting the health and safety for our employees and the communities where we operate by upholding the highest standards of health and safety practices. These efforts have been recognized in our achievements at the 2021 Malaysian Society for Occupational Health and Safety ("**MSOSH**") Awards, including "Gold Merit" awards for both Sungai Udang Port by MISC Maritime Services Sdn Bhd and for Eaglestar.

We are committed to creating and maintaining a diverse and inclusive work environment that attracts, retains and develops the best talent for our core and enabling businesses. As of December 31, 2021, we had a total of 8,851 employees from 47 nationalities, and as of same date for our on-shore employees, our male-to-female gender ratios was approximately 2.87:1 and we had a significant number of women in management, including 24.2% in middle management and 16.7% in senior leadership roles. As of January 1, 2022, our board-level female diversity was 33.3%. On the shipping side, we have 59 female seafarers, and our highest-ranking female seafarer was a Senior Officer. In 2021, Eaglestar appointed its first Malaysian female Captain. This appointment demonstrates our commitment to talent excellence, particularly for diversity and inclusion, which are strategic priorities of our sustainability agenda. We have aligned our operations with UN Sustainable Development Goal 5 (Gender Equality) by empowering women in leadership positions at sea and on shore.

We are a strong advocate of community investments that can help build strong relationships of mutual trust between our businesses and their stakeholders. Our Maritime Education and Training Academy, ALAM, is a gateway we use to create value for the community and give back to society. Our flagship investment in ALAM and our Cadet Sponsorship Program allow us to meet our community responsibilities by contributing to the growth of the local and regional maritime industry by providing opportunities to deserving students in the field of maritime education and developing a sustainable pipeline of qualified seafaring industry professionals.

o ***Governance sustainability***

We maintain and apply a robust Code of Conduct and Business Ethics ("**CoBE**") and standards of good practice across our operations and our personnel. We do this to ensure that we meet our commitments to comply with all applicable legal and regulatory requirements, as well as our own internal policies and procedures.

We are committed to ethics and integrity in all of our business dealings and relationships in implementing and enforcing effective systems and controls. We have undertaken training initiatives and implemented procedures to ensure that modern slavery is not present anywhere within our own business or in our supply chains.

- **Strong track record of operational excellence**

We have a sterling reputation for operational excellence and have consistently delivered on metrics including vessel availability, vessel utilization and floating asset uptime. Across 2019 to 2021, we achieved vessel availability of over 96.7%, vessel utilization of over 98.4% and floating asset uptime of over 99.1%.

We have a consistent long-term track record of safe, reliable and on-time cargo deliveries and services. Over the past 14 years, we have performed well, recording downward trends for our LTIF and TRCF, with LTIF improving from 0.44 to 0.15 and TRCF improving from 1.0 to 0.39, each as of December 31, 2021. In 2021, our shipping businesses recorded LTIF and TRCF of 0.1 and 0.29, respectively, as compared with the average results of 0.45 and 1.0, respectively, reported across all International Association of Independent Tanker Owners members. Furthermore, we have not recorded any major spill incidents over the past five years, and since starting our LNG shipping business in 1983, we have delivered over 10,600 cargoes.

- **Highly experienced board members and senior management team with in-depth industry experience operating within a strong governance framework**

  We believe that robust governance practices, processes and culture are fundamental to inspiring investor confidence, ensuring long-term shareholder value and protecting stakeholder interests. Our majority-independent board brings a balanced composition of board skills and experience from diverse backgrounds. Our board relies on a robust committee structure, including independent Board Audit Committee and Board Governance and Risk Committee to monitor and ensure performance.

  We have a strong senior management team, including our 12-member management committee, led by our President and Group CEO Datuk Yee Yang Chien, each of which has in-depth industry experience. On average, our management committee members have 28 years of experience in seafaring roles or in the shipping or oil and gas industries.

  Our sound corporate governance framework and practices have been widely recognized, including our recognition as "Strongest Adherence of Corporate Governance" by the Alpha Southeast Asia's Institutional Investor Awards in 2020 and for "Highest Returns to Shareholders Over Three Years" in the transportation and logistics sector in The Edge Billion Ringgit Club Award in 2020.

Strategies

We will seek to expand our business and ensure our future success through strategies focused on securing long-term revenue sources; diversifying into new asset classes and new markets to add resilience to our revenues and cash flows; focusing on project execution, delivery and operational excellence; and continuing to develop and execute our sustainability agenda. Led by our four principal business, we will execute this through the detailed strategies outlined below:

- **We will pursue targeted growth strategies across each of our four main businesses.**

  - **Gas Assets and Solutions: Selectively pursue growth opportunities in conventional LNG segment while diversifying asset portfolio with non-conventional gas solutions**

    We will continue to selectively explore investment opportunities in conventional LNG shipping solutions in an increasingly competitive landscape. We will also use our experience and expertise in this business to tap new opportunities to diversity our customer portfolio, explore new asset classes and potential new partnerships. For example, in 2020 we made a breakthrough in diversifying our Gas Assets and Solutions business through our purchase of six VLECs, and we expanded into the LNG bunkering business, taking delivery of an LBV, which made us Southeast Asia's first commercial operator and ship manager of an LBV. These diversification efforts provide us with new revenue streams for our Gas Assets and Solutions segment, which will serve to strengthen the resilience of our business and help to ensure steady growth of our long-term revenue streams.

  - **Petroleum and Product Shipping: Continue to build long-term revenue streams and reduce earnings volatility arising from spot contracts while rejuvenating fleet with eco-efficient vessels**

    Bearing in mind the uncertainties ahead for petroleum shipping, our business strategies this business are to:

    ➢ continue strengthening the secured income stream we derive from assets that generate sustainable income and cash flow, and

➢ participate in eco-efficient shipping opportunities.

We are growing our portfolio of assets generating secured income, as we have seized opportunities to grow our DPST market share in both the North Sea and Latin America markets by securing multiple long-term contracts–as we expect to grow from our current 11 DPSTs to 17 by 2022, as well as adding newbuild VLCCs with long-term charters. We are also pursuing opportunities for eco-efficient shipping opportunities through our fleet rejuvenation, such as adding LNG dual-fuel vessels, where our aspiration is to have a larger percentage of our operating fleet on cleaner fuels, such as LNG, by 2025.

o **Offshore Business: Continue to pursue major projects in the FPS space**

According to Drewry, the global FPS market is expected to experience significant growth, and South America is the region with the biggest growth potential for FPSO projects, with the majority of projects to be located offshore Brazil. Other growth regions for the FPS market are Asia Pacific and Africa. Based on our experience and business relationships, we are well positioned to benefit from this growth. Examples of our success in capturing FPS market growth include:

➢ In December 2020, we renewed our leasing and operations contract with Shell for the FPSO *Espirito Santo* offshore Brazil, extending it by an additional five years until December 2028.

➢ In August 2020 we secured the contract for a complex, deep-water FPSO project to be deployed offshore Brazil in 2024, which has strengthened our penetration into the South America market. We expect our success in winning this project will open doors for us to compete for other complex deepwater projects in the expanding Atlantic Basin market.

We are also continuing to pursue FPS market opportunities in other regions such as the Asia Pacific, the Middle East and Africa. At the same time, our existing portfolio of long-term FPS contracts will continue to underpin the financial performance of this segment.

o **Marine and Heavy Engineering: Leverage on new areas of growth, replenish order book and optimize operating costs**

Given the challenges imposed by the COVID-19 pandemic, and despite signs of recovery in the oil and gas industry, our focus for this segment remains on optimizing costs and pursuing orderbook replenishment.

Our newly completed Dry Dock 3 is a significant milestone in our strategy for this segment to increase our capacity. We plan to use this capacity to capture more recurring business and to conduct repair and refurbishment services for LNGCs and other vessels, FSOs, FPSOs and oil rigs. At the same time, in expanding beyond our historical business focus for this segment, we have identified several promising opportunities in renewable energy. In 2019 we entered the offshore windfarm space through a 10-year collaboration with Smulders Projects Belgium to provide services to fabricate and perform assembly works in Asia for offshore windfarms.

- **Across our organization, continue with proven long-term revenue strategy while focusing on project execution and delivery as well as matching long-term charters with debt repayment obligations**

  Over the past five years, petroleum and LNG shipping markets have displayed their typical volatility, as each sector went through its respective market cycles and also faced disruptive events such as trade and price wars, geopolitical incidents, sanctions, and a global pandemic.

  We will align our overall strategy to focus on locking in long-term revenue by pursuing long-term contracts with reputable clients in identified growth markets. We expect this approach will contribute towards replenishing and growing our secured revenue. The projects we have secured, in terms of the capital expenditure required for execution, have grown steadily year on year, and 2020 was our most successful year, demonstrated by USD2.8 billion in new investments backed by long-term contracts.

  We will continue to emphasize securing long-term revenue as a strategic objective, as we believe this will ensure our capacity to withstand major shocks and ride through volatile market environments. We will focus on executing and delivering very sizeable contracts—such as those we have won in the last two years—–while at the same time positioning ourselves to take advantage of opportunities that will arise when markets rebound.

  Fundamentally, we are an asset leasing company, as a very substantial portion of our assets are leased or hired to charterers. These assets require sizeable capex to construct, and we fund this primarily through debt financing. To ensure that we are consistently able to service our debt obligations, we prefer to secure long-term leases or charters before making investment decisions. We intend to continue growing the proportion of our assets that generate stable, long-term revenue, while also maintaining flexibility to take advantage of opportunities during positive industry cycles. In growing our business, we will seek opportunities, in particular in our Offshore Business, to form partnerships to construct these assets to lessen our capex requirements and mitigate our operational and financial risks.

- **Leverage on technology and digitalization**

  We will continue to adopt advances in digitalization that will support us in more rapidly responding to changes by using data-driven software to generate improved efficiency. In the previous two years, we invested RM252.9 million on research and development to enhance our digitalization and innovation efforts, including:

  ➢ Safety and risk management digitization systems,

  ➢ Integration of inventory management systems, and

  ➢ Data-driven ship management systems and heath data applications to optimize operations and improve vessel reliability.

  We will also continue our collaboration with strategic maritime partners through the Castor Initiative to jointly develop an ammonia-fueled tanker to support the shipping industry’s drive towards decarbonization. While we continue to pursue our strategy to commercialize LNG asset-based solutions, we are at the same time also identifying and maturing non-conventional solutions in this segment. In our Offshore Business segment, we are identifying and seeking to implement new technologies to improve offshore asset efficiency and expand commercialization.

We will continue to focus on digitalization and innovation to keep pace with market developments, maintain our competitive advantages, drive operational efficiencies and—mostly importantly—enhance customer satisfaction. For example, we have embarked on various internal transformation initiatives, including our Finance Transformation Program, Procurement Transformation Program and Contract Management Program, to enable us to more rapidly respond to changes based on data-driven decision-making and increase the efficiency of our operations.

- **Set course towards a sustainable future in a net-zero carbon economy with a sustainability strategy aligned with 11 of the 17 UN Sustainable Development Goals.**

  We have taken substantial steps toward a decarbonized future and are actively pursuing a strategy to further advance this objective, as seen in our commitment to have zero-carbon emission vessels by 2030 and aspiring towards decarbonized shipping operations by 2050. We believe our contribution towards the net-zero economy will be to offer low-carbon emission asset solutions.

  Our short- to medium-term GHG reduction plans comprises:

  - a five-year plan from 2021 until 2025, and

  - a ten-year plan from 2021 until 2030, including investments in LNG dual-fuel newbuilds fitted with low methane-slip technologies and continuous improvement in vessel design.

  We have also adopted a long-term commitments based on a 20-year plan, which we will implement from 2030 to 2050. This includes our mid-term target of a GHG intensity reduction of 50% compared to a base year of 2008 and a long-term aspiration of net-zero GHG emissions by 2050.

  We are pursuing opportunities to implement this strategy across our business; examples we are pursuing across our core business segments include:

  ➢ Gas Assets and Solutions: we will grow our conventional LNG shipping business and develop our business in the non-conventional gas market.

  ➢ Petroleum and Product Shipping: we will grow our fleet of LNG-powered vessels and focus on participation in low-carbon maritime services, either on our own or through strategic partnerships.

  ➢ Offshore Business: we will explore opportunities and collaboration with clients to address climate change across our existing assets, future projects and new business lines.

  ➢ Marine and Heavy Engineering: we will capitalize on our oil and gas fabrication capabilities to cater to the fabrication of structures for the offshore windfarm market.

  We have steadily embedded sustainability elements within our operations, assets and services, and we have integrated sustainability as a key element of our business strategy. Our sustainability commitment is to deliver long-term shareholder value by operating safely, sustainably and responsibly to sustain positive impacts for the environment and society. Our sustainability strategic priorities have been defined in alignment with 11 of the 17 UN Sustainable Development Goals, as we are focused on the following five pillars:

  o *Financial Pillar*: To achieve growth through predictable and recurring sources of cash flows.

- o *Environment Pillar*: To care for the environment and operate responsibly through the following strategic priorities:

    - Towards Decarbonization: design and operate assets that either combat or reduce the effects of climate change.

    - Promoting Circular Economy: drive towards more sustainable consumption by promoting the circular economy, using measures designed to eliminate waste and promote the use of renewable resources, as well as through sustainable procurement practices.

    - Biodiversity Conservation: have in place programs that sustainably manage and protect marine ecosystems by strengthening their resilience and taking actions to support their restoration and maintain sustainable ocean health.

- o *Social Pillar*: To promote health and safety, promote individual and team excellence as well as positive impact on the communities where we work, through the following strategic priorities:

    - Health and Safety: pursue a broad spectrum of programs to promote the health and wellbeing of our employees, contractors and our communities.

    - Talent Excellence: implement workplace policies designed to ensure equal opportunities in the workplace–irrespective of age, gender, nationality or cultural background.

    - Community Investment: foster youth development towards building future leaders through education community investment programs.

- o *Governance Pillar*: To foster strong governance and business ethics culture, through the following strategic priorities:

    - Values, Assurance and Business Ethics: foster a strong governance and business ethics culture to fight corruption and modern slavery and promote fair practices.

    - Responsible Supply Chain: drive sustainable practices with our suppliers.

- o *Stakeholder Engagement Pillar*: To create value through trusted stakeholder relationships.

Lines of Business

Our business consists of five business segments, which we use for financial reporting purposes:

- o the Gas Assets and Solutions segment, which primarily engages in the transportation of LNG and ethane;

- o the Petroleum and Product Shipping segment, which engages in the transportation of crude oil, petroleum products and chemicals;

- o the Offshore Business segment, which provides comprehensive offshore solutions for the oil and gas industry and owns, leases, operates and maintains various offshore floating assets;

- o the Marine and Heavy Engineering segment, which provides energy industry and marine solutions for a wide range of heavy engineering facilities and vessels in the oil and gas and other industries, including marine repair, marine conversions and engineering and construction works; and

- o other businesses, which primarily includes our three strategic enablers: Integrated Marine Services, Port Management and Maritime Services, and Maritime Education and Training.

In 2019, 2020 and 2021, we derived 28.8%, 28.2% and 27.0% of our revenue and 61.7%, 59.0% and 64.2% of our operating profit from the Gas Assets and Solutions segment, respectively, 48.0%, 41.1% and 30.0%, of our revenue and 18.7%, 23.3% and 14.4% of our operating profit from the Petroleum and Product Shipping segment, respectively, and 12.1%, 13.7% and 28.5% of our revenue and 25.7%, 28.1% and 41.3% of our operating profit from the Offshore Business segment, respectively. During the same years, we derived 11.3%, 16.7% and 13.7% of our revenue, but had an operating loss of RM40.5 million, RM100.1 million and RM252.2 million (US$60.5 million) from our Marine and Heavy Engineering segment, respectively. We consider these four segments as our principal businesses.

Gas Assets and Solutions

Overview. We commenced our LNG shipping operations with the delivery of our first LNG carrier, the *Tenaga Satu*, to the charterer in 1983. Our LNG shipping business has recorded steady growth since, and currently our fleet has expanded to 30 LNG vessels. As at December 31, 2021, since the inception of our LNG shipping operations we had made 10,603 deliveries amounting to approximately 550.56 million metric tons of LNG. Our LNG vessels delivered 23.12 million metric tons in 2021, which was approximately 6.1% of global LNG trade.

LNGC charters. Our LNG vessels primarily load at PETRONAS' LNG Complex in Bintulu, Sarawak. This facility is one of the world's largest LNG production facilities, with a combined capacity of approximately 30 million metric tons per annum, exporting predominantly to Malaysia's traditional export markets of Japan, South Korea and Taiwan. PETRONAS has chartered 22 of our LNG vessels on long-term charters to transport LNG from the Bintulu Complex and other loading points such as their floating facilities PFLNG 1 and PFLNG 2 offshore Malaysia, as well as Gladstone LNG in Australia and Egypt LNG in Alexandria, Egypt to their end customers worldwide. In addition to PETRONAS, we also have charter agreements with SeaRiver Maritime (a wholly owned subsidiary of ExxonMobil), Diamond Gas International Pte. Ltd. (a wholly owned subsidiary of Mitsubishi Corporation), LNG Shipping SpA (wholly owned subsidiary of Eni SpA), Clearlake Shipping Pte Ltd and JERA Global Markets Pte. Ltd.

FSU charters. We also have time charters on FSUs with subsidiaries of PETRONAS. In 2012, we converted two Tenaga series LNGCs, *Tenaga Satu* and *Tenaga Empat*, into FSUs, each having cargo capacity of approximately 130,000 cbm. These FSUs serve as flexible LNG storage solutions as an alternative to land-based facilities. FSU *Tenaga Satu* is equipped with reloading facilities that enable it to supply LNG to receiving vessels through ship-to-ship bunkering.

Diversification—joint venture. In driving future growth, our Gas Assets and Solutions segment will look into opportunities to diversify its business and customer portfolios including new asset portfolio and partnerships. In 2019, we further diversified our customer portfolio by forming a joint venture with Mitsubishi Corporation and Nippon Yusen Kabushiki Kaisha to co-own two newbuild LNG vessels on 18-year charter contracts with Diamond Gas International Pte. Ltd. (a wholly owned subsidiary of Mitsubishi Corporation). The vessels will be used to transport its LNG from Canada to customers all over the world. Both vessels were successfully delivered in 2021.

Diversification—ethane carriers. In addition to diversifying our customer portfolio, we have also been diversifying our service offerings and asset portfolio. In 2020, we have entered the ethane shipping business. All of our six VLECs are on 15-year charter contracts to STL. These VLECs connect the ethane supply from the U.S. to China to address China's growing demand for ethane as a feedstock for petrochemical production. We took delivery of our first VLEC, Seri Everest, on October 30, 2020 and the remaining five vessels in 2021. Each has a carrying capacities of approximately 98,000 cbm.

Diversification—LNG bunkering. We also added an LBV into our asset portfolio in 2020, making us the region's first commercial operator and ship manager for an LBV. We carry out our LNG bunkering business through a joint venture with Avenir LNG Limited, Future Horizon (L) Pte Ltd ("**Future Horizon**"). Future Horizon's LBV, the *Avenir Advantage*, is currently on charter with PETRONAS for a three-year period from October 2020. This vessel can provide bunkering services to LNG-fueled vessels passing through Malaysia, as well as transport smaller scale LNG cargo regionally.

Revenue profiles. In 2019, 2020 and 2021, 88.9%, 89.7% and 90.6% of the revenue of our Gas Assets and Solutions segment, respectively, was derived from secured long term time charter, which we define as time charters in excess of 1 year. In addition, 11.6%, 9.9% and 18.3% of the revenue of our Gas Assets and Solutions segment, respectively, was derived from third party companies that are not affiliated with PETRONAS.

Size and composition of fleet. We are one of the world's largest single owner-operators of LNGCs, with 30 LNGCs (including 25 membrane-type LNGCs and 5 Moss-type LNGCs) accounting for approximately 4.3% of global fleet capacity (LNGCs, LNG bunker vessels and small-scale LNGCs) as at December 31, 2021. In addition, our fleet also includes two FSUs, one LBV, and six VLECs.

Set forth below is summary information of our fleet and charter agreements as of December 31, 2021.

Vessel Name	Capacity (cbm)	Year Built	Charterer	Charter Expiration	Owned or Chartered-In[(1)]
LNGCs					
Puteri Intan	130,300	1994	PLSB[(2)]	October 2025	Owned
Puteri Delima.	130,404	1995	PLSB[(2)]	October 2025	Owned
Puteri Nilam.	130,363	1995	PLSB[(2)]	December 2025	Owned
Puteri Zamrud	130,358	1996	PLSB[(2)]	December 2026	Owned
Aman Sendai	18,930	1997	MLNG[(3)]	January 2028	Owned[(4)]
Portovenere	65,262	1997	LNG Shipping SpA[(5)]	January 2024	Owned
Lerici.	65,299	1998	LNG Shipping SpA[(5)]	December 2023	Owned
Puteri Intan Satu. . . .	137,489	2002	PLSB[(2)]	October 2022	Owned
Puteri Delima Satu . .	137,601	2002	MLNG[(3)]	November 2022	Owned
Puteri Nilam Satu . . .	137,585	2003	MLNG[(3)]	September 2023	Owned
Puteri Zamrud Satu. .	137,590	2004	MLNG[(3)]	January 2024	Owned
Puteri Firus Satu. . . .	137,617	2004	MLNG[(3)]	September 2024	Owned

Vessel Name	Capacity (cbm)	Year Built	Charterer	Charter Expiration	Owned or Chartered-In[(1)]
Puteri Mutiara Satu. .	137,595	2005	MLNG[(3)]	May 2025	Owned
Seri Alam.	145,572	2005	MLNG[(3)]	September 2025	Owned
Seri Ayu.	145,659	2007	MLNG[(3)]	October 2037	Owned
Seri Amanah	145,709	2006	MLNG[(3)]	April 2026	Owned
Seri Anggun.	145,731	2006	PLL[(6)(7)]	July 2022	Owned
Seri Angkasa	145,700	2006	PLSB[(2)]	January 2037	Owned
Seri Bakti	152,945	2007	Jera[(7)]	February 2022	Owned
Seri Begawan	153,024	2007	PLSB[(2)]	April 2038	Owned
Seri Bijaksana	152,888	2008	PLSB[(2)]	October 2027	Owned
Seri Balhaf.	157,721	2009	Clearlake Shipping Pte Ltd[(7)]	January 2022	Owned
Seri Balqis	157,600	2009	Clearlake Shipping Pte Ltd[(7)]	January 2023	Owned
Seri Camellia	150,547	2016	PLSB[(2)]	October 2031	Owned
Seri Cenderawasih . .	150,447	2017	PLSB[(2)]	January 2032	Owned
Seri Cempaka	150,445	2017	PLSB[(2)]	August 2032	Owned
Seri Camar	150,444	2018	PLSB[(2)]	March 2033	Owned
Seri Cemara	150,526	2018	PLSB[(2)]	May 2033	Owned
Diamond Gas Crystal	173,984	2021	DGI[(8)]	March 2039	Owned[(9)]
Diamond Gas Victoria	173,967	2021	DGI[(8)]	July 2039	Owned[(10)]
VLECs					
Seri Everest	98,156	2020	STL[(11)]	November 2035	Owned
Seri Emory.	98,020	2021	STL[(11)]	March 2036	Owned
Seri Erlang.	98,171	2021	STL[(11)]	January 2036	Owned
Seri Elbert	98,171	2021	STL[(11)]	March 2036	Owned
Seri Emperor	98,108	2021	STL[(11)]	March 2036	Owned
Seri Emei.	98,114	2021	STL[(11)]	April 2036	Owned
Total capacity.	4,688,042				

(1) Except for Portovenere, Lerici and the Seri E VLECs, which are Singaporean flagged vessels, all the other owned vessels are Malaysian flagged vessels.

(2) PETRONAS LNG Sdn Bhd.

(3) Malaysia LNG Sdn. Bhd. ("MLNG"), Malaysia LNG Dua Sdn. Bhd. ("MLNG2") and Malaysia LNG Tiga Sdn. Bhd. ("MLNG3").

(4) Aman Sendai is owned by Asia LNG Tpt Sdn Bhd ("ALT"), a joint venture with Nippon Yusen Kabushiki Kaisha in which we have a 51% shareholding.

(5) LNG Shipping SpA, wholly owned by Eni SpA, operates in the transportation by sea of LNG through the use of two proprietary LNGCs, LNG Portovenere and LNG Lerici.

(6) PETRONAS LNG Limited ("PLL").

(7) Under spot charter for firm periods as of December 31, 2021.

(8) Diamond Gas International Pte. Ltd., a wholly owned subsidiary of Mitsubishi Corporation.

(9) Under Diamond LNG Shipping 5 Pte. Ltd., a joint venture between Asia LNG Transport Dua Sdn. Bhd. (ALT Dua) (50%), Nippon Yusen Kabushiki Kaisha (25%) and Mitsubishi Corporation (25%). We effectively hold a 25.5% shareholding. The joint venture is managed by Nippon Yusen Kabushiki Kaisha.

(10) Under Diamond LNG Shipping 6 Pte. Ltd., a joint venture between Asia LNG Transport Dua Sdn. Bhd. (ALT Dua) (50%) and a partnership of Diamond LNG Shipping 6 Pte. Ltd., (a joint venture between Nippon Yusen Kabushiki Kaisha, Mitsubishi Corporation and Toho LNG Shipping) (50%). We effective hold a 25.5% shareholding. The joint venture is managed by Nippon Yusen Kabushiki Kaisha.

(11) Satellite Chemical Co. Ltd, formerly known as ZheJiang Satellite Petrochemical Co. Ltd.

Set forth below is certain summary information as of December 31, 2021 concerning the other vessels for our Gas Assets and Solutions business and their charters.

Vessel Name	Vessel Type	Capacity (cbm)	Year Built	Charterer	Charter Expiration	Owned or Chartered-In(1)
FSU Tenaga Satu	FSU	130,075	2012	RGTSU(2)	August 2032	Owned
FSU Tenaga Empat.	FSU	130,006	2012	RGTSU(2)	August 2032	Owned
Avenir Advantage . . .	LBV	7,454	2020	PLSB(3)	October 2023	Chartered-In(4)
Total capacity. . .		267,535				

(1) All these vessels are Malaysia flagged.

(2) Regasification Terminal Sungai Udang Sdn Bhd.

(3) PETRONAS LNG Sdn. Bhd.

(4) Future Horizon.

Newbuilding. The average time between contracting and delivery of LNGCs is approximately 30 months. We currently do not expect to experience significant delays in the delivery of contracted newbuildings.

We have two newbuildings scheduled for delivery in 2023. Both of these newbuildings have been contracted on long-term charters of 15 years, from 2023 to 2038. Each vessel will be equipped with a twin screw or dual engine, advanced WinGD-made dual-fuel, slow-speed diesel engine (i.e., X-DF diesel engine) that has superior fuel-consumption efficiency and can operate on marine gas oil or boil-off gas stored in the cargo tank. The vessel will also feature a sub-cooler system that can re-liquefy excess boil-off gas and return it to the cargo tank. The cargo tank will be a membrane-type tank of approximately 174,000 cbm that will use advanced insulating materials to suppress the boil-off rate (which is the percentage of gas volume that vaporizes during navigation) in the cargo tank and realizes superior efficiency and economical LNG transportation.

Charterers and charter arrangements. Nine of our LNGCs have been chartered to MLNG, a subsidiary of PETRONAS that owns and operates the three plants in the PETRONAS LNG Complex. Together with our remaining vessels that are chartered to other PETRONAS subsidiaries, a total of 22 of our vessels cover the requirements of the complex and other PETRONAS LNG shipping requirements worldwide. These LNG charters are typically for initial periods of up to 20 years. The 20-year charters have historically justified the high capital investment required in LNGCs.

The following are some of the key terms of our 20-year charters with PETRONAS subsidiaries:

- o The charterer is obligated to pay for the use and hire of the vessel at a daily hire rate based on the number of operating days in the month, payable monthly in advance in U.S. dollars.

- o The charter hire is based on a fixed element (capital hire) and an escalating element (operating hire). The fixed capital hire component is designed to cover the capital and financing costs of the LNGCs (including a return on our investment). The variable operating hire component is designed to cover all voyage costs such as manning costs, docking, repair, maintenance and insurance and is escalated every year by an inflation index.

- o The charterer is obligated to pay for bunkers, nitrogen, port and canal charges and insurance for the LNG cargo.

- o A vessel is "off-hire" if, due to the fault of MISC, upon the occurrence of certain events specified in the charter agreement, such as breakdown of machinery, repairs, overhaul and maintenance.

- o We provide, and pay the cost of, provisions, manning, insurance on the tanker, maintenance and repair charges (including drydocking) and stores.

- o The charters are subject to certain force majeure or termination clauses.

- o Other than during periods when the vessel is off-hire, hire payments are payable to us even if the vessels are not utilized to carry LNG cargo.

Key terms in the charters for our other vessels under our Gas Assets and Solutions segment are substantially similar to those in our charters with the PETRONAS' subsidiary described above, except that our FSUs and LBVs are on different charter periods.

Strategy. Our Gas Assets and Solutions segment is well-placed to take advantage of opportunities and changing trends in both the conventional LNG shipping and other unconventional gas carrier markets due to our reputation, experience and ship management know-how. As one of our main cash contributors, our Gas Assets and Solutions' strategy is to strengthen its conventional LNGC business and pursuing competitive advantages by accelerating our entry into unconventional gas carriers and commercializing future options to generate cash sustainably, including in supplying LNG power-generation projects. We have identified a three-stage plan to achieve this:

(1) We plan to continue to maximize cash from existing assets by maximizing utilization and availability of existing vessels, including chartering vessels on the spot market;

(2) In the near term, we plan to further strengthen and diversify our asset portfolio by expanding in new asset classes, including VLECs, and selectively seeking opportunities to add conventional LNGCs based on demand of top-tier charterers and commercializing future options, including Floating Storage Regasification Unit ("**FSRU**"), and Floating Storage Regasification–Power ("**FSR-P**"); and

(3) In the long term, we plan to explore opportunities presented by new technology and asset solutions, including exploring potential business opportunities in liquefied carbon dioxide ("**LCO_2**") carriers and minimum manning FSUs.

In addition to our commitment to operational and delivery excellence, we have planned several key milestones for our decarbonization agenda. We intend to rejuvenate our fleet by investing in modern and more efficient vessels while phasing out older ones that do not meet evolving emission requirements. Furthermore, we plan to leverage on existing synergies between our different business units to further enhance our vessel operation efficiency.

Petroleum and Product Shipping

Overview of business. Our Petroleum and Product Shipping segment, helmed by AET, continues to strengthen our reputation as one of the leading providers of safe, high quality and comprehensive maritime transport, and specialist energy maritime logistics services to the global energy industry. Our operating fleet of 67 petroleum and product tankers move petroleum, refined products and chemicals worldwide to meet the world's evolving energy needs. Alongside the provision of conventional energy shipping services, we are market leaders in the operation of specialist lightering services, which is the ship-to-ship transfer of petroleum products and chemicals at sea.

We have developed a leadership presence in various segments of our global business, including our strategic presence in VLCCs and mid-size tankers, our partnerships in the DPST space in Latin America and the North Sea, and our expanding lightering services in the U.S. Gulf and Latin America. We took delivery of seven eco-efficient DPSTs, two of which are among the world's first dual-fuel DPSTs, between 2020 and 2021. We currently deploy seven DPSTs in Brazil, a country of increasing strategic focus for our business growth, and we expect to expand our deployment there to 13 DPSTs by the end of 2022.

Our diversified portfolio of customers for our Petroleum and Product Shipping business covers energy majors (including Shell, Total, ExxonMobil, BP, Equinor and Chevron), oil refiners (including Repsol, Valero Energy, Reliance Industries, SK Energy, PBF Energy and Phillips 66), National Oil Companies (including Petrobras, Saudi Aramco, PETRONAS and Sinopec), and oil traders (including Trafigura, Mercuria, Koch Petroleum and Glencore).

We are also the only tanker company to own and operate MCVs for a marine well containment system in the U.S. Gulf. We also provide a marine well containment system using our MCVs to the Marine Well Containment Company, a consortium of oil companies including Chevron, ConocoPhillips, ExxonMobil and Shell.

We own and operate the world's second largest Aframax tanker fleet (based on capacity as of December 31, 2021). We also took delivery of one of the world's first LNG dual-fuel Aframaxes in 2019. As of December 31, 2021, our petroleum tanker fleet included eight VLCCs (all of which are owned), six Suezmax tankers (all of which are owned), 25 Aframax tankers (22 of which are owned, including two MCVs, and three of which are chartered-in, including a Panamax tanker), 11 DPSTs (all of which are owned), five LR2 product tankers (two of which are owned and three of which are chartered-in), four chartered-in chemical tankers and eight LSVs (four of which are owned, one is chartered-in, and three are owned through our joint venture with Christophersen S.A., in which we have a 50% ownership interest). We currently have 11 newbuildings that we expect to take delivery of between 2022 and 2023, including six new DPSTs in 2022 and five dual-fuel VLCCs between 2022 and 2023. We have secured long-term contracts with energy majors for all our newbuildings.

In 2019, 2020 and 2021, 68.3%, 73.5% and 80.7% of the revenue of our Petroleum and Product Shipping segment, respectively, was derived from time charter, lightering contracts and COAs, and 99.4%, 97.7% and 97.9% of the revenue of our Petroleum and Product Shipping segment, respectively, was derived from third party companies that are not affiliated with PETRONAS or us.

Size and composition of fleet

Crude tanker fleet. As at December 31, 2021, our owned crude tanker fleet had a fleet age of approximately 9.1 years for the VLCC fleet, 7.6 years for the Suezmax fleet, and 9.8 years for the Aframax fleet. All of our crude tankers are double-hulled.

VLCCs. Our VLCCs are engaged in the long-haul transportation of crude oil worldwide, principally from the Americas, the Arabian Gulf and West Africa. As of December 31, 2021, our fleet of eight VLCCs, six were on time charter contracts, of which one was with PETRONAS and five were with Koch, Total and Shell, and two were operating on spot charter basis. The time-charters for our VLCCs typically vary from terms of a few months to several years. In 2019, 2020 and 2021, the utilization rate of our VLCCs was 99.6%, 99.9% and 99.1%, respectively.

Set forth below is certain summary information as of December 31, 2021 concerning our VLCCs.

Vessel Name	Capacity (dwt)	Year Built	Owned/ Chartered-In[1]
Bunga Kasturi Lima	300,246	2007	Owned
Bunga Kasturi Enam	299,319	2008	Owned
Eagle Vancouver	311,922	2013	Owned
Eagle Varna	311,922	2013	Owned
Eagle Verona	320,122	2013	Owned
Eagle Versailles	320,122	2013	Owned
Eagle Victoria	299,392	2016	Owned
Eagle Venice	300,342	2016	Owned
Total capacity	2,463,387		

(1) All our VLCCs are Malaysia, Singapore or Isle of Man flagged.

Mid-sized tankers. Our mid-sized tanker fleet primarily consists of Aframaxes (including two Aframax-sized MCVs and one Panamax), LR2s and Suezmaxes. We operate our Aframax fleet around the globe, engaging in voyage charters, time charters and COAs. Historically, in the Asia Pacific region, our principal strength has been in crude oil tanker services in operations between the Arabian Gulf/Red Sea and East Asia, including Australia. We have a sizable presence in the east of Suez Canal market, with customers including PETRONAS, Esso, and Shell. As of December 31, 2021, we had our Panamax tanker on time charter with PETRONAS.

In the Atlantic basin market, we are one of the leading independent transporters of crude oil into the United States, operating 25 Aframax tankers, and we have a growing presence in Europe. We also transport crude oil from Mexican and other Latin American producers. Our voyage business is contractual in nature and is conducted under term charters and COAs for committed cargo volumes for a definite period and indefinite term contracts that continue until terminated by either party, or "evergreen" arrangements. In order to limit price and volume volatility in this part of our business, a proportion of these COAs are capped with fixed floor and ceiling rates and with committed minimum and maximum volumes.

We are one of the leading lightering service providers in the U.S. Gulf of Mexico and Latin America. A substantial part of our lightering business is on a fixed-rate basis pursuant to COAs with minimum and/or maximum volumes, which we have implemented to reduce the volatility of this business. In addition, a portion of our lightering COAs are on an exclusive basis, guaranteeing AET as the sole service provider to the counterparty. Lightering is important in the transportation of long-haul crude oil into and out of the United States, Uruguay and Brazil due to the shallow coastlines of important ports in these countries. We are one of a few operators with the high level of expertise necessary to engage in lightering operations, which involve the bringing of tankers together on the open ocean. The lightering business in the U.S. Gulf of Mexico and Latin America is characterized by strong customer loyalty, repeat business and a strong emphasis on safety, quality and service reliability, which we believe are among our key competitive strengths. In the U.S. Gulf of Mexico, we are the market leader in lightering services with more than 14,500 ship-to-ship transfers completed since our inception up to the end of 2021. We also continue to expand our presence in Latin America with more than 450 lightering operations completed in offshore Uruguay and Brazil since we started providing the service there in 2014.

In addition to servicing the U.S. market, we are also active in the trans-Atlantic trade and in the intra-Europe and Mediterranean markets, where the majority of our mid-sized tankers, Aframaxes and Suezmaxes are deployed.

As at December 31, 2021, our fleet of mid-sized tankers consisted of 22 owned Aframaxes, two of which are dual-fuel vessels, two chartered-in Aframax, one chartered-in Panamax, three chartered-in LR2s trading in the crude sector, and six Suezmaxes. We have two Aframax tankers on time charters through 2023 with Valero and CSSA.

Our two unique Aframax-sized MCVs, which are on time charters to the Marine Well Containment Company through 2034, combine FPSO and dynamic positioning technology to form part of our innovative marine system solution designed to respond to subsea well control incidents. We operationalized the world's first MCVs in the U.S. Gulf of Mexico in 2014 and, as of December 31, 2021, we remained the only tanker company in the world with MCV capabilities and experience. Our MCVs normally operate as Aframaxes while maintaining readiness to respond when a well control incident occurs in the U.S. Gulf of Mexico.

We use our Suezmax tankers to ship crude oil principally in the Atlantic basin, with the flexibility to do longer haul cargo as well as shorter regional trades. As of December 31, 2021, for our fleet of six Suezmaxes, two were on time charter contracts with Repsol, and four were operating on spot charter basis.

In 2019, 2020 and 2021, the utilization rate of our Aframax tankers (including the two MCVs) was 97.8%, 97.3% and 97.6%, respectively. During the same period, the utilization rate of our Suezmax tankers operated on spot charter basis was 96.9%, 97.3% and 98.9%, respectively. The time-charters and COAs for Aframax and Suezmax tankers typically vary from terms of a few months to several years.

Set forth below is certain summary information as of December 31, 2021 concerning our mid-sized tanker fleet.

Vessel Name	Capacity (dwt)	Year Built	Owned or Chartered-In[(1)]
Aframax Tankers			
Eagle Turin	107,123	2008	Owned
Bunga Kelana 9	105,200	2004	Owned
Bunga Kelana 10	105,274	2004	Owned
Eagle Torrance	107,123	2007	Owned
Eagle Kuching	107,481	2009	Owned

Vessel Name	Capacity (dwt)	Year Built	Owned or Chartered-In[(1)]
Eagle Kuantan	107,481	2010	Owned
Eagle Kangar	107,481	2010	Owned
Eagle Klang	107,481	2010	Owned
Eagle Kinabalu	107,481	2011	Owned
Eagle Kinarut	107,481	2011	Owned
Eagle Hanover	114,014	2010	Owned
Eagle Hamilton	114,022	2010	Owned
Eagle Helsinki	114,164	2010	Owned
Eagle Hatteras	114,164	2010	Owned
Eagle Halifax	114,164	2010	Owned
Eagle Hydra	114,164	2011	Owned
Eagle Barcelona	113,327	2018	Owned
Eagle Brisbane	113,327	2018	Owned
Eagle Brasilia	113,416	2018	Owned
Eagle Bintulu	113,049	2018	Owned
Pacific Ruby	113,306	2021	Chartered-In
Pacific Pearl	113,306	2021	Chartered-In
Nave Atropos[(2)]	74,695	2013	Chartered-In
Wonder Polaris[(3)]	115,341	2005	Chartered-In
Wonder Sirius[(3)]	115,340	2005	Chartered-In
Agneta Pallas[(3)]	115,341	2006	Chartered-In
MCVs			
Eagle Louisiana	107,481	2011	Owned
Eagle Texas	107,481	2011	Owned
Suezmaxes			
Eagle San Antonio	157,850	2012	Owned
Eagle San Diego	157,850	2012	Owned
Eagle San Juan	157,850	2012	Owned
Eagle San Pedro	157,850	2012	Owned
Eagle San Francisco	157,512	2018	Owned
Eagle San Jose	157,512	2018	Owned
Total capacity	4,016,132		

(1) All the owned Aframax tankers are flagged in either Isle of Man, Malaysia, Marshall Islands, or Singapore. The chartered-in Aframax tankers are either Liberia or Marshall Islands flagged. All our Suezmaxes are Singapore or Malta flagged

(2) Panamax tanker.

(3) LR2 tanker.

Dynamic positioning shuttle tankers (DPSTs). As at December 31, 2021, we had 11 DPSTs, and have ordered and expect to take delivery of another six DPSTs in 2022, all of which will be on long-term contracts with energy majors such as Equinor, Shell and Petrobras. These vessels are equipped with dynamic positioning technology that allows them to carry crude oil from offshore production facilities to shore-based facilities for storage or distribution. We established our presence in the niche DPST market in 2012 and since then have taken advantage of opportunities to grow our DPST market share in both the North Sea and Latin America. We first successfully operationalized two DPSTs in Brazil in 2012 in partnership with an energy major Petrobras and we deployed five additional DPSTs in 2020 and 2021, four of which are Suezmax eco-efficient DPSTs on long-term charters to Petrobras and one of which is a Suezmax eco-efficient DPST on long-term charter to Shell. We expect to operationalize another six DPSTs in Brazil in 2022, and all of these vessels are already contracted to long-term charters to energy majors, which will bring our total fleet size in Brazil to 13.

We also have a strong presence in the North Sea and Barents Sea dating back to our 2015 partnership with an energy major. As of December 31, 2021, we had deployed four DPSTs in the North Sea/Barents Sea market, two of which were among the world's first LNG dual fuel DPSTs. All are on long-term charters to Equinor. Our efficiency in operationalizing a total of eleven DPSTs between 2020 and 2021 in both the North Sea and Latin America demonstrates our ability to venture into a technical and specialized market, such as the DPST market, and scale up operations within a short period of time.

In addition to our rapid scale-up capabilities and operational excellence, we have also incorporated our commitment to environmental sustainability in the design and construction of DPSTs, reinforcing our reputation as a greener shipping solution provider. The two LNG dual-fuel DPST that we took delivery of in 2020 were among the first of their kind in the world, realizing substantial emission benefits when operating on LNG as fuel. LNG emits approximately 20 to 25% less CO_2 than conventional marine fuels while providing the same amount of propulsion power. Vessels using LNG fuel also emit approximately 85% to 90% less sulfur oxides and nitrogen oxides, approximately 98% less particulate matter and approximately 93% less black carbon particulates as compared with DPSTs burning conventional fuel. Among our five DPSTs operating in Brazil, three of them are the first DPST vessels to receive DNV GL's SmartShip notation, which recognize their navigation decision support system with route optimization features, an energy efficiency management system with trim optimization, and a ship performance monitoring system. Another one of the ships was the first shuttle tanker to be granted an ABS smart notation, which recognizes its data communication and network infrastructure. All these five DPSTs operate to the highest operational and environmental standards, including full compliance with IMO nitrogen oxides Tier 3 and sulfur oxides emission requirements. Our DPSTs are typically on time charters with terms between five and ten years. In each of 2019, 2020 and 2021, the utilization rate of our DPSTs was 100.0%.

Set forth below is certain summary information as of December 31, 2021 concerning our DPSTs.

Vessel Name	Capacity (dwt)	Year Built	Owned or Chartered-In[(1)]
Eagle Paraiba	105,153	2012	Owned
Eagle Parana	105,153	2012	Owned
Eagle Barents	119,690	2015	Owned
Eagle Bergen	120,657	2015	Owned
Eagle Blane	128,427	2020	Owned
Eagle Balder	128,442	2020	Owned
Eagle Petrolina	153,227	2020	Owned
Eagle Paulinia	153,352	2020	Owned
Eagle Paraiso	153,265	2020	Owned
Eagle Passos	153,291	2020	Owned
Eagle Pilar	153,184	2021	Owned
Total capacity	1,473,841		

(1) Flagged in Bahamas, Malaysia, Norwegian International Ship Register ("NIS") or Singapore.

Chemical tankers, LR2 tankers and LSVs. We operate four chartered-in chemical tankers, which we use to ship a variety of chemicals and vegetable oils primarily in both inter and intra-regional trades. All of these ships are operating in the WOMAR Pools, a specialist in the chemical tankers management. We also operate two owned LR2 tankers that we use to ship refined petroleum products over both long-haul and short-haul trades, both of which are on long-term charters with Total. We also operate nine LSVs that transport equipment and crew to conduct lightering operations, which involves ship-to-ship cargo transfer in the U.S. Gulf of Mexico and Latin America (particularly in Brazil). Among these nine LSVs, four are owned by us, two are chartered-in, and three are owned through our joint ventures. In 2019, 2020 and 2021, the utilization rate of our chemical tankers was 99.4%, 100.0% and 100.0%, respectively, and during each of the same respective periods, the utilization rate of our LR2 tankers was 100.0%.

Set forth below is certain summary information as of December 31, 2021 concerning our chemical tankers, LR2 tankers and LSVs.

Vessel Name	Type	Capacity (dwt)	Year Built	Owned or Chartered-In
Bunga Laurel	Chemical tanker(1)	19,992	2010	Chartered-In
Bunga Lavender	Chemical tanker(1)	19,997	2010	Chartered-In
Bunga Lilac	Chemical tanker(1)	19,992	2011	Chartered-In
Bunga Lily	Chemical tanker(1)	19,991	2011	Chartered-In
Total capacity		79,972		
Eagle Le Havre	LR2 Tanker(2)	113,905	2017	Owned
Eagle Lyon	LR2 Tanker(3)	113,808	2017	Owned
Total capacity		227,713		
AET Innovator	LSV(4)	1,475	2011	Owned
AET Excellence	LSV(4)	1,475	2012	Owned
AET Partnership	LSV(4)	1,475	2012	Owned
AET Responsibility	LSV(4)	1,475	2012	Owned
Annabelle Miller	LSV(4)	1,261	2009	Chartered-In
Els Maite	LSV(4)	1,023	1975	JV owned
Olivia	LSV(4)	1,227	2008	JV owned
Didi K	LSV(4)	1,371	2008	JV owned
Total capacity		10,782		

(1) Panama flagged.

(2) French flagged.

(3) Singapore flagged.

(4) All owned and chartered-in LSVs are USA flagged and all JV-owned LSVs are either Uruguay or Brazil flagged.

Strategy. We plan to continuously strengthen our core business operations to improve our financial and operational performance and advance our sustainability ambitions. We intend to rejuvenate our VLCC fleet with eco-solution assets, including the addition of dual-fuel vessels, in pursuing sustainable profitability in the sector; optimize our mid-sized tanker fleet and business portfolio to improve stability of income; develop niche solutions and expand our lightering service offerings in other geographies outside the U.S. Gulf; and place more vessels on long-term charters and focus on winning more secured income projects, including DPST contracts. We also plan to continue improving our balance sheet, including our cash position and quality of assets, through strategic partnerships and collaborations.

In addition to strengthening our core, we are also looking into various means to future-proof our Petroleum and Product Shipping business and ensure long-term sustainability of our business. In particular, we plan to mobilize and leverage emerging opportunities in eco-solution vessels by adding more eco-friendly, dual-fuel vessels to our fleet, as well as exploring and adopting new technologies to achieve our ultimate aspiration of net-zero carbon operations.

Offshore Business

Overview of business. Our Offshore Business offers a comprehensive array of innovative offshore solutions in the FPS market, covering concept selection, engineering design, project management and operations and decommissioning. We cater to marginal, conventional and deepwater field developments for national and international energy companies. We have exceptional production and operations performance track records for all our facilities.

Our diverse asset portfolio under our Offshore Business segment covers following kinds of offshore facilities:

- Floating production, storage and offloading (FPSO): an FPSO unit is a vessel-type production system that receives full well-stream fluids such as crude oil, water and others from a subsea reservoir through risers. It has topside production facilities that separate the fluids into crude oil, natural gas, water and impurities. It also has storage tanks where processed crude oil is stored. Crude oil is offloaded from an FPSO either onto tankers or through pipelines for onshore refining. FPSO can be designed with the capability to stay on location for continuous operations for 20 years or longer.

- Floating storage and offloading (FSO): an FSO unit is simpler than an FPSO, as it does not have production processing capabilities. It is normally integrated with other production systems such as fixed platforms, MOPU, or tension leg platforms.

- Mobile offshore production unit (MOPU): a MOPU is a mobile structure for offshore well production, operating in shallow waters. It has production facilities to process oil and natural gas and transport oil through subsea pipeline to an FSO.

- Semi-submersible floating production system (Semi-FPS): a semi-submersible FPS is a large pontoon-like structure submerged below the sea surface at a predetermined depth with an FPS that receives fluids such as crude oil and water from a subsea reservoir through risers. The topside production facilities separate the fluids into crude oil, natural gas, water and impurities. Our semi-sub FPS operates at a depth of 1,400 meters. Oil is transported from this unit via a 200-kilometre long pipeline to an oil and gas terminal in Kimanis, Sabah.

As one of the leading floating offshore solutions providers in the world with 12 assets as of December 31, 2021, our business reach spans Brazil, Thailand, Malaysia and Vietnam to meet the global demands of the energy industry. Our FPSOs and FSOs are on long-term contracts with PETRONAS, PETROFAC, Vestigo, Repsol, PTTEP, Sabah Shell, Vietnam Oil and Gas Group, Chevron, Shell Brazil, Idemitsu and Hess.

- Our Offshore Business has a strong presence in the ASEAN region, and we have expanded our footprint as a leading player in providing offshore solution in the region through several major projects as follows: Our FSO Benchamas 2, which achieved first oil in 2018, is leased by Chevron Offshore Thailand Limited for a firm ten-year period from 2018;

- Our FSO Mekar Bergading is leased to Hess Exploration and Production Malaysia B.V., a subsidiary of Hess Corporation, for a firm period of 16 years starting from 2018;

- In 2019, we demonstrated our value-adding capability by successfully retrofitting our first Marginal Marine Production Unit ("**MaMPU 1**") with an additional module that supports the development of marginal and stranded fields. MaMPU 1 is currently deployed in offshore Sarawak on a lease to Vestigo Petroleum Sdn Bhd for a period of 11 years starting from 2016; and

- Our FSO Golden Star, which received its first condensate/oil in December 2020 at Sao Vang and Dai Nguyet Project in Vietnam in December 2020, is leased by Idemitsu Gas Production (Vietnam) for a firm period of seven years starting from 2020.

Building on our success in the ASEAN region, in 2018, we commenced an initiative to establish ourselves as an international player in the offshore solution market. In 2020, we were awarded a project by a client for an FPSO to be deployed offshore Brazil. This project marked our successful venture into the Brazilian premium FPSO market and established our presence on the global stage. We also secured extensions for leasing and operation contracts for certain of our existing assets. In December 2020, we entered into an agreement with Shell on a five-year contract renewal for FPSO Espirito Santo in Brazil, a joint venture with a subsidiary of SBM Offshore N.V. in which we hold a 49% equity ownership. In 2021, we also received contract extensions for four assets, namely FPSO Ruby II (extended until June 2022), FPSO Bunga Kertas (extended until April 2022), Puteri Dulang (extended until March 2025) and FPSO Kikeh (extended until January 2028). We are currently in discussions for a further contract extension for FPSO Ruby II.

FPSOs and FSOs are capital-intensive in nature. Project costs for these types of floating platforms depend on the size of the production wells and the field depth as well as on the production complexity of oil separation, gas injection, gas treatment and power generation. Capital expenditure may range from US$100 million to US$200 million for FSO projects and from US$300 million to US$3 billion for FPSO projects, depending on the fields, complexity of the project and specific client requirements. These projects generally have long gestation periods, of two to four years, before revenue and cash flow generation begins.

In 2019, 2020 and 2021, 67.3%, 78.7% and 94.8% of the revenue of our Offshore Business segment, respectively, was derived from third party companies that are not affiliated with PETRONAS or us.

Size and composition of vessels and assets. We currently own 12 offshore floating facilities, consisting of five FPSOs (of which two are owned by our joint ventures with a subsidiary of SBM Offshore and one is jointly owned with Petroleum Technical Services Corporation ("**PTSC**")), five FSOs (of which two are jointly owned with PTSC), one MAMPU, and one Semi-FPS in operation. In addition, we have one FPSO under construction, and we expect delivery in 2024 for deployment offshore Brazil under a long-term contract that is already in place. The following is certain summary information, as of December 31, 2021, regarding our offshore floating facilities.

Project	Client	Field/Location	Start of Production	Contract Period Remaining as of December 31, 2021
FPSO Bunga Kertas . .	PCSB	Penara/North Lukut, Terengganu	April 2004	4 months
FPSO Kikeh[(1)]	PTTEP	Kikeh, Sabah	August 2007	6 years
FPSO Espirito Santo[(1)]	Shell Brazil	BC 10 field, Brazil	July 2009	7 years
FPSO Ruby II[(2)]	Vietnam Oil & Gas Group	Blocks 01&02, Vietnam	June 2010	6 months
FPSO Cendor	Petrofac	PM304, Terengganu	September 2014	4 years
MAMPU 1	Vestigo	Anjung Kecil, Sarawak	November 2016	5 years
Under-construction FPSO	Brazil		(Under Construction)	22.5 years from final acceptance (schedule 2024)
FSO Puteri Dulang . . .	PCSB	PM305, Terengganu	April 2008	3 years
FSO Orkid[(2)].	Repsol	Block PM 3 CAA	March 2009	5 years
FSO Benchamas 2. . . .	Chevron	Block B8/32, Thailand	April 2018	6 years
FSO Mekar Bergading	HESS	PM302, Terengganu	September 2018	12 years
FSO Golden Star[(2)] . . .	Idemitsu	Sao Vang Field, Vietnam	December 2020	6 years
Gumusut Kakap	Sabah Shell	Gumusut Kakap field, Block J, Sabah	October 2014	12 years

(1) Jointly owned with a subsidiary of SBM Offshore.

(2) Jointed owned with PTSC.

Strategy. In addition to delivering on the major projects we have been awarded, we intend to continue to explore potential projects that will best serve our strategic interests both locally and internationally. In addition to expanding to Brazil, in our Offshore Business segment we are looking for opportunities in Asia Pacific, the Americas and Africa, as well as through new partnerships related to the segment's core business.

Marine and Heavy Engineering

Overview of business. We provide marine and heavy engineering services through our subsidiary, MHB, which is a globally trusted energy industry and marine solutions provider for a wide range of heavy engineering facilities and vessels. MHB is public company listed on Bursa Malaysia, of which as of December 31, 2021 we were a 66.5% shareholder.

MHB has a track record of more than 40 years of delivering integrated and complex solutions to international oil and gas and marine clients. We are recognized for our global expertise in deepwater support services, offshore conversion services and LNGC repair and dry docking. We also provide onshore facilities construction, plant maintenance and turnaround and other services. MHB owns and operates a regional Centre of Excellence—a learning center that produces technically expert workers for the industry. MHB also owns and operates one of the region's largest marine and heavy engineering facilities and has the only yard in Malaysia that is both capable of constructing complex deepwater offshore mega structures and possesses dry docking facilities.

We divide these services into two businesses: heavy engineering business and marine business. We also provide other services such as plant turnaround and shutdown maintenance, fabrication of turrets, hook-up and commissioning for brownfield works and other offshore services.

Our heavy engineering business segment provides fabrication and full engineering, procurement, construction, installation and commissioning ("**EPCIC**") services for offshore facilities and fabrication services for onshore modules and facilities for a wide range of structures including oil and gas platforms/process modules, jackets, topsides, turrets, spar, mooring buoy systems, living quarters and substructures. Our customers for these services include PETRONAS, ExxonMobil, Shell, Murphy Oil Corporation and Technip Geoproduction. In Malaysia, our heavy engineering business mainly competes with Sapura Energy fabrication yard while internationally the main competitors include Singaporean, Korean, Chinese and Middle Eastern yards. As of December 31, 2021, we were providing EPCIC services to two major projects, including EPCIC for the of Kasawari Gas Development Project and EPCIC for SK408W Jerun Development Project, both of which will be installed in offshore Sarawak, Malaysia.

Our marine business segment provides comprehensive marine repair and life extension solutions for various types of vessels, rigs and marine facilities, including the conversion of offshore facilities. In particular, we provide a one-stop center for floater conversions, providing a comprehensive range of services from initial design to fabrication, installation and commissioning. We specialize in repair and services, life extension, retrofitting and refurbishment of various type of tankers and carriers, especially LNGCs, VLCCs, petroleum tankers, chemical tankers, LPGCs, bulkers, containers, offshore oil rigs and other offshore support vessels including offshore patrol vessels of the Royal Malaysian Navy. Our international customers in this segment include Teekay Corporation, Mitsui O.S.K. Lines (MOL), K Line LNG, Golar LNG, BW, Hyundai Merchant Marine, SK Shipping, GazOcean and Brunei Gas Carriers. MHB is the only yard in Malaysia capable of undertaking floater conversions. Its main competitors are yards from Singapore and China. As of December 31, 2021, we had three dry docks, providing us with substantial capacity to conduct repair and refurbishment services for vessels and other marine facilities. We have provided more than 3,800 marine repair and life extension solutions on various types of vessels, rigs and marine facilities and our offshore conversion facilities have completed more than 30 conversion projects, including FSOs, FPSOs and MOPUs. As of December 31, 2021, we had 15 projects under our LNGC repair and dry-docking services on our book. From 2019 to 2021, we served a total of 90 new clients comprising 31 domestic clients and 59 international clients, covering countries including the United Kingdom, Japan, Norway, South Korea, France, Brunei, Indonesia, Singapore, Cyprus, Greece, Belgium, UAE, Netherland, Germany, British Virgin Island, Marshall Island, Lebanon, Thailand and USA.

Our plant turnaround and shutdown maintenance is a new service we initiated in 2017. In this business we provide our customers integrated turnaround, shutdown and maintenance services for their existing facilities, primarily for the refining and petrochemical sector. This segment's customers include PETRONAS and Lotte Chemical and its main competitors include Newwin Engineering, Dialog and UBF Maintenance.

In 2019, 2020 and 2021, 33.4%, 23.7% and 18.7% of the revenue of our Marine and Heavy Engineering segment, respectively, was derived from third party companies that are not affiliated with PETRONAS or us.

Facilities and Accreditation. We own and operate Malaysia's largest operating yards, equipped with world-class facilities. Our fabrication yard, consisting of MMHE West and MMHE East, is the largest single fabrication yard in Southeast Asia by area and annual production capacity. The yard covers over 2,000,000 square meters and can accommodate the fabrication of structures with a total tonnage of 129,700 tons a year. Our Dry Dock No. 1 is one of the largest drydocks in Southeast Asia, with capacity to dock vessels of up to 450,000 dwt. In addition, our Dry Dock No. 2 and Dry Dock No. 3 can dock vessels of up to 140,000 dwt and 400,000 dwt, respectively. We own two goliath cranes that are the largest in Southeast Asia, each of which is 150 meters in width and 100 meters in height with a lifting capacity of 600 tons. We also own one of the largest synchrolifts in the world with a lifting capacity of 13,500 tons and able to accommodate a vessel up to 165 meters in length and 31 meters in width.

MHB is accredited to the internationally recognized ISO 3834-2: 2005 Quality Requirements for Fusion Welding of Metallic Materials, ISO 29001: 2020 Quality Management System for Petroleum, Petrochemical and Gas Industry and ISO 9001: 2015 Quality Management System. MHB is also accredited to EN 1090-1: 2009 + A1: 2011 Execution of Steel Structures and Aluminum Structures. Consistent with our unwavering commitment in ESG initiatives, MHB is further accredited to ISO 45001: 2018 Certified Occupational Health & Safety Management System and ISO 14001: 2015 Certified Environmental Management System.

Strategy. With the addition of Dry Dock No.3 in 2020, we expect to leverage our competitive edge in the marine repair industry to capture the growing needs of LNG clients who require work conducted on their vessels. We are also proactively exploring prospective projects in both domestic and international markets mainly in Asia, North America and Middle East. We also focus on expanding capabilities related to energy transition, starting with our foray into constructing offshore wind farms. We are also implementing initiatives, including process improvements, digitalization and automation, to continue improving project progress tracking, potential risks identification and operation cost optimization.

Other businesses

Our other businesses are primarily strategic enablers that support our four core businesses, consisting of Integrated Marine Services, which provides shipmanagement solutions, Port Management and Maritime Services, which provides port and terminal management, marine assurance and consultancy services, and Maritime Education and Training, which manages Akademi Laut Malaysia (ALAM), one of the leading maritime institutions in the region.

Integrated Marine Services

We conduct our Integrated Marine Services segment through our wholly-owned subsidiary Eaglestar, which technically manages our vessel operations. As an integral and strategic enabler of MISC, Eaglestar has more than half a century of experience in the shipping industry. As of December 31, 2021, it had a team of approximately 4,800 highly skilled, competent and dedicated professionals to support our core businesses by delivering a comprehensive range of solutions including fleet management to crew management and project management services for newbuild construction and conversion projects. Eaglestar operates and maintains our modern and diversified vessels including VLECs, LBV, LNGCs, crude oil carriers (including LNG dual-fuel and eco-friendly petroleum tankers), DPSTs, product and chemical vessels, FSUs and MCVs. As a ship manager, Eaglestar is responsible for the day-to-day operations of our vessels, including operation and maintenance of the fleet, crew management, procurement activities and dry-docking of the assets. In managing the vessels, its primary objective is to deliver operational and cost efficiency to maximize vessel availability, maintain reliability and increase cost competitiveness. The management of our vessels is coordinated from various parts of the world through our regional offices established in Kuala Lumpur, Malaysia; Singapore; India; Houston, U.S.A., Rio De Janeiro, Brazil; and Rotterdam, the Netherlands to provide continuous operational support for vessels operating around the world. Eaglestar's dynamic workforce consists of various nationalities around the world, both at sea and on shore, to complement our global operations.

With respect to ship maintenance, Eaglestar adopts a prudent strategy whereby planned maintenance works are completed in strict adherence to the planned maintenance schedule, both at sea and during drydock, to minimize breakdowns and increase the vessels availability and reliability. Eaglestar also ensures that the vessels complete compliance surveys as prescribed by the relevant classifications societies. The drydocking is conducted in shipyards throughout the world, mainly in Europe and East Asia.

Eaglestar's procurement team is responsible for sourcing and delivering supplies required by our vessels. Our large fleet size provides an advantage in procurement activities through economies of scale due to the common specifications and bulk purchases of materials required for our fleet. In addition, Eaglestar regularly reviews and reevaluates vendors to achieve best value-for-money procurements.

Every commercial vessel's hull and machinery are evaluated by a classification society authorized by the vessel's country of registry. The classification society certifies that the vessel has been built and maintained in accordance with the rules of the classification society and complies with applicable rules and regulations of the vessel's country of registry and the international conventions of which the flag country is a member. Under normal circumstances, all cargo vessels are required to undergo a drydocking survey twice every five years in accordance with class requirements. Intervals between each drydocking may not exceed 36 months. An intermediate docking survey is performed every 24 to 36 months and a special docking survey is required every five years. To allow for a drydocking survey, a vessel must be berthed in a dry condition so that the underwater hull and appendages may be thoroughly inspected.

Each of our vessels has been certified as being "in-class" principally by one of American Bureau of Shipping, Bureau Veritas, Class NK, Lloyd's Register and Det Norske Veritas–Germanischer Lloyd, which are each an International Association of Classification Societies member. The principal purpose of these classification societies is to provide objective and independent confirmation to insurance underwriters that ships are built and maintained according to the standards that are considered appropriate to minimize claims on underwriters. A beneficial by-product of the activities of classification societies is to provide reassurances to owners, charterers and others with a financial or other interest in those ships that a particular vessel is being regularly surveyed and properly maintained in compliance with international regulations.

Eaglestar has maintained an impressive HSSE record and it ensures the relevant industry standards are maintained in Quality, Assurance, Health, Safety, Security and Environment (QAHSSE) by means of regular technical and marine vessel inspections. The rigorous auditing program assures compliance with our safety standards and provides opportunity for continuous improvements throughout the global network. In addition to the self-assessment, classification survey and ISO endorsement, the major oil companies conduct regular inspections and provide approvals to our vessels as a precondition to chartering them for voyages.

In addition to ship management, operation and maintenance, Eaglestar has its own in-house expertise in newbuilding supervision and technical consultancy capabilities accumulated over the years starting from our Tenaga Series' LNG shipbuilding project in 1980. Eaglestar's Technical Services Division was formally established to provide services and support for all of our shipbuilding activities, covering various type of vessels, including LNGCs, bulk carriers, chemical tankers, product tankers and crude oil tankers at various sizes.

Eaglestar has initiated the journey towards the digitalization of fleet management, with the aim of driving operational and cost efficiency. The journey includes exploring the deployment of various technologies onboard, including the implementation of the Safevue.ai, a digital solution focusing on an industry-first Safety 4.0 centered on human factors. Combining internet of things and predictive artificial intelligence that are empowered by our deep industry knowledge, this product focuses on improving safety and compliance outcomes, increasing operational productivity, and enhancing crew well-being. Moving forward, levering its rich experience in providing integrated marine services with a focus on providing technology solutions in green shipping, Eaglestar plans to increase its fleet under management through diversification of its customer portfolio by extending its services to external ship owners.

Port Management and Maritime Services

Our Port Management and Maritime Services segment is primarily conducted through our wholly-owned subsidiary, MISC Maritime Services Sdn. Bhd. ("**MMS**"); its key operations include providing port and terminal management and maritime services to a range of clients in the energy sector.

MMS's port and terminal management services include management support to ports, single point mooring operations and logistic support services along with other marine-related activities of jetty and single point mooring maintenance to ports and terminals in both Peninsular and East Malaysia. In 2020, MMS successfully supported the first Southeast Asia LBV marine operation at Malaysia's Sungai Udang Port, establishing our regional leadership in supporting LNG bunkering services.

In the maritime services segment, MMS delivers world-class marine operations, consultancy and assurance services to major oil companies, supporting their upstream and downstream activities.

Since its inception in 1992, MMS has cumulatively successfully handled over 48,500 vessels up to 320,000 deadweight tonnage at the ports and terminals it operates, and has performed more than 57,900 vessel screenings and inspections by its inspectors accredited by Oil Companies International Marine Forum.

To continue driving our business growth, MMS plans to seek new business with its existing major client, PETRONAS, while concurrently exploring opportunities to engage external clients, including providing engineering maintenance services for single point mooring to potential clients. MMS further intends to expand its ongoing digitalization efforts, primarily by improving key processes for better cost optimization and service efficiency in its port operations and maintenance and marine assurance.

Maritime Education and Training

Our Maritime Education and Training services are undertaken by ALAM, a leading maritime education and training institution that offers a diverse range of maritime courses including flagship nautical and marine engineering diploma programs, maritime and offshore safety courses, simulator-based courses, and maritime professional programs. ALAM is currently one of the leading maritime training institutions recognized internationally, with an enrolment of 306 cadets as of December 31, 2021. ALAM is the only maritime academy in Malaysia to combine the Standards of Training, Certification and Watchkeeping for Seafarers courses with certifications from the Department of Skills Development and the Malaysian Skills Certificate. By offering a range of short-term and long-term programs that educate seafarers to international standards, ALAM not only provides us with well-educated and competent seafarers to complement our continued business growth, but also serves as a platform for us to create value for the community and give back to society.

Employees and Crews

As at December 31, 2021, we employed a total of 8,851 persons (inclusive of outsourced seafarers), compared to 8,632 as at December 31, 2020. The increase in employees in 2021 is primarily attributable to the growth in the offshore business and heavy engineering business. The following table shows the number of employees by category:

	Number of employees at December 31, 2021		
Category	**Executive/ Officer**	**Non-executive**	**Total**
MISC	791	75	866
AET	164	21	185

Category	Number of employees at December 31, 2021		
	Executive/ Officer	Non-executive	Total
MMS	125	48	173
MMASB	111	57	168
MHB	1,239	1,410	2,649
Eaglestar (shore staff)	279	15	294
Eaglestar (sea staff)	2,448	2,068	4,516
Total	5,157	3,694	8,851

To complement our sustainable business growth in an environment in which there is a global shortage of competent seafarers, we have been continuously focusing on our own internal pool of qualified seafarers, particularly through ALAM. ALAM, currently one of the leading maritime academies in the region according to Drewry, has been steadily increasing the sizes of its incoming classes in recent years.

In addition, we have also formed partnerships with reputable manning agencies in India, Philippines and other geographically strategic locations to source a continuous supply of qualified seafarers in manning our ships.

The COVID-19 outbreak that began in 2019 and is continuing has affected business activities around the world and presented a unique set of challenges to the maritime industry. We believe our cultural beliefs and shared values underpinning our human capital management demonstrated our dedication to our people from all levels of the organization and has helped us navigate through this challenging time. For example, we strictly followed and regularly updated our employees with government lockdown policies and standard operating procedures around the world to ensure our business continued operating seamlessly. Our ship management team has worked to ensure crew changes have been carried out smoothly and regularly to avoid overly long working periods for our seafarers. We have set up hotlines and shore support system to provide online and digital platform to support seafarers, to help them keep in touch with their families. Particularly aware of the challenges presented by mental stress experienced by seafarers and other employees, our management team and leaders conducted numerous online town hall meetings to seek feedback and share messages to reassure and motivate employees both at sea and shore. These measures have allowed us to maintain our operational excellence without causing material attrition and burnout.

We currently have two in-house unions representing two groups of non-executive workers in Malaysia, namely Kesatuan Pekerja-Pekerja MISC Berhad ("**MISCEU**") and Kesatuan Pekerja-Pekerja Malaysia Marine And Heavy Engineering Sdn Bhd ("**MMHE Union**"). As at December 31, 2021, MISCEU represented 76 non-executives from MISC Berhad and Eaglestar, while MMHE Union represented 231 non-executives from MHB. Both unions' collective agreements typically have a term of three years and the upcoming collective negotiations are scheduled in 2022 for MISCEU and 2023 for MMHE Union. The relationship between management and the unions is strong, and we have not experienced any industrial actions such as labor strikes, slowdowns or other disturbances in our history.

We and our employees in Malaysia contribute to the Employee Provident Fund, a mandatory employee retirement fund administered by a board appointed by the Government of Malaysia. Similarly, our foreign offices and subsidiaries contribute to their respective country's statutory pension schemes, adhering to the local laws and regulations. We do not maintain any other retirement, pension or severance plan or have any unfunded pension liability.

Insurance

There are a number of risks associated with the operation of sea-going vessels, FPSOs and FSOs—including risks of mechanical failure, human error, collision, property loss, cargo loss or damage, and business or operational interruption due to factors such as political circumstances, supply chain disruption (including pandemics, adverse weather conditions, and port congestion), hostilities (including piracy, war and terrorism), labor strikes and off-hire periods. In addition, maritime vessel operations are subject to the inherent possibility of marine disaster, including oil spills and other environmental mishaps, and the liabilities arising from owning and operating vessels in international trade. The United States Oil Pollution Act of 1990 ("**OPA 90**"), which permits U.S. states to impose virtually unlimited liability upon owners, operators and demise charterers of any vessel trading in the United States' exclusive economic zone for certain oil pollution accidents in the United States, has made liability insurance more expensive for ship-owners and operators trading in the United States market. We are subject to these rules because of our operations in United States waters.

We believe our insurance coverage, including its limits of liability, coverages and deductibles, is in line with industry standards and is adequate for the conduct of our business. See "*Investment Considerations—Risks Relating to MISC and Its Business—Shipping is a business with inherent risks" and "—Insurance may not completely protect MISC.*"

We maintain various types of insurance including protection and indemnity, hull and machinery, construction or builders all risk (for floating facilities during conversion), cyber extension/endorsement, and war risk insurance. We also maintain loss of hire insurance for our LNG tankers and, if required under financing arrangements or other contractual requirements, for ships in our petroleum shipping fleet.

Protection and indemnity insurance. We maintain protection and indemnity insurance for all vessels in our fleet and all of our mobile offshore units. The risks covered include loss of cargo, damage to third party properties, illness, death or injury to crewmembers, fines, wreck removal, stowaways, pollution and collision liability. We also maintain freight, demurrage and defense insurance (which relates to defense against claims for our vessels' operational liability); charterers liability insurance (which provides coverage for chartered-in vessels); certificates of financial responsibility ("**COFR**") coverage under the OPA 90, which generally provides coverage cover for oil pollution liability of up to US$1 billion per vessel per incident in incidents subject to OPA 90.

Hull and machinery insurance. We maintain marine hull and machinery, war risk and increase in value insurance for our owned vessels. This coverage is applied by either fair market value or replacement value, depending on the type of vessel and contract requirements or in compliance with any applicable mortgage terms and conditions. The deductibles for these policies range from US$150,000 to US$500,000 for trading ships and US$500,000 to US$1,000,000 for floating facilities (excluding two facilities that are on bareboat arrangements with our charterers, who procured separate insurance policies with deductibles of US$5,000,000 for each facility).

Cyber extension/endorsement insurance. We maintain cyber extension/endorsement insurance to address business interruption and losses associated with our exposure to cybersecurity issues and the digital assets and private data that we collect and store. The coverage of onshore cyber insurance is based on a limit of indemnity of up to US$10 million for each claim and in aggregate, while the offshore cyber insurance is an extension of our hull and machinery and war policy.

Loss of hire insurance. We maintain loss of hire insurance, including both marine loss of hire and war loss of hire, for all of our LNG tankers and certain of our petroleum fleet vessels (if required under financing arrangements or for other considerations). The coverage of this insurance is based on the vessel's daily charter hire rate, subject to a maximum period of 60 days for the applicable petroleum fleet vessels or 120 days to 180 days per claim for LNG tankers.

Other insurance. We also maintain insurance to cover a number of customary general operating risks, including fire insurance, marine war insurance, trade disruption insurance, extended warranty insurance, simple risks insurance (which covers physical damage and loss of assets due to fire and allied perils and burglary), marine open cover insurance, all risks insurance (which covers physical damage and loss of assets during transit, temporary storage and event period), mortgage interest insurance as required by certain financing arrangements, social responsibility insurance to cover certain liability arising from standard of behavior expected by the Japanese society, kidnap and ransom insurance to address risks related to events in relation to kidnap, hostage and matters of similar nature, PETRONAS umbrella liability insurance, combined risk package (which covers certain physical damage and loss of assets), offshore operational insurance programs (which covers all risk physical damage and loss of assets), construction all risk insurance, comprehensive general liability insurance (which is a type of third party liability cover), and excess total losses (which is a total loss additional insurance). We further maintain group term takaful (which is a kind of group term life insurance benefits) and/or group personal accident for shore staff, Malaysian crew we directly hire and cadets in ALAM, directors and officers liability insurance to indemnify their liabilities arising from claims. With respect to MHB's activities, we also maintain ship repairer's liability, and other related insurance specifically related to those operations, which we directly procure through PETRONAS.

Health, Safety, Security and Environmental Matters

As a world leading provider of international energy-related maritime solutions and services, we are committed to creating value for our stakeholders and contributing to the sustainability of our industry. We have a clear policy to comply with laws and regulations relating to HSSE matters in each of the jurisdictions in which we operate. We believe sustainability is integral to our business as it strengthens our core values and enables us to deliver long-term value and positive impact to the environment, our employees and society. Our sustainability governance is key to ensuring that we continuously embed sustainability principles into our business strategy, decision-making processes and operations. We ensure that we follow through on our commitments by practicing progressive governance and sustainable management. Our sustainability agenda reinforces our commitment towards decarbonization, promoting a circular economy, health and safety, talent excellence and our values and business ethics.

Our commitment to sustainability is evidenced by the awards and recognitions we have received. For example, we have been the constituent of FTSE4Good Bursa Malaysia Index for seven consecutive years since the index was introduced in December 2014. This ESG index, the constituents of which are selected according to strict ESG criteria, aims to support investors in making ESG investments in Malaysian listed companies and increase the profile and exposure of companies with leading ESG practices. Sustainalytics, a leader in ESG research and data, gave us a low ESG risk rating, with one of the best scores in our peer comparison group. In November 2021, we were also included in the DJSI Emerging Markets Index, making us the only Malaysian transportation sector company and one of the three Malaysian companies listed in this index. DJSI Emerging Markets Index aims to represent the top 10% of the largest 800 companies in 20 emerging markets based on long-term economic, environmental and social criteria.

Since initiating our sustainability agenda through the development of our MISC Sustainability Framework in 2012, we have regularly reviewed and revised the focus of our sustainability agenda while steadily embedding sustainability elements within our operations, products and services. In 2020, we undertook a comprehensive process, including extensive discussions and collaboration with our diverse workforce, suppliers and customers, to develop our 2021-2025 Sustainability Strategy. Through this process, we identified nine strategic priorities within the three ESG pillars–the environmental pillar, social pillar and governance pillar—and the fourth stakeholder engagement pillar. In addition, we included a Financial Pillar as part of our financial support to complete the Sustainability Strategy.

Environmental pillar

We seek to contribute to a sustainable future of our world through our commitment to upholding high standards of environmental stewardship as a responsible corporate citizen. As a maritime solutions and services provider in the oil and gas industry, we endeavor to minimize the environmental impacts of our business operations, while at the same time contributing to efforts to preserve the planet for future generations. Within the environmental pillar, we further identified three strategic priorities, including decarbonization, promoting circular economy and biodiversity conservation.

Towards Decarbonization

We aspire to achieve decarbonized shipping operations by 2050, and this strategic priority aligns our carbon emission reduction commitments with the IMO's Initial Greenhouse Gas Strategy. We have planned out short to medium-term and long-term carbon reduction targets and, in connection with these targets, we have put in place concrete plans for both our shipping and non-shipping operations. As a member of Getting to Zero Coalition, a powerful alliance of more than 150 companies that is committed to developing commercially viable zero-carbon emission vessels operating in deep sea trade by 2030, we are steadfastly collaborating with our strategic partners in achieving this goal. We are also one of the four founding members of the Castor Initiative, which now consists of seven members including Samsung Heavy Industries, Lloyd's Register, MAN, Yara International ASA, Maritime and Port Authority of Singapore, Jurong Port and us. The Castor Initiative is a joint development project developing a zero carbon ammonia-fueled tanker. In general, we target to rejuvenate our fleet by progressively decarbonizing our newer vessels, increasing our usage of renewable energy in our business, and improving our energy efficiency in our vessel designs, at our workplace and in our operations. We are also one of the six strategic partners in the Global Maritime Forum with a mission to shape the future of global seaborne trade to increase sustainable long-term economic development and human wellbeing. These initiatives demonstrate that we are a pioneer committed to shipping decarbonization in our industry.

Guided by principles underlying our sustainability agenda, we strive to embrace the best practices to strengthen our sustainability practices and disclosures. Accordingly, we support the Task Force on Climate-Related Financial Disclosures ("**TCFD**"), a working group created by the Financial Stability Board to develop consistent climate-related financial risk disclosures for use by companies, banks, and investors in providing information to stakeholders. We endeavor to align our disclosure of climate-related risks and opportunities to TCFD's recommendations. For example, we have reviewed our processes to reinforce climate-related risks as part of our enterprise risks under our Enterprise Risk Management, evaluating anticipated future risks with scenario analysis, and discussing measures at the management and board level. We believe these practices will improve the quality of our climate-related disclosures and provide our stakeholders with clear and comprehensive information on the impacts of climate change on our business operations.

Promoting a circular economy

The circular economy, which refers to an economic system that seeks to eliminate waste by continually using resources through a closed-loop system, minimizes the use of resource inputs and reduces waste, pollution and carbon emissions. We aim to promote the elimination of waste and the continual use of resources, as well as increase the use of renewable resources, within our operations and the value chain. We plan to focus on practicing 4R (Refuse, Reduce, Reuse and Recycle), utilizing the Waste-to-Value concept–where waste is either treated or processed into a valuable product–wherever possible. We are also promoting greater utilization of renewable resources throughout our operations.

A critical part of our strategy to promote a circular economy is our efforts at green ship recycling. We are committed to conduct ship recycling activities in accordance with the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ship 2009, to ensure that the dismantling and breaking up of our vessels that have reached the end of their operational lives will not pose any unnecessary risks to human health and safety, or to the environment. We maintain an Inventory of Hazardous Materials on each of our vessels, which is a vessel-specific document that identifies and quantifies all potentially hazardous material on board a ship that poses health, safety and environmental risks. This document facilitates green ship life-cycle management, as it provides the ship recycler with the information they require to specifically identify and manage the hazardous materials appropriately in the vessel.

Biodiversity Conservation

We are committed to protecting ocean health by rehabilitating marine biodiversity. We are driving this strategic priority through collaborative partnerships that promote and conduct marine biodiversity programs and activities. In 2020, we launched the Heart of the Ocean initiative, a campaign to improve ocean health by conserving the marine ecosystem and reducing the impact of human activities on the oceans, signifying our long-term commitment towards marine biodiversity conservation. We introduced the MISC Biodiversity Conservation Flagship Program and the UMT-MMS Sea Turtle Conservation Program, two signature marine biodiversity conservation programs under the Heart of the Ocean Initiative to conserve and protect reef and sea turtles, respectively, which we believe play pivotal roles in marine biodiversity conservation.

Social pillar

Under our social pillar, we are committed to promoting health and safety, pursuing individual and team excellence and positively impacting communities. Our efforts under the social pillar are an important contribution to the socio-economic development of communities, as well as the key means to strengthen our human capital. The three strategic priorities within our social pillar include health and safety, talent excellence and community investment.

Health and safety

We strive to provide a safe and healthy environment for our employees, contractors and communities. We pursue this by developing and promoting our Behavioral HSSE culture, where the key fundamentals of health and safety are fully integrated into every aspect of our business, operations and processes. Our HSSE leadership also encourages all employees to embrace “See it, Own It” culture, where our employees are encouraged to focus on execution and take responsibilities for the results. Our future plans in this area are focused on enhancing our HSSE culture through the adoption of various health and safety initiatives and management processes, including integrated health and safety framework, contract health, safety and environment management, process safety management and health and safety competency.

Talent excellence

Diversity and inclusion will be an increasingly important focus under our talent excellence strategic priority. To implement our diversity and inclusion goals, we will strategically focus on the following areas:

- Growing our diverse talent base by building up gender and national representation that reflects our growing international footprint.

- Fostering an inclusive culture and work environment that emphasizes equity and meritocracy to provide opportunities for a multigenerational workforce.

- Promoting an ‘Inclusive Leadership’ culture founded on leadership accountability to create a workplace that is valued by a diverse talent base.

- Please see “—Employees and Crew” for more details about our talent management strategies.

In particular, we enable career development pathways for both male and female seafarers and cadets to prepare them to take up leadership roles. For example, as of December 31, 2021, for our on-shore personnel, our male-to-female gender ratio was approximately 2.87:1 and we had a significant number of women in management, including 24.2% in middle management and 16.7% in senior leadership roles. As of January 1, 2022, our board-level female diversity was 33.3%. On the shipping side, we had 59 female seafarers as of December 31, 2021, and the highest female ranking seafarer is a Senior Officer. In 2022, we aim to have at least four more women take up leadership roles of Master and Chief Engineer at Eaglestar. In 2021, we issued our MISC Group Diversity and Inclusion Policy. Diversity is an integral part of our talent strategy, and we are committed to employing and retaining the best talent that reflects the communities that we operate in. We define diversity in the workplace as engaging and involving employees with both differences and similarities.

Community investment

To pursue our goals for community investment, we aim to foster the development of youths towards becoming future leaders through education. Mindful of the digitalization and automation trends in our industry, we believe our future workforce will need to be adaptive and innovative in how they conduct their jobs and responsibilities—some of which may not even exist in our industry today. Accordingly, we focus on developing and upskilling entrepreneurship skills within the younger generation, by establishing a multi-stakeholder community investment program and, in particular, continuing with our maritime cadet sponsorship program at ALAM.

Governance pillar

We aspire to reinforce a strong governance, business ethics and culture. We believe a robust governance and ethical culture will preserve and strengthen stakeholder confidence, which in turn will provide the foundations for a high-performing organization with long-term resilience. The two strategic priorities within our governance pillar include values, assurance and business ethics, and responsible supply chain management.

Values, assurance and business ethics

We are continuously working to embed a culture of strong corporate governance, business ethics and conduct. As our business operations move towards digitalization and automation, we plan to focus on enhancing our cybersecurity framework to safeguard our operations. We plan to enhance our oversight of ESG risks through enterprise risk management. Board Governance and Risk Committee, which began operating from January 1, 2021, has provided focused oversight on our effective implementation of the sustainability strategy, including the oversight on ESG risks and cyber risk governance.

We also plan to enhance our compliance and business ethics to embed a strong compliance culture into our business processes through awareness and assurance programs, including by continuously improving our anti-bribery management system. We recognize that there are human rights risks in our business operations, and we are committed to ensuring we regularly conduct our human rights assessment and provide for a grievance mechanism, in line with promoting fair labor practices. We also plan to enhance our employees' cybersecurity capabilities and awareness across all levels of our organization, as we elevate and continuously improve our cybersecurity framework.

Responsible supply chain management

We aim to incorporate our suppliers in our sustainability initiatives, and we plan to implement this through an ESG supply chain assurance program that emphasizes sustainable sourcing, circular economy, health and safety, and business ethics compliance, including human rights. We also intend to seek collaboration and partnership opportunities within our supply chain, including in developing low-carbon products and solutions and capturing new opportunities in the circular economy, pollution prevention and decarbonization of our operations. We believe this approach will create value not only for our customers, but also for our suppliers' own businesses.

Stakeholder engagement pillar

Our stakeholders are an important component of our business operations, and we are committed to creating value through trusted stakeholder relationships–especially through our sustainability agenda. In line with this conviction, we have instituted the stakeholder engagement pillar as a vital part of our sustainability strategy. Five principles underpin this pillar: (1) collaboration with strategic partners; (2) promotion of sustainability awareness; (3) effective communication through identified platforms; (4) seeking regular feedback from stakeholders; and (5) achieving transparency through disclosures on sustainability-related frameworks.

Financial pillar

We recognize that the successful execution and effective delivery of the ambitions underlying our sustainability agenda will require the support of our financial success. The aim of our financial pillar is to achieve growth in a predictable manner through recurring sources of cash flow. We identify two key strategic priorities to drive our financial sustainability: a five-year rolling business plan on financial growth, and our financial governance framework, which we developed in line with the financial reporting accounting standards and our corporate financial policy. Having been stress-tested by the extreme combination of COVID-19, crash in oil prices and global economic recession in 2020, we are confident that our financial strategy can provide us with the stability and resources to implement our 2021-2025 Sustainability Strategy.

Regulation

Our operations are materially affected by international conventions and local laws and regulations in force in the jurisdictions in which we operate, as well as in the country or countries of our vessel registrations. We are also subject to various permits, licenses and other requirements. Because these regulations and other requirements are subject to revision, we cannot know in advance the continuing cost of compliance with them, the impact thereof on the resale price or useful life of ships or on business operations. However, we expect increased regulation of our industry, particularly regarding pollution and security. We believe we are in compliance in all material respects with all applicable current health, safety, environmental and security requirements. However, some risk of health, safety, environmental and security costs and liabilities is inherent in the shipping industry and offshore industry in which we operate.

Environmental and Security

The EQA. In Malaysia, the Environmental Quality Act 1974 and the regulations enacted pursuant to it (the "**EQA**"), the Merchant Shipping Ordinance 1952 and the regulations enacted pursuant to it (the "**MSO**") and the Petroleum (Safety Measures) Act 1984 and the regulations enacted pursuant to it are the principal regulations for the control of pollution and the protection of the environment. The EQA and the MSO provide for both criminal liability and fines for oil spills.

The CLC and Fund. The International Convention on Civil Liability for Oil Pollution Damage, 1992, (the "**CLC**") and the Convention on the Establishment of an International Fund for Compensation for Oil Pollution, 1992 (the "**Fund**") are the principal international laws adopted by most jurisdictions, other than the United States, regarding oil pollution. These laws generally impose strict liability, up to certain limits, on the registered owner of a vessel that carries oil in bulk as cargo for pollution damage caused in the territorial sea or the exclusive economic zone of a contracting state by a discharge of persistent oil. The liability limits are approximately 4.5 million Special Drawing Rights of the International Monetary Fund ("**SDR**") plus 631 SDR for each additional gross ton over 5,000 for vessels of 5,000 to 140,000 gross tons, and approximately 89.8 million SDR for vessels larger than 140,000 gross tons. The right to limit liability is forfeited under the CLC when the spill is caused by the owner's actual fault or privity or when the spill is caused by the owner's intentional or reckless conduct. Vessels carrying oil as cargo in bulk trading to contracting states must establish evidence of insurance covering the limited liability of the owner. Notwithstanding the CLC, there is considerable variation in the liability and sanction regimes that apply from country to country. Some countries, such as Malaysia, are parties only to the CLC, whereas other countries, such as Singapore, have ratified the CLC and Fund. Certain countries that are signatories to the CLC have established their own sanctions for violations of these requirements, and countries that are not signatories to the CLC may establish more expansive liability including higher liability limits or liability without limitation.

The IMO

The International Maritime Organization ("**IMO**") is an agency organized in 1958 by the United Nations to develop international regulations and practices affecting shipping and international trade and to encourage the adoption of standards of safety and navigation. The IMO also develops regulations concerning the design and useful life of tankers as a means to prevent pollution, including the requirement that oil tankers be double-hulled. The IMO regulations have been adopted in over 150 countries. All of our existing tankers comply with current IMO configuration requirements.

The IMO adopted the International Convention for the Prevention of Pollution from Ships ("**MARPOL**"), the International Convention for the Safety of Life at Sea of 1974 ("**SOLAS Convention**"), and the International Convention on Load Lines of 1966 ("**LL Convention**"). MARPOL establishes structural and operational environmental standards relating to oil leakage or spilling, garbage management, sewage, air emissions, handling and disposal of noxious liquids and the handling of harmful substances in packaged forms. MARPOL is applicable to all tankers, among other vessels, and is broken into six Annexes, each of which regulates a different source of pollution. Annex I relates to prevention of pollution by oil; Annexes II and III relate to harmful substances carried in bulk in liquid or in packaged form, respectively; Annexes IV and V relate to sewage and garbage management, respectively; and Annex VI, relates to prevention of air pollution from ships. Annex VI was separately adopted by the IMO in September of 1997; new emissions standards, titled IMO-2020, took effect on January 1, 2020. Amendments to Annex VI were further adopted in June 2021, and expected to enter into force on January 1, 2023, to reduce greenhouse gas emissions from ships. The new measures impose two requirements, including (1) a technical requirement to reduce carbon intensity based on a new Energy Efficiency Existing Ship Index ("**EEXI**"), and (2) operational carbon intensity reduction requirements, based on a new operational carbon intensity indicator ("**CII**").

In 2013, the IMO's Marine Environmental Protection Committee ("**MEPC**") adopted a resolution amending MARPOL Annex I Condition Assessment Scheme ("**CAS**"). These amendments became effective on October 1, 2014 and require compliance with the 2011 International Code on the Enhanced Programme of Inspections during Surveys of Bulk Carriers and Oil Tankers, ("**ESP Code**"), which provides for enhanced inspection programs.

The IGC Code. Vessels that transport gas, including LNGCs, are also subject to regulation under the International Gas Carrier Code ("**IGC**"), published by the IMO. The IGC provides a standard for the safe carriage of LNG, liquid ethane and certain other liquid gases by prescribing the design and construction standards of vessels involved in such carriage. Compliance with the IGC must be evidenced by a Certificate of Fitness for the Carriage of Liquefied Gases of Bulk. Each of our LNGCs and VLECs is in compliance with the IGC and each of our newbuilding contracts requires that the vessel receive certification that it is in compliance with applicable regulations before it is delivered. Noncompliance with the IGC or other applicable IMO regulations may subject a ship-owner or a bareboat charterer to increased liability, may lead to decreases in available insurance coverage for affected vessels and may result in the denial of access to, or detention in, some ports.

The ISM Code. The International Safety Management Code ("**ISM Code**"), also published by the IMO, requires ship-owners and bareboat charterers to develop and maintain an extensive "safety management system" that includes the adoption of a safety and environmental protection policy setting forth instructions and procedures for operating its vessels safely and for responding to emergencies. Vessel operators must obtain a safety management certificate for each of their vessels. Noncompliance with the ISM Code may subject the ship-owner or bareboat charterer to increased liability and may lead to decreases in available insurance coverage for affected vessels. We are compliant with all applicable elements of the ISM Code and is subject to periodic audits both on its shore management and shipboard operations.

Air Emission Limitations. Annex VI, which entered into force on May 19, 2005, sets limits on sulfur dioxide and nitrogen oxide emissions from ship exhausts and prohibits deliberate emissions of ozone depleting substances, such as chlorofluorocarbons. Annex VI also includes a global cap on the sulfur content of fuel oil and allows for special areas to be established with more stringent controls on sulfur emissions. All of our existing vessels comply with the Annex VI limits.

The MEPC adopted amendments to Annex VI regarding emissions of sulfur oxide, nitrogen oxide, particulate matter and ozone depleting substances, which entered into force on July 1, 2010. The amended Annex VI seeks to further reduce air pollution by, among other things, implementing a progressive reduction of the amount of sulfur contained in any fuel oil used onboard vessels. On October 27, 2016, the MEPC agreed to implement a global 0.5% m/m sulfur oxide emissions limit (reduced from the previous standard of 3.50%) starting from January 1, 2020. This limitation can be met by using low-sulfur compliant fuel oil, alternative fuels, or certain exhaust gas cleaning systems. Vessels are now required to obtain bunker delivery notes and International Air Pollution Prevention ("**IAPP**") Certificates from their flag states that specify sulfur content. Additionally, at MEPC 73, amendments to Annex VI were adopted to prohibit the carriage of bunkers above 0.5% sulfur on vessels and took effect March 1, 2020. These regulations subject ocean-going vessels to stringent emissions controls, and may cause us to incur substantial costs.

Sulfur content standards are even stricter within certain Emission Control Areas ("**ECAs**"). As of January 1, 2015, vessels operating within an ECA were not permitted to use fuel with sulfur content in excess of 0.1% m/m. Amended Annex VI establishes procedures for designating new ECAs. Currently, the IMO has designated four ECAs, including specified portions of the Baltic Sea area, North Sea area, North American area and United States Caribbean area. In addition, several Chinese ports have established a similar system. Ocean-going vessels in these areas are subject to stringent emission controls and may cause us to incur additional costs. Other areas in China are subject to local regulations that impose stricter emission controls.

Amended Annex VI also establishes new tiers of stringent nitrogen oxide emissions standards for marine diesel engines, depending on their date of installation. At the MEPC meeting held from March to April 2014, amendments to Annex VI were adopted that address the date on which Tier III Nitrogen Oxide ("**NOx**") standards in ECAs will go into effect. Under the amendments, Tier III NOx standards apply to vessels that operate in the North American and U.S. Caribbean Sea ECAs designed for the control of NOx produced by vessels with a marine diesel engine installed and constructed on or after January 1, 2016. Tier III requirements could apply to areas that will be designated for Tier III NOx in the future. At MEPC 70 and MEPC 71, the MEPC approved the North Sea and Baltic Sea as ECAs for nitrogen oxide for vessels built on or after January 1, 2021. The EPA promulgated equivalent (and in some senses stricter) emissions standards in 2010.

As determined at the MEPC 70, the new Regulation 22A of MARPOL Annex VI became effective as of March 1, 2018, which requires vessels above 5,000 gross tons to collect and report annual data on fuel oil consumption to an IMO database, with the first year of data collection commencing on January 1, 2019. The IMO intends to use such data as the first step in its roadmap (through 2023) for developing its strategy to reduce greenhouse gas emissions from vessels, as discussed further below.

As of January 1, 2013, MARPOL made mandatory certain measures relating to energy efficiency for vessels. All vessels are now required to develop and implement Ship Energy Efficiency Management Plans ("**SEEMP**"), and new vessels must be designed in compliance with minimum energy efficiency levels per capacity mile as defined by the Energy Efficiency Design Index ("**EEDI**"). Under these measures, by 2025, all new vessels built will be 30% more energy efficient than those built in 2014. Additionally, MEPC 75 adopted amendments to MARPOL Annex VI that brings forward the effective date of the EEDI's "phase

3" requirements from January 1, 2025 to April 1, 2022 for several ship types, including gas carriers, general cargo ships, and LNG carriers.

Additionally, MEPC 75 introduced draft amendments to MARPOL Annex VI, and some of the amendments were adopted in MEPC 76 in June 2021 (the "**MEPC 76 Amendments**"). The MEPC 76 Amendments impose new regulations to reduce greenhouse gas emissions from ships. The MEPC 76 Amendments introduce requirements to assess and measure the energy efficiency of all ships and set the required attainment values, with the goal of reducing the carbon intensity of international shipping. The requirements include (1) a technical requirement to reduce carbon intensity based on a new EEXI, and (2) operational carbon intensity reduction requirements, based on a new operational CII. The attained EEXI is required to be calculated for ships of 400 gross tonnage and above, in accordance with different values set for ship types and categories. With respect to the CII, the MEPC 76 Amendments require ships of 5,000 gross tons to document and verify their actual annual operational CII achieved against a determined required annual operational CII. Ships will get a CII rating of their energy efficiency (A, B, C, D and E, where A is the best), which will be incorporated in their mandatory Statement of Compliance to be issued by the Administration. Administrations, port authorities and other stakeholders as appropriate are also encouraged to provide incentives to ships rated as A or B. The MEPC 76 Amendments are expected to enter into force on November 1, 2022, and the requirements for EEXI and CII certification come into effect from January 1, 2023. During MEPC 76, the committee also agreed to commence further work on underwater noise form ships, and postponed certain items to the next session.

We may incur costs to comply with these or other revised standards. Additional or new conventions, laws and regulations may be adopted that could require the installation of expensive emission control systems and could adversely affect our business, results of operations, cash flows and financial condition

The ISPS Code. 2002 amendments to the SOLAS Convention established a new chapter dealing with maritime security which became effective on July 1, 2004. Detailed security obligations on cargo vessels over 500 gross tons and port facilities, most of which are contained in the newly-created International Ship and Port Facilities Security Code ("**ISPS Code**"), include: (i) the requirement to obtain an international ship security certificate and certifications for shipboard security officers; (ii) on-board installation of automatic information systems, to enhance vessel-to-vessel and vessel-to shore communications; (iii) on-board installation of ship security alert systems; and (iv) development of vessel security plans. All of the vessels we operate comply with the ISPS Code.

Vessel Construction. Regulation II-1/3-10 of the SOLAS Convention governs vessel construction and stipulates that vessels over 150 meters in length must have adequate strength, integrity and stability to minimize risk of loss or pollution. Goal-based standards amendments in SOLAS regulation II-1/3-10 entered into force in 2012, with July 1, 2016 set for application to new oil tankers, among other vessels. The SOLAS Convention regulation II-1/3-10 on goal-based vessel construction standards for oil tankers, among other vessels, which entered into force on January 1, 2012, requires that all oil tankers, among other vessels, of 150 meters in length and above, for which the building contract is placed on or after July 1, 2016, satisfy applicable structural requirements conforming to the functional requirements of the International Goal-based Ship Construction Standards for Bulk Carriers and Oil Tankers.

STCW. The IMO has also adopted the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers ("**STCW**"). As of February 2017, all seafarers are required to meet the STCW standards and be in possession of a valid STCW certificate. Flag states that have ratified SOLAS and STCW generally employ the classification societies, which have incorporated SOLAS and STCW requirements into their class rules, to undertake surveys to confirm compliance.

MLC. Maritime Labor Convention ("**MLC**") was adopted by the International Labor Conference of the International Labor Organization, under article 19 of its Constitution, at a maritime session in February 2006 in Geneva, Switzerland. It entered into force on August 20, 2013. It was amended in 2014, 2016 and 2018. The MLC sets out seafarers' rights to decent conditions of work and helps to create conditions of fair competition for ship-owners. MLC is regarded as the "fourth pillar" of the international regulatory regime for quality shipping, complementing the key conventions of the IMO, namely SOLAS, the STCW, and MARPOL. The MLC contains a comprehensive set of global standards, based on those that are already found in the maritime labor instruments (Conventions and Recommendations) adopted by the International Labor Organization between 1920 and 1996. The MLC consolidates and revises the existing international law on all these matters. All of the vessels we operate comply with MLC.

Ballast Water and Sediments. The IMO has negotiated international conventions that impose liability for pollution in international waters and the territorial waters of the signatories to these conventions. For example, the IMO adopted an International Convention for the Control and Management of Ships' Ballast Water and Sediments ("**BWM Convention**") in 2004. The BWM Convention entered into force on September 8, 2017. The BWM Convention requires vessels to manage their ballast water to remove, render harmless, or avoid the uptake or discharge of new or invasive aquatic organisms and pathogens within ballast water and sediments. The BWM Convention's implementing regulations call for a phased introduction of mandatory ballast water exchange requirements, to be replaced in time with mandatory concentration limits, and require all vessels to carry a ballast water record book and an international ballast water management certificate.

On December 4, 2013, the IMO Assembly passed a resolution revising the application dates of BWM Convention so that the dates are triggered by the entry into force date and not the dates originally in the BWM Convention. This, in effect, makes all vessels delivered before the entry into force date "existing vessels" and allows for the installation of ballast water management systems on such vessels at the first International Oil Pollution Prevention ("**IOPP**") renewal survey following entry into force of the convention. The MEPC adopted updated guidelines for approval of ballast water management systems (G8) at MEPC 70. At MEPC 71, the schedule regarding the BWM Convention's implementation dates was also discussed and amendments were introduced to extend the date existing vessels are subject to certain ballast water standards. Those changes were adopted at MEPC 72. Vessels over 400 gross tons generally must comply with a "D-1 standard," requiring the exchange of ballast water only in open seas and away from coastal waters. The "D-2 standard" specifies the maximum amount of viable organisms allowed to be discharged, and compliance dates vary depending on the IOPP renewal dates. Depending on the date of the IOPP renewal survey, ships constructed before September 8, 2017 must comply with the D-2 standard on or after September 8, 2019. Ships constructed on or after September 8, 2017 are to comply with the D-2 standards on or after September 8, 2017. For most vessels, compliance with the D-2 standard will involve installing on-board systems to treat ballast water and eliminate unwanted organisms. All of our vessels comply with the updated guideline.

Ballast water management systems, which include systems that make use of chemical, biocides, organisms or biological mechanisms, or which alter the chemical or physical characteristics of ballast water, must be approved in accordance with IMO Guidelines (Regulation D-3). As of October 13, 2019, MEPC 72's amendments to the BWM Convention took effect, making the Code for Approval of Ballast Water Management Systems, which governs assessment of ballast water management systems, mandatory rather than permissive, and formalized an implementation schedule for the D-2 standard. Under these amendments, all ships must meet the D-2 standard by September 8, 2024. Costs of compliance with these regulations may be substantial. Additionally, in November 2020, MEPC 75 adopted amendments to the BWM Convention which would require a commissioning test of the ballast water management system for the initial survey or when performing an additional survey for retrofits. This analysis will not apply to ships that already have an installed BWM system certified under the BWM Convention. These amendments are expected to enter into force on June 1, 2022.

Once mid-ocean exchange ballast water treatment requirements become mandatory under the BWM Convention, the cost of compliance could increase for ocean carriers and may have a material effect on our operations. However, many countries already regulate the discharge of ballast water carried by vessels from country to country to prevent the introduction of invasive and harmful species via such discharges. The U.S., for example, requires vessels entering its waters from another country to conduct mid-ocean ballast exchange, or undertake some alternate measure, and to comply with certain reporting requirements.

Anti-Fouling Requirement. In 2001, the IMO adopted the International Convention on the Control of Harmful Anti-fouling Systems on Ships, ("**Anti-fouling Convention**"). The Anti-fouling Convention, which entered into force on September 17, 2008, prohibits the use of organotin compound coatings to prevent the attachment of mollusks and other sea life to the hulls of vessels. Vessels of over 400 gross tons engaged in international voyages are required to undergo an initial survey before the vessel is put into service or before an International Anti-fouling System Certificate is issued for the first time; and subsequent surveys when the anti-fouling systems are altered or replaced.

In November 2020, MEPC 75 approved draft amendments to the Anti-fouling Convention to prohibit antifouling systems containing cybutryne, which would apply to ships from January 1, 2023, or, for ships already bearing such an anti-fouling system, at the next scheduled renewal of the system after that date, but no later than 60 months following the last application to the ship of such a system. These amendments were formally adopted at MEPC 76 in 2021. We have obtained Anti-fouling System Certificates for all of our vessels that are subject to the Anti-fouling Convention.

Cybersecurity. In 2017, the IMO adopted a resolution that encourages administrations to ensure that cyber risks are appropriately addressed in existing safety management systems, as defined in the ISM code, no later than the first annual verification of the company's Document of Compliance after January 1, 2021. IMO has also issued a guideline on maritime cyber risk management, the MSC-FAL.1/Circ.3 Guidelines. The guideline provides high-level recommendations on maritime cyber risk management to safeguard shipping from current and emerging cyber threats and vulnerabilities and include functional elements that support effective cyber risk management. The recommendations can be incorporated into existing risk management processes and are complementary to the safety and security management practices already established by IMO. We are in compliance with these requirements for the vessels that we manage.

United States

Ship operators in the United States are subject to a number of federal and state laws and regulations with respect to health, safety, environmental protection and security in the course of ship operations in United States trade lanes. The primary laws are OPA 90, with respect to oil spill liability, and the Comprehensive Environmental Response, Compensation, and Liability Act ("**CERCLA**"), with respect to spills or releases of hazardous substances. We are subject to these rules.

Under OPA 90, responsible parties are strictly liable on a joint and several basis (unless the discharge results solely from the act or omission of a third party, an act of God or an act of war) for spill containment and cleanup costs and damages arising from actual and threatened discharges of oil and other petroleum products from their vessels and subject facilities. Damages include: (i) natural resources damages and the costs of assessment thereof; (ii) real and personal property damages; (iii) net loss of taxes, royalties, rent, fees and other lost government revenues; (iv) lost profits or impairment of earning capacity due to property or natural resources damage; (v) net cost of public services necessitated by a spill response, such as protection from fire, safety or health hazards; and (vi) loss of subsistence use of natural resources. With adjustment effective November 12, 2019, OPA 90 limits tankers, other than a single-hull tanker, over 3,000 gross tons liability to the greater of $2,300 per gross ton or $19,943,400 (subject to periodic adjustment for inflation). There is no limitation of liability where the discharge results from the act or omission of a third party who is an employee or other party in a contractual relationship with the responsible party. CERCLA contains a similar strict liability regime for the release of hazardous substances which our vessels may carry. Liability under CERCLA is limited to the greater of US$300 per gross ton or US$5 million per incident. These limits of liability under CERCLA or OPA 90 do not apply if the incident was proximately caused by a violation of applicable United States safety, construction or operating regulations, or by the responsible party's gross negligence or willful misconduct or if the responsible party fails or refuses to report the incident or to cooperate and assist in connection with oil removal activities. OPA 90 also does not prevent states from setting their own oil spill liability laws, and many states bordering navigable waters impose unlimited liability for oil spills in their waters.

OPA 90 also requires owners and operators of vessels to establish and maintain with the United States Coast Guard evidence of financial responsibility sufficient to meet the limit of their potential strict liability under OPA 90 and CERCLA. Under OPA 90 and CERCLA, a tanker greater than 3,000 gross tons must establish and maintain evidence of financial responsibility in the amount of US$1,500 per gross ton.

Any other type vessel must demonstrate financial responsibility at US$900 per gross ton. Such financial responsibility, evidenced by issuance of a COFR, may be demonstrated by a guaranty in the form of acceptable insurance, surety bond, self-insurance or other means approved by the United States Coast Guard. Claimants may bring suit directly against an insurer, surety or other party that furnishes the guaranty. Owners and operators, including us, have procured financial insurance guarantees from special purpose insurers acceptable to the United States Coast Guard. We believe that we are in compliance with OPA 90's financial responsibility requirements and has received COFRs from the United States Coast Guard for each of its vessels trading in United States waters.

The 2010 Deepwater Horizon oil spill in the Gulf of Mexico resulted in additional regulatory initiatives or statutes, including higher liability caps under OPA, new regulations regarding offshore oil and gas drilling and a pilot inspection program for offshore facilities. However, several of these initiatives and regulations have been or may be revised. For example, the U.S. Bureau of Safety and Environmental Enforcement's ("**BSEE**") revised Production Safety Systems Rule ("**PSSR**"), effective December 27, 2018, modified and relaxed certain environmental and safety protections under the 2016 PSSR. Additionally, the BSEE amended the Well Control Rule, effective July 15, 2019, which rolled back certain reforms regarding the safety of drilling operations, and former U.S. President Trump had proposed leasing new sections of U.S. waters to oil and gas companies for offshore drilling. The effects of these proposals and changes are currently unknown, and recently, current U.S. President Biden signed an executive order temporarily blocking new leases for oil and gas drilling in federal waters. Compliance with any new requirements of OPA and future legislation or regulations applicable to the operation of our vessels could impact the cost of our operations and adversely affect our business.

OPA 90 Vessel Response Plans. Owners or operators of tankers operating in United States waters must file, with the United States Coast Guard and certain states, vessel response plans detailing remedial and cleanup measures to be taken in the event of an oil spill and must operate their tankers in compliance with United States Coast Guard approved plans. Such response plans must, among other things: (i) identify and ensure, through contract or other approved means, the availability of necessary private response resources to respond to a "worst case" discharge or to a substantial threat of a worst-case discharge of oil or a hazardous substance; (ii) describe crew training and drills; and (iii) identify a qualified individual with full authority to implement removal actions. We are in compliance with these requirements.

Maritime Security. The Maritime Transportation Security Act of 2002 ("**MTSA**") and implementing regulations issued by the United States Coast Guard require the implementation of certain security requirements aboard vessels operating in waters subject to United States jurisdiction, with the requirements becoming more stringent at higher terrorism threat levels. The United States Coast Guard regulations exempt non-United States tankers from many of the MTSA vessel security measures provided such vessels have on board, by July 1, 2004, a valid International Ship Security Certificate ("**ISSC**") that attests to the vessel's compliance with SOLAS security requirements and the ISPS Code. Certain MTSA requirements, however, such as those relating to reporting security breaches or incidents and complying with the vessel security plan, continue to apply. All of the vessels we operate comply with the ISSC and MTSA requirements.

Legal

In the ordinary course of our businesses, we and our subsidiaries are parties to legal proceedings and potential disputes with, among others, our customers, suppliers and contractual counterparties. Although we cannot predict with certainty the ultimate resolution of lawsuits, proceedings and claims asserted against us or our subsidiaries, we do not believe that any currently pending legal or arbitration proceeding to which we or our subsidiaries are a party will have a material adverse effect on our business, results of operations or financial condition.

We consider the following ongoing litigations that implicate certain of our subsidiaries to be material.

Gumusut-Kakap Semi-Floating Production System (L) Limited ("GKL") and Sabah Shell Petroleum Limited ("SSPC")

In September 2016, the Company's wholly-owned subsidiary, GKL brought an arbitration proceeding against SSPC involving the construction and lease of the Gumusut-Kakap semi-floating production system. In the proceedings, GKL made claims for outstanding additional lease rates, payment for completion variation works and other associated costs under the Lease Agreement, amounting to approximately US$245.0 million together with applicable interest. In addition, GKL filed notices of adjudication against SSPC under the Malaysian Construction Industry Payment and Adjudication Act 2012. GKL was successful under the first and second adjudication decisions for payment of completed variation works amounting to approximately US$255.0 million and US$73.0 million as lump sum payments, with the balance amounts payable by SSPC for the relevant lease period. SSPC refuted GKL's claims and filed a counterclaim against GKL in the Arbitration for alleged defective work and limited functionality of the Gumusut-Kakap semi-floating production system, liquidated damages and a refund of the full amount paid to GKL pursuant to the adjudication awards amounting to approximately US$588 million together with applicable interest.

The Arbitral Tribunal has issued its award on April 8, 2020 ("Award") which found, among others, as follows:

(1) That GKL's claim in relation to the achievement of the Handover Completion under the Contract was rejected and the Arbitral Tribunal decided that the Handover Completion did not occur prior to October 11, 2014;

(2) In relation to GKL's claims for the Variation Works, GKL was awarded:

    (a) US$222.1 million;

    (b) an amount of US$88.8 million is deducted from US$222.1 million being manpower costs incurred by way of the Variation Works for rectification of defects (which the Arbitral Tribunal held GKL to be liable for); and

    (c) the remainder sum of US$133.3 million is converted to an Additional Lease Rate and represents a reduction from the Additional Lease Rate awarded by the Adjudication Awards; and

(3) SSPC was awarded the following sums:

    (a) US$236.4 million for defects rectification work (inclusive of US$15 million for the Liquidated Damages);

    (b) US$88.3 million as a refund for overpayment of the Additional Lease Rate originally awarded in the Adjudication Proceedings for the period of April 2014 to January 2020 due to the reduction of the Additional Lease Rate;

    (c) applicable interest up to the date of the Award; and

    (d) costs of US$12.7 million;

GKL was advised that it has legal grounds to challenge the Award and on July 7, 2020, GKL has filed the court applications to set aside parts of the Award ("**Setting Aside OS**") and for an injunction to restrain SSPC from setting off the sums that GKL was ordered to pay to SSPC under the Award ("**Injunction NOA**").

On October 6, 2020, GKL withdrew the Injunction NOA on the basis that a statutory stay of enforcement is automatically imposed on SSPC upon GKL's application to set aside the enforcement of the Award.

Additionally, GKL had filed an interim application preventing SSPC from enforcing the Award prior to the determination of the Setting Aside OS. On October 25, 2021, the High Court dismissed GKL's interim application and decided that SSPC has the right to set off the award against the charter hire. On November 22, 2021, GKL filed on appeal to the Court of Appeal against the High Court decision. This appeal is now on July 6, 2022 with a final case management date fixed on June 22, 2022.

GKL's Setting Aside OS was partly heard on October 20 and 25, 2021 and January 13, 2022 where GKL's counsel presented its case before the Judge at the High Court. The matter is fixed for continued hearing on February 16 and 17, 2022 and April 4, 2022.

Notwithstanding the above proceedings, the litigation claims amounting to RM1,049.2 million as well as a write-off of trade receivables and loss on re-measurement of finance lease receivables of RM846.2 million were recognized in the financial year ended December 31, 2020

MOMPL and PCPP

Our wholly owned subsidiary Malaysia Offshore Mobile Production (Labuan) Ltd ("**MOMPL**") and PCPP Operating Company Sdn Bhd ("**PCPP**") are parties to an Agreement for the leasing, operation and maintenance of two plain mobile offshore production unit facilities for D30 and the Dana Fields Development Project offshore Sarawak, Malaysia dated November 28, 2008 (the "**D30 and Dana Fields Contract**"). PCPP is a joint operating company with shareholders comprising PETRONAS Carigali Sdn Bhd ("**PCSB**") (40%), PT Pertamina Hulu Energi ("**PPHE**") (30%) and PetroVietnam Exploration Production Corporation Ltd ("**PVEP**") (30%). A dispute has arisen between the parties in relation to the D30 and Dana Fields Contract, and there are substantial sums due and owing to MOMPL. Attempts to resolve the matter by means of a commercial settlement agreement failed to materialize and MOMPL was constrained to proceed with legal proceedings against PCPP to seek to recover the sums outstanding to MOMPL for the lease rates, payment for completed variation works, early termination fees, reimbursement of demobilization costs and associated costs under the D30 and Dana Fields Contract totaling approximately US$99.8 million and service rates totaling approximately RM22.6 million. In this respect, the following actions have been filed:

Arbitration

The first arbitration proceedings seek to claim for part of the respective outstanding sums amounting to approximately US$18.8 million and RM17.9 million. MOMPL filed its statement of claim on December 21, 2016.

MOMPL re-filed its notice of arbitration for the second arbitration proceedings for part of the respective outstanding sums amounting to approximately US$81.0 million and RM4.7 million. PCPP responded to the notice of arbitration on July 15, 2020.

The respective arbitral tribunals for both of these arbitration proceedings have been constituted, and the parties are negotiating and finalizing the terms of appointment for the arbitration panel members. However, in light of the litigation in respect of the Statutory Notice (as defined and discussed below), MOMPL has elected to keep both arbitration proceedings in abeyance until the Statutory Notice is disposed of by the High Court of Malaysia.

Adjudication

MOMPL commenced adjudication proceedings under the CIPAA to recover MOMPL's claim for the completed variation works amounting to approximately US$9.9 million. On January 9, 2019, MOMPL was awarded its entire claim of US$9.9 million plus interest and costs.

MOMPL commenced the second adjudication proceedings under the CIPAA to recover the disputed demobilisation costs amounting to approximately US$4.8 million. On October 7, 2019, MOMPL received the second adjudication decision dated July 26, 2019 in which MOMPL was awarded its entire claim of US$4.8 million plus interest and costs.

On October 16, 2019 the Federal Court made a ruling that the CIPAA, which provides the basis upon which the two adjudication proceedings described above were commenced, only applies prospectively to construction contracts entered into after the date the CIPAA became effective, that is, April 15, 2014. The MOMPL lease agreement is dated November 28, 2008 and as such, falls outside the purview of the CIPAA.

In view of the Federal Court's decision, MOMPL has not proceeded to enforce the two adjudication decisions described above and will focus on the arbitration proceedings in order to recover the monies owing to it by PCPP. As far as MOMPL is aware, there is no pending application to set aside these adjudication decisions.

Proceedings in Court

- An originating summons in the High Court was filed by MOMPL on August 7, 2018 to recover the undisputed portion of the early termination fees and demobilization costs amounting to approximately US$42.3 million. On May 30, 2019 the High Court allowed PCPP's application to stay this originating summons pending the disposal of the arbitration proceedings described above. MOMPL filed an appeal to the Court of Appeal against this decision, which was heard on April 12, 2021. The Court of Appeal set aside the stay application granted by the High Court and instead imposed a conditional stay on PCPP wherein PCPP is required to deposit a sum of US$7.8 million into a joint account held by both parties' solicitors within 30 days, failing which MOMPL will be able to proceed with the full hearing in the High Court action against PCPP. PCPP failed to make any such deposit and therefore the originating summons was reinstated in the High Court at MOMPL's request. The matter was heard on October 7, 2021 and October 26, 2021, and the High Court decided the matter in favor of MOMPL. MOMPL has now been awarded the full sum claimed, amounting to US$42.3 million together with interest and costs which is to be paid by PCPP. PCPP did not file any appeal against the High Court's decision; however PCPP has failed to pay the sum awarded to MOMPL. On December 14, 2021 MOMPL filed a statutory notice against PCPP pursuant to Section 465 and 466 of Malaysia's Companies Act 2016 (the "**Statutory Notice**"). PCPP has failed to comply with the Statutory Notice, and MOMPLY intends to file a winding-up petition against PCPP in the High Court.

- On August 13, 2018, MOMPL filed a writ action in the High Court against PCSB, PPHE and PVEP (being the shareholders of PCPP) seeking for a declaration that the shareholders be liable for the amounts due and owing by PCPP to MOMPL under the D30 and Dana Fields Contract. PCSB and PCPP filed applications in the High Court to strike out ("**PCSB's Striking Out Application**") and stay the proceedings pending the disposal of the arbitration proceedings ("**PCPP's Stay Application**"), which were allowed on October 26, 2018 and December 11, 2018, respectively. MOMPL appealed against both decisions to the Court of Appeal.

- MOMPL's appeal against PCSB's Striking Out Application by the High Court was dismissed by the Court of Appeal on September 26, 2019. MOMPL filed leave in the Federal Court to appeal against the Court of Appeal's decision to uphold the High Court's decision to strike out the proceedings against PCSB. On August 18, 2020, the Federal Court dismissed MOMPL's appeal.

- MOMPL's appeal against PCPP's Stay Application by the High Court was heard by the Court of Appeal on June 19, 2020. The Court of Appeal set aside the stay against the PCPP shareholders, that is, PCSB, PPHE and PVEP; and the stay against PCPP was affirmed. Pursuant to this decision, MOMPL proceeded to serve the cause papers out of Malaysia on PPHE and PVEP. PVEP has failed to respond to MOMPL's claim and therefore MOMPL has applied for summary judgment to be made against PVEP. PPHE filed an application in the High Court of Malaysia to challenge the service of the cause papers in Indonesia, which was heard on August 11, 2021. On September 24, 2021, the High Court allowed PPHE's application; MOMPL has elected to await the outcome of the proceedings in respect of the Statutory Notice described above in considering any possible actions against PCPP's shareholders.

If MOMPL is successful in the proceedings in court described above and in enforcing the relevant decisions, this would be expected to contribute positively to our future earnings per share, gearing and net assets per share.

MMHE v. KPOC

In March 2019, our subsidiary MMHE received a notice of arbitration from Kebabangan Petroleum Operating Company Sdn Bhd ("**KPOC**") in relation to claims arising from the Kebabangan field project offshore Sabah, Malaysia. KPOC claims that MMHE was and is in breach of the contract in respect of supply of certain valves per the contract. The valves procured were claimed to be, among other things, defective and thus KPOC has claimed it suffered substantial loss and damage. Pursuant to KPOC's statement of claim, total claims of approximately RM93.1 million were made against MMHE. This amount was later reduced to RM58.9 million towards the end of the proceedings. In August 2021, MMHE received the final award issued by the arbitral tribunal. The arbitral tribunal dismissed all of KPOC's claim for loss of revenue in the sum of approximately RM28.0 million. However, the arbitral tribunal has ordered MMHE to pay KPOC the following:

- approximately RM17.2 million as damages for the costs and expenses incurred by KPOC for the assessment, procurement and replacement of valves between 2016 and 2019, together with interest at the rate of 5% per annum from October 11, 2019 to the day of payment;

- approximately RM9.8 million as damages suffered by KPOC in having to procure 1,365 valves and install 1,454 valves in the future, together with interest at the rate of 5% per annum from October 11, 2019 to the date of payment; and

- approximately RM1.0 million for its legal fees and expenses.

The final award is not expected to have any material impact on the operation of MMHE. The total financial impact arising from the final award would be approximately RM28.1 million, excluding any interest imposed thereof. MMHE is advised that it has legal grounds to challenge the final award and has since filed an application to set aside the final award pursuant to s.37 of Malaysia's Arbitration Act 2005.

THE ISSUER

MISC Capital Two (Labuan) Limited is a wholly-owned subsidiary of MISC and was incorporated in Labuan, Malaysia under the Labuan Companies Act, 1990 on November 22, 2021. At the date of this Offering Circular, MISC Capital Two (Labuan) Limited has an issued and paid-up share capital of U.S.$1,000.00 comprising 1,000 ordinary shares of US$1.00 each.

MISC Capital Two (Labuan) Limited is a financing vehicle for MISC. It has no other operations nor any subsidiaries. MISC Capital Two (Labuan) Limited intends to provide substantially all of the net proceeds of its borrowings to MISC and/or its subsidiaries and associated companies. See "*Use of Proceeds.*"

The directors of MISC Capital Two (Labuan) Limited at the date of this Offering Circular are:

Name Appointed	Position	Year
Raja Azlan Shah Raja Azwa	Director	2021
Ausmal Kardin	Director	2021

The registered office of MISC Capital Two (Labuan) Limited is located at Unit Level 13(A), Main Office Tower, Financial Park Labuan, Jalan Merdeka, 87000 Federal Territory of Labuan, Malaysia. The correspondence address of each of the directors of MISC Capital Two (Labuan) Limited for the purposes of their directorship in MISC Capital Two (Labuan) Limited is the same as the registered office.

The main outside functions of the directors of MISC Capital Two (Labuan) Limited are serving as employees of MISC.

Capitalization

The following table sets forth the capitalization of MISC Capital Two (Labuan) Limited as at December 31, 2021.

	Actual
Shareholders' equity:	
Share capital (Issued and paid-up—1,000 ordinary shares)	U.S.$1,000.00
Total Capitalization[1]	U.S.$1,000.00

(1) Capitalization is the sum of total shareholder's equity.

MANAGEMENT

Directors

The Constitution of MISC provides that the Board of Directors shall consist of at least two and not more than fourteen Directors. The Board of Directors currently consists of 12 individuals. One-third of the directors are subject to annual retirement by rotation, although they may be reappointed.

The directors and company secretaries of MISC as of February 28, 2022 are as follows:

Name	Current Position/Designation	Director/Company Secretary Since
Datuk Abu Huraira Abu Yazid	Chairman, Independent Non-Executive Director	October 9, 2020
Datuk Yee Yang Chien	President/Group Chief Executive Officer, Non-Independent Executive Director	January 1, 2015
Dato' Sekhar Krishnan(1)(2)	Senior Independent Non-Executive Director	January 15, 2015
Datuk Nasarudin Md Idris(1)(3)	Independent Non-Executive Director	October 11, 2004
Datin Norazah Mohamed Razali(2)(3)	Independent Non-Executive Director	October 9, 2020
Dato' Ab Halim Mohyiddin(2)	Independent Non-Executive Director	January 15, 2015
Dato' Rozalila Abdul Rahman(3)	Independent Non-Executive Director	August 1, 2018
Mohammad Suhaimi Mohd Yasin(2)	Independent Non-Executive Director	October 9, 2020
Chew Liong Kim(1)	Independent Non-Executive Director	September 1, 2021
Dato' Tengku Marina Tunku Annuar	Independent Non-Executive Director	January 1, 2022
Liza Mustapha(1)	Non-Independent Non-Executive Director	July 1, 2017
Mohd Yusri Mohamed Yusof(3)	Non-Independent Non-Executive Director	December 7, 2017
Ausmal Kardin	Company Secretary	January 1, 2020
Noridah Khamis	Joint Company Secretary	July 1, 2018

(1) Member of the Board Audit Committee described below.

(2) Member of the Board Governance and Risk Committee described below.

(3) Member of the Nomination and Remuneration Committee described below.

Board Committees

There are three Board Committees, namely the Board Audit Committee, the Nomination and Remuneration Committee and the recently formed Board Governance and Risk Committee.

Board Audit Committee. The Board Audit Committee provides oversight on MISC's financial reporting process and internal control framework and policies as well as its whistleblowing policy, whistleblowing management process and related actions.

Board Governance and Risk Committee. The Board Governance and Risk Committee provides oversight on MISC's risk management framework, policies and process as well as monitoring good governance practices, ensuring effectiveness of the compliance and ethics program, and determining the sustainability strategy and governance structure including health, safety, security and environment.

Nomination and Remuneration Committee. The Nomination and Remuneration Committee provides oversight on Directors' skills and experience, Board Performance, Board composition and diversity, Directors' induction program and continuous training, Directors and Senior Management remuneration and Board and Senior Management succession planning.

The Management Committee

The members of the MISC Management Committee as of February 28, 2022 are as follows:

Name	Current Position/Designation	Appointment Date
Datuk Yee Yang Chien	President/Group CEO	January 1, 2015
Captain Rajalingam Subramaniam	Chief Operating Officer President & CEO of AET Tanker Holdings Sdn. Bhd.	February 1, 2022 January 1, 2016
Syed Hashim Syed Abdullah	Vice President, Offshore Business	May 5, 2015
Hazrin Hasan	Vice President, Gas Assets & Solutions Business	January 1, 2022
Pandai Othman	Managing Director & CEO of Malaysia Marine and Heavy Engineering	October 1, 2020
Captain Peter Liew Guan Hock	Managing Director/CEO of Eaglestar Marine Holdings (L) Pte Ltd	June 1, 2021
Mohd Denny Mohd Isa	Managing Director & CEO of MISC Maritime Services Sdn Bhd	January 1, 2022
Raja Azlan Shah Raja Azwa	Vice President, Finance	April 8, 2019
Zahid Osman	Vice President, Corporate Planning	January 1, 2022
Captain Raja Sager Muniandy	Vice President, Group HSSE	June 1, 2021
Ausmal Kardin	Vice President, Legal, Corporate Secretarial & Compliance	January 1, 2020
Shariza Mohd Jaffar Sadiq Maricar	Vice President, Human Resource Management	March 1, 2021

SHARE OWNERSHIP

Except as set forth below, we do not know of anyone who owns more than 5% of our shares as of February 28, 2022.

Shareholder	Percent of Ownership
Petroliam Nasional Berhad	51.00%
Employees Provident Fund Board	12.50%
AmanahRaya Trustees Berhad—Amanah Saham Bumiputera	5.47%
Kumpulan Wang Persaraan (Diperbadankan) (KWAP)	5.08%

TAXATION

Certain U.S. Federal Income Tax Considerations

The following is a summary of certain U.S. federal income tax considerations that may be relevant to a holder of a Note that is a citizen or resident of the United States or a domestic corporation or that otherwise is subject to U.S. federal income taxation on a net income basis in respect of the Note (a "**United States holder**"). This summary is based on laws, regulations, rulings and decisions now in effect, all of which are subject to change. This summary deals only with United States holders that will hold Notes as capital assets, and does not address tax considerations applicable to investors that may be subject to special tax rules, such as banks, tax-exempt entities, insurance companies, regulated investment companies, dealers in securities or currencies, traders in securities electing to mark to market, persons that will hold Notes as a position in a "straddle" or conversion transaction, or as part of a "synthetic security" or other integrated financial transaction, entities taxed as partnerships or the partners therein, U.S. expatriates, nonresident alien individuals present in the United States for more than 182 days in a taxable year, or persons that have a "functional currency" other than the U.S. dollar. Further, this summary does not address the alternative minimum tax, the Medicare tax on net investment income, the special timing rules prescribed under section 451(b) of the U.S. Internal Revenue Code, or other aspects of U.S. federal income or state and local taxation that may be relevant to a holder in light of such holder's particular circumstances. Any special U.S. federal income tax considerations relevant to a particular issue of Notes, including any Floating Rate Notes, Dual Currency Notes, or Zero Coupon Notes will be provided in the applicable Pricing Supplement.

Investors should consult their own tax advisors in determining the tax consequences to them of holding Notes, including the application to their particular situation of the U.S. federal income tax considerations discussed below, as well as the application of state, local, foreign or other tax laws.

Because Bearer Notes cannot be offered or sold in connection with their initial distribution to U.S. citizens or residents (or to other persons located in the United States), this summary does not discuss special tax considerations relevant to the ownership and disposal of Bearer Notes by U.S. holders.

Payments of Interest

Payments of "**qualified stated interest**" (as defined below under "*—Original Issue Discount*") on a Note will be taxable to a United States holder as ordinary interest income at the time that such payments are accrued or are received (in accordance with the United States holder's method of tax accounting). If such payments of interest are made with respect to a Note denominated in a single foreign currency (a "**Foreign Currency Note**"), the amount of interest income realized by a United States holder that uses the cash method of tax accounting will be the U.S. dollar value of the relevant foreign currency payment based on the exchange rate in effect on the date of receipt regardless of whether the payment in fact is converted into U.S. dollars. A United States holder that uses the accrual method of accounting for tax purposes will accrue interest income on the Note in the relevant foreign currency and translate the amount accrued into U.S. dollars based on the average exchange rate in effect during the interest accrual period (or portion thereof within the United States holder's taxable year), or, at the accrual basis United States holder's election, at the spot rate of exchange on the last day of the accrual period (or the last day of the taxable year within such accrual period if the accrual period spans more than one taxable year), or at the spot rate of exchange on the date of receipt, if such date is within five business days of the last day of the accrual period. A United States holder that makes such election must apply it consistently to all debt instruments from year to year and cannot change the election without the consent of the Internal Revenue Service (the "**IRS**"). A United States holder that uses the accrual method of accounting for tax purposes will recognize foreign currency gain or loss, as the case may be, on the receipt of an interest payment made with respect to a Foreign Currency Note if the exchange rate in effect on the date the payment is received differs from the rate applicable to a previous accrual of that interest income. Amounts attributable to pre-issuance accrued interest (if any) will generally not be includible in income, except to the extent of foreign currency gain or loss attributable to any changes in exchange rates during the period between the date the United States holder acquired the Note and the first Interest Payment Date. This foreign currency gain or loss will be treated as ordinary income or loss but generally will not be treated as an adjustment to interest income received on the Note.

Purchase, Sale and Retirement of Notes

A United States holder's tax basis in a Note generally will equal the cost of such Note to such holder, increased by any amounts includible in income by the holder as original issue discount and market discount and reduced by any amortized premium (each as described below) and any payments other than payments of qualified stated interest made on such Note. In the case of a Foreign Currency Note, the cost of such Note to a United States holder will be the U.S. dollar value of the foreign currency purchase price on the date of purchase. In the case of a Foreign Currency Note that is traded on an established securities market, a cash basis United States holder (and, if it so elects, an accrual basis United States holder) will determine the U.S. dollar value of the cost of such Note by translating the amount paid at the spot rate of exchange on the settlement date of the purchase. The amount of any subsequent adjustments to a United States holder's tax basis in a Note in respect of original issue discount, market discount and premium denominated in a foreign currency will be determined in the manner described under "—Original Issue Discount" and "—Premium and Market Discount" below. The conversion of U.S. dollars to the relevant foreign currency and the immediate use of the foreign currency to purchase a Foreign Currency Note generally will not result in taxable gain or loss for a United States holder.

Upon the sale, exchange or retirement of a Note, a United States holder generally will recognize gain or loss equal to the difference between the amount realized on the sale, exchange or retirement (less any accrued qualified stated interest, which will be taxable as such) and the United States holder's tax basis in such Note. If a United States holder receives a currency other than the U.S. dollar in respect of the sale, exchange or retirement of a Note, the amount realized will be the U.S. dollar value of the foreign currency received calculated at the exchange rate in effect on the date the instrument is disposed of or retired. In the case of a Foreign Currency Note that is traded on an established securities market, a cash basis United States holder, and if it so elects, an accrual basis United States holder will determine the U.S. dollar value of the amount realized by translating such amount at the spot rate on the settlement date of the sale. The election available to accrual basis United States holders in respect of the purchase and sale of Foreign Currency Notes traded on an established securities market, discussed above, must be applied consistently to all debt instruments from year to year and cannot be changed without the consent of the IRS.

Except as described below with respect to market discount, Short-Term Notes (as defined below) and foreign currency gain or loss, gain or loss recognized by a United States holder generally will be long-term capital gain or loss if the United States holder has held the Note for more than one year at the time of disposition. Long-term capital gains recognized by an individual holder generally are subject to tax at a lower rate than short-term capital gains or ordinary income. The deduction of capital losses is subject to limitations.

Gain or loss recognized by a United States holder on the sale, exchange or retirement of a Foreign Currency Note generally will be treated as ordinary income or loss to the extent that the gain or loss is attributable to changes in exchange rates during the period in which the holder held such Note. This foreign currency gain or loss will not be treated as an adjustment to interest income received on the Notes.

Original Issue Discount

If an Issuer issues Notes at a discount from their stated redemption price at maturity, and the discount is equal to or more than the product of one-fourth of one percent (0.25%) of the stated redemption price at maturity of such Notes multiplied by the number of full years to their maturity (the "*de minimis* threshold") the Notes will be "**Original Issue Discount Notes**." The difference between the issue price and the stated redemption price at maturity of such Notes will be the "original issue discount." The "issue price" of a Note will be the first price at which a substantial amount of the Notes is sold to the public (i.e., excluding sales of Notes to underwriters, placement agents, wholesalers, or similar persons). The "stated redemption price at maturity" will include all payments under the Notes other than payments of "qualified stated interest" (as determined below).

United States holders of Original Issue Discount Notes generally will be subject to the special tax accounting rules for obligations issued with original issue discount ("**OID**") provided by the Internal Revenue Code of 1986, as amended, (the "**Code**") and certain regulations promulgated thereunder (the "**OID Regulations**"). United States holders of such Notes should be aware that, as described in greater detail below, they generally must include OID in ordinary gross income for U.S. federal income tax purposes as it accrues, in advance of the receipt of cash attributable to that income.

In general, each United States holder of an Original Issue Discount Note, whether such holder uses the cash or the accrual method of tax accounting, will be required to include in ordinary gross income the sum of the "daily portions" of OID on the Note for all days during the taxable year that the United States holder owns the Note. The daily portions of OID on an Original Issue Discount Note are determined by allocating to each day in any accrual period a ratable portion of the OID allocable to that accrual period. Accrual periods may be of any length and may vary in length over the term of an Original Issue Discount Note, provided that no accrual period is longer than one year and each scheduled payment of principal or interest occurs on either the final day or the first day of an accrual period. In the case of an initial holder, the amount of OID on an Original Issue Discount Note allocable to each accrual period is determined by (a) multiplying the "adjusted issue price" (as defined below) of the Original Issue Discount Note at the beginning of the accrual period by the yield to maturity of such Original Issue Discount Note (appropriately adjusted to reflect the length of the accrual period) and (b) subtracting from that product the amount (if any) of qualified stated interest (as defined below) allocable to that accrual period. The yield to maturity of a Note is the discount rate that causes the present value of all payments on the Note as of its original issue date to equal the issue price of such Note. The "adjusted issue price" of an Original Issue Discount Note at the beginning of any accrual period will generally be the sum of its issue price (generally including accrued interest, if any) and the amount of OID allocable to all prior accrual periods, reduced by the amount of all payments other than payments of qualified stated interest (if any) made with respect to such Note in all prior accrual periods. The term "qualified stated interest" generally means stated interest that is unconditionally payable in cash or property (other than debt instruments of the issuer) at least annually during the entire term of an Original Issue Discount Note at a single fixed rate of interest or, subject to certain conditions, based on one or more interest indices. In the case of an Original Issue Discount Note that is a Floating Rate Note, both the "yield to maturity" and "qualified stated interest" will generally be determined for these purposes as though the Original Issue Discount Note will bear interest in all periods at a fixed rate generally equal to the rate that would be applicable to the interest payments on the Note on its date of issue or, in the case of certain Floating Rate Notes, the rate that reflects the yield that is reasonably expected for the Note. (Additional rules may apply if interest on a Floating Rate Note is based on more than one interest index.) As a result of this "constant yield" method of including OID in income, the amounts includible in income by a United States holder in respect of an Original Issue Discount Note denominated in U.S. dollars generally are lesser in the early years and greater in the later years than the amounts that would be includible on a straight-line basis.

A United States holder generally may make an irrevocable election to include in its income its entire return on a Note (i.e., the excess of all remaining payments to be received on the Note, including payments of qualified stated interest, over the amount paid by such United States holder for such Note) under the constant-yield method described above. For Notes purchased at a premium or bearing market discount in the hands of the United Sates holder, the United States holder making such election will also be deemed to have made the election (discussed below in "—Premium and Market Discount") to amortize premium or to accrue market discount in income currently on a constant-yield basis.

In the case of an Original Issue Discount Note that is also a Foreign Currency Note, a United States holder should determine the U.S. dollar amount includible in income as OID for each accrual period by (a) calculating the amount of OID allocable to each accrual period in the foreign currency using the constant-yield method described above, and (b) translating the amount of the foreign currency so derived at the average exchange rate in effect during that accrual period (or portion thereof within a United States holder's taxable year) or, at the United States holder's election (as described above under "—Payments of Interest"), at the spot rate of exchange on the last day of the accrual period (or the last day of the taxable year within such accrual period if the accrual period spans more than one taxable year), or at the spot rate of exchange on the date of receipt, if such date is within five business days of the last day of the accrual period. Because exchange rates may fluctuate, a United States holder of an Original Issue Discount Note that is also a Foreign Currency Note may recognize a different amount of OID income in each accrual period than would the holder of an otherwise similar Original Issue Discount Note denominated in U.S. dollars. All payments on an Original Issue Discount Note (other than payments of qualified stated interest) will generally be viewed first as payments of previously-accrued OID (to the extent thereof), with payments attributed first to the earliest-accrued OID, and then as payments of principal. Upon the receipt of an amount attributable to OID (whether in connection with a payment of an amount that is not qualified stated interest or the sale or retirement of the Original Issue Discount Note), a United States holder will recognize ordinary income or loss measured by the difference between the amount received (translated into U.S. dollars at the exchange rate in effect on the date of receipt or on the date of disposition of the Original Issue Discount Note, as the case may be) and the amount accrued (using the exchange rate applicable to such previous accrual).

A subsequent United States holder of an Original Issue Discount Note that purchases the Note at a cost less than its remaining redemption amount (as defined below), or an initial United States holder that purchases an Original Issue Discount Note at a price other than the Note's issue price, also generally will be required to include in gross income the daily portions of OID, calculated as described above. However, if the United States holder acquires the Original Issue Discount Note at a price greater than its adjusted issue price, such holder is required to reduce its periodic inclusions of OID income to reflect the premium paid over the adjusted issue price. The "remaining redemption amount" for a Note is the total of all future payments to be made on the Note other than payments of qualified stated interest.

Floating Rate Notes generally will be treated as "variable rate debt instruments" under the OID Regulations. Accordingly, the stated interest on a Floating Rate Note generally will be treated as "qualified stated interest" and such a Note will not have OID solely as a result of the fact that it provides for interest at a variable rate. If a Floating Rate Note does not qualify as a "variable rate debt instrument," such Note will be subject to special rules (the "**Contingent Payment Regulations**") that govern the tax treatment of debt obligations that provide for contingent payments ("**Contingent Debt Obligations**"). A detailed description of the tax considerations relevant to United States holders of any such Notes will be provided in the applicable Pricing Supplement.

Certain of the Notes may be subject to special redemption, repayment or interest rate reset features, as indicated in the applicable Pricing Supplement. Notes containing such features, in particular Original Issue Discount Notes, may be subject to special rules that differ from the general rules discussed above. Purchasers of Notes with such features should carefully examine the applicable Pricing Supplement and should consult their own tax advisors with respect to such Notes since the tax consequences with respect to such features, and especially with respect to OID, will depend, in part, on the particular terms of the purchased Notes.

Premium and Market Discount

A United States holder of a Note that purchases the Note at a cost greater than its remaining redemption amount (as defined in the third preceding paragraph) generally will be considered to have purchased the Note at a premium, and may elect to amortize such premium (as an offset to interest income), using a constant-yield method, over the remaining term of the Note. Such election, once made, generally applies to all bonds held or subsequently acquired by the United States holder on or after the first day of the first taxable year to which the election applies and may not be revoked without the consent of the IRS. A United States holder that elects to amortize such premium must reduce its tax basis in a Note by the amount of the premium amortized during its holding period. Original Issue Discount Notes purchased at a premium will not be subject to the OID rules described above. In the case of premium in respect of a Foreign Currency Note, a United States holder should calculate the amortization of such premium in the foreign currency. Amortization deductions attributable to a period reduce interest payments in respect of that period and therefore are translated into U.S. dollars at the exchange rate used by the United States holder for such interest payments. Exchange gain or loss will be realized with respect to amortized bond premium on such a Note based on the difference between the exchange rate on the date or dates such premium is recovered through interest payments on the Note and the exchange rate on the date on which the United States holder acquired the Note. With respect to a United States holder that does not elect to amortize bond premium, the amount of bond premium will be included in the United States holder's tax basis when the Note matures or is disposed of by the United States holder. Therefore, a United States holder that does not elect to amortize such premium and that holds the Note to maturity generally will be required to treat the premium as capital loss when the Note matures.

If a United States holder of a Note purchases the Note at a price that is lower than its remaining redemption amount, or in the case of an Original Issue Discount Note, its adjusted issue price, by at least 0.25% of its remaining redemption amount multiplied by the number of remaining whole years to maturity, the Note will be considered to have "market discount" in the hands of such United States holder. In such case, gain realized by the United States holder on the disposition of the Note generally will be treated as ordinary income to the extent of the market discount that accrued on the Note while held by such United States holder. In addition, the United States holder could be required to defer the deduction of a portion of the interest paid on any indebtedness incurred or maintained to purchase or carry the Note. In general terms, market discount on a Note will be treated as accruing ratably over the term of such Note, or, at the election of the holder, under a constant-yield method. Market discount on a Foreign Currency Note will be accrued by a United States holder in the specified currency. The amount includible in income by a United States holder in respect of such accrued market discount will be the U.S. dollar value of the amount accrued, generally calculated at the exchange rate in effect on the date that the Note is disposed of by the United States holder.

A United States holder may elect to include market discount in income on a current basis as it accrues (on either a ratable or constant-yield basis), in lieu of treating a portion of any gain realized on a sale of a Note as ordinary income. If a United States holder elects to include market discount on a current basis, the interest deduction deferral rule described above will not apply. Any accrued market discount on a Foreign Currency Note that is currently includible in income will be translated into U.S. dollars at the average exchange rate for the accrual period (or portion thereof within the United States holder's taxable year). Any such election, if made, applies to all market discount bonds acquired by the taxpayer on or after the first day of the first taxable year to which such election applies and is revocable only with the consent of the IRS.

Short-Term Notes

The rules set forth above will also generally apply to Notes having maturities of not more than one year ("**Short-Term Notes**"), but with certain modifications.

First, the OID Regulations treat none of the interest on a Short-Term Note as qualified stated interest. Thus, all Short-Term Notes will be Original Issue Discount Notes. OID will be treated as accruing on a Short-Term Note ratably, or at the election of a United States holder, under a constant yield method.

Second, a United States holder of a Short-Term Note that uses the cash method of tax accounting and is not a bank, securities dealer, regulated investment company or common trust fund, and does not identify the Short-Term Note as part of a hedging transaction, will generally not be required to include OID in income on a current basis. Such a United States holder may not be allowed to deduct all of the interest paid or accrued on any indebtedness incurred or maintained to purchase or carry such Note until the maturity of the Note or its earlier disposition in a taxable transaction. In addition, such a United States holder will be required to treat any gain realized on a sale, exchange or retirement of the Note as ordinary income to the extent such gain does not exceed the OID accrued with respect to the Note during the period the United States holder held the Note. Notwithstanding the foregoing, a cash-basis United States holder of a Short-Term Note may elect to accrue OID into income on a current basis or to accrue the "acquisition discount" on the Note under the rules described below. If the United States holder elects to accrue OID or acquisition discount, the limitation on the deductibility of interest described above will not apply.

A United States holder using the accrual method of tax accounting and certain cash-basis United States holders (including banks, securities dealers, regulated investment companies and common trust funds) generally will be required to include original issue discount on a Short-Term Note in income on a current basis. Alternatively, a United States holder of a Short-Term Note can elect to accrue the "acquisition discount," if any, with respect to the Note on a current basis. If such an election is made, the OID rules will not apply to the Note. Acquisition discount is the excess of the Short-Term Note's stated redemption price at maturity (i.e., all amounts payable on the Short- Term Note) over the purchase price. Acquisition discount will be treated as accruing ratably or, at the election of the United States holder, under a constant-yield method based on daily compounding.

Finally, the market discount rules will not apply to a Short-Term Note.

Notes Providing for Contingent Payments

The Contingent Payment Regulations, which govern the tax treatment of Contingent Debt Obligations, generally require accrual of interest income on a constant-yield basis in respect of such obligations at a yield determined at the time of their issuance, and may require adjustments to such accruals when any contingent payments are made. A detailed description of the tax considerations relevant to United States holders of any contingent debt obligations will be provided in the applicable Pricing Supplement.

Information Reporting and Backup Withholding

Information returns may need to be filed with the IRS with respect to payments made to certain United States holders of Notes. In addition, certain United States holders may be subject to backup withholding tax in respect of such payments if they do not provide their taxpayer identification numbers and certify that they are not subject to backup withholding or otherwise establish an exemption from backup withholding. Persons holding Notes who are not United States holders may be required to comply with applicable certification procedures to establish that they are not United States holders in order to avoid the application of such information reporting requirements and backup withholding tax. Any amounts withheld under the backup withholding rules will be allowed as a credit against a United States holder's United States federal income tax liability, if any, or as a refund, provided the required information is timely furnished to the IRS.

Information with Respect to Foreign Financial Assets

Certain United States holders that own "specified foreign financial assets" with an aggregate value in excess of U.S.$50,000 on the last day of the taxable year or U.S.$75,000 at any time during the taxable year are generally required to file an information statement along with their tax returns, currently on Form 8938, with respect to such assets. "Specified foreign financial assets" include any financial accounts held at a non-United States financial institution, as well as securities issued by a non-United States issuer (which would include the Notes) that are not held in accounts maintained by financial institutions. Higher reporting thresholds apply to certain individuals living abroad and to certain married individuals. Regulations extend this reporting requirement to certain entities that are treated as formed or availed of to hold direct or indirect interests in specified foreign financial assets based on certain objective criteria. United States holders who fail to report the required information could be subject to substantial penalties. In addition, the statute of limitations for assessment of tax would be suspended, in whole or part. Prospective investors should consult their own tax advisors concerning the application of these rules to their investment in Notes, including the application of the rules to their particular circumstances.

Reportable Transactions

A United States taxpayer that participates in a “reportable transaction” will be required to disclose its participation to the IRS. The scope and application of these rules are not entirely clear. Under the relevant rules, if the debt securities are denominated in a foreign currency, a United States holder may be required to treat a foreign currency exchange loss from the debt securities as a reportable transaction if this loss is equal to or exceeds the relevant threshold in the regulations (U.S.$50,000 in a single taxable year, if the United States holder is an individual or trust, or higher amounts for other non-individual United States holders), and to disclose its investment by filing Form 8886 with the IRS. A penalty in the amount of U.S.$10,000 in the case of a natural person and U.S.$50,000 in all other cases is generally imposed on any taxpayer that fails to timely file an information return with the IRS with respect to a transaction resulting in a loss that is treated as a reportable transaction. Prospective purchasers are urged to consult their tax advisors regarding the application of these rules.

Malaysian Tax Considerations

Under present Malaysian law, all interest payable by a Labuan Company (as defined in the Labuan Business Activity Tax Act, 1990) carrying on Labuan business activity (as defined in the Labuan Business Activity Tax Act, 1990) to non-residents is exempted from withholding tax.

However, there is no assurance that this present position will continue and in the event that such exemption is revoked, modified or rendered otherwise inapplicable, such interest shall be subject to withholding tax at the then prevailing withholding tax rate. However, notwithstanding the foregoing, the Issuer shall be obliged pursuant to the terms of the Notes, in the event of any such withholding, to pay such additional amounts to the investors so as to ensure that the investors receive the full amount which they would have received had no such withholding been imposed.

Singapore Tax Considerations

The statements below are general in nature and are based on certain aspects of current tax laws in Singapore, and administrative guidelines and circulars issued by the Inland Revenue Authority of Singapore (“**IRAS**”) and the Monetary Authority of Singapore (“**MAS**”) in force as at the date of this Offering Circular and are subject to any changes in such laws, administrative guidelines or circulars, or the interpretation of those laws, guidelines or circulars, occurring after such date, which changes could be made on a retroactive basis. These laws, guidelines and circulars are also subject to various interpretations and the relevant tax authorities or the courts could later disagree with the explanations or conclusions set out below. Neither these statements nor any other statements in this Offering Circular are intended or are to be regarded as advice on the tax position of any Noteholder or of any person acquiring, selling or otherwise dealing with the Notes or on any tax implications arising from the acquisition, sale or other dealings in respect of the Notes. The statements made herein do not purport to be a comprehensive or exhaustive description of all the tax considerations that may be relevant to a decision to subscribe for, purchase, own or dispose of the Notes and do not purport to deal with the tax consequences applicable to all categories of investors, some of which (such as dealers in securities or financial institutions in Singapore which have been granted the relevant Financial Sector Incentive(s)) may be subject to special rules or tax rates. Prospective holders of the Notes are advised to consult their own professional tax advisers as to the Singapore or other tax consequences of the acquisition, ownership of or disposal of the Notes, including the effect of any foreign, state or local tax laws to which they are subject. It is emphasized that none of the Issuer, the Guarantor, the Arrangers nor any other persons involved in the Program accepts responsibility for any tax effects or liabilities resulting from the subscription for, purchase, holding or disposal of the Notes.

Interest and Other Payments

Subject to the following paragraphs, under Section 12(6) of the Income Tax Act 1947 of Singapore ("**ITA**"), the following payments are deemed to be derived from Singapore:

(a) any interest, commission, fee or any other payment in connection with any loan or indebtedness or with any arrangement, management, guarantee, or service relating to any loan or indebtedness which is (i) borne, directly or indirectly, by a person resident in Singapore or a permanent establishment in Singapore (except in respect of any business carried on outside Singapore through a permanent establishment outside Singapore or any immovable property situated outside Singapore) or (ii) deductible against any income accruing in or derived from Singapore; or

(b) any income derived from loans where the funds provided by such loans are brought into or used in Singapore.

Such payments, where made to a person not known to the paying party to be a resident in Singapore for tax purposes, are generally subject to withholding tax in Singapore. The rate at which tax is to be withheld for such payments (other than those subject to the 15% final withholding tax described below) to non-resident persons (other than non-resident individuals) is currently 17%. The applicable rate for non-resident individuals is currently 22%, and is proposed to be increased to 24% from the year of assessment 2024 pursuant to the Singapore Budget Statement 2022. However, if the payment is derived by a person not resident in Singapore otherwise than from any trade, business, profession or vocation carried on or exercised by such person in Singapore and is not effectively connected with any permanent establishment in Singapore of that person, the payment is subject to a final withholding tax of 15%. The rate of 15% may be reduced by applicable tax treaties.

However, certain Singapore-sourced investment income derived by individuals from financial instruments is exempt from tax, including:

(a) interest from debt securities derived on or after January 1, 2004;

(b) discount income (not including discount income arising from secondary trading) from debt securities derived on or after February 17, 2006; and

(c) prepayment fee, redemption premium and break cost from debt securities derived on or after February 15, 2007,

except where such income is derived through a partnership in Singapore or is derived from the carrying on of a trade, business or profession.

In addition, as the Program as a whole is arranged by Citigroup Global Markets Singapore Pte. Ltd. and Standard Chartered Bank (Singapore) Limited, each of which is a Financial Sector Incentive (Capital Market) Company or Financial Sector Incentive (Standard Tier) Company (as defined in the ITA) at such time, any tranche of the Notes (the "**Relevant Notes**") issued as debt securities under the Program during the period from the date of this Offering Circular to December 31, 2023 would be qualifying debt securities ("**QDS**") for the purposes of the ITA, to which the following treatment shall apply:

(a) subject to certain prescribed conditions having been fulfilled (including the furnishing by the Issuer, or such other person as the MAS may direct, to the MAS of a return on debt securities in respect of the Relevant Notes in the prescribed format within such period as the MAS may specify and such other particulars in connection with the Relevant Notes as the MAS may require, and the inclusion by the Issuer in all offering documents relating to the Relevant Notes of a statement to the effect that where interest, discount income, prepayment fee, redemption premium or break cost is derived from the Relevant Notes by a person who is not resident in

Singapore and who carries on any operation in Singapore through a permanent establishment in Singapore, the tax exemption available for qualifying debt securities shall not apply if the non-resident person acquires the Relevant Notes using the funds and profits of such person's operations through the Singapore permanent establishment), interest, discount income (not including discount income arising from secondary trading), prepayment fee, redemption premium and break cost (collectively, the "**Qualifying Income**") from the Relevant Notes paid by the Issuer and derived by a holder who is not resident in Singapore and who (i) does not have any permanent establishment in Singapore or (ii) carries on any operation in Singapore through a permanent establishment in Singapore but the funds used by that person to acquire the Relevant Notes are not obtained from such person's operation through a permanent establishment in Singapore, are exempt from Singapore tax;

(b) subject to certain conditions having been fulfilled (including the furnishing by the Issuer, or such other person as the MAS may direct, to the MAS of a return on debt securities in respect of the Relevant Notes in the prescribed format within such period as the MAS may specify and such other particulars in connection with the Relevant Notes as the MAS may require), Qualifying Income from the Relevant Notes paid by the Issuer and derived by any company or body of persons (as defined in the ITA) in Singapore is subject to tax at a concessionary rate of 10% (except for holders of the relevant Financial Sector Incentive(s) who may be taxed at different rates); and

(c) subject to:

  (i) the Issuer including in all offering documents relating to the Relevant Notes a statement to the effect that any person whose interest, discount income, prepayment fee, redemption premium or break cost derived from the Relevant Notes is not exempt from tax shall include such income in a return of income made under the ITA; and

  (ii) the furnishing by the Issuer, or such other person as the MAS may direct, to the MAS of a return on debt securities in respect of the Relevant Notes in the prescribed format within such period as the MAS may specify and such other particulars in connection with the Relevant Notes as the MAS may require,

payments of Qualifying Income derived from the Relevant Notes are not subject to withholding of tax (if applicable) by the Issuer.

Notwithstanding the foregoing:

(i) if during the primary launch of any Tranche of Relevant Notes, the Relevant Notes of such Tranche are issued to less than four persons and 50% or more of the issue of such Relevant Notes is beneficially held or funded, directly or indirectly, by related parties of the Issuer, such Relevant Notes would not qualify as QDS; and

(ii) even though a particular Tranche of Relevant Notes are QDS, if, at any time during the tenure of such Tranche of Relevant Notes, 50% or more of such Relevant Notes which are outstanding at any time during the life of their issue is beneficially held or funded, directly or indirectly, by any related party(ies) of the Issuer, Qualifying Income derived from such Relevant Notes held by:

  (1) any related party of the Issuer; or

  (2) any other person where the funds used by such person to acquire such Relevant Notes are obtained, directly or indirectly, from any related party of the Issuer,

  shall not be eligible for the tax exemption or concessionary rate of tax as described above.

All foreign-sourced income received in Singapore by Singapore tax resident individuals will be exempted from tax, provided such foreign-sourced income is not received through a partnership in Singapore.

The term "**related party**", in relation to a person *(A)*, means any other person who, directly or indirectly, controls *A*, or is controlled, directly or indirectly, by *A*, or where *A* and that other person, directly or indirectly, are under the control of a common person.

The terms "break cost", "prepayment fee" and "redemption premium" are defined in the ITA as follows:

"**break cost**", in relation to debt securities and qualifying debt securities, means any fee payable by the issuer of the securities on the early redemption of the securities, the amount of which is determined by any loss or liability incurred by the holder of the securities in connection with such redemption;

"**prepayment fee**", in relation to debt securities and qualifying debt securities, means any fee payable by the issuer of the securities on the early redemption of the securities, the amount of which is determined by the terms of the issuance of the securities; and

"**redemption premium**", in relation to debt securities and qualifying debt securities, means any premium payable by the issuer of the securities on the redemption of the securities upon their maturity.

References to "break cost", "prepayment fee" and "redemption premium" in this Singapore tax disclosure have their same meaning as in the ITA.

Where interest, discount income, prepayment fee, redemption premium or break cost (i.e. the Qualifying Income) is derived from any of the Relevant Notes by any person who is not resident in Singapore and who carries on any operations in Singapore through a permanent establishment in Singapore, the tax exemption available for QDS under the ITA (as mentioned above) shall not apply if such person acquires such Relevant Notes using the funds and profits of such person's operations through a permanent establishment in Singapore. Any person whose interest, discount income, prepayment fee, redemption premium or break cost (i.e. the Qualifying Income) derived from the Relevant Notes is not exempt from tax (including for the reasons described above) is required to include such income in a return of income made under the ITA.

Capital Gains

Any gains considered to be in the nature of capital made from the sale of the Notes will not be taxable in Singapore. However, any gains derived by any person from the sale of the Notes which are gains from any trade, business, profession or vocation carried on by that person, if accruing in or derived from Singapore, may be taxable as such gains are considered revenue in nature.

Noteholders who apply or are required to apply Singapore Financial Reporting Standard ("**FRS**") 39, FRS 109 or Singapore Financial Reporting Standard (International) 9 ("**SFRS(I) 9**") (as the case may be) may, for Singapore income tax purposes, be required to recognize gains or losses (not being gains or losses in the nature of capital) on the Notes, irrespective of disposal, in accordance with FRS 39, FRS 109 or SFRS(I) 9 (as the case may be). Please see the section below on "Adoption of FRS 39, FRS 109 or SFRS(I) 9 for Singapore Income Tax Purposes".

Adoption of FRS 39, FRS 109 or SFRS(I) 9 for Singapore Income Tax Purposes

Section 34A of the ITA provides for the tax treatment for financial instruments in accordance with FRS 39 (subject to certain exceptions and "opt-out" provisions) to taxpayers who are required to comply with FRS 39 for financial reporting purposes. The IRAS has also issued a circular entitled "Income Tax Implications Arising from the Adoption of FRS 39—Financial Instruments: Recognition and Measurement".

FRS 109 or SFRS(I) 9 (as the case may be) is mandatorily effective for annual periods beginning on or after January 1, 2018, replacing FRS 39. Section 34AA of the ITA requires taxpayers who comply or who are required to comply with FRS 109 or SFRS(I) 9 for financial reporting purposes to calculate their profit, loss or expense for Singapore income tax purposes in respect of financial instruments in accordance with FRS 109 or SFRS(I) 9 (as the case may be), subject to certain exceptions. The IRAS has also issued a circular entitled "Income Tax: Income Tax Treatment Arising from Adoption of FRS 109—Financial Instruments".

Noteholders who may be subject to the tax treatment under Sections 34A or 34AA of the ITA should consult their own accounting and tax advisers regarding the Singapore income tax consequences of their acquisition, holding or disposal of the Notes.

Estate Duty

Singapore estate duty has been abolished with respect to all deaths occurring on or after February 15, 2008.

INDEPENDENT AUDITORS

The consolidated and unconsolidated financial statements of MISC Berhad as of December 31, 2020 and 2021, and for each of the years in the three-year period ended December 31, 2021, included in this Offering Circular have been audited by Ernst & Young PLT, independent auditors, as stated in their report appearing herein.

SUBSCRIPTION AND SALE AND TRANSFER AND SELLING RESTRICTIONS

The Dealers have, in a program agreement (the "**Program Agreement**") dated March 29, 2022, agreed with the Issuer and the Guarantor a basis upon which they or any of them may from time to time agree to purchase, or procure purchasers of, Notes. Any such agreement will extend to those matters stated under "*Form of the Notes*" and "*Terms and Conditions of the Notes*." The Issuer will pay the Relevant Dealer(s) a commission as agreed between them in respect of Notes issued under the Program.

In accordance with the terms of the Program Agreement, the Issuer has (failing which, the Guarantor has) agreed to reimburse the Dealers for certain of their expenses in connection with the establishment and any future update of the Program and the issue of Notes under the Program and the Issuer and the Guarantor have agreed to indemnify the Dealers against certain liabilities incurred by them in connection therewith.

The Dealers and certain of their affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Certain of the Dealers and/or their respective affiliates have, in the past, performed investment banking and advisory services for MISC for which they have received customary fees and expenses. Each of the Dealers and/or their respective affiliates may, from time to time, engage in further transactions with, and perform services for, MISC in the ordinary course of their respective businesses. In addition, some of the Dealers and/or their affiliates act as coordinating lead arrangers, lenders and/or agents under certain MISC credit facilities and debt instruments. As a result, certain of the Dealers and/or their affiliates may receive proceeds from the issue of Notes under the Program. In addition, in the ordinary course of their various business activities, the Dealers and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account or for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of the Issuer or MISC. Certain of the Dealers or their affiliates that have a lending relationship with MISC routinely hedge their credit exposure to MISC consistent with their customary risk management policies. Typically, such Dealers and their affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in MISC or its subsidiaries' securities, including potentially the Notes. The Dealers and their respective affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Transfer Restrictions

As a result of the following restrictions, purchasers of Notes in the United States are advised to consult legal counsel prior to making any purchase, offer, sale, resale or other transfer of such Notes.

Each purchaser of Registered Notes (other than a person purchasing an interest in a Registered Global Note with a view to holding it in the form of an interest in the same Global Note) will be deemed to have acknowledged, represented and agreed as follows (terms used in this paragraph that are defined in Rule 144A or in Regulation S are used herein as defined therein):

(i) that either: (a) if the Series includes Rule 144A Notes, it is a QIB, purchasing (or holding) the Notes for its own account or for the account of one or more QIBs and it is aware that any sale to it is being made in reliance on Rule 144A; or (b) if the Series includes IAI Registered Notes, it is an Institutional Accredited Investor which has delivered an IAI Investment Letter; or (c) it is outside the United States and is not a U.S. person;

(ii) that the Notes and the Guarantee are being offered and sold in a transaction not involving a public offering in the United States within the meaning of the Securities Act and that the

Notes have not been and will not be registered under the Securities Act or any other applicable U.S. state securities laws and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons except as set forth below;

(iii) that, unless it holds an interest in a Regulation S Global Note and either is a person located outside the United States or is not a U.S. person, if in the future it decides to resell, pledge or otherwise transfer the Notes or any beneficial interests in the Notes, it will do so, prior to the date which is one year after the later of the last Issue Date for the Series and the last date on which the Issuer, the Guarantor or their respective affiliates was the owner of such Notes, only: (a) to the Issuer, the Guarantor or their respective affiliates; (b) inside the United States to a person whom the seller reasonably believes is a QIB purchasing for its own account or for the account of a QIB in a transaction meeting the requirements of Rule 144A or, if the applicable Pricing Supplement so permit, to an Institutional Accredited Investor that has delivered a duly executed IAI Investment Letter in a private transaction exempt from the registration requirements of the Securities Act; (c) outside the United States in compliance with Rule 903 or Rule 904 under the Securities Act; (d) pursuant to an exemption from registration under the Securities Act (if available); or (e) pursuant to an effective registration statement under the Securities Act, in each case in accordance with all applicable U.S. state securities laws;

(iv) it will, and will require each subsequent holder to, notify any purchaser of the Notes from it of the resale restrictions referred to in paragraph (iii) above, if then applicable;

(v) that Notes initially offered in the United States to QIBs will be represented by one or more Rule 144A Global Notes, that Notes offered to Institutional Accredited Investors will be in the form of Definitive IAI Registered Notes and that Notes offered outside the United States in reliance on Regulation S will be represented by one or more Regulation S Global Notes;

(vi) that the Notes, other than the Regulation S Global Notes, will bear a legend to the following effect unless otherwise agreed to by the Issuer and the Guarantor:

"THIS NOTE AND THE RELATED GUARANTEE HAVE NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR ANY OTHER APPLICABLE U.S. STATE SECURITIES LAWS AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD WITHIN THE UNITED STATES OR TO, OR FOR THE ACCOUNT OR BENEFIT OF, U.S. PERSONS EXCEPT AS SET FORTH IN THE FOLLOWING SENTENCE. BY ITS ACQUISITION HEREOF, THE HOLDER (A) REPRESENTS THAT (1) IT IS A "QUALIFIED INSTITUTIONAL BUYER" (AS DEFINED IN RULE 144A UNDER THE SECURITIES ACT) PURCHASING THIS NOTE FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF ONE OR MORE QUALIFIED INSTITUTIONAL BUYERS OR (2) IT IS AN INSTITUTIONAL "ACCREDITED INVESTOR" (AS DEFINED IN RULE 501(A)(1), (2), (3) OR (7) UNDER THE SECURITIES ACT) (AN "INSTITUTIONAL ACCREDITED INVESTOR"); (B) AGREES THAT IT WILL NOT RESELL OR OTHERWISE TRANSFER THE NOTE EXCEPT IN ACCORDANCE WITH THE AGENCY

AGREEMENT AND, PRIOR TO THE DATE WHICH IS ONE YEAR AFTER THE LATER OF THE LAST ISSUE DATE FOR THE SERIES AND THE LAST DATE ON WHICH THE ISSUER, THE GUARANTOR OR THEIR RESPECTIVE AFFILIATES WAS THE OWNER OF SUCH NOTE, OTHER THAN (1) TO THE ISSUER, THE GUARANTOR OR THEIR RESPECTIVE AFFILIATES, (2) INSIDE THE UNITED STATES TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A QUALIFIED INSTITUTIONAL BUYER WITHIN THE MEANING OF RULE 144A UNDER THE SECURITIES ACT PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER IN A TRANSACTION MEETING THE REQUIREMENTS OF RULE 144A,

(3) OUTSIDE THE UNITED STATES IN COMPLIANCE WITH RULE 903 OR RULE 904 UNDER THE SECURITIES ACT, (4) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT (IF AVAILABLE) OR (5) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT, IN EACH CASE IN ACCORDANCE WITH ALL APPLICABLE SECURITIES LAWS OF THE STATES OF THE UNITED STATES AND ANY OTHER JURISDICTION; AND (C) AGREES THAT IT WILL DELIVER TO EACH PERSON TO WHOM THIS NOTE IS TRANSFERRED A NOTICE SUBSTANTIALLY TO THE EFFECT OF THIS LEGEND.

THIS NOTE, THE RELATED GUARANTEE AND RELATED DOCUMENTATION (INCLUDING, WITHOUT LIMITATION, THE AGENCY AGREEMENT REFERRED TO HEREIN) MAY BE AMENDED OR SUPPLEMENTED FROM TIME TO TIME, WITHOUT THE CONSENT OF, BUT UPON NOTICE TO, THE HOLDERS OF SUCH SECURITIES SENT TO THEIR REGISTERED ADDRESSES, TO MODIFY THE RESTRICTIONS ON AND PROCEDURES FOR RESALES AND OTHER TRANSFERS OF THIS NOTE TO REFLECT ANY CHANGE IN APPLICABLE LAW OR REGULATION (OR THE INTERPRETATION THEREOF) OR IN PRACTICES RELATING TO RESALES OR OTHER TRANSFERS OF RESTRICTED SECURITIES GENERALLY. THE HOLDER OF THIS NOTE SHALL BE DEEMED, BY ITS ACCEPTANCE OR PURCHASE HEREOF, TO HAVE AGREED TO ANY SUCH AMENDMENT OR SUPPLEMENT (EACH OF WHICH SHALL BE CONCLUSIVE AND BINDING ON THE HOLDER HEREOF AND ALL FUTURE HOLDERS OF THIS NOTE AND ANY SECURITIES ISSUED IN EXCHANGE OR SUBSTITUTION THEREFOR, WHETHER OR NOT ANY NOTATION THEREOF IS MADE HEREON).";

(vii) if it is outside the United States and is not a U.S. person, that if it should resell or otherwise transfer the Notes prior to the expiration of the distribution compliance period (defined as forty days after the completion of the distribution of all the Notes in a particular Tranche), it will do so only: (a)(i) outside the United States in compliance with Rule 903 or 904 under the Securities Act; or (ii) if the Series includes Rule 144A Notes to a QIB in compliance with Rule 144A; and (b) in accordance with all applicable U.S. State securities laws; and it acknowledges that the Regulation S Global Notes will bear a legend to the following effect unless otherwise agreed to by the Issuer and the Guarantor:

"THIS NOTE AND THE RELATED GUARANTEE HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR ANY OTHER APPLICABLE U.S. STATE SECURITIES LAWS AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD WITHIN THE UNITED STATES OR TO, OR FOR THE ACCOUNT OR BENEFIT OF, U.S. PERSONS EXCEPT IN ACCORDANCE WITH THE AGENCY AGREEMENT AND PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OR PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT. THIS LEGEND SHALL CEASE TO APPLY UPON THE EXPIRY OF THE PERIOD OF 40 DAYS AFTER THE COMPLETION OF THE DISTRIBUTION OF ALL THE NOTES OF THE TRANCHE OF WHICH THIS NOTE FORMS PART"; and

(viii) that the Issuer, the Guarantor and others will rely upon the truth and accuracy of the foregoing acknowledgments, representations and agreements and agrees that if any of such acknowledgments, representations or agreements made by it are no longer accurate, it shall promptly notify the Issuer; and if it is acquiring any Notes as a fiduciary or agent for one or more accounts it represents that it has sole investment discretion with respect to each such account and that it has full power to make the foregoing acknowledgments, representations and agreements on behalf of each such account.

Institutional Accredited Investors who purchase Registered Notes in definitive form offered and sold in the United States in reliance upon the exemption from registration provided by Section 4(a)(2) of the Securities Act are required to execute and deliver to the Registrar an IAI Investment Letter. Upon execution and delivery of an IAI Investment Letter by an Institutional Accredited Investor, Notes will be issued in definitive registered form. See "*Form of the Notes*."

The IAI Investment Letter will state, among other things, the following:

(i) that the Institutional Accredited Investor has received a copy of this Offering Circular and such other information as it deems necessary in order to make its investment decision;

(ii) that the Institutional Accredited Investor understands that any subsequent transfer of the Notes is subject to certain restrictions and conditions set forth in this Offering Circular and the Notes (including those set out above) and that it agrees to be bound by, and not to resell, pledge or otherwise transfer the Notes except in compliance with, such restrictions and conditions and the Securities Act;

(iii) that the Institutional Accredited Investor understands that the offer and sale of the Notes have not been registered under the Securities Act, and that the Notes may not be offered or sold except as permitted in the following sentence. The Institutional Accredited Investor agrees, on its own behalf and on behalf of any accounts for which it is acting, not to offer, sell or otherwise transfer such Notes except (A) to the Issuer and the Guarantor or any affiliate thereof, (B) inside the United States to a person whom it reasonably believes is a qualified institutional buyer within the meaning of Rule 144A under the Securities Act purchasing for its own account or for the account of a qualified institutional buyer in a transaction which meets the requirements of Rule 144A, (C) to an Institutional Accredited Investor that, prior to such transfer, furnishes to the Issuer and the Guarantor a signed letter IAI Investment Letter, (D) outside the United States in compliance with Rule 903 or Rule 904 under the Securities Act, (E) pursuant to an effective registration statement under the Securities Act or (F) pursuant to any other available exemption from the registration requirements of the Securities Act, in each case, in accordance with any applicable securities laws of any state of the United States or any other jurisdiction;

(iv) that, in the normal course of its business, the Institutional Accredited Investor invests in or purchases securities similar to the Notes;

(v) that the Institutional Accredited Investor is an Institutional Accredited Investor within the meaning of Rule 50l (a)(l), (2), (3) or (7) of Regulation D under the Securities Act and has such knowledge and experience in financial and business matters as to be capable of evaluating the merits and risks of its investment in the Notes, and it and any accounts for which it is acting are each able to bear the economic risk of its or any such accounts' investment for an indefinite period of time; and

(vi) that the Institutional Accredited Investor is acquiring the Notes purchased by it for its own account or for one or more accounts (each of which is an Institutional Accredited Investor) as to each of which it exercises sole investment discretion and not with a view to any distribution of the Notes in a transaction that would violate the Securities Act or the securities laws of any State of the United States or any other applicable jurisdiction.

No sale of the Legended Notes in the United States to any one purchaser will be for less than (in the case of an Institutional Accredited Investor) U.S.$500,000 (or its foreign currency equivalent) principal amount and (in the case of a QIB) U.S.$200,000 (or its foreign currency equivalent) principal amount and no Legended Note will be issued in connection with such a sale in a smaller principal amount. If the purchaser is a non-bank fiduciary acting on behalf of others, each person for whom it is acting must purchase at least U.S.$200,000 (or its foreign currency equivalent) or, in the case of sales to Institutional Accredited Investors, U.S.$500,000 (or its foreign currency equivalent) principal amount of the Registered Notes.

Selling Restrictions

United States

The Notes and the Guarantee have not been and will not be registered under the Securities Act and may not be offered, sold or delivered within the United States or to, or for the account or benefit of, U.S. persons except in certain transactions exempt from the registration requirements of the Securities Act. Terms used in this paragraph have the meanings given to them by Regulation S under the Securities Act.

The Bearer Notes are subject to U.S. tax law requirements and may not be offered, sold or delivered within the United States or its possessions or to a United States person, except in certain transactions permitted by U.S. Treasury regulations. Terms used in this section have the meanings given to them by the U.S. Internal Revenue Code and the U.S. Treasury regulations and administrative guidance promulgated thereunder, including TEFRA D, TEFRA C, and Notice 2012-20. For purposes of this Offering Circular, "**TEFRA D**" and "**TEFRA C**" mean rules in substantially the same form as U.S. Treasury Regulations §1.163-5(c)(2)(i)(D) and §1.163-5(c)(2)(i)(C), respectively, for purposes of Section 4701 of the Code.

If the relevant Pricing Supplement relating to any Tranche of Bearer Notes specifies that the applicable TEFRA exemption is "TEFRA D," each Relevant Dealer will be required to represent, undertake and agree that:

(i) except to the extent permitted under TEFRA D, (a) it has not offered or sold, and during the restricted period will not offer or sell, Bearer Notes to a person who is within the United States or its possessions or to a United States person and (b) it has not delivered and will not deliver within the United States or its possessions definitive Bearer Notes that are sold during the restricted period;

(ii) it has, and throughout the restricted period it will have in effect, procedures reasonably designed to ensure that its employees or agents who are directly engaged in selling Bearer Notes are aware that such Notes may not be offered or sold during the restricted period to a person who is within the United States or its possessions or to a United States person, except as permitted by TEFRA D;

(iii) if it is a United States person, it is acquiring the Bearer Notes for purposes of resale in connection with their original issuance and if it retains Bearer Notes for its own account, it will only do so in accordance with the applicable requirements of TEFRA D;

(iv) with respect to each affiliate that acquires Bearer Notes from it for the purpose of offering or selling such Bearer Notes during the restricted period, it either: (a) repeats and confirms the representations and agreements contained in subparagraphs (i), (ii) and (iii) above on such affiliate's behalf; or (b) agrees that it will obtain from such affiliate for the benefit of the Issuer the representations and agreements contained in subparagraphs (i), (ii) and (iii) above;

(v) it shall obtain for the benefit of the Issuer the representations, undertakings and agreements contained in subparagraphs (i), (ii), (iii), and (iv) of this paragraph from any person other than its affiliate with whom it enters into a written contract, (a "distributor" as defined in TEFRA D), for the offer or sale during the restricted period of the Notes; and

(vi) if it will be a holder of the Notes on the earlier of the date of the first actual payment of interest by the Issuer on such Notes or the date of delivery by the Issuer of the definitive Notes, it will deliver to the Issuer and the Guarantor a duly executed certification as required by TEFRA D in the form set forth in Annex A to the Selling Restrictions attached to the Program Agreement and such certification is a condition precedent to the Issuer's delivery of such Notes.

If the relevant Pricing Supplement relating to any Tranche of Bearer Notes specifies that the applicable TEFRA exemption is "TEFRA C," such Bearer Notes must, in connection with their original issuance, be issued and delivered outside the United States and its possessions and, accordingly, each Relevant Dealer will be required to represent, warrant and undertake that, in connection with the original issuance of the Bearer Notes:

(i) it has not offered, sold or delivered, and will not offer, sell or deliver, directly or indirectly, any Bearer Notes within the United States or its possessions in connection with their original issuance of such Notes;

(ii) it has not negotiated or communicated, and will not negotiate or communicate, directly or indirectly, with a prospective purchaser if it or such prospective purchaser is within the United States or its possessions and will not otherwise involve its United States office in the offer and sale of Bearer Notes;

(iii) it has not and will not advertise or otherwise promote such Bearer Notes in the United States or its possessions; and

(iv) it has not and will not significantly engage in "interstate commerce" with respect to the issuance of such Bearer Notes within the meaning of TEFRA C.

In connection with any Notes which are offered or sold outside the United States in reliance on an exemption from the registration requirements of the Securities Act provided under Regulation S ("**Regulation S Notes**"), each Dealer has represented and agreed, and each further Dealer appointed under the Program will be required to represent and agree, that it will not offer, sell or deliver such Regulation S Notes: (i) as part of their distribution at any time; or (ii) otherwise until forty days after the completion of the distribution, as determined and certified by the Relevant Dealer(s) or, in the case of an issue of Notes on a syndicated basis, the relevant Lead Manager(s), of all Notes of the Tranche of which such Regulation S Notes are a part, within the United States or to, or for the account or benefit of, U.S. persons, except if the relevant series includes Rule 144A Notes pursuant to an exemption from registration under the Securities Act. Each Dealer has further agreed, and each further Dealer appointed under the Program will be required to agree, that it will send to each dealer to which it sells any Regulation S Notes during the distribution compliance period a confirmation or other notice setting forth the restrictions on offers and sales of the Regulation S Notes within the United States or to, or for the account or benefit of, U.S. persons. Terms used in this paragraph have the meanings given to them by Regulation S under the Securities Act.

Until forty days after the commencement of the offering of any Series of Notes, an offer or sale of such Notes within the United States by any dealer (whether or not participating in the offering) may violate the registration requirements of the Securities Act if such offer or sale is made otherwise than in accordance with an available exemption from registration under the Securities Act.

If a Series includes Rule 144A Notes, Dealers may arrange for the resale of Notes to QIBs pursuant to Rule l44A and each such purchaser of Notes is hereby notified that the Dealers may be relying on the exemption from the registration requirements of the Securities Act provided by Rule 144A. The minimum aggregate principal amount of Notes which may be purchased by a QIB pursuant to Rule 144A is U.S.$200,000 (or the approximate equivalent thereof in any other currency). To the extent that MISC is not subject to or does not comply with the reporting requirements of Section 13 or 15(d) of the Exchange Act or the information furnishing requirements of Rule 12g3-2(b) thereunder, MISC has agreed to furnish to holders of Notes and to prospective purchasers designated by such holders, upon request, such information as may be required by Rule 144A(d)(4).

If so specified in the applicable Pricing Supplement for a Series, Dealers may also arrange for the sale of Notes to Institutional Accredited Investors in private transactions exempt from the registration requirements of the Securities Act. Each Institutional Accredited Investor will be required to deliver a duly executed IAI Investment Letter. The minimum aggregate principal amount of Notes which may be purchased by an Institutional Accredited Investor is U.S.$500,000.

Each issuance of Dual Currency Notes shall be subject to such additional U.S. selling restrictions as the Issuer and the Relevant Dealer(s) may agree as a term of the issuance and purchase of such Notes, which additional selling restrictions shall be set out in the applicable Pricing Supplement.

European Economic Area Retail Investors

Each Dealer has represented and agreed, and each further Dealer appointed under the Program will be required to represent and agree, that:

(i) unless the Pricing Supplement specifies "Prohibition of Sales to EEA Retail Investors" as "Not Applicable", it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Notes which are the subject of the offering contemplated by the Offering Circular as completed by the Pricing Supplement in relation thereto to any retail investor in the EEA. For the purposes of this provision:

(a) the expression "**retail investor**" means a person who is one (or more) of the following:

(A) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "**MiFID II**"); or

(B) a customer within the meaning of Directive (EU) 2016/97 (as amended, the "**Insurance Distribution Directive**"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or

(C) not a qualified investor as defined in Regulation (EU) No 2017/1129 (as amended, the "**Prospectus Regulation**"); and

(b) the expression an offer includes the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe for the Notes.

(ii) If the Pricing Supplement specifies "Prohibition of Sales to EEA Retail Investors" as "Not Applicable", in relation to each Member State of the EEA, it has not made and will not make an offer of Notes which are the subject of the offering contemplated by the Offering Circular as completed by the Pricing Supplement in relation thereto to the public in that Member State except that it may, with effect from and including the Relevant Implementation Date, make an offer of such Notes to the public in that Member State:

(a) if the Pricing Supplement in relation to the Notes specifies that an offer of those Notes may be made other than pursuant to Article 1(4) of the Prospectus Regulation in that Member State (a "**Non-exempt Offer**"), following the date of publication of a prospectus in relation to such Notes which has been approved by the competent authority in that Member State, or, where appropriate, approved in another Member State and notified to the competent authority in that Member State, provided that any such prospectus has subsequently been completed by the Pricing Supplement contemplating such Non-exempt Offer, in accordance with the Prospectus Regulation, in the period beginning and ending on the dates specified in such prospectus or Pricing Supplement, as applicable, and the Issuer has consented in writing to its use for the purpose of that Non-exempt Offer;

(b) at any time to any legal entity which is a qualified investor as defined in the Prospectus Regulation;

(c) at any time to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Regulation) subject to obtaining the prior consent of the Relevant Dealer or Dealers nominated by the Issuer for any such offer; or

(d) at any time in any other circumstances falling within Article 3(2) of the Prospectus Regulation,

provided that no such offer of Notes referred to in (b) to (d) above shall require the Issuer, the Guarantor or any Relevant Dealer to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an offer of Notes to the public in relation to any Notes in any Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe for the Notes and the expression Prospectus Regulation means Regulation (EU) No 2017/1129.

Singapore

Each Dealer has acknowledged that this Offering Circular has not been registered as a prospectus with the Monetary Authority of Singapore (the "**MAS**"). Accordingly, each Dealer has represented and agreed that it has not offered or sold any Notes or caused such the Notes to be made the subject of an invitation for subscription or purchase and will not offer or sell any Notes or cause the Notes to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, the Offering Circular or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Notes, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the SFA) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA and (where applicable) Regulation 3 of the Securities and Futures (Classes of Investors) Regulations 2018, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

This Offering Circular has not been and will not be registered as a prospectus with the MAS. Accordingly, this Offering Circular and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of Notes may not be circulated or distributed, nor may the Notes be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the SFA), pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA and (where applicable) Regulation 3 of the Securities and Futures (Classes of Investors) Regulations 2018, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(i) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)), the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(ii) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the Notes pursuant to an offer made under Section 275 of the SFA except:

(i) to an institutional investor or to a relevant person (defined in Section 275(2) of the SFA) or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(c)(ii) of the SFA;

(ii) where no consideration is or will be given for the transfer;

(iii) where the transfer is by operation of law;

(iv) as specified in Section 276(7) of the SFA; or

(v) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

Any reference to the SFA is a reference to the Securities and Futures Act 2001 of Singapore and a reference to any term as defined in the SFA or any provision in the SFA is a reference to that term or provision as modified or amended from time to time including by such of its subsidiary legislation as may be applicable at the relevant time.

NOTIFICATION UNDER SECTION 309B OF THE SFA

Unless otherwise stated in the Pricing Supplement for any Series of Notes, the Notes shall be prescribed capital markets products (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

Hong Kong

Each Dealer has represented and agreed and each further Dealer appointed under the Program will be required to represent and agree, that:

(i) it has not offered or sold, and will not offer or sell, in the Hong Kong Special Administrative Region of the People's Republic of China ("**Hong Kong**"), by means of any document, any Notes other than (a) to "professional investors" as defined in the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) (the "**SFO**") and any rules made under the SFO, or (b) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding up and Miscellaneous Provisions) Ordinance (Chapter 32 of the Laws of Hong Kong) (the "**C(WUMP)O**") or which do not constitute an offer to the public within the meaning of the C(WUMP)O; and

(ii) it has not issued, or had in its possession for the purposes of issue, and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the Notes, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to Notes which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the SFO and any rules made under the SFO.

Japan

The Notes have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Law No. 25 of 1948, as amended) (the "**FIEA**"). Accordingly, each Dealer has represented and agreed, and each further Dealer appointed under the Program will be required to represent and agree, that it has not offered or sold and will not offer or sell any Notes, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (as defined under Item 5, Paragraph 1, Article 6 of the Foreign Exchange and Foreign Trade Control Law (Law No. 228 of 1949, as amended)), or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEA and any other applicable laws, regulations and ministerial guidelines of Japan.

Malaysia

The Notes may not be offered, sold, transferred or otherwise disposed of directly or indirectly to a person to whom an offer for subscription or purchase of, or invitation to subscribe for or purchase the Notes and to whom the Notes are issued, nor may any document or other material in connection therewith be distributed in Malaysia, other than to persons falling within any one of the categories of persons specified under paragraph 1(a), (b) or (d) of Part I of Schedule 5, Schedule 6, Schedule 7, and Schedule 8, read together with Schedule 9 (or Section 257(3)) of the Capital Markets and Services Act 2007 of Malaysia, subject to any law, order, regulation or official directive of Central Bank of Malaysia, Securities Commission Malaysia and/or any other regulatory authority from time to time. Thereafter, the Notes may only be offered, sold, transferred or otherwise disposed directly or indirectly to a person to whom an offer or invitation to purchase the Notes would fall within paragraph 1 (a), (b) or (d) of Part I of Schedule 5, Schedule 6 or Section 229(1)(b), and Schedule 8, read together with Schedule 9 (or Section 257(3)) of the Capital Markets and Services Act 2007 of Malaysia, subject to any law, order, regulation or official directive of Central Bank of Malaysia, Securities Commission Malaysia and/or any other regulatory authority from time to time.

In addition, residents of Malaysia may be required to obtain relevant regulatory approvals, including approval from the Controller of Foreign Exchange to purchase the Notes. The onus is on the Malaysian residents concerned to obtain such regulatory approvals and none of the dealers is responsible for any invitation, offer, sale or purchase of the Notes as aforesaid without the necessary approvals being in place.

An invitation to subscribe for, or an offer to purchase the Notes may only be made into Labuan if such Notes are offered for subscription or sale, sold, transferred or otherwise disposed of, directly or indirectly to a person falling, or if such offer or invitation falls, within Section 8(5) of the Labuan Financial Services and Securities Act 2010.

United Kingdom

Each Dealer has represented and agreed and each further Dealer appointed under the Program will be required to represent and agree, that:

(i) unless the Pricing Supplement specifies "Prohibition of Sales to UK Retail Investors" as "Not Applicable", it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Notes which are the subject of the offering contemplated by the Offering Circular as completed by the Pricing Supplement in relation thereto to any retail investor in the United Kingdom. For the purposes of this provision:

  (a) the expression "**retail investor**" means a person who is one (or more) of the following:

    (i) a retail client as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of United Kingdom domestic law by virtue of the European Union (Withdrawal) Act 2018 ("**EUWA**"); or

(ii) a customer within the meaning of the provisions of the FSMA and any rules or regulations made under the UK Financial Services and Markets Act 2000 (the "**FSMA**") to implement Directive (EU) 2016/97, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of United Kingdom domestic law by virtue of the EUWA; or

(iii) not a qualified investor as defined in Article 2 of Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the EUWA; and

(b) the expression an offer includes the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe for the Notes.

(ii) in relation to any Notes which have a maturity of less than one year, (i) the Relevant Dealer is a person whose ordinary activities involve it in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of its business and (ii) the Relevant Dealer has not offered or sold and will not offer or sell any Notes other than to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or as agent) for the purposes of their businesses or who it is reasonable to expect will acquire, hold, manage or dispose of investments (as principal or agent) for the purposes of their businesses where the issue of the Notes would otherwise constitute a contravention of Section 19 of the FSMA by the Issuer;

(iii) the Relevant Dealer has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of any Notes in circumstances in which Section 21(1) of the FSMA does not apply to the Issuer or the Guarantor; and

(iv) the Relevant Dealer has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to any Notes in, from or otherwise involving the United Kingdom.

United Arab Emirates (excluding the Dubai International Financial Centre)

Each Dealer has represented and agreed that the Notes have not been and will not be offered, sold or publicly promoted or advertised by it in the United Arab Emirates other than in compliance with any laws applicable in the United Arab Emirates governing the issue, offering and sale of securities.

Dubai International Financial Centre

Each Dealer has represented and agreed that it has not offered and will not offer the Notes to any person in the Dubai International Financial Centre unless such offer is:

(i) an "Exempt Offer" for the purposes of the Markets Rules 2012 of the Dubai Financial Services Authority ("**DFSA**"); and

(ii) made only to persons who meet the Professional Client criteria set out in Rule 2.3.2 of the DFSA Conduct of Business.

State of Qatar

Each Dealer has represented and agreed that it has not offered or sold, and will not offer or sell, directly or indirectly, any Notes in the State of Qatar ("**Qatar**"), except (a) in compliance with all applicable laws and regulations of Qatar and (b) through persons or corporate entities authorized and licensed to provide investment advice and/or engage in brokerage activity and/or trade in respect of foreign securities in Qatar.

Kingdom of Bahrain

Each Dealer has represented and agreed that it has not offered or sold, and will not offer or sell, any Notes except on a private placement basis to persons in the Kingdom of Bahrain who are "accredited investors."

For this purpose, an "accredited investor" means:

(i) an individual holding financial assets (either singly or jointly with a spouse) of U.S.$1,000,000 or more;

(ii) a company, partnership, trust or other commercial undertaking which has financial assets available for investment of not less than U.S.$1,000,000; or

(iii) a government, supranational organization, central bank or other national monetary authority or a state organization whose main activity is to invest in financial instruments (such as a state pension fund).

Kuwait

Each Dealer has represented and agreed that no Notes have been licensed for offering in Kuwait by the Kuwait Capital Markets Authority. The offering of the Notes in Kuwait on the basis of a private placement or public offering is, therefore, restricted in accordance with Law No. 7 of 2010 "Establishing of the Capital Markets Authority and the organization of securities activity", its Executive Regulations and the various Resolutions and Announcements issued pursuant thereto or in connection therewith. No private or public offering of the Notes is being made in Kuwait, and no agreement relating to the sale of the Notes will be concluded in Kuwait. No marketing or solicitation or inducement activities are being used to offer or market the Notes in Kuwait.

Canada

This Offering Circular does not constitute and is not to be construed as a public offering of Notes in any jurisdiction in Canada. No securities commission or similar regulatory authority in Canada has reviewed this Offering Circular or has in any way passed upon the merits of Notes offered hereunder. No prospectus has been filed with any such authority in connection with Notes offered hereunder.

In respect of any offers of Notes in Canada, each Relevant Dealer on behalf of itself and each of its affiliates that participates in the initial distribution of any Notes has or will be required to represent, warrant and agree that:

(i) the sale and delivery of any Notes to any purchaser who is a resident of Canada it shall be made so as to be exempt from the prospectus filing requirements and exempt from or in compliance with the dealer registration requirements of all applicable securities laws and regulations, rulings and orders made thereunder and rules, instruments and policy statements issued and adopted by the relevant securities regulator or regulatory authority, including those applicable in each of the provinces of Canada and only to such purchasers that are resident in a province of Canada;

(ii) where required under applicable Canadian securities laws, (i) it is duly registered under the applicable Canadian securities laws (is otherwise relying on an exemption from the registration requirements under applicable Canadian securities laws) in each province where it proposes to sell and deliver the Notes to purchasers that are resident of such province, and to whom it sells or delivers any Notes or (ii) such sale and delivery will be made through an affiliate of it that is so registered (or is otherwise relying on an exemption from such registration requirements) and agrees to make such sale and delivery in compliance with the representations, warranties and agreements of the Relevant Dealer set out in the Program Agreement and the supplements thereto;

(iii) it will comply with all applicable Canadian securities laws concerning any distribution of the Notes in Canada;

(iv) it will use commercially reasonable efforts to confirm that each Canadian purchaser, or any ultimate investor for which such initial investor is acting as agent (i) is an "accredited investor" as defined in Section 73.3 of the *Securities Act* (Ontario) (if the investor is resident in the Province of Ontario) or in Section 1.1 of NI 45-106, as applicable; (ii) is not a person created or being used solely to purchase or hold securities as an accredited investor as described in paragraph (m) of the definition of "accredited investor" in section 1.1 of NI 45-106; (iii) is either purchasing Notes as principal (or deemed to be purchasing as principal under Canadian securities laws); (iv) is not an individual unless the investor is a "permitted client" (as such term is defined in NI 31-101) and (v) if the Relevant Dealer or affiliate is relying on the international dealer exemption in NI 31-103, is a "permitted client" (as such term is defined in NI 31-101); such Relevant Dealer will use commercially reasonable efforts to obtain and retain relevant information and documentation to evidence the steps taken to verify compliance with the exemption in accordance with its usual document retention policies and procedures in compliance with applicable laws, and will provide to the Issuer forthwith upon written request all such information or documentation as the Issuer may reasonably request in good faith and solely for the purpose of verifying compliance with the exemption, correcting any required filings and responding to regulatory inquiries with respect thereto;

(v) other than in accordance with applicable Canadian securities laws, the offer and sale of the Notes was not made through or accompanied by any advertisement of the Notes, including, without limitation, in printed media of general and regular paid circulation, radio, television or telecommunications, including electronic display, or any other form of advertising or as part of a general solicitation in Canada; and

(vi) it has not provided and will not provide to any purchaser any document or other material that would constitute an offering memorandum (other than this Offering Circular, any Supplemental Offering Circular or the information set out herein).

Taiwan (ROC)

Each Dealer has represented and agreed that the Notes have not been and will not be registered or filed with, or approved by, the Financial Supervisory Commission of the ROC and/or other regulatory authority of the ROC pursuant to relevant securities laws and regulations and may not be sold, issued or offered within the ROC through a public offering or in circumstances which constitute an offer within the meaning of the Securities and Exchange Act of the ROC or relevant laws and regulations that requires a registration, filing or approval of the Financial Supervisory Commission of the ROC and/or other regulatory authority of the ROC. No person or entity in the ROC has been authorized to offer or sell the Notes in the ROC.

Korea

Each Dealer has represented and agreed that it has not and will not, directly or indirectly, offer, sell or deliver any Notes in Korea or to, or for the account or benefit of, any resident of Korea (as such term is defined in the Korean Foreign Exchange Transaction Law "**FETL**"), or to others for reoffering or resale, directly or indirectly, in Korea or to, or for the account or benefit of, any resident of Korea (as such term is defined in the FETL), except as otherwise permitted by applicable Korean laws and regulations, including the Financial Investment Services and Capital Markets Act and the FETL) and the decrees and regulations thereunder. The Notes have not been registered with the Financial Services Commission of Korea for public offering in Korea.

Furthermore, the Notes may not be re-sold to Korean residents unless the purchaser of the Notes complies with all applicable regulatory requirements (including but not limited to government approval requirements under the FETL and its subordinate decrees and regulations) in connection with their purchase. The aggregate number of Notes offered in Korea or to a resident in Korea, shall in each case be less than 50. By purchasing the Notes, each noteholder will be deemed to represent, warrant and agree that for a period of one year from the issue date thereof, the Notes, may not be sub-divided or re-denominated so as to result in increasing the aggregate number of Notes to 50 or more.

General

Each Dealer has agreed, and each further Dealer appointed under the Program will be required to agree, that it will (to the best of its knowledge and belief) comply with all applicable securities laws and regulations in force in any jurisdiction in which it purchases, offers, sells or delivers Notes or possesses or distributes this Offering Circular and will obtain any consent, approval or permission required by it for the purchase, offer, sale or delivery by it of Notes under the laws and regulations in force in any jurisdiction to which it is subject or in which it makes such purchases, offers, sales or deliveries and neither the Issuer, MISC nor any of the other Dealers shall have any responsibility therefor.

None of the Issuer, MISC and the Dealers represents that Notes may at any time lawfully be sold in compliance with any applicable registration or other requirements in any jurisdiction, or pursuant to any exemption available thereunder, or assumes any responsibility for facilitating such sale.

With regard to each Tranche, the Relevant Dealer(s) will be required to comply with such other restrictions as the Issuer, MISC and the Relevant Dealer(s) shall agree and as shall be set out in the applicable Pricing Supplement.

BOOK-ENTRY CLEARANCE SYSTEMS

*The information set out below is subject to any change in or reinterpretation of the rules, regulations and procedures of DTC, Euroclear or Clearstream (each a "**Clearing System**" and together, the "**Clearing Systems**") currently in effect. The information in this section concerning the Clearing Systems has been obtained from sources that the Issuer and MISC believe to be reliable, but none of the Issuer, MISC or any Dealer takes any responsibility for the accuracy thereof. Investors wishing to use the facilities of any of the Clearing Systems are advised to confirm the continued applicability of the rules, regulations and procedures of the relevant Clearing System. None of the Issuer, MISC, the Arranger, any Dealer or any other party to the Agency Agreement will have any responsibility or liability for any aspect of the records relating to, or payments made on account of, beneficial ownership interests in the Notes held through the facilities of any Clearing System or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests. The applicable Pricing Supplement will specify the Clearing System(s) applicable for each Series.*

Book-entry Systems

DTC

DTC has advised the Issuer and MISC that it is a limited purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code and a "clearing agency" registered pursuant to Section 17A of the Exchange Act. DTC holds securities that its participants ("**Participants**") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities through electronic computerized book-entry transfers and pledges between Direct Participants' accounts, thereby eliminating the need for physical movement of securities certificates. Direct Participants include securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("**DTCC**"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC System is also available to others such as securities brokers and dealers, banks, trust companies and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("**Indirect Participants**").

Under the rules, regulations and procedures creating and affecting DTC and its operations (the "**Rules**"), DTC makes book-entry transfers of Registered Notes among Direct Participants on whose behalf it acts with respect to Notes accepted into DTC's book-entry settlement system ("**DTC Notes**") as described below and receives and transmits distributions of principal and interest on DTC Notes. The Rules are on file with the U.S. Securities and Exchange Commission. Direct Participants and Indirect Participants with which beneficial owners of DTC Notes ("**Owners**") have accounts with respect to the DTC Notes similarly are required to make book-entry transfers and receive and transmit such payments on behalf of their respective Owners. Accordingly, although Owners who hold DTC Notes through Direct Participants or Indirect Participants will not possess Registered Notes, the Rules, by virtue of the requirements described above, provide a mechanism by which Direct Participants will receive payments and will be able to transfer their interest in respect of the DTC Notes.

Purchases of DTC Notes under the DTC system must be made by or through Direct Participants, which will receive a credit for the DTC Notes on DTC's records. The ownership interest of each actual purchaser of each DTC Note ("**Beneficial Owner**") is in turn to be recorded on the Direct and Indirect Participant's records. Beneficial Owners will not receive written confirmation from DTC of their purchase, but Beneficial Owners are expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the DTC Notes are to be accomplished by entries made on the books of Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in DTC Notes, except in the event that use of the book-entry system for the DTC Notes is discontinued.

To facilitate subsequent transfers, all DTC Notes deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co, or such other name as may be requested by an authorized representative of DTC. The deposit of DTC Notes with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the DTC Notes; DTC's records reflect only the identity of the Direct Participants to whose accounts such DTC Notes are credited, which may or may not be the Beneficial Owners. The Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time.

Redemption notices shall be sent to DTC. If less than all of the DTC Notes within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to DTC Notes unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Issuer and MISC as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the DTC Notes are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and interest payments on the DTC Notes will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Issuer, MISC or the Principal Paying Agent on the due date for payment in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name", and will be the responsibility of such Participant and not of DTC, the Issuer or MISC, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Issuer (and failing whom, MISC), disbursement of such payments to Direct Participants is the responsibility of DTC, and disbursement of such payments to the Beneficial Owners is the responsibility of Direct and Indirect Participants.

Because of time zone differences, credits of Notes received in Clearstream or Euroclear as a result of a transaction with a DTC Participant may be made during subsequent securities settlement processing and dated the business day following the DTC settlement date. Such credits or any transactions in such Notes settled during such processing will be reported to the relevant Clearstream participants or Euroclear participants on such business day. Cash received in Clearstream or Euroclear as a result of sales of Notes by or through a Clearstream participant or a Euroclear participant to a DTC Participant will be received with value on the DTC settlement date but will be available in the relevant Clearstream or Euroclear cash account only as of the business day following settlement in DTC.

Under certain circumstances, including if there is an Event of Default under the Notes, DTC will exchange the DTC Notes for definitive Registered Notes, which it will distribute to its Participants in accordance with their proportionate entitlements and which, if representing interests in a Rule 144A Global Note, will be legended as set forth under "*Subscription and Sale and Transfer and Selling Restrictions*."

Since DTC may only act on behalf of Direct Participants, who in turn act on behalf of Indirect Participants, any Owner desiring to pledge DTC Notes to persons or entities that do not participate in DTC, or otherwise take actions with respect to such DTC Notes, will be required to withdraw its Registered Notes from DTC as described below.

Euroclear and Clearstream

Euroclear and Clearstream each holds securities for its customers and facilitates the clearance and settlement of securities transactions by electronic book-entry transfer between their respective account holders. Euroclear and Clearstream provide various services including safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Euroclear and Clearstream also deal with domestic securities markets in several countries through established depository and custodial relationships. Euroclear and Clearstream have established an electronic bridge between their two systems across which their respective participants may settle trades with each other.

Euroclear and Clearstream customers are world-wide financial institutions, including underwriters, securities brokers and dealers, banks, trust companies and clearing corporations. Indirect access to Euroclear and Clearstream is available to other institutions that clear through or maintain a custodial relationship with an account holder of either system. Book-entry Ownership of and Payments in respect of DTC Notes

The Issuer and MISC may apply to DTC in order to have any Tranche of Notes represented by a Registered Global Note accepted in its book-entry settlement system. Upon the issue of any such Registered Global Note, DTC or its custodian will credit, on its internal book-entry system, the respective nominal amounts of the individual beneficial interests represented by such Registered Global Note to the accounts of persons who have accounts with DTC. Such accounts initially will be designated by or on behalf of the Relevant Dealer(s). Ownership of beneficial interests in such a Registered Global Note will be limited to Direct Participants or Indirect Participants, including the respective depositaries of Euroclear and Clearstream. Ownership of beneficial interests in a Registered Global Note accepted by DTC will be shown on, and the transfer of such ownership will be effected only through, records maintained by DTC or its nominee (with respect to the interests of Direct Participants) and the records of Direct Participants (with respect to interests of Indirect Participants).

Payments in U.S. dollars of principal and interest in respect of a Registered Global Note accepted by DTC will be made to the order of DTC or its nominee as the registered holder of such Note. In the case of any payment in a currency other than U.S. dollars, payment will be made to the Exchange Agent on behalf of DTC or its nominee and the Exchange Agent will (in accordance with instructions received by it) remit all or a portion of such payment for credit directly to the beneficial holders of interests in the Registered Global Note in the currency in which such payment was made and/or cause all or a portion of such payment to be converted into U.S. dollars and credited to the applicable Participants' account.

The Issuer and MISC expect DTC to credit accounts of Direct Participants on the applicable payment date in accordance with their respective holdings as shown in the records of DTC unless DTC has reason to believe that it will not receive payment on such payment date. The Issuer and we also expect that payments by Participants to beneficial owners of Notes will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers, and will be the responsibility of such Participant and not the responsibility of DTC, the Principal Paying Agent, the Registrar, the Issuer or MISC. Payment of principal, premium, if any, and interest, if any, on Notes to DTC is the responsibility of the Issuer (and failing whom, MISC).

Transfers of Notes Represented by Registered Global Notes

Transfers of any interests in Notes represented by a Registered Global Note within DTC, Euroclear and Clearstream will be effected in accordance with the customary rules and operating procedures of the relevant Clearing System. The laws in some States within the United States require that certain persons take physical delivery of securities in definitive form. Consequently, the ability to transfer Notes represented by a Registered Global Note to such persons may depend upon the ability to exchange such Notes for Notes in definitive form. Similarly, because DTC can only act on behalf of Direct Participants in the DTC system who in turn act on behalf of Indirect Participants, the ability of a person having an interest in Notes represented by a Registered Global Note accepted by DTC to pledge such Notes to persons or entities that do not participate in the DTC system or otherwise to take action in respect of such Notes may depend upon the ability to exchange such Notes for Notes in definitive form. The ability of any holder of Notes represented by a Registered Global Note accepted by DTC to resell, pledge or otherwise transfer such Notes may be impaired if the proposed transferee of such Notes is not eligible to hold such Notes through a direct or indirect participant in the DTC system.

Subject to compliance with the transfer restrictions applicable to the Registered Notes described under "*Subscription and Sale and Transfer and Selling Restrictions—Transfer Restrictions*", cross-market transfers between DTC, on the one hand, and directly or indirectly through Clearstream or Euroclear accountholders, on the other, will be effected by the relevant Clearing System in accordance with its rules and through action taken by the Registrar, the Principal Paying Agent and any custodian ("**Custodian**") with whom the relevant Registered Global Notes have been deposited.

On or after the Issue Date for any Series, transfers of Notes of such Series between accountholders in Clearstream and Euroclear and transfers of Notes of such Series between participants in DTC will generally have a settlement date two business days after the trade date (T+2). The customary arrangements for delivery versus payment will apply to such transfers.

Cross-market transfers between accountholders in Clearstream or Euroclear and DTC participants will need to have an agreed settlement date between the parties to such transfer. For transfers between a Regulation S Global Note and a Rule 144A Global Note, transfers will be effected through the Registrar, the Principal Paying Agent and the Custodian receiving instructions (and, where appropriate, certification) from the transferor and arranging for delivery of the interests being transferred to the credit of the designated account for the transferee. In the case of such transfers, settlement cannot be made on a delivery versus payment basis. The securities will be delivered on a free delivery basis and arrangements for payment must be made separately.

DTC, Clearstream and Euroclear have each published rules and operating procedures designed to facilitate transfers of beneficial interests in Registered Global Notes among participants and accountholders of DTC, Clearstream and Euroclear. However, they are under no obligation to perform or continue to perform such procedures, and such procedures may be discontinued or changed at any time. None of the Issuer, MISC, the Agents or any Dealer will be responsible for any performance by DTC, Clearstream or Euroclear or their respective direct or indirect participants or accountholders of their respective obligations under the rules and procedures governing their operations and none of them will have any liability for any aspect of the records relating to or payments made on account of beneficial interests in the Notes represented by Registered Global Notes or for maintaining, supervising or reviewing any records relating to such beneficial interests.

GENERAL INFORMATION

1. Listing of the Notes:

With respect to any Notes which are agreed at or prior to the time of issue thereof to be listed, approval in-principle has been obtained for (a) listing of such Notes on, and admission to the Official List of, the Labuan International Financial Exchange and (b) for listing of such Notes on, and admission to the Official List of, Bursa Malaysia under the Bursa Malaysia (Exempt Regime) and application has been made for the listing and quotation of the Notes on the SGX-ST. The Issuer and MISC cannot guarantee that that the Notes sought to be listed on the SGX-ST, Labuan International Financial Exchange or Bursa Malaysia (Exempt Regime), as applicable, will be so listed. See "*Risk Factors—Risks Relating to the Notes—A listing of the Notes on a securities exchange cannot be guaranteed.*" The offering and settlement of the Notes are not conditional on obtaining any of these listings. Moreover, even if the Notes are so listed at the time of issuance, MISC may seek an alternative listing for such Notes on another stock exchange, but there can be no assurance that such alternative listing will be obtained. SGX-ST, the Labuan International Financial Exchange and Bursa Malaysia take no responsibility for the contents of this document, make no representation as to its accuracy or completeness and expressly disclaim any liability whatsoever for any loss howsoever arising from or in reliance upon the whole or any part of the contents of this document. Approval in-principle from, admission of the Notes to, and the listing and quotation of the Notes on, the SGX-ST, Labuan International Financial Exchange and/or Bursa Malaysia (Exempt Regime) is not to be taken as an indication of the merits of the Issuer or the Guarantor, the Program or the Notes. The SGX-ST assumes no responsibility for the correctness of any of the statements made or opinions expressed or reports contained in this Offering Circular. Investors are advised to read and understand the contents of this Offering Circular before investing. If in doubt, the investors should consult his or her advisors.

For so long as the Notes are listed on the SGX-ST and the rules of the SGX-ST so require, the Issuer will appoint and maintain a paying agent in Singapore, where the Notes may be presented or surrendered for payment or redemption, in the event that a Global Note is exchanged for definitive Notes. In addition, in the event that the Global Note is exchanged for definitive Notes, an announcement of such exchange will be made by or on behalf of the Issuer through the SGX-ST and such announcement will include all material information with respect to the delivery of the definitive Notes, including details of the paying agent in Singapore.

2. Legal Entity Identifier:

The legal entity identifier of MISC Capital Two (Labuan) Limited is 9845000ED8376T875113 and the legal entity identifier of MISC is 9845002055U77FF6B972.

3. Authorizations:

The establishment of the Program was authorized by resolutions of the board of directors of MISC Capital Two (Labuan) Limited dated January 10, 2022 and February 16, 2022. The establishment of the Program and the Guarantee were authorized by resolutions of the board of directors of MISC dated August 12, 2021 and February 16, 2022. Each of the Issuer and MISC have obtained or have agreed to obtain from time to time all necessary consents, approvals and authorizations in connection with the issue of Notes and the giving of the Guarantee under the Program and entry into the relevant transaction documents.

4. No Material Adverse Change:

Except as disclosed in this Offering Circular, there has been no significant change in the financial position of MISC since December 31, 2021.

5. **Litigation:**

Except as disclosed in this Offering Circular, the Issuer is not involved in any legal, arbitration, administrative or other proceedings relating to claims which are material in the context of the issue of the Notes and, so far as the Issuer is aware, no such proceedings are pending or being threatened.

6. **Available Documents:**

As long as any Note is outstanding, copies of the following documents will be available for inspection, and in the case of the document referred to in paragraph (b) below, copies may be obtained, during normal business hours at the registered office of the Issuer and from the specified office of the Principal Paying Agent for the time being, that is, Citibank, N.A., London Branch at 1 North Wall Quay, Dublin 1:

(a) the Program Agreement, the Agency Agreement, the Guarantee, and forms of the Global Notes, the Notes in definitive form, the Receipts, the Coupons and the Talons;

(b) a copy of this Offering Circular;

(c) any future offering memoranda, prospectuses, information memoranda and supplements (including Pricing Supplements save that a Pricing Supplement related to an unlisted Series of Notes will only be available for inspection by a holder of any such Notes and such holder must produce evidence satisfactory to the Issuer, MISC and the Principal Paying Agent as to the identity of such holder) to this Offering Circular and the documents incorporated therein by reference; and

(d) in the case of a syndicated issue of listed Notes, the Subscription Agreement or Purchase Agreement (or equivalent document).

7. **Consent of Independent Auditors:**

Ernst & Young PLT has given and not withdrawn their written consent to the reproduction of their audit report dated February 21, 2022 on the published consolidated and unconsolidated financial statements of MISC as at December 31, 2020 and 2021, and for each of the years in the three-year period ended December 31, 2021, included in this Offering Circular and with references to Ernst & Young PLT in the form and context in which they appear herein. A written consent made under the Capital Markets and Services Act, 2007 of Malaysia is different from a consent filed with the U.S. Securities and Exchange Commission under Section 7 of the Securities Act, which is applicable only to transactions involving securities registered under the Securities Act. As the offering of our securities in this Global Medium Term Note Program will not be registered under the Securities Act, Ernst & Young PLT has not filed a consent under Section 7 of the Securities Act.

8. **Clearing Systems:**

The Issuer may make applications to Clearstream and/or Euroclear for acceptance in their respective book-entry systems in respect of any Series of Bearer Notes. The appropriate Common Code and ISIN for each Tranche of Bearer Notes allocated by Euroclear and Clearstream will be specified in the applicable Pricing Supplement. In addition, the Issuer may make an application for any Notes in registered form to be accepted or eligible for trading in book-entry form by DTC, or the common depositary for Euroclear and Clearstream, as applicable. The CUSIP and/or CINS numbers (if any) for each Tranche of Registered Notes, together with the relevant ISIN and Common Code, will be specified in the applicable Pricing Supplement. If the Notes are to be cleared through an additional or alternative clearing system the appropriate information will be specified in the applicable Pricing Supplement.

INDEX TO FINANCIAL STATEMENTS

Audited Annual Consolidated Financial Statements of MISC Berhad

MISC BERHAD
Registration No. 196801000580 (8178-H)
(Incorporated in Malaysia)

Directors' Report and Audited Financial Statements
31 December 2021

Registration No. 196801000580 (8178-H)

MISC Berhad
(Incorporated in Malaysia)

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Registration No. 196801000580 (8178-H)

MISC Berhad
(Incorporated in Malaysia)

Directors' report

The directors have pleasure in presenting their report together with the audited financial statements of the Group and of the Corporation for the financial year ended 31 December 2021.

Principal activities

The principal activities of the Corporation consist of ship owning, ship operating and other activities related to shipping services and operating offshore floating terminals.

The principal activities of the subsidiaries, associates and joint arrangements are described in Notes 40, 41 and 42 to the financial statements respectively. The directors deem such information is included in the Directors' Report by such reference and shall form part of the Corporation's Directors' Report.

There have been no significant changes in the nature of the principal activities during the financial year.

Holding company

The immediate and ultimate holding company of the Corporation is Petroliam Nasional Berhad ("PETRONAS"), a company incorporated and domiciled in Malaysia.

Subsidiaries

The details of the Corporation's subsidiaries are disclosed in Note 40 to the financial statements.

Results

	Group RM'000	Corporation RM'000
Profit for the year	1,733,547	1,769,256
Attributable to:		
Equity holders of the Corporation	1,831,264	1,769,256
Non-controlling interests	(97,717)	-
	1,733,547	1,769,256

There were no material transfers to or from reserves or provisions during the financial year other than as disclosed in the financial statements.

In the opinion of the directors, the results of the operations of the Group and of the Corporation during the financial year were not substantially affected by any item, transaction or event of a material and unusual nature.

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Dividends

The amount of dividends paid by the Corporation since 31 December 2020 were as follows:

In respect of the financial year ended 31 December 2020 as reported in the directors' report of that year:

	RM'000
A fourth tax exempt dividend of 12.0 sen per ordinary share, declared on 18 February 2021 and paid on 16 March 2021	535,649

In respect of the financial year ended 31 December 2021:

A first tax exempt dividend of 7.0 sen per ordinary share, declared on 6 May 2021 and paid on 9 June 2021	312,462
A second tax exempt dividend of 7.0 sen per ordinary share, declared on 13 August 2021 and paid on 14 September 2021	312,462
A third tax exempt dividend of 7.0 sen per ordinary share, declared on 18 November 2021 and paid on 14 December 2021	312,462

A fourth tax exempt dividend in respect of the financial year ended 31 December 2021 of 12.0 sen per ordinary share amounting to a dividend payable of RM535,649,000 will be paid on 16 March 2022.

The fourth tax exempt dividend in respect of the financial year ended 31 December 2021 is not reflected in the current year's financial statements. The dividend will be accounted for in equity as an appropriation of retained profits in the financial year ending 31 December 2022.

Directors

The names of the directors of the Corporation in office since the beginning of the financial year to the date of this report are:

Datuk Abu Huraira bin Abu Yazid
Dato' Ab. Halim bin Mohyiddin
Datuk Nasarudin bin Md Idris
Dato' Sekhar Krishnan
Datuk Yee Yang Chien
Mohd Yusri bin Mohamed Yusof
Liza binti Mustapha
Dato' Rozalila binti Abdul Rahman
Datin Norazah binti Mohamed Razali
Mohammad Suhaimi bin Mohd Yasin
Lim Beng Choon (Retired on 15 August 2021)
Chew Liong Kim (Appointed on 1 September 2021)
Dato' Tengku Marina binti Tunku Annuar (Appointed on 1 January 2022)

The names of directors of subsidiaries are set out in their respective subsidiary's directors' report and the Board deems such information is included in the Corporation's Directors' Report by such reference and shall form part of the Corporation's Directors' Report.

Directors' benefits

Neither at the end of the financial year, nor at any time during that year, did there subsist any arrangement to which the Corporation was a party, whereby the directors might acquire benefits by means of acquiring of shares in or debentures of the Corporation or any other body corporate.

Since the end of the previous financial year, no director has received or become entitled to receive a benefit (other than benefits included in the aggregate amount of remunerations received or due and receivable by the directors or fixed salary of full-time employees of the Corporation and other related corporations as disclosed in Note 7 to the financial statements) by reason of a contract made by the Corporation or a related corporation with any director or with a firm of which he is a member, or with a company in which he has a substantial financial interest.

Directors' interests

According to the register of directors' shareholdings, the interests and deemed interests of directors in office at the end of the financial year in shares in the Corporation and its related corporations during the financial year were as follows:

	Number of ordinary shares			
	1 January 2021	**Bought**	**Sold**	**31 December 2021**
Fellow subsidiary - PETRONAS Gas Berhad				
Direct				
Dato' Ab. Halim bin Mohyiddin	5,000	-	-	5,000
Datuk Nasarudin bin Md Idris	3,000	-	-	3,000

	Number of stapled securities			
	1 January 2021	**Bought**	**Sold**	**31 December 2021**
Fellow subsidiaries - KLCC Property Holdings Berhad and KLCC Real Estate Investment Trust				
Direct				
Datuk Nasarudin bin Md Idris	5,000	-	-	5,000

	Number of ordinary shares			
	1 January 2021	**Bought**	**Sold**	**31 December 2021**
Fellow subsidiary - PETRONAS Chemicals Group Berhad				
Direct				
Dato' Ab. Halim bin Mohyiddin	5,000	5,000	-	10,000
Datuk Nasarudin bin Md Idris	10,000	-	-	10,000
Mohd Yusri bin Mohamed Yusof	29,000	-	6,000	23,000
Mohammad Suhaimi bin Mohd Yasin	6,000	-	-	6,000

Directors' interests (cont'd.)

	Number of ordinary shares			
	1 January 2021	Bought	Sold	31 December 2021
Subsidiary				
- Malaysia Marine and Heavy Engineering Holdings Berhad				
Direct				
Dato' Ab. Halim bin Mohyiddin	5,000	-	-	5,000
Datuk Nasarudin bin Md Idris	10,000	-	-	10,000

Other than as disclosed above, none of the other directors in office at the end of the financial year had any interest and deemed interests in shares in the Corporation or its related corporations during the financial year.

Indemnity and insurance costs

During the financial year, PETRONAS and its subsidiaries (hereinafter referred to as "PETRONAS Group"), including the Corporation, maintained a Directors' and Officers' Liability Insurance in accordance with Section 289 of the Companies Act 2016. The total insured limit for the Directors and Officers Liability Insurance effected for the Directors and Officers of the PETRONAS Group was RM1,290 million (2020: RM1,290 million) per occurrence and in the aggregate. The insurance premium for the Corporation was RM16,267 (2020: RM16,267).

Other statutory information

(a) Before the financial statements of the Group and of the Corporation were made out, the directors took reasonable steps:

(i) to ascertain that proper action had been taken in relation to the writing off of bad debts and the making of provision for doubtful debts, and satisfied themselves that all known bad debts had been written off and that adequate provision had been made for doubtful debts; and

(ii) to ensure that any current assets which were unlikely to realise their value as shown in the accounting records in the ordinary course of business had been written down to an amount which they might be expected so to realise.

Other statutory information (cont'd.)

(b) At the date of this report, the directors are not aware of any circumstances which would render:

  (i) the amount written off for bad debts or the amount of the provision for doubtful debts in the financial statements of the Group and of the Corporation inadequate to any substantial extent; and

  (ii) the values attributed to the current assets in the financial statements of the Group and of the Corporation misleading.

(c) At the date of this report, the directors are not aware of any circumstances which have arisen which would render adherence to the existing method of valuation of assets or liabilities of the Group and of the Corporation misleading or inappropriate.

(d) At the date of this report, the directors are not aware of any circumstances not otherwise dealt with in this report or financial statements of the Group and of the Corporation which would render any amount stated in the financial statements misleading.

(e) At the date of this report, there does not exist:

  (i) any charge on the assets of the Group or of the Corporation which has arisen since the end of the financial year which secures the liabilities of any other person; or

  (ii) any contingent liability of the Group or of the Corporation which has arisen since the end of the financial year.

(f) In the opinion of the directors:

  (i) no contingent or other liability has become enforceable or is likely to become enforceable within the period of twelve months after the end of the financial year which will or may affect the ability of the Group and of the Corporation to meet their obligations when they fall due; and

  (ii) no item, transaction or event of a material and unusual nature has arisen in the interval between the end of the financial year and the date of this report which is likely to substantially affect the results of the operations of the Group or of the Corporation for the financial year in which this report is made.

The Corporation has been granted a relief order pursuant to Section 255(1) of the Companies Act 2016 relieving the Corporation's Directors from full compliance to the requirements under Section 253(2) of the Companies Act 2016.

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MISC Berhad
(Incorporated in Malaysia)

Auditors

The auditors, Ernst & Young PLT have expressed their willingness to continue in office.

The auditors' remuneration are disclosed in Note 5 to the financial statements.

Signed on behalf of the Board in accordance with a resolution of the directors dated 21 February 2022.

Datuk Abu Huraira bin Abu Yazid

Datuk Yee Yang Chien

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MISC Berhad
(Incorporated in Malaysia)

Statement by directors
Pursuant to Section 251(2) of the Companies Act 2016

We, Datuk Abu Huraira bin Abu Yazid and Datuk Yee Yang Chien, being two of the directors of MISC Berhad, do hereby state that, in the opinion of the directors, the accompanying financial statements set out on pages 9 to 180 are drawn up in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the requirements of the Companies Act 2016 in Malaysia so as to give a true and fair view of the financial position of the Group and of the Corporation as at 31 December 2021 and of their financial performance and cash flows for the year then ended.

Signed on behalf of the Board in accordance with a resolution of the directors dated 21 February 2022.

Datuk Abu Huraira bin Abu Yazid

Datuk Yee Yang Chien

Statutory declaration
Pursuant to Section 251(1)(b) of the Companies Act 2016

I, Raja Azlan Shah bin Raja Azwa, being the officer primarily responsible for the financial management of MISC Berhad, do solemnly and sincerely declare that the accompanying financial statements set out on pages 9 to 180 are in my opinion correct, and I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Statutory Declarations Act, 1960.

Subscribed and solemnly declared by the abovenamed Raja Azlan Shah bin Raja Azwa, at Kuala Lumpur in Wilayah Persekutuan on 21 February 2022.

Raja Azlan Shah bin Raja Azwa

Before me,

PESURUHJAYA SUMPAH
No W533
Nama: YM TENGKU FARIDDUDIN BIN TENGKU SULAIMAN
1 JAN 2022 - 28 FEB 2022
MALAYSIA

205, Bangunan Loke Yew
4, Jln Mahkamah Persekutuan
50050 Kuala Lumpur (W.P.)

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MISC Berhad
(Incorporated in Malaysia)

Income statements
For the year ended 31 December 2021

	Note	Group 2021 RM'000	Group 2020 RM'000	Corporation 2021 RM'000	Corporation 2020 RM'000
Revenue	3	10,671,707	9,401,234	1,000,106	1,013,630
Cost of sales		(8,054,217)	(6,521,409)	(627,059)	(623,392)
Gross profit		2,617,490	2,879,825	373,047	390,238
Other operating income	4	369,415	141,681	1,632,254	1,668,786
Impairment provisions	5(a)	(111,910)	(331,376)	(57,961)	(37,071)
Gain on disposal of ships		31,570	25,135	-	-
(Loss)/gain from deconsolidation of a subsidiary	8	(2,241)	-	25,025	-
Gain on disposal of interest in joint ventures	19	25,126	-	-	-
Write off of trade receivables and loss on re-measurement of finance lease receivables	9	-	(846,229)	-	-
Provision for litigation claims	9	-	(1,049,248)	-	-
Finance income	10(a)	48,250	112,612	65,970	121,459
General and administrative expenses		(1,086,833)	(1,116,923)	(241,290)	(194,038)
Finance costs	10(b)	(417,343)	(368,084)	(26,156)	(30,824)
Share of profit of joint ventures		297,432	428,782	-	-
Share of profit of associates		3,666	241	-	-
Profit/(loss) before taxation	5	**1,774,622**	**(123,584)**	**1,770,889**	**1,918,550**
Taxation	11	(41,075)	(46,247)	(1,633)	(6,214)
Profit/(loss) after taxation		**1,733,547**	**(169,831)**	**1,769,256**	**1,912,336**
Attributable to:					
Equity holders of the Corporation		1,831,264	(43,067)	1,769,256	1,912,336
Non-controlling interests		(97,717)	(126,764)	-	-
		1,733,547	(169,831)	1,769,256	1,912,336
Earnings/(loss) per share attributable to equity holders of the Corporation (sen)					
Basic	12	41.0	(1.0)		
Diluted	12	41.0	(1.0)		

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

Registration No. 196801000580 (8178-H)

MISC Berhad
(Incorporated in Malaysia)

Statements of comprehensive income
For the year ended 31 December 2021

	Group		Corporation	
	2021	**2020**	**2021**	**2020**
	RM'000	**RM'000**	**RM'000**	**RM'000**
Profit/(loss) after taxation	1,733,547	(169,831)	1,769,256	1,912,336
Other comprehensive income/(loss):				
Items that may be reclassified subsequently to profit or loss				
Gain/(loss) on currency translation	1,116,955	(505,591)	866,314	(431,683)
Cash flow hedges:				
Fair value gain/(loss)				
Group	439,198	(392,460)	-	-
Joint ventures	14,169	(58,682)	-	-
Total other comprehensive income/ (loss) for the year	**1,570,322**	**(956,733)**	**866,314**	**(431,683)**
Total comprehensive income/(loss) for the year	**3,303,869**	**(1,126,564)**	**2,635,570**	**1,480,653**
Total comprehensive income/(loss) attributable to:				
Equity holders of the Corporation	3,379,867	(981,313)	2,635,570	1,480,653
Non-controlling interests	(75,998)	(145,251)	-	-
	3,303,869	**(1,126,564)**	**2,635,570**	**1,480,653**

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

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MISC Berhad
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Statements of financial position as at 31 December 2021

	Note	Group 2021 RM'000	Group 2020 RM'000
Non-current assets			
Ships	14	21,496,331	21,088,363
Offshore floating assets	14	25,457	51,308
Other property, plant and equipment	14	1,889,932	2,169,477
Prepaid lease payments on land and buildings	15	205,525	212,534
Intangible assets	16	1,060,915	819,222
Investments in associates	18	21,042	696
Investments in joint ventures	19	1,047,478	873,061
Other non-current assets	20(a)	3,289,195	389,502
Finance lease receivables	20(d)	15,439,517	13,754,515
Deferred tax assets	29	101,917	104,433
Derivative assets	20(b)	103,039	-
		44,680,348	39,463,111
Current assets			
Inventories	21	120,126	91,349
Trade and other receivables	22	4,754,344	5,406,710
Cash, deposits and bank balances	24	7,952,347	6,855,005
		12,826,817	12,353,064
Non-current assets classified as held for sale	25	14,312	4,834
		12,841,129	12,357,898
Current liabilities			
Trade and other payables	26	4,041,764	3,509,253
Derivative liabilities	20(b)	56,932	11,671
Interest-bearing loans and borrowings	20(c)	8,309,336	2,005,523
Provision for taxation		19,867	23,273
		12,427,899	5,549,720
Net current assets		413,230	6,808,178
		45,093,578	46,271,289

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

Registration No. 196801000580 (8178-H)

MISC Berhad
(Incorporated in Malaysia)

Statements of financial position as at 31 December 2021 (cont'd.)

	Note	Group 2021 RM'000	Group 2020 RM'000
Equity			
Equity attributable to equity holders of the Corporation			
Share capital	27	8,923,262	8,923,262
Treasury shares	27	(271)	(271)
Other reserves	28	6,653,643	5,122,005
Retained profits		18,586,077	18,227,848
		34,162,711	32,272,844
Non-controlling interests		762,221	878,275
		34,924,932	33,151,119
Non-current liabilities			
Interest-bearing loans and borrowings	20(c)	8,719,680	11,434,863
Deferred tax liabilities	29	6,833	7,821
Derivative liabilities	20(b)	161,186	527,026
Deferred income	30	1,104,973	1,150,460
Other non-current liabilities	26(c)	175,974	-
		10,168,646	13,120,170
		45,093,578	46,271,289

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

MISC Berhad
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Statements of financial position as at 31 December 2021

	Note	Corporation 2021 RM'000	Corporation 2020 RM'000
Non-current assets			
Ships	14	3,843,309	4,022,953
Other property and equipment	14	141,444	154,873
Prepaid lease payments on land and buildings	15	3,543	3,516
Investments in subsidiaries	17	16,982,277	14,981,888
Investments in associates	18	1,345	124
Investments in joint ventures	19	198,936	191,998
Other non-current assets	20(a)	687,661	720,754
Finance lease receivables	20(d)	870,035	919,746
		22,728,550	20,995,852
Current assets			
Inventories	21	2,153	-
Trade and other receivables	22	978,606	3,560,532
Cash, deposits and bank balances	24	2,831,994	1,620,947
		3,812,753	5,181,479
Current liabilities			
Trade and other payables	26	776,079	1,023,738
Interest-bearing loans and borrowings	20(c)	79,220	583,678
		855,299	1,607,416
Net current assets		2,957,454	3,574,063
		25,686,004	24,569,915
Equity			
Equity attributable to equity holders of the Corporation			
Share capital	27	8,923,262	8,923,262
Treasury shares	27	(271)	(271)
Other reserves		4,267,109	3,400,795
Retained profits		11,901,291	11,605,070
		25,091,391	23,928,856
Non-current liabilities			
Interest-bearing loans and borrowings	20(c)	583,969	641,059
Other non-current liabilities	26(c)	10,644	-
		594,613	641,059
		25,686,004	24,569,915

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

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MISC Berhad
(Incorporated in Malaysia)

Consolidated statements of changes in equity
For the year ended 31 December 2021

Group	Note	Total equity RM'000	Equity attributable to equity holders of the Corporation RM'000	Share capital* RM'000	Treasury shares RM'000	Retained profits RM'000	Other reserves, total RM'000	Other capital reserve RM'000	Capital reserve RM'000	Revaluation reserve RM'000	Put option reserve RM'000	Statutory reserve RM'000	Hedging reserve RM'000	Currency translation reserve RM'000	Non-controlling interests RM'000
			← Attributable to equity holders of the Corporation											→	
			← Non-Distributable		→	Distributable	← Non-Distributable							→	
2021															
At 1 January 2021		33,151,119	32,272,844	8,923,262	(271)	18,227,848	5,122,005	99,299	435,199	1,357	-	3,161	(577,475)	5,160,464	878,275
Total comprehensive income		3,303,869	3,379,867	-	-	1,831,264	1,548,603	-	-	-	-	-	441,116	1,107,487	(75,998)
Transactions with equity holders															
Liquidation of a joint venture		(557)	(557)	-	-	-	(557)	-	-	-	-	(208)	-	(349)	-
Disposal of interest in joint ventures		(5,836)	(5,836)	-	-	-	(5,836)	-	-	-	-	-	-	(5,836)	-
Dividends	13	(1,473,035)	(1,473,035)	-	-	(1,473,035)	-	-	-	-	-	-	-	-	-
Dividends paid to non-controlling interest		(24,500)	-	-	-	-	-	-	-	-	-	-	-	-	(24,500)
Deconsolidation of a subsidiary		(36,807)	-	-	-	-	-	-	-	-	-	-	-	-	(36,807)
Dilution of interest in subsidiaries		10,679	(10,572)	-	-	-	(10,572)	-	-	-	(10,572)	-	-	-	21,251
Total transactions with equity holders		(1,530,056)	(1,490,000)	-	-	(1,473,035)	(16,965)	-	-	-	(10,572)	(208)	-	(6,185)	(40,056)
At 31 December 2021		34,924,932	34,162,711	8,923,262	(271)	18,586,077	6,653,643	99,299	435,199	1,357	(10,572)	2,953	(136,359)	6,261,766	762,221
2020															
At 1 January 2020		35,753,718	34,727,192	8,923,262	(271)	19,743,950	6,060,251	99,299	435,199	1,357	-	3,161	(159,929)	5,681,164	1,026,526
Total comprehensive loss		(1,126,564)	(981,313)	-	-	(43,067)	(938,246)	-	-	-	-	-	(417,546)	(520,700)	(145,251)
Transactions with equity holders															
Dividends	13	(1,473,035)	(1,473,035)	-	-	(1,473,035)	-	-	-	-	-	-	-	-	-
Dividends paid to non-controlling interest		(3,000)	-	-	-	-	-	-	-	-	-	-	-	-	(3,000)
Total transactions with equity holders		(1,476,035)	(1,473,035)	-	-	(1,473,035)	-	-	-	-	-	-	-	-	(3,000)
At 31 December 2020		33,151,119	32,272,844	8,923,262	(271)	18,227,848	5,122,005	99,299	435,199	1,357	-	3,161	(577,475)	5,160,464	878,275

* Included in share capital is one special preference share of RM1.

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

Registration No. 196801000580 (8178-H)

MISC Berhad
(Incorporated in Malaysia)

Statements of changes in equity
For the year ended 31 December 2021

Corporation	Note	Total equity RM'000	← Non-Distributable Share capital* RM'000	Treasury shares RM'000 →	Distributable Retained profits RM'000	← Non-Distributable Other reserves, total RM'000	Currency translation reserve RM'000 →
2021							
At 1 January 2021		23,928,856	8,923,262	(271)	11,605,070	3,400,795	3,400,795
Total comprehensive income		2,635,570	-	-	1,769,256	866,314	866,314
Transactions with equity holders							
Dividends	13	(1,473,035)	-	-	(1,473,035)	-	-
At 31 December 2021		25,091,391	8,923,262	(271)	11,901,291	4,267,109	4,267,109
2020							
At 1 January 2020		23,921,238	8,923,262	(271)	11,165,769	3,832,478	3,832,478
Total comprehensive income		1,480,653	-	-	1,912,336	(431,683)	(431,683)
Transactions with equity holders							
Dividends	13	(1,473,035)	-	-	(1,473,035)	-	-
At 31 December 2020		23,928,856	8,923,262	(271)	11,605,070	3,400,795	3,400,795

* Included in share capital is one special preference share of RM1.

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

Registration No. 196801000580 (8178-H)

MISC Berhad
(Incorporated in Malaysia)

Statements of cash flows
For the year ended 31 December 2021

	Group 2021 RM'000	Group 2020 RM'000
CASH FLOWS FROM OPERATING ACTIVITIES		
Profit/(loss) before taxation	1,774,622	(123,584)
Adjustments for:		
Writeback of impairment loss on:		
- Trade and other receivables	(1,195)	-
- Finance lease receivables	(2,929)	(8,878)
Impairment loss on:		
- Trade and other receivables	65,336	34,563
- Other non-current assets	4,369	-
Bad debts written off	203	6,120
Ships, offshore floating assets, other property, plant and equipment and right-of-use assets:		
- Depreciation	1,949,088	2,090,970
- Written off	8,295	23,639
- Impairment loss	111,910	331,376
Amortisation of prepaid lease payments	7,135	7,359
Amortisation of upfront fees for borrowings	27,010	21,531
Amortisation of intangible assets	22,603	5,884
Gain on disposal of ships	(31,570)	(25,135)
Net unrealised foreign exchange gain	(15,543)	(4,905)
Changes in fair value of hedging derivatives	1,300	3,235
Dividend income from equity investments	(1,926)	(1,087)
Write off of trade receivables and loss on re-measurement of finance lease receivables	-	846,229
Provision for litigation claims	-	1,049,248
Loss from deconsolidation of a subsidiary	2,241	-
Gain on disposal of interest in joint ventures	(25,126)	-
Fair value movement in other investments	(10,399)	6,953
Finance income	(48,250)	(112,612)
Interest expense	390,333	346,553
Share of profit of joint ventures	(297,432)	(428,782)
Share of profit of associates	(3,666)	(241)
Operating profit before working capital changes	3,926,409	4,068,436
Inventories	(25,512)	74,712
Trade and other receivables	(531,415)	399,611
Trade, other payables and other non-current liabilities*	(330,616)	487,027
Deferred income	(86,299)	619,447
Cash generated from operations	2,952,567	5,649,233
Net tax paid	(43,968)	(61,328)
Net cash generated from operating activities	2,908,599	5,587,905

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

MISC Berhad
(Incorporated in Malaysia)

Statements of cash flows (cont'd.)
For the year ended 31 December 2021

	Note	Group 2021 RM'000	Group 2020 RM'000
CASH FLOWS FROM INVESTING ACTIVITIES			
Net cash used in investing activities	31	(3,135,243)	(4,318,022)
CASH FLOWS FROM FINANCING ACTIVITIES			
Net cash generated from/(used in) financing activities	32	1,498,992	(1,388,707)
Net increase/(decrease) in cash and cash equivalents		1,272,348	(118,824)
Cash and cash equivalents at beginning of financial year		5,545,089	5,740,435
Currency translation differences		176,864	(76,522)
Cash and cash equivalents at end of financial year		6,994,301	5,545,089
Cash and cash equivalents comprise:			
Cash, deposits and bank balances	24	7,952,347	6,855,005
Less: Cash pledged with bank (restricted)		(940,954)	(1,303,393)
Deposits with maturity more than 90 days		(17,092)	(6,523)
Cash and cash equivalents		6,994,301	5,545,089

	2021 RM'000	2020 RM'000
Total cash outflows for leases		
- Lease liabilities	188,327	316,302
- Short term leases and leases of low value assets	237,268	219,628
	425,595	535,930

* The working capital changes in trade, other payables and other non-current liabilities include payments for costs relating to the turnkey activities for the conversion of a vessel to a Floating, Production, Storage and Offloading ("FPSO") facility amounting to RM1,126,075,000 in the financial year ended 31 December 2021. These payments are disclosed as part of cash flows from operating activities as the turnkey activities contribute to the recognition of contract assets per MFRS 15: Revenue from Contract with Customers.

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

MISC Berhad
(Incorporated in Malaysia)

Statements of cash flows
For the year ended 31 December 2021

	Corporation 2021 RM'000	2020 RM'000
CASH FLOWS FROM OPERATING ACTIVITIES		
Profit before taxation	1,770,889	1,918,550
Adjustments for:		
Ships, other property and equipment and right-of-use assets:		
- Depreciation	372,373	366,673
- Written off	415	95
- Impairment loss	52,774	10,444
Amortisation of prepaid lease payments	99	100
Writeback of impairment loss on:		
- Trade and other receivables	(2,507)	(136)
- Finance lease receivables	(1,222)	(814)
Impairment loss on trade and other receivables	52,679	13,915
Impairment loss on investment in subsidiaries	5,187	26,627
Net unrealised foreign exchange gain	(15,009)	(4,748)
Dividend income from:		
- Subsidiaries	(1,322,063)	(1,382,324)
- Joint ventures	(219,239)	(221,371)
- Equity investments	(1,926)	(1,087)
Gain on disposal of interest in a subsidiary	(25,025)	-
Fair value movement in other investments	(10,399)	6,953
Finance income	(65,970)	(121,459)
Finance costs	26,156	30,824
Operating profit before working capital changes	617,212	642,242
Inventories	(2,139)	-
Trade and other receivables	120,613	(1,844,293)
Trade and other payables	(284,703)	39,495
Cash generated from/(used in) operations	450,983	(1,162,556)
Net tax paid	(1,633)	(6,214)
Net cash generated from/(used in) operating activities	449,350	(1,168,770)

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

Registration No. 196801000580 (8178-H)

MISC Berhad
(Incorporated in Malaysia)

Statements of cash flows (cont'd.)
For the year ended 31 December 2021

	Note	Corporation 2021 RM'000	Corporation 2020 RM'000
CASH FLOWS FROM INVESTING ACTIVITIES			
Net cash generated from investing activities	31	2,787,979	1,889,820
CASH FLOWS FROM FINANCING ACTIVITIES			
Net cash used in financing activities	32	(2,092,566)	(1,917,700)
Net increase/(decrease) in cash and cash equivalents		1,144,763	(1,196,650)
Cash and cash equivalents at beginning of financial year		1,620,947	2,817,049
Currency translation differences		66,284	548
Cash and cash equivalents at end of financial year		2,831,994	1,620,947
Cash and cash equivalents comprise:			
Cash, deposits and bank balances	24	2,831,994	1,620,947

	2021 RM'000	2020 RM'000
Total cash outflows for leases		
- Lease liabilities	13,928	13,896
- Short term leases and leases of low-value assets	8,072	5,632
	22,000	19,528

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

1. Corporate information

The Corporation is a public limited liability company, incorporated and domiciled in Malaysia, and is listed on the Main Market of Bursa Malaysia Securities Berhad ("Bursa Malaysia"). The registered office of the Corporation is located at Level 25, Menara Dayabumi, Jalan Sultan Hishamuddin, 50050 Kuala Lumpur.

The immediate and ultimate holding company of the Corporation is PETRONAS, a company incorporated and domiciled in Malaysia.

The principal activities of the Corporation consist of ship owning, ship operating and other activities related to shipping services and operating offshore floating terminals.

The principal activities of the subsidiaries, associates and joint arrangements are described in Notes 40, 41 and 42 respectively.

There have been no significant changes in the nature of the principal activities during the financial year.

The financial statements were authorised for issue by the Board of Directors in accordance with a resolution of the directors on 21 February 2022.

2. SIGNIFICANT ACCOUNTING POLICIES

2.1 Basis of preparation

The financial statements of the Group and of the Corporation comply with Malaysian Financial Reporting Standards ("MFRS"), International Financial Reporting Standards ("IFRS") and the requirements of the Companies Act 2016 in Malaysia.

The financial statements of the Group and of the Corporation have been prepared on a historical cost basis unless otherwise indicated in the accounting policies below.

The functional currency of the Corporation is United States Dollar (“USD”). The individual financial statements of each entity in the Group are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The Group's and the Corporation's financial statements are presented in Ringgit Malaysia ("RM").

2. Significant accounting policies (cont'd.)

2.2 Changes in accounting policies and effects arising from the adoption of new and revised MFRSs

During the financial year, the Group and the Corporation adopted the following pronouncements that have been issued by the Malaysian Accounting Standards Board ("MASB") and are applicable as listed below:

Effective for annual periods beginning on or after 1 January 2021

- Amendments to MFRS 4: Insurance Contract (Interest Rate Benchmark Reform - Phase 2)
- Amendments to MFRS 7: Financial Instruments: Disclosures (Interest Rate Benchmark Reform - Phase 2)
- Amendments to MFRS 9: Financial Instruments (Interest Rate Benchmark Reform - Phase 2)
- Amendments to MFRS 139: Financial Instruments: Recognition and Measurement (Interest Rate Benchmark Reform - Phase 2)
- Amendments to MFRS 16: Leases (Interest Rate Benchmark Reform - Phase 2)

Effective for annual periods beginning on or after 1 April 2021

- Amendments to MFRS 16: Leases (COVID-19 Related Rent Concessions beyond 30 June 2021)

The adoption of the above pronouncements did not have any significant financial impact to the Group and the Corporation other than as set out below:

(i) Amendments to MFRS 7: Financial Instruments: Disclosures, Amendments to MFRS 9: Financial Instruments, Amendments to MFRS 139: Financial Instruments: Recognition and Measurement and Amendments to MFRS 16: Leases (Interest Rate Benchmark Reform - Phase 2)

At 31 December 2021, the Group has interest rate swap arrangements to hedge its USD London Interbank Offered Rate (“LIBOR”) risk. The Group expects that indexation of the hedged items and hedging instruments to USD LIBOR will be replaced with a risk free rate. Whenever the replacement occurs, the Group expects to apply the amendments related to hedge accounting. However, there is uncertainty about when and how replacement may occur. When the change occurs to the hedged item or the hedging instrument, the Group will remeasure the cumulative change in fair value of the hedged item or the fair value of the interest rate swap, respectively based on the risk free rate. Hedging relationships may experience hedge ineffectiveness if there is a timing or other mismatch between the transition of the hedge item and that of the hedging instrument to the risk free rate.

2. Significant accounting policies (cont'd.)

2.2 Changes in accounting policies and effects arising from the adoption of new and revised MFRSs (cont'd.)

(i) Amendments to MFRS 7: Financial Instruments: Disclosures, Amendments to MFRS 9: Financial Instruments, Amendments to MFRS 139: Financial Instruments: Recognition and Measurement and Amendments to MFRS 16: Leases (Interest Rate Benchmark Reform - Phase 2) (cont'd.)

Under the Amendments to MFRS 7, MFRS 9, MFRS 139 and MFRS 16: (Interest Rate Benchmark Reform – Phase 2), entities will account for these changes by updating the effective interest rate without the recognition of an immediate gain or loss in the income statement. This applies only to such a change and only to the extent that it is necessary as a direct consequence of interest rate benchmark reform, and the new basis is economically equivalent to the previous basis.

The Group will apply these amendments in future periods as and when they become applicable. As of 31 December 2021, the Group and the Corporation have had no transactions for which the benchmark rate had been replaced with an alternative benchmark rate.

2.3 Summary of significant accounting policies

The accounting policies set out below have been applied consistently to the periods presented in these financial statements by the Group and the Corporation, unless otherwise stated.

(a) Subsidiaries and basis of consolidation

(i) Subsidiaries

Subsidiaries are entities including structured entities controlled by the Corporation. The Corporation controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Potential voting rights are considered when assessing control only when such rights are substantive.

The Corporation considers it has de facto power over an investee when, despite not having the majority of voting rights, it has the current ability to direct the activities of the investee that significantly affect the investee's return.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(a) Subsidiaries and basis of consolidation (cont'd.)

(i) Subsidiaries (cont'd.)

In the Corporation's separate financial statements, investments in subsidiaries are measured at cost less impairment losses, unless the investment is classified as held for sale or distribution. On disposal of such investments, the difference between net disposal proceeds and their carrying amounts is included in the income statement.

(ii) Basis of consolidation

The consolidated financial statements comprise the financial statements of the Corporation and its subsidiaries as at the reporting date. The financial statements of the subsidiaries are prepared for the same reporting date as the Corporation. Subsidiaries are consolidated from the date of acquisition, being the date which the Corporation obtains control and continue to be consolidated until the date that such control ceases.

All intercompany transactions are eliminated on consolidation and hence, revenue and profits relate to external transactions only. Unrealised losses resulting from intercompany transactions are also eliminated, except for instances where cost cannot be recovered.

A business combination is a transaction or other event in which an acquirer obtains control of one or more businesses. Business combinations are accounted for using the acquisition method from the acquisition date, which is the date on which control is transferred to the Group and the Corporation. The identifiable assets acquired and liabilities assumed are measured at their fair values at the acquisition date. The cost of an acquisition is measured as the aggregate of the fair value of the consideration transferred and the amount of any non-controlling interests in the acquiree. Non-controlling interests are stated either at fair value or at the proportionate share of the acquiree’s identifiable net assets at the acquisition date.

When a business combination is achieved in stages, the Group and the Corporation remeasure their previously held non-controlling equity interest in the acquiree at fair value at the acquisition date, with any resulting gain or loss recognised in the income statement. Increase in the Group’s and the Corporation's ownership interest in an existing subsidiary is accounted for as equity transactions, with differences between the fair value of consideration paid and the Group’s and the Corporation's proportionate share of net assets acquired, recognised directly in equity.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(a) Subsidiaries and basis of consolidation (cont'd.)

(ii) Basis of consolidation (cont'd.)

Transaction costs, other than those associated with the issuance of debt or equity securities, that the Group and the Corporation incur in connection with a business combination are expensed as incurred.

Non-controlling interests

Non-controlling interests at the end of the reporting period, being the portion of the net assets of subsidiaries attributable to equity interests that are not owned by the Corporation, whether directly or indirectly through subsidiaries, are presented in the consolidated statement of financial position and statement of changes in equity within equity, separately from equity attributable to the shareholders of the Corporation. Non-controlling interests in the results of the Group are presented in the consolidated income statement and comprehensive income as an allocation of the income statement and other comprehensive income for the year between the non-controlling interests and shareholders of the Corporation.

Losses applicable to the non-controlling interests in a subsidiary are allocated to the non-controlling interests, even if doing so causes the non-controlling interests to have a deficit balance.

The Group treats all changes in its ownership interest in a subsidiary that do not result in a loss of control as equity transactions between the Group and its non-controlling interest holders. Any difference between the Group’s share of net assets before and after the change, and any consideration received or paid, is recognised directly in equity as transactions with shareholders.

Loss of Control

Upon the loss of control of a subsidiary, the Group and the Corporation derecognise the assets and liabilities of the former subsidiary, any non-controlling interests and the other components of equity related to the former subsidiary from the consolidated statement of financial position. Any surplus or deficit arising on the loss of control is recognised in the income statement. If the Group and the Corporation retain any interest in the previous subsidiary, then such interest is measured at fair value at the date that control is lost. Subsequently, it is accounted for as an equity-accounted investee or as a fair value through other comprehensive income ("FVOCI") financial assets depending on the level of influence retained.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(b) Associates

Associates are entities in which the Group and the Corporation have significant influence including representation on the Board of Directors, but not control or joint control, over the financial and operating policies of the investee company.

Investments in associates are accounted for in the consolidated financial statements using the equity method less any impairment losses, unless it is classified as held for sale or distribution. Under the equity method, the investment in associate is carried in the consolidated statement of financial position at cost, adjusted for post-acquisition changes in the Group's share of net assets of the associate. The Group's share of the net profit or loss of the associate is recognised in the consolidated income statements. Where there has been a change recognised directly in the equity of the associate, the Group recognises its shares of such changes. In applying the equity method, unrealised gains and losses on transactions between the Group and the associate are eliminated to the extent of the Group's interest in the associate. After the application of the equity method, the Group determines whether it is necessary to recognise any additional impairment loss with respect to the Group's net investment in the associate. The associate is equity accounted for from the date the Group and the Corporation obtain significant influence until the date the Group and the Corporation cease to have significant influence over the associate.

Goodwill relating to an associate is included in the carrying amount of the investment and is not amortised. Any excess of the Group's share of the associate's net fair value of identifiable assets, liabilities and contingent liabilities over the cost of the investment is excluded from the carrying amount of the investment and is instead included as income in the determination of the Group's share of the associate's profit or loss in the period in which the investment is acquired.

When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any long-term interests that in substance form part of the Group's net investment in the associate, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

The most recent available audited financial statements of the associates are used by the Group in applying the equity method. Where the dates of the audited financial statements used are not coterminous with those of the Group, the share of results is arrived at from the last audited financial statements available and management financial statements to the end of the financial year. Uniform accounting policies are adopted for like transactions and events in similar circumstances.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(b) Associates (cont'd.)

When the Group and the Corporation cease to have significant influence over an associate, it is accounted for as a disposal of the entire interest in that associate, with a resulting gain or loss being recognised in the income statement. Any retained interest in the former associate at the date when significant influence is lost is remeasured at fair value, and this amount is regarded as the initial carrying amount of a financial asset.

When the Group's and the Corporation's interest in an associate decrease but does not result in a loss of significant influence, any retained interest is not remeasured. Any gain or loss arising from the decrease in interest is recognised in the income statement. Any gains or losses previously recognised in other comprehensive income are also reclassified proportionately to the income statement.

In the Corporation's separate financial statements, investments in associates are stated at cost less impairment losses. On disposal of such investments, the difference between net disposal proceeds and their carrying amounts is included in the income statement.

(c) Joint arrangements

Joint arrangements are arrangements in which the Group and the Corporation have joint control, established by contracts requiring unanimous consent for decisions about the activities that significantly affect the arrangements' returns.

Joint arrangements are classified as either joint operations or joint ventures. A joint arrangement is classified as a joint operation when the Group or the Corporation has rights to the assets and obligations for the liabilities relating to an arrangement. A joint arrangement is classified as a joint venture when the Group or the Corporation has rights only to the net assets of the arrangement.

Investment in a joint venture is accounted for in the consolidated financial statements using the equity method of accounting. Under the equity method, the investment in joint venture is carried in the consolidated statement of financial position at cost adjusted for post-acquisition changes in the Group's share of net assets of the joint venture. The Group's share of the net profit or loss of the joint venture is recognised in the income statement. Where there has been a change recognised directly in the equity of the joint venture, the Group recognises its share of such changes.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(c) Joint arrangements (cont'd.)

(i) Joint ventures

In applying the equity method, unrealised gains and losses on transactions between the Group and the joint venture are eliminated to the extent of the Group’s interest in the joint venture. After application of the equity method, the Group determines whether it is necessary to recognise any additional impairment loss with respect to the Group’s net investment in the joint venture. The Group determines at each reporting date whether there is any objective evidence that the investment in the joint venture is impaired. If this is the case, the Group calculates the amount of impairment as the difference between the recoverable amount of the joint venture and its carrying value and recognises the amount in the income statement. The joint venture is equity accounted for from the date the Group and the Corporation obtain joint control until the date the Group and the Corporation cease to have joint control over the joint venture.

Goodwill relating to a joint venture is included in the carrying amount of the investment and is not amortised. Any excess of the Group’s share of the net fair value of the joint venture's identifiable assets, liabilities and contingent liabilities over the cost of the investment is excluded from the carrying amount of the investment and is instead included as income in the determination of the Group’s share of the joint venture's profit or loss in the year in which the investment is acquired.

When the Group’s share of losses in a joint venture equals or exceeds its interest in the joint venture, including any long-term interests that, in substance, form part of the Group’s net investment in the joint venture, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the joint venture.

The most recent available audited financial statements of the joint ventures are used by the Group in applying the equity method. Where the dates of the audited financial statements used are not coterminous with those of the Group, the share of results is arrived at from the last audited financial statements available and management financial statements to the end of the accounting year. Uniform accounting policies are adopted for like transactions and events in similar circumstances.

In the Corporation's separate financial statements, investments in joint ventures are stated at cost less impairment losses. On disposal of such investments, the difference between net disposal proceeds and their carrying amounts is included in the income statement.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(c) Joint arrangements (cont'd.)

(ii) Joint operations

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets and obligations for the liabilities relating to the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

The Group as a joint operator recognises in relation to its interest in a joint operation:

(i) its assets, including its share of any assets held jointly;
(ii) its liabilities, including its share of any liabilities incurred jointly;
(iii) its revenue from the sale of its share of the output arising from the joint operation;
(iv) its share of the revenue from the sale of the output by the joint operation; and
(v) its expenses, including its share of any expenses incurred jointly.

The Group accounts for the assets, liabilities, revenues and expenses relating to its interest in a joint operation in accordance with the MFRSs applicable to the particular assets, liabilities, revenues and expenses.

Profits and losses resulting from transactions between the Group and its joint operation are recognised in the Group’s financial statements only to the extent of unrelated investors’ interests in the joint operation.

(d) Intangible assets

(i) Goodwill

Goodwill acquired in a business combination is initially measured at cost, being the excess of the cost of the business combination over the Group's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities. Following the initial recognition, goodwill is measured at cost less any accumulated impairment losses. Goodwill is not amortised but is instead reviewed for impairment, annually or more frequently, if events or changes in circumstances indicate that the carrying value may be impaired. Gains or losses on the disposal of an entity include the carrying amount of goodwill related to the entity sold.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(d) Intangible assets (cont'd.)

(ii) Other intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is their fair values at the date of acquisition. Following initial recognition, intangible assets are carried at cost less any accumulated amortisation and any accumulated impairment losses. Internally generated intangible assets, excluding capitalised development costs, are not capitalised and expenditure is reflected in the income statement in the year in which the expenditure is incurred. The useful lives of intangible assets are assessed to be either finite or indefinite.

Intangible assets with finite lives are amortised on a straight-line basis over their estimated economic useful lives and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method for an intangible asset with a finite useful life are reviewed at each reporting date. Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset is accounted for by changing the amortisation period or method, as appropriate, and are treated as changes in accounting estimates.

Intangible assets with indefinite useful lives are not amortised but tested for impairment, annually or more frequently, if the events or changes in circumstances indicate that the carrying value may be impaired either individually or at the cash-generating-unit level. The useful life of an intangible asset with an indefinite life is also reviewed annually to determine whether the useful life assessment continues to be supportable.

(e) Ships, offshore floating assets, other property, plant and equipment and depreciation

All ships, offshore floating assets and other property, plant and equipment are initially recorded at cost. Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the Corporation and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognised. All other repairs and maintenance are charged to the income statement during the financial period in which they are incurred.

Subsequent to initial recognition, ships, offshore floating assets and other property, plant and equipment are stated at cost less accumulated depreciation and any accumulated impairment losses.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(e) Ships, offshore floating assets, other property, plant and equipment and depreciation (cont'd.)

Freehold land has an unlimited useful life and therefore is not depreciated. Ships and offshore floating assets under construction and projects in progress are also not depreciated as these assets are not available for use.

Depreciation of ships and offshore floating assets commences from the date of delivery of such assets. Depreciation of ships and offshore floating assets in operation and other property, plant and equipment is provided for on a straight-line basis to depreciate the cost of each asset to its residual value over the estimated useful life at the following annual rates:

Ships	3.3% - 5.0%
Offshore floating assets	8.3% - 9.1%
Buildings	2.0% - 7.0%
Drydocks and waste plant	2.0% - 10.0%
Motor vehicles	10.0% - 33.3%
Furniture, fittings and equipment	10.0% - 33.3%
Computer software and hardware	15.0% - 33.3%
Plant and machineries	6.7% - 20.0%

Drydocking expenditure is capitalised and depreciated over a period of 30 months or the period until the next drydocking date, whichever is shorter.

The right-of-use asset is depreciated using the straight-line method from the lease commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term.

The residual values, useful lives and depreciation method are reviewed at each financial period end to ensure that the amount, method and period of depreciation are consistent with previous estimates and the expected pattern of consumption of the future economic benefits embodied in the ships, offshore floating assets, and other property, plant and equipment.

Ships, offshore floating assets, and other property, plant and equipment are derecognised upon disposal, or when no future economic benefits are expected from their use or disposal. The difference between the net disposal proceeds, if any, and the net carrying amount is recognised in the income statement.

(f) Impairment of non-financial assets

The carrying amounts of non-financial assets, other than deferred tax assets, inventories and non-current assets classified as held for sale, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the asset's recoverable amount is estimated to determine the amount of impairment loss, if any.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(f) Impairment of non-financial assets (cont'd.)

For goodwill, the recoverable amount is estimated at each reporting date, or more frequently when indicators of impairment are identified.

For the purpose of impairment testing of these assets, recoverable amount is usually determined on an individual asset basis. If an asset does not generate cash flows that are largely independent of those from other assets, recoverable amount is determined for the cash-generating-unit ("CGU") to which the asset belongs. Goodwill acquired in a business combination is allocated to each of the Group's CGUs, or groups of CGUs, that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the Group are assigned to those units or groups of units from the acquisition date.

An asset's recoverable amount is the higher of the asset or CGU's fair value less costs of disposal and its value-in-use. In assessing value-in-use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Where the carrying amount of an asset exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount. Impairment losses recognised in respect of a CGU or groups of CGUs are firstly allocated to reduce the carrying amount of any associated goodwill to those units or groups of units. Any excess losses thereof, will result in a reduction to the carrying amount of the other assets in the unit or groups of units on a pro-rata basis.

An impairment loss is recognised in the income statement in the period in which it arises.

Impairment loss on goodwill is not reversed in a subsequent period. An impairment loss for an asset, other than goodwill, is reversed if, and only if, there has been a change in the estimates, used to determine the asset's recoverable amount, since the last impairment loss was recognised. The carrying amount of an asset, other than goodwill, is increased to its revised recoverable amount, provided that this amount does not exceed the asset's carrying amount had no impairment loss been recognised for the asset in prior years. A reversal of impairment loss for an asset, other than goodwill, is recognised in the income statement.

(g) Inventories

Inventories which comprise bunkers, lubricants and raw materials are held for own consumption and are stated at lower of cost and net realisable value. Cost is arrived at on the weighted average basis and comprises the purchase price and other direct charges. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs necessary to complete the sale.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(h) Financial assets

Initial recognition and measurement

Financial assets are classified and measured at amortised cost, FVOCI or fair value through profit or loss ("FVTPL"), as appropriate.

A financial instrument is recognised in the statement of financial position when, and only when, the Group and the Corporation becomes a party to the contractual provisions of the instrument.

With the exception of trade receivables that do not contain a significant financing component, the Group and the Corporation initially measure a financial asset at its fair value plus, in the case of a financial asset not at FVTPL, transaction costs. Trade receivables that do not contain a significant financing component is initially measured at the transaction price.

The Group and the Corporation determine the classification of financial assets at initial recognition and are not reclassified subsequent to their initial recognition unless the Group and the Corporation change their business model for managing financial assets in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

Amortised cost

Amortised cost category comprises financial assets that are held within a business model whose objective is to hold assets to collect contractual cash flows and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Fair value through other comprehensive income

This category comprises debt instruments where it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets, and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

FVOCI category also comprises investment in equity that is not held for trading (equity instruments), and the Group and the Corporation did not irrevocably elect to present subsequent changes in the investment's FVOCI. This election is made on an investment-by-investment basis.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(h) Financial assets (cont'd.)

Initial recognition and measurement (cont'd.)

Fair value through profit or loss

All financial assets not classified as measured at amortised cost or FVOCI as described above are measured at FVTPL. This includes derivative financial assets (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument as per Note 2.3(j) and Note 2.3(n)). On initial recognition, the Group and the Corporation may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortised cost or at FVOCI as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

Subsequent measurement

Amortised cost

Subsequent to initial recognition, financial assets at amortised costs are measured using the effective interest rate ("EIR") method and are subject to impairment. Gains and losses are recognised in income statement when the asset is derecognised, modified or impaired. Interest income and foreign exchange gains or losses are recognised in income statement.

The Group’s and the Corporation's financial assets at amortised cost include cash and bank balances, trade and other receivables, finance lease receivables and other non-current assets.

Fair value through other comprehensive income

Financial assets categorised as FVOCI are subsequently measured at fair value with unrealised gains and losses recognised directly in other comprehensive income and accumulated under FVOCI reserve in equity. For debt instruments, when the investment is derecognised or determined to be impaired, the cumulative gain or loss previously recorded in equity is reclassified to the income statement. For equity instruments, the gains or losses accumulated in other comprehensive income are never reclassified to income statement.

The Group's financial assets at FVOCI include derivative assets.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(h) Financial assets (cont'd.)

Subsequent measurement (cont'd.)

Fair value through profit or loss

Financial assets categorised as FVTPL are subsequently measured at their fair value with gains or losses recognised in the income statement.

The Group's and the Corporation's financial assets at FVTPL include quoted and unquoted equity investments.

All financial assets, except for those measured at FVTPL and equity investments measured at FVOCI, are subject to impairment as disclosed in Note 2.3(m).

Derecognition

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognised (i.e. removed from the Group's consolidated statement of financial position) when:

- the rights to receive cash flows from the asset have expired; or
- the Group and the Corporation have transferred their rights to receive cash flows from the asset or have assumed an obligation to pay the received cash flows in full without material delay to a third party under a "pass through" arrangement and either:

  (a) the Group and the Corporation have transferred substantially all the risks and rewards of the asset; or

  (b) the Group and the Corporation have neither transferred nor retained substantially all the risks and rewards of the asset, but have transferred control of the asset.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(h) Financial assets (cont'd.)

Derecognition (cont'd.)

When the Group and the Corporation have transferred their rights to receive cash flows from an asset or has entered into a "pass through" arrangement, they evaluate if, and to what extent, they have retained the risks and rewards of ownership. When they have neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Group and the Corporation continue to recognise the transferred asset to the extent of their continuing involvement. In that case, the Group and the Corporation also recognise an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group and the Corporation have retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group and the Corporation could be required to repay.

(i) Financial liabilities

Initial recognition and measurement

Financial liabilities are classified, at initial recognition as financial liabilities at FVTPL or amortised cost, as appropriate.

A financial liability is initially measured at fair value plus or minus, in the case of a financial instrument at amortised cost, any directly attributable transaction cost incurred at the acquisition or issuance of the financial instrument.

Subsequent measurement

Fair value through profit or loss

Financial liabilities categorised as FVTPL are subsequently measured at their fair value with gains or losses, including any interest expense are recognised in the income statement.

The Group’s financial liabilities at FVTPL include derivative liabilities and other non-current liabilities.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(i) Financial liabilities (cont'd.)

Subsequent measurement (cont'd.)

Amortised cost

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortised cost using the EIR method. Gains and losses are recognised in income statement when the liabilities are derecognised as well as through the EIR amortisation process.

Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortisation is included as finance costs in the income statement.

The Group’s and the Corporation's financial liabilities at amortised cost include trade and other payables and interest-bearing loans and borrowings.

Derecognition

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expired. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognised in the income statement.

(j) Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs when the guaranteed debtor fails to make payment when due.

Financial guarantee contracts are recognised initially as liabilities at fair value, net of transaction costs. Subsequent to initial recognition, financial guarantee contracts are recognised as income in profit or loss over the period of the guarantee. If the debtor fails to make payment relating to financial guarantee contract when it is due and the Group, as the issuer, is required to reimburse the holder for the associated loss, the liability is measured at the higher of:

- the best estimate of the expenditure required to settle the present obligation at the reporting date; and
- the amount initially recognised less cumulative amortisation.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(k) Effective interest rate method

Amortised cost was computed using the EIR method. This method used effective interest rate that exactly discounts estimated future cash receipts or payments through the expected life of the financial instrument to the net carrying amount of the financial instrument. Amortised cost takes into account any transaction costs and any discount or premium on settlement.

(l) Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount is reported in the consolidated statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the assets and settle the liabilities simultaneously.

(m) Impairment of financial assets

The Group and the Corporation recognise loss allowances for expected credit losses ("ECL") on financial assets measured at amortised cost and finance lease receivables.

The Group and the Corporation measure loss allowances on debt securities at an amount equal to lifetime ECL, except for debt securities that are determined to have low credit risk at the reporting date, other debt securities for which credit risk has not increased significantly since initial recognition and finance lease receivables, which are measured as 12 month ECL.

Loss allowances for trade receivables and contract assets (amount due from customers on contracts) are always measured at an amount equal to lifetime ECL.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECL, the Group and the Corporation consider reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Group’s and the Corporation's historical experience, informed credit assessment and forward-looking information.

The Group and the Corporation assume that the credit risk on a financial asset has increased significantly if it is past due.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(m) Impairment of financial assets (cont'd.)

The Group and the Corporation consider a financial asset to be in default when the borrower is unlikely to pay its credit obligations to the Group and the Corporation in full, without recourse by the Group and the Corporation to take actions such as realising security.

Lifetime ECL are the ECL that result from all possible default events over the expected life of a financial instrument, while 12 month ECL are the portion of ECL that result from default events that are possible within the 12 months after the reporting date.

ECL are measured as a function of probability of default and loss given default. Probability of default is the likelihood of default over a particular time horizon and is derived using external credit ratings, if they are available, or internal credit ratings based on quantitative or qualitative information for the counterparty. Loss given default is the assumption of the proportion of financial asset that cannot be recovered by conversion of collateral to cash or by legal process, and is assessed based on the Group's and the Corporation's historical experience.

An impairment loss in respect of financial assets measured at amortised cost is recognised in profit or loss and the carrying amount of the asset is reduced through the use of an allowance account.

An impairment loss in respect of debt investments measured at FVOCI is recognised in profit or loss and the allowance account is recognised in other comprehensive income.

Information about the exposure to credit risk and ECLs for financial assets as at 31 December 2021 is disclosed in Note 20(a), Note 20(d), Note 22 and Note 38(d).

(n) Derivative financial instruments and hedge accounting

The Group uses derivative financial instruments such as interest rate swaps and currency hedge to hedge its interest rate risk and foreign currency risk. Such derivative financial instruments are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently remeasured at fair value at each reporting date. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

Any gains or losses arising from changes in fair value on derivatives during the year that do not qualify for hedge accounting and the ineffective portion of an effective hedge are recognised in the income statement.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(n) Derivative financial instruments and hedge accounting (cont'd.)

For the purpose of hedge accounting, hedges are classified as:

- fair value hedges when hedging the exposure to changes in fair value of a recognised asset or liability or an unrecognised firm commitment, or an identified portion of such an asset, liability or firm commitment, that is attributable to a particular risk and could affect the income statement;

- cash flow hedges when hedging the exposure to variability in cash flows that is either attributable to a particular risk associated with a recognised asset or a liability or a highly probable forecast transaction and could affect the income statement; or

- hedges of a net investment in a foreign operation.

Cash flow hedges

In a cash flow hedge, the portion of the gain or loss on the hedging instrument that is determined to be an effective hedge is recognised in other comprehensive income and accumulated in equity and the ineffective portion is recognised in income statement. The effective portion of changes in the fair value of the hedging instrument that is recognised in other comprehensive income is limited to the cumulative change in fair value of the hedged item, determined on a present value basis, from inception of the hedge.

Subsequently, the cumulative gain or loss recognised in other comprehensive income is reclassified from equity into income statement in the same period or periods during which the hedged forecast cash flows affect the income statement. If the hedge item is a non-financial asset or liability, the associated gain or loss recognised in other comprehensive income is removed from equity and included in the initial amount of the asset or liability. However, loss recognised in other comprehensive income that will not be recovered in one or more future periods is reclassified from equity into income statement.

If the hedge no longer meets the criteria for hedge accounting or the hedging instrument expires or is sold, terminated or exercised, then hedge accounting is discontinued prospectively. When hedge accounting for cash flow hedges is discontinued, the amount that has been accumulated in the hedging reserve remains in equity if the hedged future cash flows are still expected to occur. Otherwise, the amount will be immediately reclassified to income statement as a reclassification adjustment. After discontinuation, once the hedged cash flow occurs, any amount remaining in accumulated other comprehensive income must be accounted for depending on the nature of the underlying transaction.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(o) Leases

A contract is, or contains, a lease if the contract conveys a right to control the use of an identified asset for a period of time in exchange for a consideration. To assess whether a contract conveys the right to control the use of an identified asset, the Group and the Corporation assess whether:

- the contract involves the use of an identified asset – this may be specified explicitly or implicitly and should be physically distinct or represent substantially all of the capacity of a physically distinct asset. If the supplier has a substantive substitution right, then the asset is not identified;
- the customer has the right to obtain substantially all of the economic benefits from use of the asset throughout the period of use; and
- the customer has the right to direct the use of the asset when it has the decision-making rights that are most relevant to changing how and for what purpose the asset is used. The customer has the right to direct the use of the asset if either the customer has the right to operate the asset; or the customer designed the asset in a way that predetermines how and for what purpose it will be used throughout the period of use.

At inception or on reassessment of a contract that contains a lease component, the Group and the Corporation allocate the consideration in the contract to each lease and non-lease component on the basis of their relative stand-alone prices.

Group and Corporation as a lessee

Initial recognition and measurement

The Group and the Corporation recognise a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the respective Group entities' incremental borrowing rate is used. Generally, the Group entities use their incremental borrowing rate as the discount rate.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(o) Leases (cont'd.)

Group and Corporation as a lessee (cont'd.)

Initial recognition and measurement (cont'd.)

Lease payments included in the measurement of the lease liability comprise the following:

- fixed payments, including in-substance fixed payments;
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable under a residual value guarantee;
- the exercise price under a purchase option that the Group and the Corporation are reasonably certain to exercise; and
- penalties for early termination of a lease unless the Group and the Corporation are reasonably certain not to early terminate the contract.

The Group and the Corporation exclude variable lease payments that linked to future performance or usage of the underlying asset from the lease liability. Instead, these payments are recognised in profit or loss in the period in which the performance or use occurs.

The Group and the Corporation assess at lease commencement whether it is reasonably certain to exercise the extension options in determining the lease term.

The Group and the Corporation have elected not to recognise right-of-use assets and lease liabilities for short-term leases that have a lease term of 12 months or less and leases of low-value assets. The Group and the Corporation recognise the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

The Group and the Corporation present right-of-use assets that do not meet the definition of investment property in ships, offshore floating assets, other property, plant and equipment as disclosed in Note 14 and lease liabilities in interest-bearing loans and borrowings as disclosed in Note 20(c).

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(o) Leases (cont'd.)

Group and Corporation as a lessee (cont'd.)

Subsequent measurement

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. The estimated useful lives of right-of-use assets are determined on the same basis as those of ships, offshore floating assets and other property, plant and equipment. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is measured at amortised cost using the EIR method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a revision of in-substance fixed lease payments, or if there is a change in the Group's and the Corporation's estimate of the amount expected to be payable under a residual value guarantee, or if the Group and the Corporation change their assessment of whether they will exercise a purchase, extension or termination option. The Group and the Corporation will reassess whether it is reasonably certain to exercise the extension option if there is a significant change in circumstances within their control.

When the lease liability is remeasured as described in the above paragraph, a corresponding adjustment is made to the carrying amount of the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

When there is lease modification due to increase in the scope of lease by adding the right-to-use one or more underlying assets, the Group and the Corporation assess whether the lease modification shall be accounted for as a separate lease or similar to reassessment of lease liability. The Group and the Corporation account for lease modification as a separate lease when the consideration for the lease increases by an amount commensurate with the stand-alone price for the increase in scope and any appropriate adjustments.

When there is lease modification due to decrease in scope, the Group and the Corporation decrease the carrying amount of the right-of-use asset and remeasure the lease liability to reflect the partial or full termination of the lease. The corresponding gain or loss shall be recognised in income statement. Lease liabilities are remeasured for all other lease modifications with corresponding adjustments to the right-of-use asset.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(o) Leases (cont'd.)

Group and Corporation as a lessor

Initial recognition and measurement

When the Group and the Corporation act as a lessor, it determines at lease inception whether each lease is a finance lease or an operating lease.

To classify each lease, the Group and the Corporation make an overall assessment of whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then it is an operating lease.

If an arrangement contains lease and non-lease components, the Group and the Corporation apply MFRS 15 Revenue from Contracts with Customers to allocate the consideration in the contract based on the stand-alone selling price.

The Group and the Corporation recognise assets held under a finance lease in its statement of financial position and presents them as a receivable at an amount equal to the net investment in the lease. The Group and the Corporation use the interest rate implicit in the lease to measure the net investment in the lease.

When the Group or the Corporation is an intermediate lessor, it accounts for its interests in the head lease and the sub-lease separately. It assesses the lease classification of a sub-lease with reference to the right-of-use asset arising from the head lease, not with reference to the underlying asset. If a head lease is a short-term lease to which the Group or the Corporation apply the exemption described above, then it classifies the sub-lease as an operating lease.

Subsequent measurement

The Group and the Corporation recognise lease payments received under operating leases as income on a straight-line basis over the lease term. This implies the recognition of deferred income when the contractual day rates are not constant during the term of the lease contract.

In the case of a finance lease, the Group and the Corporation recognise finance income over the lease term, based on a pattern reflecting a constant periodic rate of return on the Group's and the Corporation's net investment in the lease. The Group and the Corporation aim to allocate finance income over the lease term on a systematic and rational basis. The Group and the Corporation apply the lease payments relating to the period against the gross investment in the lease to reduce both the principal and the unearned finance income. The net investment in the lease is subject to impairment requirements in MFRS 9: Financial Instruments as per Note 2.3(m).

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(o) Leases (cont'd.)

Prepaid lease payments

Leasehold land which in substance is an operating lease are classified as prepaid lease payments. The payment made on entering into a lease arrangement or acquiring a leasehold land is accounted for as prepaid lease payments that are amortised over the lease term in accordance with the pattern of benefits provided.

Leasehold land is classified into long term lease and short term lease. Long term lease is defined as a lease with an unexpired lease period of fifty years or more. Short term lease is defined as a lease with an unexpired lease period of less than fifty years.

(p) Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are capitalised as part of the cost of those assets.

The capitalisation of borrowing costs as part of the cost of a qualifying asset commences when expenditure for the assets is being incurred, borrowing costs are being incurred and activities that are necessary to prepare the asset for its intended use or sale are in progress. Capitalisation of borrowing costs ceases when all activities necessary to prepare the qualifying asset for its intended use or sale are completed.

In capitalising general borrowing costs, the Group shall determine the amount of borrowing costs eligible for capitalisation by applying a capitalisation rate. The capitalisation rate shall be the weighted average of the borrowing costs applicable to all general borrowings of the Group. General borrowing are all borrowings that are outstanding during the period, except for specific borrowings that are made specifically to obtain a qualifying asset that is not yet ready for its intended use or sale. If a specific borrowing remains outstanding after the related qualifying asset is ready for its intended use or sale, it becomes part of the Group’s general borrowing.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(q) Taxation

Income tax on the income statement for the year comprises current and deferred tax. Current tax is the expected amount of income taxes payable in respect of the taxable profit for the year and is measured using the tax rates that have been enacted at the reporting date.

Deferred tax is provided using the liability method on temporary differences between the tax bases and the carrying amounts for financial reporting purposes of assets and liabilities at the reporting date.

Deferred tax liabilities are recognised for all temporary differences, except:

- where the deferred tax liability arises from the initial recognition of goodwill, or of an asset or liability in a transaction that is not a business combination, and at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and

- in respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognised for all deductible temporary differences, carry forward of unused tax credits and unused tax losses, to the extent that is probable that taxable profit will be available and can be utilised, except:

- where the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination, and at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and

- in respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, deferred tax assets are recognised only to the extent that is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilised.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(q) Taxation (cont'd.)

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax assets to be utilised. Unrecognised deferred tax assets are reassessed at each reporting date and are recognised to the extent that it has become probable that future taxable profit will allow the deferred tax assets to be utilised.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realised or the liability is settled, based on the tax rates and tax laws that have been enacted or substantially enacted at the reporting date.

Deferred tax relating to items recognised outside the income statement is recognised outside the income statement. Deferred tax items are recognised in relation to the underlying transaction either in other comprehensive income or directly in equity. Deferred tax arising from a business combination is adjusted against goodwill on acquisition.

Deferred tax assets and deferred tax liabilities are offset, if a legally enforceable right exists to set off current tax assets against current tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

(r) Provisions

Provisions are recognised when all of the following conditions have been satisfied:

- the Group and the Corporation have a present obligation (legal or constructive) as a result of a past event;
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and
- a reliable estimate of the amount can be made.

Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate. Where the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability. When discounting is used, the accretion in the provision due to the passage of time is recognised as a finance cost.

Possible obligations whose existence will only be confirmed by the occurrence or non-occurrence of one or more future events, not wholly within the control of the Group and the Corporation, are not recognised in the financial statements but are disclosed as contingent liabilities, unless the possibility of an outflow of economic resources is considered remote.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(r) Provisions (cont'd.)

Provision for warranty is made based on service histories to cover the estimated liability that may arise during the warranty period. Any surplus provision will be written back at the end of the warranty period, while additional provision is made as and when necessary.

(s) Employee benefits

(i) Short term benefits

Wages, salaries, bonuses and social security contributions are recognised as an expense in the period in which the associated services are rendered by employees. Short term accumulating compensated absences such as paid annual leave are recognised when services are rendered by employees that increase their entitlement to future compensated absences. Short term non-accumulating compensated absences such as sick leave are recognised when the absences occur.

(ii) Defined contribution plans

Defined contribution plans are post-employment benefit plans, under which the Group and the Corporation pay fixed contributions into separate entities or funds and will have no legal or constructive obligation to pay further contributions if any of the funds do not hold sufficient assets to pay all employee benefits relating to employee services in the current period and preceding financial years. Such contributions are recognised as an expense in the income statement as incurred. As required by law, companies in Malaysia make such contributions to the Employees Provident Fund (“EPF”). Some of the Group's foreign subsidiaries also make contributions to their respective countries' statutory and/or voluntary pension schemes.

(iii) Termination benefits

Termination benefits are payable when employment is terminated before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group and the Corporation recognise termination benefits as a liability and an expense when it is demonstrably committed to either terminate the employment of current employees according to a detailed plan without possibility of withdrawal, or providing termination benefits as a result of an offer made to encourage voluntary redundancy. In the case of an offer made to encourage voluntary redundancy, the measurement of termination benefits is based on the number of employees expected to accept the offer. Benefits falling due more than twelve months after reporting date are discounted to present value.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(t) Foreign currencies

(i) Functional and presentation currency

The individual financial statements of each entity in the Group are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The functional currency of the Corporation is United States Dollar ("USD"). The Group's and the Corporation's financial statements are presented in Ringgit Malaysia ("RM").

In preparing the financial statements of the individual entities, transactions in currencies other than the entity's functional currency ("foreign currencies") are recorded using the exchange rates prevailing at the dates of the transactions. At each reporting date, monetary items denominated in foreign currencies are translated to the functional currency at the rates prevailing on the reporting date. Non-monetary items carried at fair value that are denominated in foreign currencies are translated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

(ii) Foreign currency transactions

Exchange differences arising on the settlement of monetary items, or on translating monetary items at the reporting date are included in the income statement, except for exchange differences arising on monetary items that form part of the Group's net investment in foreign operation, which are recognised initially in other comprehensive income and accumulated under foreign currency translation reserve in equity. The foreign currency translation reserve is reclassified from equity to income statement of the Group on disposal of the foreign operation.

Exchange differences arising on monetary items that form part of the Group's net investment in foreign operation, where that monetary item is denominated in a currency other than the functional currency of either the reporting entity or the foreign operation, are recognised in the income statement for the year. Exchange differences arising on monetary items that form part of the Corporation's net investment in foreign operation, regardless of the currency of the monetary item, are recognised in the income statement of the Corporation's financial statements or the individual financial statements of the foreign operation, as appropriate.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(t) Foreign currencies (cont'd.)

(ii) Foreign currency transactions (cont'd.)

Exchange differences arising on the translation of non-monetary items carried at fair value are included in the income statement for the year, except for the differences arising on the retranslation of non-monetary items (in respect of which gains and losses are recognised directly in other comprehensive income). Exchange differences arising from such non-monetary items are also recognised directly in equity.

(iii) Foreign operations

The results and financial position of operations that have a functional currency different from the presentation currency ("RM") ("Foreign Operation") are translated into RM as follows:

- Assets and liabilities for each statement of financial position presented are translated at the closing rate prevailing at the reporting date;
- Income and expenses for each income statement are translated at the exchange rate at the date of the transactions or an average rate that approximates those rates; and
- All resulting exchange differences are taken to the currency translation reserve within other comprehensive income.

(u) Revenue and other income recognition

(i) Revenue from contracts with customers

Revenue is measured based on the consideration specified in a contract with a customer and exclude amounts collected on behalf of third parties. The Group and the Corporation recognise revenue when or as it transfers control over a product or service to the customer. An asset is transferred when (or as) the customer obtains control of the asset.

An entity transfers control of a good or service over time and, therefore, satisfies a performance obligation and recognises revenue over time, if one of the following criteria is met:

(a) The customer simultaneously receives and consumes the benefits provided by the entity's performance as the entity performs;

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(u) Revenue and other income recognition (cont'd.)

(i) Revenue from contracts with customers (cont'd.)

An entity transfers control of a good or service over time and, therefore, satisfies a performance obligation and recognises revenue over time, if one of the following criteria is met: (cont'd.)

(b) The entity’s performance creates or enhances an asset (for example, work in progress) that the customer controls as the asset is created or enhanced; or

(c) The entity’s performance does not create an asset with an alternative use to the entity and the entity has an enforceable right to payment for performance completed to date.

If a performance obligation is not satisfied over time in accordance with the above criteria, the Group and the Corporation satisfy the performance obligation at a point in time.

(a) Construction contract, marine repair and vessel conversion

The Group recognises revenue from construction contract and marine repair with customers mainly from its Marine & Heavy Engineering segment.

The Group's contract with customers mainly contain one performance obligation where the Group is contracted to construct a specific asset for a customer or to provide repair and maintenance services.

The Group considers whether there are other promises in the contract with customers that are separate performance obligations. The Group typically only provides assurance type warranties to assure that the completed project complies with agreed-upon specifications of the contract and therefore, does not give rise to a separate performance obligation.

The Group also enters into time charter contracts with customers for offshore floating assets, where the Group has determined that the arrangements are finance leases. In order to fulfill the contracts, the Group is required to undertake the design, construction (or conversion), assembly, transport and installation (collectively, the "vessel conversion") of an existing vessel into offshore floating asset to be delivered to the customer. The Group has determined that it is a dealer lessor in these arrangements. Under a dealer lessor arrangement, the fair value of leased asset is recorded as a turnkey 'sale' during the construction (or conversion) phase. The accounting treatment results in the acceleration of recognition of construction (or conversion) profits into the construction phase of the asset, while the asset starts to generate cash only after the construction and commissioning activities have been completed, as that is when the Group is entitled to the lease payments.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(u) Revenue and other income recognition (cont'd.)

(i) Revenue from contracts with customers (cont'd.)

(a) Construction contract, marine repair and vessel conversion (cont'd.)

Accordingly, the Group recognises revenue on the vessel conversions which is regarded as a separate performance obligation, being the present value of the lease payments accruing to the Group, discounted using a market rate of interest.

Where the outcome of a contract cannot be reliably estimated, contract revenue is recognised to the extent of contract costs incurred, that is probable to be recoverable. Contract costs are recognised as expenses in the period in which they are incurred. When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognised as an expense immediately.

Transaction price comprises the initial amount of consideration agreed in the contract, variations in contract work, claims and incentive payments to the extent that it is probable that they will result in revenue and they are capable of being reliably measured.

If the consideration in a contract includes a variable amount, the Group estimates the amount of consideration to which it will be entitled in exchange for transferring the goods or services to the customer. The variable consideration is estimated at contract inception and constrained until it is highly probable that a significant revenue reversal will not occur when the associated uncertainty with the variable consideration is subsequently resolved.

The Group's construction contracts contain penalty clauses (i.e. liquidated and ascertained damages) for late delivery. When it is probable that the construction contract will not be fulfilled on time, the penalty will be deducted from the contract transaction price.

Revenue from construction contract (including turnkey contract) is recognised progressively based on percentage of completion method determined based on either input or output method. Output method is measured by reference to the proportion of physical completion based on technical milestones defined under the contracts and taking into account the nature of activities and its associated risks. Input method is measured based on the ratio of costs incurred to date to total estimated costs.

In determining the appropriate method for measuring progress, the Group shall consider the method that best depicts the Group's performance in transferring control of goods or services promised to a customer.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(u) Revenue and other income recognition (cont'd.)

(i) Revenue from contracts with customers (cont'd.)

(a) Construction contract, marine repair and vessel conversion (cont'd.)

Contract assets represent the Group's right to consideration in exchange for goods or services that the Group has transferred to a customer when that right is conditioned on something other than the passage of time. Contract assets are subjected to impairment in accordance to MFRS 9: Financial Instruments. The contract assets of the Group comprise of amounts due from customers on contracts.

Contract liabilities represent the Group's obligation to transfer goods or services to a customer for which the Group has received consideration from the customer. The contract liabilities of the Group comprise of amounts due to customers on contracts.

(b) Voyage and lightering income

The Group's contracts for voyage charters consist of a single performance obligation to provide the charterer with an integrated transportation service within a specified time period. The consideration in the contract (or "freight") is determined either on a variable rate related to the cargo (e.g. cargo weight) or on a lump-sum basis. In addition, a voyage charter agreement usually includes a "laytime and demurrage" clause. If the laytime is exceeded, the charterer is responsible to pay the carrier specified damages, which may include liquidated damages called demurrage.

Voyage and lightering income is recognised on percentage of completion basis, calculated on a voyage loading-to-discharge basis. The revenue is recognised evenly over the period from a ship's departure from its cargo loading point to its next discharge point, at time when the revenue is determinable for the specified load and discharge point and collectability is reasonably assured.

(c) Other shipping related income and non-shipping income

Income from services rendered is recognised net of service taxes and discounts as and when the services are performed.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(u) Revenue and other income recognition (cont'd.)

(ii) Charter income

Time charter and bareboat charter hire income as well as that of other services rendered are accounted for as a lease income on a straight-line basis over the firm period of the contract, as service is performed.

Non-lease component of the time charter income is not separately disclosed as the pattern of revenue recognition for lease and non-lease components are the same and the lease and non-lease components are treated as a combined unit of account, classified as an operating lease.

Revenue and voyage expenses of ships operating in pool arrangements are pooled and the resulting net pool revenues, calculated on a time charter equivalent basis, are allocated to the pool participants according to the number of days a ship operates in the pool with weighting adjustments made to reflect differing capacity and performance capabilities. The net pool revenues generated are recorded as charter hire income on an accrual basis.

(iii) Finance income on lease receivables

Finance income on lease receivables is recognised according to the effective interest rate method so as to provide constant periodic rate of return on the net investment.

(iv) Interest income

Interest income is recognised on an accrual basis using the EIR method.

(v) Dividend income

Dividend income is recognised when the Group's and the Corporation's right to receive payment is established.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(v) Non-current assets held for sale

Non-current assets are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the asset is available for immediate sale in its present condition, subject only to terms that are usual and customary.

Immediately before classification as held for sale, the measurement of the non-current assets is brought up-to-date in accordance with applicable MFRS. Then, on initial classification as held for sale, non-current assets are measured in accordance with MFRS 5: Non-Current Assets Held for Sale and Discontinued Operations that is, at the lower of carrying amount and fair value less costs to sell. Any differences are included in the income statement.

(w) Repairs and maintenance

Repairs and maintenance costs are recognised in the income statement in the period they are incurred.

(x) Cash and cash equivalents

Cash and cash equivalents comprise cash at bank and on hand, demand deposits with banks and other financial institutions, and short-term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value, being within three months of maturity at acquisition. Bank overdrafts that are repayable on demand and form an integral part of the Group's and the Corporation's cash management are also included as a component of cash and cash equivalents for the purpose of the consolidated statement of cash flows.

(y) Equity instruments

Ordinary shares are classified as equity. Dividends on ordinary shares are recognised in equity in the period in which they are declared.

The transaction costs of an equity transaction are accounted for as a deduction from equity, net of tax. Equity transaction costs comprise only those incremental external costs directly attributable to the equity transaction which would otherwise have been avoided.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(y) Equity instruments (cont'd.)

The consideration paid, including attributable transaction costs on repurchased ordinary shares of the Company that have not been cancelled, are classified as treasury shares and presented as a deduction from equity. No gain or loss is recognised in income statement on the sale, reissuance or cancellation of treasury shares. Consideration paid or received is recognised directly in equity.

(z) Fair value measurements

Fair value of an asset or a liability, except for lease transactions, is determined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The measurement assumes that the transaction to sell the asset or transfer the liability takes place either in the principal market or in the absence of a principal market, in the most advantageous market.

(i) Financial instruments

The fair value of financial instruments that are actively traded in organised financial markets is determined by reference to quoted market bid prices at the close of business at the end of reporting date. For financial instruments where there is no active market, fair value is determined using valuation techniques. Such techniques may include:

- using recent arm’s length market transactions;

- reference to the current fair value of another instrument that is substantially the same; and

- discounted cash flow analysis or other valuation models.

(ii) Non-financial assets

For a non-financial asset, the fair value measurement takes into account a market participant’s ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(z) Fair value measurements (cont'd.)

(ii) Non-financial assets (cont'd.)

When measuring the fair value of an asset or a liability, the Group and the Corporation use observable market data as far as possible. Fair value is categorised into different levels in a fair value hierarchy based on the input used in the valuation technique as follows:

- Level 1 - Quoted prices (unadjusted) in active markets for identical assets and liabilities.
- Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3 - Inputs for the asset or liability that are not based on observable market data (unobservable input).

The fair value of an asset to be transferred between levels is determined as of the date of the event or change in circumstances that caused the transfer.

2.4 Pronouncements not yet in effect

The following pronouncements that have been issued by the MASB will become effective in future financial reporting periods and have not been adopted by the Group and the Corporation:

Effective for annual periods beginning on or after 1 January 2022

- Amendments to MFRS 1 First-time Adoption of Malaysian Financial Reporting Standards (Annual Improvements to MFRS Standards 2018 - 2020)
- Amendments to MFRS 3 Business Combinations (Reference to the Conceptual Framework)
- Amendments to MFRS 9 Financial Instruments (Annual Improvements to MFRS Standards 2018 - 2020)
- Amendments to MFRS 116 Property, Plant and Equipment (Property, Plant and Equipment−Proceeds before Intended Use)
- Amendments to MFRS 137 Provisions, Contingent Liabilities and Contingent Assets (Onerous Contracts−Cost of Fulfilling a Contract)
- Amendments to MFRS 141 Agriculture (Annual Improvements to MFRS Standards 2018 - 2020)

2. Significant accounting policies (cont'd.)

2.4 Pronouncements not yet in effect (cont'd.)

Effective for annual periods beginning on or after 1 January 2023

- MFRS 17: Insurance Contracts
- Amendments to MFRS 17: Insurance Contracts
- Amendments to MFRS 17: Insurance Contracts (Initial Application of MFRS 17 and MFRS 9 - Comparative Information)
- Amendments to MFRS 101 Presentation of Financial Statements (Classification of Liabilities as Current or Non-current)
- Amendments to MFRS 101 Presentation of Financial Statements and MFRS Practice Statement 2 (Disclosure of Accounting Policies)
- Amendments to MFRS 108 Accounting Policies, Changes in Accounting Estimates and Errors (Definition of Accounting Estimates)
- Amendments to MFRS 112 Income Taxes (Deferred Tax related to Assets and Liabilities arising from a Single Transaction)

Effective for a date yet to be confirmed

- Amendments to MFRS 10: Consolidated Financial Statements: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture
- Amendments to MFRS 128: Investments in Associates and Joint Ventures: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture

The Group and the Corporation are expected to apply the abovementioned pronouncements beginning from the respective dates the pronouncements become effective. The initial application of the abovementioned pronouncements is not expected to have any material impact to the financial statements of the Group and of the Corporation.

2.5 Significant accounting estimates and judgements

(a) Critical judgements made in applying accounting policies

(i) Fair value of financial instruments

Where the fair value of financial assets and financial liabilities recorded in the statements of financial position cannot be derived from active markets, they are determined using valuation techniques, including the discounted cash flow method. Where possible, the inputs to these valuation models are taken from observable markets. However, when this is considered unfeasible, a degree of judgement is made in establishing fair values. The judgements made include having considered a host of factors including liquidity risk, credit risk and volatility. Changes in assumptions about these factors could affect the reported fair value of financial instruments. Further disclosure of fair value of financial instruments is provided in Note 37.

2. Significant accounting policies (cont'd.)

2.5 Significant accounting estimates and judgements (cont'd.)

(a) Critical judgements made in applying accounting policies (cont'd.)

(ii) Lease classification as lessor

When the Group and the Corporation enter into a new lease arrangement, the terms and conditions of the contract are analysed in order to assess whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. To identify whether risks and rewards are transferred, the Group and the Corporation systematically consider, among others, all the examples and indicators listed in MFRS 16: Leases on a contract-by-contract basis. By performing such analysis, the Group and the Corporation make significant judgement to determine whether the arrangement results in a finance lease or an operating lease. This judgement can have a significant effect on the amounts recognised in the financial statements and its recognition of profits in the future. The most important judgement areas assessed by the Group and the Corporation are:

(i) determination of the asset's fair value;

(ii) determination of the economic life of the asset;

(iii) the probability of the lessee exercising the purchase option (if relevant) at a price that is significantly lower than the fair value at the inception date; and

(iv) determination of whether the asset is of such a specialised nature that only the lessee can use it without major modifications.

(b) Key sources of estimation uncertainty

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date that have significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below:

(i) Construction contracts

The Group recognises revenue and expenses from construction contracts in the income statement by using the stage of completion method. The stage of completion is measured by reference to the completion of physical proportion of the contract work (output method) or cost incurred for work performed up to the reporting period relative to the total expected cost to the satisfaction of those order (input method).

2. Significant accounting policies (cont'd.)

2.5 Significant accounting estimates and judgements (cont'd.)

(b) Key sources of estimation uncertainty (cont'd.)

(i) Construction contracts (cont'd.)

Significant judgement is required in determining the stage of completion, the extent of the contract costs incurred, the estimated total contract revenue and costs, as well as the recoverability of the construction costs. In making this judgement, the Group evaluates based on past experience and by relying on the work of internal specialists as well as Group's best estimate of the probable future benefits and obligations associated with the contract.

(ii) Impairment of goodwill

The Group determines whether goodwill is impaired on an annual basis. This requires an estimation of the value-in-use of the CGU to which goodwill is allocated. Estimating a value-in-use amount requires management to make an estimate of the expected future cash flows from the CGU and also to choose a suitable discount rate in order to calculate the present value of those cash flows. Further details of the impairment losses recognised, carrying amount, the key assumptions applied in the impairment assessment of goodwill and sensitivity analysis to changes in the assumptions are provided in Note 16.

(iii) Provisions

Provisions are recognised in accordance with the accounting policy in Note 2.3(r). To determine whether it is probable that an outflow of resources will be required to settle the obligation and a reliable estimate of the amount can be made, the Group and the Corporation take into consideration factors such as existence of legal/contractual agreements, past historical experience, external advisors' assessments and other available information.

Further details of provisions balances recognised is disclosed in Note 9 and Note 26(c).

(iv) Impairment of ships, offshore floating assets, other property, plant and equipment and right-of-use assets

The Group and the Corporation have performed a review of the recoverable amount of their ships, offshore floating assets, other property, plant and equipment and right-of-use assets during the financial year. The review led to the recognition of impairment losses as disclosed in Note 5(a).

2. Significant accounting policies (cont'd.)

2.5 Significant accounting estimates and judgements (cont'd.)

(b) Key sources of estimation uncertainty (cont'd.)

(iv) Impairment of ships, offshore floating assets, other property, plant and equipment and right-of-use assets (cont'd.)

The Group and the Corporation carried out the impairment test based on a variety of estimations, including the value-in-use of the CGU to which ships, offshore floating assets, other property, plant and equipment and right-of-use are allocated. Estimating the value-in-use requires the Group and the Corporation to make an estimate of the expected future cash flows from the CGU and also to choose a suitable discount rate to calculate the present value of those cash flows.

Further details of the impairment losses recognised are disclosed in Note 14(b).

(v) Impairment of trade and other receivables

The Group and the Corporation assess at each reporting date whether there is any objective evidence that their trade and other receivables is impaired. To determine whether there is objective evidence of impairment, factors such as the probability of insolvency or significant financial difficulties of the debtor and default or significant delay in payments are considered.

Where there is objective evidence of impairment, the amount and timing of future cash flows are estimated based on historical loss experience for assets with similar credit risk characteristics.

The Group and the Corporation have performed a review of the recoverable amount of their receivable during the financial year. The review led to the recognition of impairment losses as disclosed in Note 22.

(vi) Deferred tax assets

Deferred tax assets are recognised for all unutilised tax losses, unabsorbed capital allowances and unutilised tax allowances to the extent that it is probable that taxable profits will be available against which the losses and tax allowances can be utilised. Significant management judgement is required to determine the amount of deferred tax assets that can be recognised, based upon the business plans of the Group, the likely timing and level of future taxable profits together with future tax planning strategies. Estimating future taxable profits requires the Group to make estimates of the expected future projects and forecasted margins. Any changes in the assumptions will affect the probable taxable profits available to the Group. The information on deferred tax assets is disclosed in Note 29.

2. Significant accounting policies (cont'd.)

2.5 Significant accounting estimates and judgements (cont'd.)

(b) Key sources of estimation uncertainty (cont'd.)

(vii) Discount rate used in leases

Where the interest rate implicit in the lease cannot be readily determined, the Group and the Corporation use the incremental borrowing rate to measure the lease liabilities. The incremental borrowing rate is the interest rate that the Group and the Corporation would have to pay to borrow over a similar term, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment. Therefore, the incremental borrowing rate requires estimation particularly when no observable rates are available or when they need to be adjusted to reflect the terms and conditions of the lease. The Group and the Corporation estimate the incremental borrowing rate using observable inputs when available and is required to make certain entity-specific estimates.

3. Revenue

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
Revenue from contracts with customers				
Voyage, lightering and other shipping related income	1,479,784	2,099,762	-	-
Construction contract, marine repair and vessel conversion (Note 23)	3,748,218	1,926,878	-	-
Non-shipping income	221,137	303,605	2,579	7,673
	5,449,139	4,330,245	2,579	7,673
Revenue from charter				
Charter income	4,086,163	4,091,421	924,672	926,574
Finance income on lease receivables	1,136,405	979,568	72,855	79,383
	5,222,568	5,070,989	997,527	1,005,957
Total revenue	10,671,707	9,401,234	1,000,106	1,013,630

Non-shipping income mainly represents revenue generated from the operation and maintenance of offshore floating assets, management of operation of ports, marine terminals and marine vessels, provision of marine support services and consulting services for marine matters.

3. Revenue (cont'd.)

Timing of recognition for revenue from contracts with customers

The following table provides the disaggregation of revenue from contracts with customers based on timing of recognition:

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
Goods and services transferred at a point in time	372,544	551,184	2,579	7,673
Services transferred over time	5,076,595	3,779,061	-	-
Total	5,449,139	4,330,245	2,579	7,673

Contract balances

The following table provides information about receivables, contracts assets and contracts liabilities from contracts with customers.

	Group	
	2021 RM'000	2020 RM'000
Receivables	489,142	416,563
Contract assets (Note 23)	3,245,116	491,259
Contract liabilities (Note 23)	(119,192)	(15,395)
	3,615,066	892,427

The above contract assets are amount due from customers on contracts and primarily relates to the Group's rights to consideration for work completed but not billed at the reporting date. Amount due from customers on contracts and are transferred to receivables when rights become unconditional.

The above contract liabilities are amount due to customers on contracts and primarily relate to the advance consideration received from the customer, for which revenue is recognised over time when the Group progressively satisfies its performance obligation.

Transaction price allocated to the remaining performance obligations

The following table shows revenue expected to be recognised in the future related to performance obligations that are unsatisfied (or partially satisfied) at the reporting date. The disclosure is only providing information for contracts that have a duration of more than one year.

	Under 1 year RM'000	1-5 years RM'000	Total RM'000
Group			
Construction contract, marine repair and vessel conversion	5,384,452	2,638,512	8,022,964
Total	5,384,452	2,638,512	8,022,964

4. Other operating income

	Group 2021 RM'000	Group 2020 RM'000	Corporation 2021 RM'000	Corporation 2020 RM'000
Rental income	74	61	-	-
Exchange gain:				
Realised	499	7,981	898	9,130
Unrealised	21,498	9,260	22,767	12,043
Management services:				
Subsidiaries	-	-	1,884	2,601
Joint ventures	3,951	9,301	3,951	9,301
Dividend income from equity investment:				
Subsidiaries	-	-	1,322,063	1,382,324
Joint ventures	-	-	219,239	221,371
Quoted equity investments	1,289	1,074	1,289	1,074
Unquoted equity investments	637	13	637	13
Writeback of impairment loss on:				
- Trade and other receivables (Note 22)	1,195	-	2,507	136
- Finance lease receivables (Note 20(d))	2,929	8,878	1,222	814
Cadet course fees	9,355	11,845	-	-
Government grants*	-	7,790	-	-
Fair value gain in other investments	10,399	-	10,399	-
Contract compensation	184,686	-	-	-
Miscellaneous income from:				
Subsidiaries	-	-	11,770	13,692
Fellow subsidiaries	24,693	15,544	21,189	-
Third parties	108,210	69,934	12,439	16,287
	369,415	141,681	1,632,254	1,668,786

* In the previous financial year, in response to the COVID-19 pandemic, the Government of Singapore introduced Jobs Support Scheme ("JSS") as a wage support to employers to retain their local employees during this period of economic uncertainty. The grant was recognised in profit or loss as the related wages and salaries were recognised.

5. Profit/(loss) before taxation

The following amounts have been included in arriving at profit/(loss) before taxation:

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
Amortisation of intangible assets (Note 16)	22,603	5,884	-	-
Amortisation of prepaid lease payments on land and buildings (Note 15)	7,135	7,359	99	100
Amortisation of upfront fees for borrowings (Note 20(c))	27,010	21,531	-	-
Auditors' remuneration:				
Auditors of the Corporation:				
- Statutory audits	5,155	4,888	849	824
- Other services	1,213	1,013	484	769
Inventories used (Note 21)	670,195	737,274	39,616	-
Fair value loss in other investments	-	6,953	-	6,953
Exchange loss:				
- Realised	14,795	19,726	11,023	12,745
- Unrealised	5,955	4,355	7,758	7,295
Impairment loss for: (Note 22)				
- Trade and other receivables	65,336	34,563	52,679	13,915
- Other non-current assets	4,369	-	-	-
Bad debts written off	203	6,120	-	-
Operating lease rental:*				
- Ships	191,058	177,196	-	-
- Equipment	25,471	18,578	3,615	2,993
- Land and buildings	20,739	23,854	4,457	2,639
Ships, offshore floating assets other property, plant and equipment and right-of-use assets: (Note 14)				
- Depreciation	1,949,088	2,090,970	372,373	366,673
- Written off	8,295	23,639	415	95
Impairment provisions (Note 5(a))	111,910	331,376	57,961	37,071
Staff costs (Note 6)	1,668,512	1,775,287	323,883	270,419
Non-executive directors' remuneration (Note 7)	2,205	1,739	1,664	1,185
Changes in fair value of hedging derivatives	1,300	3,235	-	-

* The Group leases ships, equipment, land and buildings. These leases are short term and/or leases of low-value assets. The Group has elected not to recognise right-of-use assets and lease liabilities for these leases.

5. Profit/(loss) before taxation (cont'd.)

(a) Impairment provisions

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
Ships, offshore floating assets and other property, plant and equipment (Note 14)	102,968	318,868	52,774	10,444
Right-of-use assets (Note 14)	8,942	2,292	-	-
Non-current assets held for sale written down (Note 25)	-	10,216	-	-
Investments in subsidiaries (Note 17)	-	-	5,187	26,627
	111,910	331,376	57,961	37,071

6. Staff costs

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
Wages, salaries and bonuses	1,362,220	1,445,251	258,850	229,877
Contributions to defined contribution plans	86,206	95,510	26,363	21,578
Social security costs	7,442	9,117	837	631
Other staff related expenses	212,644	225,409	37,833	18,333
	1,668,512	1,775,287	323,883	270,419

Included in staff costs of the Group and of the Corporation are executive director's remuneration (excluding benefits-in-kind) amounting to RM3,003,000 (2020: RM3,107,000) respectively as further disclosed in Note 7.

7. Directors' remuneration

The details of remuneration receivable by directors of the Corporation during the financial year are as follows:

	Group 2021 RM'000	Group 2020 RM'000	Corporation 2021 RM'000	Corporation 2020 RM'000
Executive:				
Salaries and other emoluments	1,700	1,700	1,700	1,700
Bonus	595	690	595	690
Defined contribution plans	708	717	708	717
Total executive directors' remuneration (excluding benefits-in-kind)	3,003	3,107	3,003	3,107
Estimated money value of benefits-in-kind	150	78	150	78
Total executive directors' remuneration (including benefits-in-kind)	3,153	3,185	3,153	3,185
Non-executive directors' remuneration:				
Fees	1,664	1,185	1,664	1,185
Fees from subsidiaries	541	554	-	-
Total non-executive directors' remuneration (Note 5)	2,205	1,739	1,664	1,185
Total directors' remuneration including benefits-in-kind (Note 33(g))	5,358	4,924	4,817	4,370

The number of directors of the Corporation whose total remuneration during the financial year fell within the following bands is analysed below:

	Number of directors 2021	Number of directors 2020
Executive director:		
RM3,150,001 - RM3,200,000	1	1

7. Directors' remuneration (cont'd.)

	Number of directors 2021	2020
Non-executive directors*:		
RM1 - RM50,000	-	4
RM50,001 - RM100,000	1	-
RM100,001 - RM150,000	1	-
RM150,001 - RM200,000	4	2
RM200,001 - RM250,000	1	2
RM250,001 - RM300,000	1	-
RM700,001 - RM750,000	1	-
RM750,001 - RM800,000	-	1
	9	9

* Excludes the directors of the Corporation whose fees are paid directly to the immediate holding company of the Corporation, PETRONAS.

8. Loss/(gain) from deconsolidation of a subsidiary

During the financial year, the Corporation had completed the disposal of 3,795,200 ordinary shares representing approximately 31% of the total issued share capital of FPSO Ventures Sdn. Bhd. ("FVSB"), a partially-owned subsidiary of the Group, for a total consideration of RM26,923,000. As a result, the Group and the Corporation recognised a loss and a gain on the disposal of RM2,241,000 and RM25,025,000 respectively in the current financial year. Accordingly, FVSB ceased to be a subsidiary of the Corporation from the said date. Details of the disposal are disclosed in Note 17(c).

9. Write off of trade receivables and loss on re-measurement of finance lease receivables and provision for litigation claims

In the previous financial year, the Group had written off its trade receivables and accounted for the loss on re-measurement of finance lease receivables amounting to RM846,229,000 following the decision by the Arbitral Tribunal on 8 April 2020 as disclosed in Note 43(a)(i). Additionally, based on legal opinion obtained from the Group's legal counsel, the Group has also recognised a provision for litigation claims amounting to RM1,049,248,000, representing an estimate of the outcome arising from the Awards issued by the Arbitral Tribunal and the Group's action to file and pursue an application to set aside a substantial portion of the Award.

10. (a) Finance income

	Group 2021 RM'000	Group 2020 RM'000	Corporation 2021 RM'000	Corporation 2020 RM'000
Interest income:				
Subsidiaries	-	-	41,538	64,128
Joint ventures	2,280	-	-	-
Third party	6,411	9,505	6,411	9,505
Deposits	25,893	84,286	4,355	29,005
Unwinding of discount on trade receivables	13,666	18,821	13,666	18,821
Total finance income	48,250	112,612	65,970	121,459

(b) Finance costs

	Group 2021 RM'000	Group 2020 RM'000	Corporation 2021 RM'000	Corporation 2020 RM'000
Interest expense on loans and borrowings from:				
Subsidiaries	-	-	18,777	15,263
Banks and financial institutions	374,969	323,177	5,691	14,249
Interest on lease liabilities (Note 20(c))	15,364	23,376	1,688	1,312
Total interest expense	390,333	346,553	26,156	30,824
Amortisation of upfront fees for borrowings	27,010	21,531	-	-
Total finance costs	417,343	368,084	26,156	30,824

11. Taxation

	Group		Corporation	
	2021	**2020**	**2021**	**2020**
	RM'000	**RM'000**	**RM'000**	**RM'000**
Current income tax:				
Malaysian income tax	28,940	41,199	3,009	6,214
Foreign tax	18,644	17,999	-	-
(Over)/under provision in prior year:				
Malaysian income tax	(7,378)	11,075	(1,376)	-
Foreign tax	(938)	163	-	-
	39,268	70,436	1,633	6,214
Deferred tax (Note 29):				
Relating to origination and reversal of temporary differences	34,973	(38,005)	-	-
(Over)/under provision in prior year	(33,166)	13,816	-	-
	1,807	(24,189)	-	-
Taxation for the year	41,075	46,247	1,633	6,214

Domestic income tax is calculated at the statutory tax rate of 24% of the estimated assessable profit for the financial year.

11. Taxation (cont'd.)

A reconciliation of income tax expense applicable to profit/(loss) before taxation at the statutory income tax rate to income tax expense at the effective income tax rate of the Group and of the Corporation is as follows:

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
Profit/(loss) before taxation	1,774,622	(123,584)	1,770,889	1,918,550
Taxation at Malaysian statutory tax rate of 24%	425,909	(29,660)	425,013	460,452
Effect of different tax rates in other countries/ jurisdictions	(81,876)	363,681	-	-
Income not subject to tax:				
Tax exempt shipping income	(928,835)	(528,894)	(126,347)	(135,908)
Others	(35,490)	(10,717)	(386,379)	(406,620)
Expenses not deductible for tax purposes	725,466	293,261	132,309	116,982
Effect of share of results of associates and joint ventures	(72,264)	(102,966)	-	-
Utilisation of previously unrecognised tax losses	-	(28,004)	-	(28,692)
Deferred tax assets recognised on unutilised investment tax allowances	-	(102,743)	-	-
Deferred tax assets not recognised during the year	49,647	167,235	(41,587)	-
Deferred tax (over)/under provided in prior year	(33,166)	13,816	-	-
Income tax (over)/under provided in prior year	(8,316)	11,238	(1,376)	-
Taxation for the year	41,075	46,247	1,633	6,214

11. Taxation (cont'd.)

Section 54A of the Income Tax Act, 1967 was amended effective from Year of Assessment ("YA") 2012, in which the tax exemption on shipping profits was reduced from 100% to 70%. The implementation of the amended Section 54A, however, was deferred and on 10 July 2020, the Ministry of Finance ("MoF") issued an approval letter for the extension of the 100% shipping tax exemption up to YA2023 subject to the following two conditions to be implemented by the Ministry of Transport ("MoT"):

a) Each Malaysian shipowner to comply with the minimum substance requirements in terms of annual operating expenditure and number of full-time employees. MoT has been requested to establish the framework for each category of vessels; and

b) MoT to develop a framework and implement the imposition of annual tonnage fee to Malaysian shipowners by 1 January 2022.

In respect of the imposition of tonnage fee, MoF has indicated in their letter that if MoT fails to start imposing tonnage fee from 1 January 2022, the 100% tax exemption will be reverted to 70% from YA2022.

On 2 November 2021, MoT notified the Malaysian Shipowners' Association that MoF has approved for a deferment in the imposition of the annual tonnage fee to latest by 31 December 2023. Based on this latest development, the Group would now be able to continue to enjoy the 100% shipping tax exemption up to YA2023 on the basis that the substance requirements are duly met.

The taxation charge of the Group and the Corporation is attributable to tax in respect of other activities.

12. Earnings/(loss) per share

Basic earnings/(loss) per share is calculated by dividing profit/(loss) for the year attributable to ordinary equity holders of the Corporation by the weighted average number of ordinary shares outstanding during the financial year. The Group does not have any financial instrument which may dilute its basic earnings/(loss) per share.

	Group	
	2021	**2020**
Profit/(loss) after taxation attributable to equity holders of the Corporation (RM'000)	1,831,264	(43,067)
Number of ordinary shares in issue ('000)	4,463,794	4,463,794
Weighted average number of ordinary shares in issue ('000)	4,463,794	4,463,794
Basic earnings/(loss) per share (sen)	41.0	(1.0)
Diluted earnings/(loss) per share (sen)	41.0	(1.0)

13. Dividends

	2021 RM'000	2020 RM'000
Dividends recognised during the year:		
In respect of financial year ended 31 December 2019:		
Fourth tax exempt dividend of 9.0 sen per share	-	401,737
Special tax exempt dividend of 3.0 sen per share	-	133,912
In respect of financial year ended 31 December 2020:		
First tax exempt dividend of 7.0 sen per share	-	312,462
Second tax exempt dividend of 7.0 sen per share	-	312,462
Third tax exempt dividend of 7.0 sen per share	-	312,462
Fourth tax exempt dividend of 12.0 sen per share	535,649	-
In respect of financial year ended 31 December 2021:		
First tax exempt dividend of 7.0 sen per share	312,462	-
Second tax exempt dividend of 7.0 sen per share	312,462	-
Third tax exempt dividend of 7.0 sen per share	312,462	-
	1,473,035	1,473,035

A fourth tax exempt dividend in respect of the financial year ended 31 December 2021 of 12.0 sen per share amounting to a dividend payable of RM535,649,000 will be paid on 16 March 2022.

The fourth tax exempt dividend in respect of the financial year ended 31 December 2021 is not reflected in the current year's financial statements. The dividend will be accounted for in equity as an appropriation of retained profits in the financial year ending 31 December 2022.

14. Ships, offshore floating assets and other property, plant and equipment

	Cost									
Group - 31 December 2021	**At 1.1.2021 RM'000**	**Additions RM'000**	**Disposals RM'000**	**Write-offs*** RM'000**	**Transfers RM'000**	**Reclassification out of property, plant and equipment** RM'000**	**Reclassified to held for sale RM'000**	**Remeasurement/ termination of lease contract RM'000**	**Currency translation differences RM'000**	**At 31.12.2021 RM'000**
Ships										
Ships in operation*	41,637,330	333,100	(1,238,718)	(148,613)	437,500	(6,750)	(1,072,837)	-	1,213,953	41,154,965
Right-of-use - ships in operation*	1,459,425	60,577	-	(320,119)	-	-	-	(307,345)	41,171	933,709
Ships under construction	1,877,826	1,643,931	-	-	(403,092)	-	-	-	69,874	3,188,539
	44,974,581	2,037,608	(1,238,718)	(468,732)	34,408	(6,750)	(1,072,837)	(307,345)	1,324,998	45,277,213
Offshore floating assets										
Subject to operating lease as a lessor - offshore floating assets in operation	927,269	-	-	-	-	(64,041)	-	-	19,382	882,610

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

Group - 31 December 2021	At 1.1.2021 RM'000	Additions RM'000	Disposals RM'000	Write-offs*** RM'000	Transfers RM'000	Reclassification out of property, plant and equipment** RM'000	Reclassified to held for sale RM'000	Remeasurement/ termination of lease contract RM'000	Currency translation differences RM'000	At 31.12.2021 RM'000
	Cost									
Other property, plant and equipment										
Freehold land	12,885	-	-	-	-	-	-	-	145	13,030
Freehold buildings, drydocks and waste plant	2,134,637	1,553	-	(125)	763	-	-	-	1,477	2,138,305
Leasehold buildings	74,209	-	-	-	-	-	-	-	(173)	74,036
Motor vehicles	20,234	526	(153)	(370)	-	-	-	-	(452)	19,785
Furniture, fittings and equipment	173,301	3,041	(1,523)	(2,552)	17,091	-	-	-	681	190,039
Computer software and hardware	303,157	5,877	(957)	(954)	19,955	-	-	-	1,636	328,714
Projects in progress****	351,803	117,739	-	-	(76,597)	(231,238)	-	-	1,260	162,967
Plant and machineries	794,001	7,639	(4,268)	(5,240)	4,380	-	(26,985)	-	(2,746)	766,781
	3,864,227	136,375	(6,901)	(9,241)	(34,408)	(231,238)	(26,985)	-	1,828	3,693,657
Right-of-use assets										
- office premise, warehouse and wharf	184,150	28,451	-	-	-	-	-	(2,685)	(7,327)	202,589
- computer software and hardware	643	-	-	(643)	-	-	-	-	-	-
	184,793	28,451	-	(643)	-	-	-	(2,685)	(7,327)	202,589
	4,049,020	164,826	(6,901)	(9,884)	(34,408)	(231,238)	(26,985)	(2,685)	(5,499)	3,896,246
Grand total	**49,950,870**	**2,202,434**	**(1,245,619)**	**(478,616)**	**-**	**(302,029)**	**(1,099,822)**	**(310,030)**	**1,338,881**	**50,056,069**

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	← Accumulated depreciation/impairment →										
Group - 31 December 2021	**At 1.1.2021 RM'000**	**Depreciation charge for the year RM'000**	**Impairment losses RM'000**	**Disposals RM'000**	**Write-offs*** RM'000**	**Reclassification out of property, plant and equipment** RM'000**	**Reclassified to held for sale RM'000**	**Remeasurement/ termination of lease contract RM'000**	**Currency translation differences RM'000**	**At 31.12.2021 RM'000**	**Net book value At 31.12.2021 RM'000**
Ships											
Ships in operation*	22,565,178	1,704,698	92,900	(846,155)	(141,165)	-	(1,032,207)	-	596,931	22,940,180	18,214,785
Right-of-use - ships in operation*	1,321,040	107,266	-	-	(320,119)	-	-	(304,783)	37,298	840,702	93,007
Ships under construction	-	-	-	-	-	-	-		-	-	3,188,539
	23,886,218	1,811,964	92,900	(846,155)	(461,284)	-	(1,032,207)	(304,783)	634,229	23,780,882	21,496,331
Offshore floating assets											
Subject to operating lease as a lessor - offshore floating assets in operation	875,961	877	-	-	-	(37,400)	-	-	17,715	857,153	25,457

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	Accumulated depreciation/impairment										Net book value
	At 1.1.2021 RM'000	Depreciation charge for the year RM'000	Impairment losses RM'000	Disposals RM'000	Write-offs*** RM'000	Reclassification out of property, plant and equipment**	Reclassified to held for sale RM'000	Remeasurement/ termination of lease contract RM'000	Currency translation differences RM'000	At 31.12.2021 RM'000	At 31.12.2021 RM'000
Group - 31 December 2021											
Other property, plant and equipment											
Freehold land	-	-	-	-	-	-	-	-	-	-	13,030
Freehold buildings, drydocks and waste plant	903,151	45,023	4,996	-	(121)	-	-	-	81	953,130	1,185,175
Leasehold buildings	25,008	26	46	-	-	-	-	-	(47)	25,033	49,003
Motor vehicles	18,852	577	-	(153)	(370)	-	-	-	(459)	18,447	1,338
Furniture, fittings and equipment	119,713	12,432	22	(1,523)	(2,350)	-	-	-	592	128,886	61,153
Computer software and hardware	278,770	12,979	4	(957)	(924)	-	-	-	5,224	295,096	33,618
Projects in progress****	-	-	-	-	-	-	-	-	-	-	162,967
Plant and machineries	440,752	35,267	5,000	(4,268)	(4,629)	-	(12,673)	-	(387)	459,062	307,719
	1,786,246	106,304	10,068	(6,901)	(8,394)	-	(12,673)	-	5,004	1,879,654	1,814,003
Right-of-use assets											
- office premise, warehouse and wharf	92,695	29,902	8,942	-	-	-	-	(4,622)	(257)	126,660	75,929
- computer software and hardware	602	41	-	-	(643)	-	-	-	-	-	-
	93,297	29,943	8,942	-	(643)	-	-	(4,622)	(257)	126,660	75,929
	1,879,543	136,247	19,010	(6,901)	(9,037)	-	(12,673)	(4,622)	4,747	2,006,314	1,889,932
Grand total	**26,641,722**	**1,949,088**	**111,910**	**(853,056)**	**(470,321)**	**(37,400)**	**(1,044,880)**	**(309,405)**	**656,691**	**26,644,349**	**23,411,720**

* Included in ships in operation and right-of-use - ships in operation are ships subject to operating lease as a lessor with a carrying amount of RM14,625,320,000 (2020: RM16,182,906,000) and RM Nil (2020: RM14,934,000) respectively based on the ships contractual arrangement as at 31 December 2021. Certain ships in operation are used interchangeably between time charter and spot charter during the financial year.

** Reclassification out of property, plant and equipment relates to capital expenditure which are reimbursable and reclassed to other receivables and capital expenditure reclassed to other intangible assets.

*** Amount mainly relates to derecognition of previous dry docking / major spares upon capitalisation of replacement costs.

**** Included in projects in progress are ongoing projects for other property, plant, equipment and intangible assets on digital products.

14. Ships, offshore floating assets and other property, plant and equipment

	Cost										
Group - 31 December 2020	At 1.1.2020 RM'000	Additions RM'000	Disposals RM'000	Write-offs*** RM'000	Transfers RM'000	Reclassification out of property, plant and equipment** RM'000	Reclassified to held for sale RM'000	Termination of lease contract RM'000	Remeasurement of lease contract RM'000	Currency translation differences RM'000	At 31.12.2020 RM'000
Ships											
Ships in operation*	40,440,901	489,779	(670,112)	(304,979)	2,901,011	(337,632)	(199,592)	-	-	(682,046)	41,637,330
Right-of-use - ships in operation*	2,502,983	22,827	-	(1,052,789)	-	-	-	(16,730)	(496)	3,630	1,459,425
Ships under construction	2,295,581	2,485,965	-	-	(2,882,109)	-	-	-	-	(21,611)	1,877,826
	45,239,465	2,998,571	(670,112)	(1,357,768)	18,902	(337,632)	(199,592)	(16,730)	(496)	(700,027)	44,974,581
Offshore floating assets											
Subject to operating lease as a lessor - offshore floating assets in operation	1,137,815	-	-	-	-	-	(206,689)	-	-	(3,857)	927,269

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

Group - 31 December 2020	At 1.1.2020 RM'000	Additions RM'000	Disposals RM'000	Write-offs*** RM'000	Transfers RM'000	Reclassification out of property, plant and equipment** RM'000	Reclassified to held for sale RM'000	Termination of lease contract RM'000	Remeasurement of lease contract RM'000	Currency translation differences RM'000	At 31.12.2020 RM'000
	Cost										
Other property, plant and equipment											
Freehold land	12,757	-	-	-	-	-	-	-	-	128	12,885
Freehold buildings, drydocks and waste plant	1,666,810	311	-	(99)	468,111	-	-	-	-	(496)	2,134,637
Leasehold buildings	73,882	-	-	-	-	-	-	-	-	327	74,209
Motor vehicles	20,181	262	(181)	-	-	-	-	-	-	(28)	20,234
Furniture, fittings and equipment	168,544	4,270	(1,482)	-	2,957	-	-	-	-	(988)	173,301
Computer software and hardware	302,267	5,955	(1,955)	-	170	-	-	-	-	(3,280)	303,157
Projects in progress****	607,537	336,817	-	-	(587,564)	-	-	-	-	(4,987)	351,803
Plant and machineries	686,195	16,210	(4,953)	(51)	97,424	-	-	-	-	(824)	794,001
	3,538,173	363,825	(8,571)	(150)	(18,902)	-	-	-	-	(10,148)	3,864,227
Right-of-use assets											
- office premise, warehouse and wharf	178,162	16,465	(8,084)	-	-	-	-	-	-	(2,393)	184,150
- computer software and hardware	643	-	-	-	-	-	-	-	-	-	643
	178,805	16,465	(8,084)	-	-	-	-	-	-	(2,393)	184,793
	3,716,978	380,290	(16,655)	(150)	(18,902)	-	-	-	-	(12,541)	4,049,020
Grand total	**50,094,258**	**3,378,861**	**(686,767)**	**(1,357,918)**	**-**	**(337,632)**	**(406,281)**	**(16,730)**	**(496)**	**(716,425)**	**49,950,870**

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	Accumulated depreciation/impairment										
	At 1.1.2020 RM'000	Depreciation charge for the year RM'000	Impairment losses RM'000	Disposals RM'000	Write-offs*** RM'000	Reclassification out of property, plant and equipment** RM'000	Reclassified to held for sale RM'000	Termination of lease contract RM'000	Currency translation differences RM'000	At 31.12.2020 RM'000	Net book value At 31.12.2020 RM'000
Group - 31 December 2020											
Ships											
Ships in operation*	22,113,034	1,741,070	11,585	(428,737)	(281,355)	(167,681)	(94,425)	-	(328,313)	22,565,178	19,072,152
Right-of-use - ships in operation*	2,150,504	227,054	-	-	(1,052,789)	-	-	(4,137)	408	1,321,040	138,385
Ships under construction	-	-	-	-	-	-	-	-	-	-	1,877,826
	24,263,538	1,968,124	11,585	(428,737)	(1,334,144)	(167,681)	(94,425)	(4,137)	(327,905)	23,886,218	21,088,363
Offshore floating assets											
Subject to operating lease as a lessor - offshore floating assets in operation	1,055,458	8,181	9,575	-	-	-	(193,663)	-	(3,590)	875,961	51,308

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	Accumulated depreciation/impairment										
	At 1.1.2020 RM'000	Depreciation charge for the year RM'000	Impairment losses RM'000	Disposals RM'000	Write-offs*** RM'000	Reclassification out of property, plant and equipment** RM'000	Reclassified to held for sale RM'000	Termination of lease contract RM'000	Currency translation differences RM'000	At 31.12.2020 RM'000	Net book value At 31.12.2020 RM'000
Group - 31 December 2020											
Other property, plant and equipment											
Freehold land	-	-	-	-	-	-	-	-	-	-	12,885
Freehold buildings, drydocks and waste plant	628,278	31,770	242,778	-	(84)	-	-	-	409	903,151	1,231,486
Leasehold buildings	24,606	25	-	-	-	-	-	-	377	25,008	49,201
Motor vehicles	17,915	828	320	(181)	-	-	-	-	(30)	18,852	1,382
Furniture, fittings and equipment	113,338	8,374	-	(1,371)	-	-	-	-	(628)	119,713	53,588
Computer software and hardware	271,420	13,054	611	(1,983)	-	-	-	-	(4,332)	278,770	24,387
Projects in progress****	-	-	-	-	-	-	-	-	-	-	351,803
Plant and machineries	362,259	30,296	53,999	(4,951)	(51)	-	-	-	(800)	440,752	353,249
	1,417,816	84,347	297,708	(8,486)	(135)	-	-	-	(5,004)	1,786,246	2,077,981
Right-of-use assets											
- office premise, warehouse and wharf	69,831	30,143	2,279	(8,169)	-	-	-	-	(1,389)	92,695	91,455
- computer software and hardware	414	175	13	-	-	-	-	-	-	602	41
	70,245	30,318	2,292	(8,169)	-	-	-	-	(1,389)	93,297	91,496
	1,488,061	114,665	300,000	(16,655)	(135)	-	-	-	(6,393)	1,879,543	2,169,477
Grand total	**26,807,057**	**2,090,970**	**321,160**	**(445,392)**	**(1,334,279)**	**(167,681)**	**(288,088)**	**(4,137)**	**(337,888)**	**26,641,722**	**23,309,148**

* Included in ships in operation and right-of-use - ships in operation are ships subject to operating lease as a lessor with a carrying amount of RM16,182,906,000 and RM14,934,000 respectively based on the ships contractual arrangement as at 31 December 2020. Certain ships in operation are used interchangeably between time charter and spot charter during the financial year.

** Reclassification out of property, plant and equipments relates to capital expenditure which are reimbursable and reclassed to other receivables.

*** Amount mainly relates to derecognition of previous dry docking / major spares upon capitalisation of replacement costs.

**** Included in projects in progress are ongoing projects for other property, plant, equipment and intangible assets on digital products.

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	Cost								
	At 1.1.2021 RM'000	Additions RM'000	Write-offs** RM'000	Disposals RM'000	Transfers RM'000	Remeasurement of lease contract RM'000	Reclassification out of property, plant and equipment* RM'000	Currency translation differences RM'000	At 31.12.2021 RM'000
Corporation - 31 December 2021									
Ships									
Subject to operating lease as a lessor									
- ships in operation	9,740,963	76,211	(36,551)	-	-	-	(3,619)	274,053	10,051,057
Other property and equipment									
Freehold land	7,234	-	-	-	-	-	-	261	7,495
Freehold buildings	22,398	-	-	-	-	-	-	1,276	23,674
Motor vehicles	372	48	-	-	-	-	-	13	433
Furniture, fittings and equipment	34,149	93	-	(369)	17,119	-	-	1,347	52,339
Computer software and hardware	170,077	4,008	-	(129)	17,203	-	-	6,293	197,452
Projects in progress	76,789	7,033	-	-	(34,322)	-	-	2,548	52,048
	311,019	11,182	-	(498)	-	-	-	11,738	333,441
Right-of-use									
- office premise	81,607	-	-	-	-	(1,351)	-	3,337	83,593
	392,626	11,182	-	(498)	-	(1,351)	-	15,075	417,034
Grand total	**10,133,589**	**87,393**	**(36,551)**	**(498)**	**-**	**(1,351)**	**(3,619)**	**289,128**	**10,468,091**

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	Accumulated depreciation/impairment								Net book value
	At 1.1.2021 RM'000	Depreciation RM'000	Impairment losses RM'000	Write-offs** RM'000	Disposals RM'000	Remeasurement of lease contract RM'000	Currency translation differences RM'000	At 31.12.2021 RM'000	At 31.12.2021 RM'000
Corporation - 31 December 2021									
Ships									
Subject to operating lease as a lessor - ships in operation	5,718,010	341,936	52,774	(36,136)	-	-	131,164	6,207,748	3,843,309
Other property and equipment									
Freehold land	-	-	-	-	-	-	-	-	7,495
Freehold buildings	2,122	342	-	-	-	-	559	3,023	20,651
Motor vehicles	363	7	-	-	-	-	13	383	50
Furniture, fittings and equipment	21,599	6,463	-	-	(466)	-	898	28,494	23,845
Computer software and hardware	159,878	9,167	-	-	(129)	-	5,835	174,751	22,701
Projects in progress	-	-	-	-	-	-	-	-	52,048
	183,962	15,979	-	-	(595)	-	7,305	206,651	126,790
Right-of-use - office premise	53,791	14,458	-	-	-	(751)	1,441	68,939	14,654
	237,753	30,437	-	-	(595)	(751)	8,746	275,590	141,444
Grand total	**5,955,763**	**372,373**	**52,774**	**(36,136)**	**(595)**	**(751)**	**139,910**	**6,483,338**	**3,984,753**

* Reclassification out of property, plant and equipment relates to capital expenditure which are reimbursable and reclassed to other receivables.

** Amount mainly relates to derecognition of previous dry docking / major spares upon capitalisation of replacement costs.

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	Cost							
	At 1.1.2020 RM'000	**Additions RM'000**	**Write-offs** RM'000**	**Disposals RM'000**	**Transfers RM'000**	**Reclassification out of property, plant and equipment* RM'000**	**Currency translation differences RM'000**	**At 31.12.2020 RM'000**
Corporation - 31 December 2020								
Ships								
Subject to operating lease as a lessor - ships in operation	9,896,486	73,264	(59,257)	-	-	(36,547)	(132,983)	9,740,963
Other property and equipment								
Freehold land	7,361	-	-	-	-	-	(127)	7,234
Freehold buildings	22,533	-	-	-	-	-	(135)	22,398
Motor vehicles	378	-	-	-	-	-	(6)	372
Furniture, fittings and equipment	33,362	430	-	(297)	1,291	-	(637)	34,149
Computer software and hardware	174,884	550	-	(2,107)	(297)	-	(2,953)	170,077
Projects in progress	222,684	21,428	-	-	(994)	(168,600)	2,271	76,789
	461,202	22,408	-	(2,404)	-	(168,600)	(1,587)	311,019
Right-of-use								
- office premise	82,575	-	-	-	-	-	(968)	81,607
	543,777	22,408	-	(2,404)	-	(168,600)	(2,555)	392,626
Grand total	**10,440,263**	**95,672**	**(59,257)**	**(2,404)**	**-**	**(205,147)**	**(135,538)**	**10,133,589**

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	Accumulated depreciation/impairment							
	At 1.1.2020 RM'000	Depreciation RM'000	Impairment losses RM'000	Write-offs** RM'000	Disposals RM'000	Currency translation differences RM'000	At 31.12.2020 RM'000	Net book value At 31.12.2020 RM'000
Corporation - 31 December 2020								
Ships								
Subject to operating lease as a lessor - ships in operation	5,493,481	343,037	10,444	(59,162)	-	(69,790)	5,718,010	4,022,953
Other property and equipment								
Freehold land	-	-	-	-	-	-	-	7,234
Freehold buildings	1,349	448	-	-	-	325	2,122	20,276
Motor vehicles	369	-	-	-	-	(6)	363	9
Furniture, fittings and equipment	18,199	4,086	-	-	(224)	(462)	21,599	12,550
Computer software and hardware	159,978	4,902	-	-	(2,117)	(2,885)	159,878	10,199
Projects in progress	-	-	-		-	-	-	76,789
	179,895	9,436	-	-	(2,341)	(3,028)	183,962	127,057
Right-of-use - office premise	40,414	14,200	-	-	-	(823)	53,791	27,816
	220,309	23,636	-	-	(2,341)	(3,851)	237,753	154,873
Grand total	**5,713,790**	**366,673**	**10,444**	**(59,162)**	**(2,341)**	**(73,641)**	**5,955,763**	**4,177,826**

* Reclassification out of property, plant and equipment relates to capital expenditure which are reimbursable and reclassed to other receivables.

** Amount mainly relates to derecognition of previous dry docking / major spares upon capitalisation of replacement costs.

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

(a) The net carrying amounts of ships pledged as security for borrowings (Note 20(c)) are as follows:

	Group 2021 RM'000	Group 2020 RM'000
Ships in operation	9,213,803	8,991,447

(b) The volatility of charter hire rates, expired charter contracts or contracts that are approaching the expiry date were identified as indications that the carrying amount of certain ships may be impaired. The Marine & Heavy Engineering segment's continues to be loss-making during the financial year indicating potential impairment of its other property, plant and equipment and right-of-use assets.

In the previous financial year, the Marine & Heavy Engineering segment was impacted by the COVID-19 pandemic and depressed oil price environment where most oil and gas companies were expected to postpone their upstream projects and reduce capital expenditure.

The Group and the Corporation have performed a review of the recoverable amount of their ships, other property, plant and equipment and right-of-use assets during the financial year. The review led to the recognition of net impairment losses of RM111,910,000 (2020: RM321,160,000) and RM52,774,000 (2020: RM10,444,000) for the Group and the Corporation respectively, as disclosed in Note 5(a).

The recoverable amount was based on the higher of fair value less costs of disposal or value-in-use, and determined at the CGU of each asset.

<u>Recoverable amount determined from value-in-use ("VIU")</u>

The key assumptions used in the value-in-use calculations are as follows:

(i) Ships

The value-in-use for certain ships were calculated using cash flow projections for the remaining lease period and useful life and discounted at rates of 6.15% and 6.29% (2020: 6.88% and 7.40%).

The recoverable amount of a ship amounting to RM250,746,000 as at the end of the current financial year was determined from the VIU calculations using cash flow projections discounted at 6.29% was lower than its carrying value. Accordingly, an impairment loss of RM5,430,000 was recognised in the current financial year.

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

(ii) Other property, plant and equipment and right-of-use assets

The Group's recoverable amount for impaired other property, plant and equipment and right-of-use assets of RM1,753,818,000 (2020: RM1,765,170,000) as at the end of current financial year was determined from VIU calculations using cash flow projections discounted at rates of 8.46% and 10.13% (2020: 10.50% and 11.00%). Impairment losses of RM Nil (2020: RM300,000,000) and RM10,000,000 (2020: RM Nil) were recognised from Marine & Heavy Engineering segment and Others segment, respectively, during the financial year using this basis.

Recoverable amount determined from fair value less costs of disposal

The fair values of certain ships and other property, plant and equipment were determined based on valuation performed by independent valuers based on comparable ships and other property, plant and equipment.

Impairment of ships amounting to RM87,470,000 (2020: RM21,160,000) and RM52,774,000 (2020: RM10,444,000) for the Group and Corporation respectively were recognised using this basis. Other property, plant and equipment of the Marine & Heavy Engineering segment amounting to RM9,010,000 (2020: RM Nil) were impaired using this basis.

Fair value measurement and VIU were categorised as Level 3 fair value as defined in Note 2.3(z).

(c) Included in additions to the ships under construction and project-in-progress of the Group is finance costs capitalised during the year of RM42,438,000 (2020: RM73,655,000), including general borrowing costs.

15. Prepaid lease payments on land and buildings

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
At 1 January	212,534	219,843	3,516	3,566
Amortisation for the year (Note 5)	(7,135)	(7,359)	(99)	(100)
Currency translation differences	126	50	126	50
At 31 December	205,525	212,534	3,543	3,516
Analysed as:				
Leasehold land	201,982	209,018	-	-
Leasehold buildings	3,543	3,516	3,543	3,516
	205,525	212,534	3,543	3,516

Included in leasehold land of the Group is the carrying value of a long term leasehold and foreshore land of a subsidiary of RM201,982,000 (2020: RM209,018,000) which cannot be disposed off, charged or subleased without the prior consent of the Johor State Government.

16. Intangible assets

	Goodwill RM'000	Group Other intangible assets RM'000	Total RM'000
Cost			
At 1 January 2020	982,175	212,557	1,194,732
Currency translation differences	(15,547)	-	(15,547)
At 31 December 2020/1 January 2021	966,628	212,557	1,179,185
Reclassification from property, plant and equipment (Note 14)	-	231,238	231,238
Deconsolidation of a subsidiary	(225)	-	(225)
Currency translation differences	31,862	1,421	33,283
At 31 December 2021	998,265	445,216	1,443,481
Accumulated amortisation and impairment			
At 1 January 2020	162,501	191,578	354,079
Amortisation for the year (Note 5)	-	5,884	5,884
At 31 December 2020/1 January 2021	162,501	197,462	359,963
Amortisation for the year (Note 5)	-	22,603	22,603
At 31 December 2021	162,501	220,065	382,566
Net carrying amount			
At 31 December 2021	835,764	225,151	1,060,915
At 31 December 2020	804,127	15,095	819,222

Goodwill

(a) Allocation of goodwill

Goodwill has been allocated to the Group's CGUs identified according to business segment as follows:

	Group 2021 RM'000	2020 RM'000
Petroleum & Product Shipping	835,764	803,902
Offshore Business	-	225
	835,764	804,127

16. **Intangible assets (cont'd.)**

(b) Impairment test for goodwill

The Group performed a review on the recoverable amount of goodwill during the financial year. Generally, the recoverable amounts are based on the higher of fair value less costs to sell or value-in-use ("VIU") for the CGUs to which the goodwill is allocated.

The recoverable amount of a CGU is determined using the VIU method, based on cash flow projections derived from financial projections approved by the management covering a five-year period. The discount rate used is based on the pre-tax weighted average cost of capital determined by the management.

Goodwill for the Petroleum & Product Shipping segment represents goodwill arising from acquisition of American Eagle Tanker Inc. ("AET"). An impairment review of the carrying amount of the goodwill at the reporting date was undertaken by comparing to the recoverable amount of the CGU, which was derived based on VIU calculations. The VIU is most sensitive to the following key assumptions:

(i) Risk adjusted discount rate used is 6.15% (2020: 6.90%). The discount rate reflects the current market assessment of the risks specific to the Petroleum segment. This is the benchmark used by the management to assess operating performance and to evaluate future investments.

An increase of 0.80% (2020: 1.81%) or 80 (2020: 181) basis points in discount rate would result in recoverable amount that equates to the carrying amount of the CGU.

(ii) Terminal value and growth rate - The terminal value is based on expected cash flows for year 2025 into perpetuity with terminal year growth rate of 1.80% (2020: 1.80%). Terminal year charter rates are referenced to ten-year historical market rates.

A decrease of 5.30% (2020: 9.66%) or 530 (2020: 966) basis points in the charter rates in deriving at the terminal value would result in recoverable amount that equates to the carrying amount of the CGU.

The decrease in terminal growth rate is not sensitive towards the recoverable amount of the CGU.

(iii) Spot and time charter rates are estimated based on forecasts by industry research publications.

Other intangible assets

The other intangible assets relate to the fair value, at the date of acquisition, of long term customer contracts from acquisition of a subsidiary which is amortised over the remaining contract periods.

The addition in the current financial year relates to digital products, measured at cost which comprises the development costs and all costs that can be directly attributed to preparing the asset for its intended use. The intangible assets on digital products are amortised on a straight-line basis over its estimated useful life of 7 years.

17. Investments in subsidiaries

	Corporation 2021 RM'000	Corporation 2020 RM'000
At 1 January	14,981,888	14,986,590
Additional investments in subsidiaries (Note a)	2,556,754	292,438
Redemption of redeemable cumulative preference shares ("RCPS") (Note b)	(1,098,682)	-
Disposal of interest in a subsidiary (Note c)	(3,406)	-
Impairment of investment in unquoted subsidiaries (Note 5(a))	(5,187)	(26,627)
Currency translation differences	550,910	(270,513)
At 31 December	16,982,277	14,981,888
Quoted shares	269,866	260,459
Unquoted shares	16,712,411	14,721,429
	16,982,277	14,981,888

Included in unquoted shares are preference shares of RM10,601,000 (2020: RM9,031,255,000) which bear interest ranging from 5.00% to 6.00% (2020: 5.00% to 6.00%) per annum.

(a) Additional investments in subsidiaries

(i) During the current financial year, the Corporation increased its investment in Portovenere and Lerici (L) Pte Ltd by USD280,272,000 (RM1,162,000,000) in support of the subsidiary's debt capitalisation exercise.

(ii) During the current financial year, the Corporation increased its investment in MISC Offshore (Americas) Holdings Pte Ltd by USD318,512,000 (RM1,320,541,000) in support of the subsidiary's debt capitalisation exercise.

(iii) During the current financial year, the Corporation increased its investment in Magellan X Holdings (L) Pte Ltd ("Magellan X Holdings (L)") by USD17,900,000 (RM74,213,000) by cash consideration.

(iv) In the previous financial year, the Corporation had incorporated a new subsidiary, Magellan X Holdings (L), under the Labuan Companies Act, 1990 with a total paid-up capital of RM292,438,000. The principal activities of Magellan X Holdings (L) is investment holding.

(b) Redemption of RCPS

(i) During the current financial year, the Corporation has approved a partial redemption of RCPS for its investment in MISC Tanker Holdings Sdn Bhd amounting to USD35,000,000 (RM145,109,000).

17. Investments in subsidiaries (cont'd.)

(b) Redemption of RCPS (cont'd.)

(ii) During the current financial year, the Corporation has approved a partial redemption of RCPS for its investment in MISC Offshore (Americas) Holdings Pte. Ltd. amounting to USD230,000,000 (RM953,573,000).

(c) The Corporation had on 9 April 2021 completed the disposal of 3,795,200 ordinary shares representing approximately 31% of the total issued share capital of FPSO Ventures Sdn. Bhd. ("FVSB"), a partially-owned subsidiary of the Group, for a total consideration of RM26,923,000. As a result, the Group and the Corporation recognised a loss and a gain on the disposal of RM2,241,000 and RM25,025,000 respectively in the current financial year. Accordingly, FVSB ceased to be a subsidiary of the Corporation and became a 20% associated company of the Corporation from the said date.

The net effect of the above disposal to the Group's cash flows and carrying amount of assets and liabilities disposed are as follows:

	Carrying amount at disposal date RM'000
Property, plant and equipment	13,336
Other non-current assets	1,602
Current assets	94,670
Current liabilities	(18,461)
Non-current liabilities	(8,256)
Non-controlling interests	(36,807)
Share of net assets	46,084
Less: Reclassification of an associated company at fair value	(16,920)
Net assets disposed	**29,164**

Loss on disposal of a subsidiary

	RM'000
Sale consideration	26,923
Net assets disposed	(29,164)
Loss on disposal of a subsidiary	(2,241)

The effect of the disposal on the cash flows is as follows:

	RM'000
Sale consideration received	26,923
Less: Cash and cash equivalents disposed	(48,587)
Net cash flow on disposal	(21,664)

Details of the subsidiaries are disclosed in Note 40.

17. Investments in subsidiaries (cont'd.)

Non-controlling interests in subsidiaries

The Group's subsidiaries that have material non-controlling interests ("NCI") are Malaysia Marine and Heavy Engineering Holdings Berhad ("MHB"), Asia LNG Transport Sdn. Bhd. ("ALT") and Asia LNG Transport Dua Sdn. Bhd. ("ALT 2") as shown below:

	MHB RM'000	ALT RM'000	ALT 2 RM'000	Others* RM'000	Total RM'000
2021					
NCI percentage of ownership interest and voting interest	33.5%	49.0%	49.0%		
Carrying amount of NCI as at 31 December	542,155	125,872	24,766	69,428	762,221
(Loss)/profit allocated to NCI for the year ended 31 December	(95,610)	(3,497)	(1,053)	2,443	(97,717)
2020					
NCI percentage of ownership interest and voting interest	33.5%	49.0%	49.0%		
Carrying amount of NCI as at 31 December	632,447	125,622	16,304	103,902	878,275
(Loss)/profit allocated to NCI for the year ended 31 December	(138,466)	(2,592)	(85)	14,379	(126,764)

* Other individually immaterial subsidiaries

17. Investments in subsidiaries (cont'd.)

Non-controlling interests in subsidiaries (cont'd.)

Summarised financial information before intra-group elimination

	MHB RM'000	ALT RM'000	ALT 2 RM'000
As at 31 December 2021			
Non-current assets	1,830,177	85,647	114,435
Current assets	1,559,890	142,284	31,104
Non-current liabilities	(335,100)	-	-
Current liabilities	(1,347,560)	(2,205)	(41,808)
Net assets	1,707,407	225,726	103,731
Year ended 31 December 2021			
Revenue	1,467,316	42,257	-
(Loss)/profit for the year	(274,140)	7,873	(2,150)
Total comprehensive (loss)/income	(258,296)	509	17,204
Cash (outflows)/inflows from operating activities	(10,469)	27,896	2,646
Cash outflows from investing activities	(37,769)	(41,239)	(94,218)
Cash inflows from financing activities	107,097	-	41,460
Net increase/(decrease) in cash and cash equivalents	58,859	(13,343)	(50,112)
As at 31 December 2020			
Non-current assets	1,897,783	83,224	-
Current assets	1,248,568	128,546	81,398
Non-current liabilities	(242,964)	-	-
Current liabilities	(937,684)	(1,471)	(235)
Net assets	1,965,703	210,299	81,163

17. Investments in subsidiaries (cont'd.)

Non-controlling interests in subsidiaries (cont'd.)

Summarised financial information before intra-group elimination (cont'd.)

	MHB RM'000	ALT RM'000	ALT 2 RM'000
Year ended 31 December 2020			
Revenue	1,566,750	42,040	-
(Loss)/profit for the year	(401,286)	9,815	(173)
Total comprehensive loss	(415,736)	(9,231)	(61,391)
Cash inflows/(outflows) from operating activities	136,062	29,199	(267)
Cash (outflows)/inflows from investing activities	(216,552)	2,612	(49,458)
Cash inflows from financing activities	57,630	-	-
Net (decrease)/increase in cash and cash equivalents	(22,860)	31,811	(49,725)

18. Investments in associates

	Group 2021 RM'000	Group 2020 RM'000	Corporation 2021 RM'000	Corporation 2020 RM'000
Unquoted shares in Malaysia, at cost	16,920	-	1,345	-
Unquoted shares outside Malaysia, at cost	211	325	-	124
Share of post-acquisition profit	4,121	686	-	-
Share of other post-acquisition reserves	(210)	(315)	-	-
Carrying amount of the investment	21,042	696	1,345	124

Details of the associates are disclosed in Note 41.

19. Investments in joint ventures

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
Unquoted shares in Malaysia, at cost	179,287	173,228	173,867	167,803
Unquoted shares outside Malaysia, at cost	193,159	221,280	25,069	24,195
	372,446	394,508	198,936	191,998
Share of post-acquisition profits	519,715	423,035	-	-
Share of other post-acquisition reserves	161,453	132,731	-	-
	1,053,614	950,274	198,936	191,998
Less: Accumulated impairment loss	(6,136)	(77,213)	-	-
Carrying amount of the investment	1,047,478	873,061	198,936	191,998

a) During the current financial year, the Corporation has been notified by its joint venture counterpart that MISC Shipping Services UAE (LLC), a 49%-owned joint venture company of MISC Agencies Sdn. Bhd., a wholly owned subsidiary of the Corporation, had completed its liquidation process.

b) During the current financial year, MISC Offshore Holdings (Brazil) Sdn. Bhd. (“MOHB”), a wholly-owned subsidiary of the Corporation and SBM Holding Inc. S.A. entered into Share Transfer Agreement on 10 December 2021 for the disposal of its entire shareholdings in SBM Systems Inc. (“SBMSI”) and FPSO Brasil Venture S.A. (“FPSOBV”), comprising 7,399 SBMSI shares and 49 FPSOBV shares for a cash consideration of RM50,306,000 which represents 49% of the total issued share capital of SBMSI and FPSOBV respectively. A gain on disposal of RM25,126,000 was recognised during the financial year. Subsequent thereto, SBMSI, FPSOBV and SBM Operaçoes Ltda, then a wholly-owned subsidiary of FPSOBV, have since ceased to be joint venture companies of MOHB.

c) During the current financial year, the Corporation through its subsidiary, Asia LNG Transport Dua Sdn. Bhd. ("ALT Dua"), a 51%-owned subsidiary of the Corporation increased its investment in Diamond LNG Shipping 5 Pte. Ltd. ("DLS5") and Diamond LNG Shipping 6 Pte. Ltd. (“DLS6 Singapore”) by RM45,631,000 and RM49,452,000 respectively.

d) The Group has discontinued recognising its share of losses in a joint venture as the share of losses exceeds the Group's interest in this joint venture. As such, the Group did not recognise its share of losses of this joint venture in the current year and the Group's cumulative share of unrecognised losses in this joint venture amounting to RM1,622,000 (2020: RM24,377,000).

19. Investments in joint ventures (cont'd.)

e) In the previous financial year, the Corporation through its subsidiary, Asia LNG Transport Dua Sdn. Bhd. ("ALT Dua"), a 51%-owned subsidiary of the Corporation entered into a shareholders' agreement with Mitsubishi Corporation ("MC") and Nippon Yusen Kabushiki Kaisha ("NYK") for the acquisition of shares in Diamond LNG Shipping 5 Pte. Ltd. ("DLS5"), a company incorporated in Singapore, from NYK for a cash consideration of RM35,103,000. Subsequent thereto, DLS5 became a 50%-owned joint venture company of ALT Dua and 25% owned by MC and NYK respectively.

f) In the previous financial year, pursuant to an Amended and Restated Shareholders' Agreement entered into on 7 December 2020 between SBM Holding Inc. S.A. ("SBM") and MISC Offshore Holdings (Brazil) Sdn. Bhd. ("MOHB"), a wholly-owned subsidiary of the Corporation, relating to the operation of joint venture companies for the ownership, conversion, chartering and operation of a Floating Production Storage and Offloading System "Espirito Santo" ("FPSO Espirito Santo"), a new company known as Brazilian Deepwater Production B.V. ("BDPBV") was incorporated under the laws of The Netherlands. BDPBV is a 49%-owned joint venture company of MOHB and its principal activity is chartering of Floating Production Storage and Offloading System. BDPBV is to replace the original chartering joint venture company named Brazilian Deepwater Production Limited, to own and charter the FPSO Espirito Santo. The total equity investment in BDPBV by the Group amounts to RM24,000.

g) In the previous financial year, the Corporation had on 26 March 2020 completed the transfer of business from Diamond LNG Shipping 6 Ltd. ("DLS6 Bahamas"), a company incorporated in The Bahamas, to Diamond LNG Shipping 6 Pte. Ltd. ("DLS6 Singapore"), a company incorporated in Singapore. The business transfer is to align business ownership structure and optimise cost of operations. Subsequent thereto, DLS6 Singapore became a 50%-owned joint venture company of ALT Dua. The principal activity of DLS6 Singapore is owning and chartering of a LNG vessel. DLS6 Bahamas is to be dissolved thereafter.

Details of the joint ventures are disclosed in Note 42.

The material joint ventures are Malaysia Deepwater Floating Terminal (Kikeh) Limited ("MDFT") and Malaysia Vietnam Offshore Terminal (L) Limited ("MVOT").

The following tables summarise the financial information of the Group's material joint ventures, as adjusted for any differences in accounting policies and reconciles the information to the carrying amount of the Group's interest in joint ventures.

The summarised financial information of the material joint ventures are as follows:

	MDFT RM'000	MVOT RM'000
As at 31 December 2021		
Non-current assets	738,548	639,327
Current assets	139,241	136,728
Cash and cash equivalents	688	287,551
Non-current liabilities	-	(814)
Current liabilities	(37,171)	(353,717)
Net assets	841,306	709,075

19. Investments in joint ventures (cont'd.)

	MDFT RM'000	MVOT RM'000
Year ended 31 December 2021		
Profit after taxation/total comprehensive income	382,892	51,639
Included in the total comprehensive income is:		
Revenue	589,739	152,802
Depreciation and amortisation	(193,582)	(1,256)
Interest income	38	721
Interest expenses	-	(3,678)
Income tax expense	(11,842)	(3,421)
As at 31 December 2020		
Non-current assets	823,678	713,825
Current assets	2	114,200
Cash and cash equivalents	10,505	214,498
Non-current liabilities	-	(907)
Current liabilities	(39,741)	(410,658)
Net assets	794,444	630,958
Year ended 31 December 2020		
Profit after taxation/total comprehensive income	196,479	65,471
Included in the total comprehensive income is:		
Revenue	403,806	301,542
Other income	74	209
Depreciation and amortisation	(201,049)	(248)
Interest income	37	254
Interest expenses	-	(146)
Income tax expense	(5,991)	(2,315)

19. Investments in joint ventures (cont'd.)

Group

	2021			
	MDFT RM'000	MVOT RM'000	Others* RM'000	Total RM'000
Reconciliation of net assets to carrying amount				
As at 31 December				
Group's share of net assets	429,066	361,628	290,805	1,081,499
Elimination of unrealised (losses)/profits	(19,603)	2,298	(16,716)	(34,021)
Carrying amount in the statement of financial position	409,463	363,926	274,089	1,047,478
Group's share of results				
Year ended 31 December				
Group's share of profit after taxation	198,354	28,239	70,839	297,432
Group's share of other comprehensive income	-	-	14,169	14,169
Group's share of total comprehensive income	198,354	28,239	85,008	311,601

	2020			
	MDFT RM'000	MVOT RM'000	Others* RM'000	Total RM'000
Reconciliation of net assets to carrying amount				
As at 31 December				
Group's share of net assets	405,166	321,788	196,880	923,834
Elimination of unrealised (losses)/profits	(22,682)	2,089	(30,180)	(50,773)
Carrying amount in the statement of financial position	382,484	323,877	166,700	873,061
Group's share of results				
Year ended 31 December				
Group's share of profit after taxation	103,285	34,097	291,400	428,782
Group's share of other comprehensive loss	-	-	(58,682)	(58,682)
Group's share of total comprehensive income	103,285	34,097	232,718	370,100

* Other individually immaterial joint ventures

20. Other financial assets and financial liabilities

(a) Other non-current assets

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
Unquoted equity investments (Note 37)	72,564	63,498	65,776	63,483
Quoted equity investments (Note 37)	50,971	40,671	50,971	40,671
Total equity instruments	123,535	104,169	116,747	104,154
Long term receivables (Note 37)	501,747	103,546	402,582	-
Contract assets (Note 23)	2,748,898	-	-	-
	3,250,645	103,546	402,582	-
Less : Impairment loss on:				
Long term receivables	(271,264)	-	(271,236)	-
Contract assets	(4,369)	-	-	-
	(275,633)	-	(271,236)	-
Net long term receivables and contract assets	2,975,012	103,546	131,346	-
Loans and advances:				
Subsidiaries	-	-	439,568	616,600
Associate	-	2,417	-	2,417
Joint venture	190,648	181,787	-	-
	190,648	184,204	439,568	619,017
Less: Impairment on loans to associate	-	(2,417)	-	(2,417)
Net loans and advances (Note 22)	190,648	181,787	439,568	616,600
Total long term receivables, contract assets, loans and advances	3,165,660	285,333	570,914	616,600
Total equity instruments	123,535	104,169	116,747	104,154
Total other non-current assets	**3,289,195**	**389,502**	**687,661**	**720,754**
Less: Net contract assets	(2,744,529)	-	-	-
Total other non-current financial assets	544,666	389,502	687,661	720,754

The long term receivables and contract assets are unbilled amounts that will be due from customers after a period of more than 12 months.

The loans and advances to subsidiaries are unsecured and bear interest ranging from 1.51% to 4.15% (2020: 1.54% to 4.25%) per annum.

20. Other financial assets and financial liabilities (cont'd.)

(b) Derivative assets/liabilities

	Group 2021 RM'000	Group 2020 RM'000
Derivative assets		
Non-current:		
Interest rate swaps ("IRS") - effective hedges (ii)	103,039	-
Derivative liabilities		
Current:		
Forward currency contracts (i)	4,701	11,671
IRS - effective hedges (ii)	52,231	-
Non-current:		
Forward currency contracts (i)	-	7,572
IRS - effective hedges (ii)	161,186	519,454

(i) As at 31 December 2021, the Group held forward currency contracts designated as hedges of future payments denominated in United States Dollars ("USD"), Euro ("EUR") and Sterling Pounds ("GBP"). The forward currency contracts are being used to hedge the foreign currency risk of the highly probable forecasted transactions. The notional amount of the currency hedging arrangement as at 31 December 2021 was RM380.1 million (2020: RM596.9 million).

(ii) The Group entered into IRS arrangements to hedge certain USD term loan facilities. Under these arrangements, the Group pays fixed interest rate ranging from 0.46% - 3.19% (2020: 0.62% - 3.19%) per annum and receives cash flows at floating rates. The IRS arrangements entered by the Group mature between year 2022 and year 2030 (2020: year 2022 and year 2030). The notional amount of the IRS arrangement as at 31 December 2021 was RM11.5 billion (2020: RM10.2 billion).

(c) Interest-bearing loans and borrowings

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
Short term borrowings				
Secured:				
Term loans *				
Fixed rate	4,598,738	1,070,032	-	-
Floating rate	1,127,784	408,467	-	-
	5,726,522	1,478,499	-	-

20. Other financial assets and financial liabilities (cont'd.)

(c) Interest-bearing loans and borrowings (cont'd.)

	Group 2021 RM'000	Group 2020 RM'000	Corporation 2021 RM'000	Corporation 2020 RM'000
Short term borrowings				
Unsecured:				
Term loans				
Floating rate	2,156,517	-	-	-
Revolving credits	292,067	342,423	-	342,423
Loans from subsidiaries				
Fixed rate	-	-	64,785	167,548
Floating rate	-	-	-	59,323
Lease liabilities	134,230	184,601	14,435	14,384
	2,582,814	527,024	79,220	583,678
	8,309,336	2,005,523	79,220	583,678
Long term borrowings				
Secured:				
Term loans				
Fixed rate (Note 37)	7,211,913	9,293,628	-	-
Floating rate	-	1,683,865	-	-
	7,211,913	10,977,493	-	-
Unsecured:				
Term loans				
Floating rate	1,408,585	-	-	-
Revolving credit	-	292,738	-	-
Loans from subsidiaries				
Fixed rate (Note 37)	-	-	583,331	-
Floating rate	-	-	-	625,522
Lease liabilities	99,182	164,632	638	15,537
	1,507,767	457,370	583,969	641,059
	8,719,680	11,434,863	583,969	641,059
Total borrowings				
Term loans *	16,503,537	12,455,992	-	-
Revolving credits	292,067	635,161	-	342,423
Loans from subsidiaries	-	-	648,116	852,393
Lease liabilities	233,412	349,233	15,073	29,921
	17,029,016	13,440,386	663,189	1,224,737

* As the Group was unable to fulfil certain conditions in a term loan agreement, RM3,047,500,000 of the term loan was reclassified to current liabilities as the Group does not have unconditional right to defer the settlement for at least 12 months after the reporting date. The Group has options available to refinance the said term loan.

20. Other financial assets and financial liabilities (cont'd.)

(c) Interest-bearing loans and borrowings (cont'd.)

The secured term loans and revolving credits are secured by mortgages over certain ships, together with charter agreements and insurance of the relevant assets as well as retention accounts. The carrying values of the ships pledged and retention accounts restricted for use are stated in Note 14(a) and Note 24 respectively.

The range of interest rates as at the reporting date of the above interest-bearing loans and borrowings are as follows:

	Group		Corporation	
	2021	2020	2021	2020
	%	%	%	%
Fixed rate				
Term loans	1.87-4.44	1.85-4.44	-	-
Loans from subsidiaries	-	-	1.71	3.00
Lease liabilities	2.15-6.03	3.49-6.73	3.49-5.19	3.49
Floating rate				
Term loans	1.01-1.71	1.24-1.74	-	-
Revolving credits	1.56-1.61	0.89-1.59	-	0.89-1.39
Loans from subsidiaries	-	-	-	1.74

20. Other financial assets and financial liabilities (cont'd.)

(c) Interest-bearing loans and borrowings (cont'd.)

Changes in liabilities arising from financing activities:

	Group			
	Term Loans RM'000	**Revolving Credits RM'000**	**Lease Liabilities RM'000**	**Total RM'000**
At 1 January 2021	12,455,992	635,161	349,233	13,440,386
Drawdown/additions	5,099,178	1,036,415	89,426	6,225,019
Repayment	(1,541,614)	(1,401,338)	(203,691)	(3,146,643)
Amortisation of upfront fees	25,663	1,347	-	27,010
Disposal of interest of a subsidiary	-	-	(9,489)	(9,489)
Accretion of interest (Note 10(b))	-	-	15,364	15,364
Remeasurement of modification of lease contract	-	-	(11,820)	(11,820)
Termination of lease		-		
contract	-	-	(3,246)	(3,246)
Currency translation differences	464,318	20,482	7,635	492,435
At 31 December 2021	**16,503,537**	**292,067**	**233,412**	**17,029,016**

	Corporation			
	Loans from subsidiaries RM'000	**Revolving Credits RM'000**	**Lease Liabilities RM'000**	**Total RM'000**
At 1 January 2021	852,393	342,423	29,921	1,224,737
Drawdown/additions	746,275	746,275	-	1,492,550
Repayment	(979,761)	(1,098,682)	(15,616)	(2,094,059)
Remeasurement of modification of lease contract	-	-	(863)	(863)
Accretion of interest (Note 10(b))	-	-	1,688	1,688
Currency translation differences	29,209	9,984	(57)	39,136
At 31 December 2021	**648,116**	**-**	**15,073**	**663,189**

20. Other financial assets and financial liabilities (cont'd.)

(c) Interest-bearing loans and borrowings (cont'd.)

	Group			
	Term Loans RM'000	Revolving Credits RM'000	Lease Liabilities RM'000	Total RM'000
At 1 January 2020	9,404,337	3,109,722	638,114	13,152,173
Drawdown/additions	6,208,196	1,245,768	37,952	7,491,916
Repayment	(2,824,030)	(3,773,994)	(339,678)	(6,937,702)
Amortisation of upfront fees	18,102	3,429	-	21,531
Accretion of interest (Note 10(b))	-	-	23,376	23,376
Termination of lease contract	-	-	(12,593)	(12,593)
Currency translation differences	(350,613)	50,236	2,062	(298,315)
At 31 December 2020	**12,455,992**	**635,161**	**349,233**	**13,440,386**

	Corporation			
	Loans from subsidiaries RM'000	Revolving Credits RM'000	Lease Liabilities RM'000	Total RM'000
At 1 January 2020	851,009	755,128	43,783	1,649,920
Drawdown/additions	770,366	735,303	-	1,505,669
Repayment	(756,311)	(1,152,114)	(15,208)	(1,923,633)
Accretion of interest (Note 10(b))	-	-	1,312	1,312
Currency translation differences	(12,671)	4,106	34	(8,531)
At 31 December 2020	**852,393**	**342,423**	**29,921**	**1,224,737**

20. Other financial assets and financial liabilities (cont'd.)

(c) Interest-bearing loans and borrowings (cont'd.)

The following tables set out the carrying amounts of liabilities as at the reporting date and the remaining maturities of the Group's and the Corporation's financial instruments:

At 31 December 2021	Within 1 year RM'000	More than 1 year and within 2 years RM'000	More than 2 years and within 3 years RM'000	More than 3 years and within 4 years RM'000	More than 4 years and within 5 years RM'000	More than 5 years RM'000	Total RM'000
Group							
Fixed rate							
Term loans	4,598,738	856,931	891,712	893,419	1,013,507	3,556,344	11,810,651
Lease liabilities	134,230	44,685	10,768	10,345	5,072	28,312	233,412
	4,732,968	901,616	902,480	903,764	1,018,579	3,584,656	12,044,063
Floating rate							
Term loans	3,284,301	-	1,408,585	-	-	-	4,692,886
Revolving credits	292,067	-	-	-	-	-	292,067
	3,576,368	-	1,408,585	-	-	-	4,984,953
Total borrowings	8,309,336	901,616	2,311,065	903,764	1,018,579	3,584,656	17,029,016
Corporation							
Fixed rate							
Loans from subsidiaries	64,785	583,331	-	-	-	-	648,116
Lease liabilities	14,435	508	130	-	-	-	15,073
	79,220	583,839	130	-	-	-	663,189
Total borrowings	79,220	583,839	130	-	-	-	663,189

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20. Other financial assets and financial liabilities (cont'd.)

(c) Interest-bearing loans and borrowings (cont'd.)

At 31 December 2020	Within 1 year RM'000	More than 1 year and within 2 years RM'000	More than 2 years and within 3 years RM'000	More than 3 years and within 4 years RM'000	More than 4 years and within 5 years RM'000	More than 5 years RM'000	Total RM'000
Group							
Fixed rate							
Term loans	1,070,032	1,652,809	980,424	1,024,157	1,039,984	4,596,254	10,363,660
Lease liabilities	184,601	106,504	28,661	6,264	6,053	17,150	349,233
	1,254,633	1,759,313	1,009,085	1,030,421	1,046,037	4,613,404	10,712,893
Floating rate							
Term loans	408,467	204,856	217,493	225,423	388,273	647,820	2,092,332
Revolving credits	342,423	292,738	-	-	-	-	635,161
	750,890	497,594	217,493	225,423	388,273	647,820	2,727,493
Total borrowings	2,005,523	2,256,907	1,226,578	1,255,844	1,434,310	5,261,224	13,440,386
Corporation							
Fixed rate							
Loans from subsidiaries	167,548	-	-	-	-	-	167,548
Lease liabilities	14,384	14,896	547	94	-	-	29,921
	181,932	14,896	547	94	-	-	197,469
Floating rate							
Revolving credits	342,423	-	-	-	-	-	342,423
Loans from subsidiaries	59,323	625,522	-	-	-	-	684,845
	401,746	625,522	-	-	-	-	1,027,268
Total borrowings	583,678	640,418	547	94	-	-	1,224,737

20. Other financial assets and financial liabilities (cont'd.)

(d) Finance lease receivables

Finance lease receivables represent lease rental and interest receivable due from customers in relation to the lease of ships and offshore floating assets by the Group and the Corporation.

The following table sets out maturity analysis of lease receivables, showing undiscounted lease payments to be received after the reporting date.

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
Less than 1 year	2,414,791	2,180,922	151,589	146,305
1 to 2 years	2,415,698	2,025,787	151,589	146,305
2 to 3 years	2,358,918	2,042,492	152,005	146,305
3 to 4 years	2,280,924	1,972,797	151,589	146,706
4 to 5 years	2,247,488	1,885,547	133,507	146,305
More than 5 years	12,127,823	10,798,036	632,841	739,634
Total undiscounted lease payments	23,845,642	20,905,581	1,373,120	1,471,560
Unearned interest income	(6,998,757)	(5,804,875)	(413,408)	(469,788)
Net investment in lease	16,846,885	15,100,706	959,712	1,001,772

The following table sets out maturity analysis of the present value of lease receivables, showing the discounted lease payments to be received after the reporting date.

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
Less than 1 year	1,347,489	1,282,856	84,161	75,514
1 to 2 years	1,433,457	1,201,506	90,528	81,227
2 to 3 years	1,468,415	1,291,937	97,816	87,372
3 to 4 years	1,481,965	1,301,989	104,778	94,406
4 to 5 years	1,539,874	1,293,091	91,313	101,126
More than 5 years	9,575,685	8,729,327	491,116	562,127
	16,846,885	15,100,706	959,712	1,001,772
Less: Impairment	(59,879)	(63,335)	(5,516)	(6,512)
	16,787,006	15,037,371	954,196	995,260

20. Other financial assets and financial liabilities (cont'd.)

(d) Finance lease receivables (cont'd.)

The following table sets out maturity analysis of the present value of lease receivables, showing the discounted lease payments to be received after the reporting date (cont'd.).

	Group		Corporation	
	2021	2020	2021	2020
	RM'000	RM'000	RM'000	RM'000
Analysed as:				
Due within 12 months (Note 22)	1,347,489	1,282,856	84,161	75,514
Due after 12 months (Note 22)	15,439,517	13,754,515	870,035	919,746
	16,787,006	15,037,371	954,196	995,260

The effective interest rate of the Group's finance lease receivables is between 2.20% to 9.04% (2020: 3.75% to 7.60%). Included in minimum lease receivables are the estimated unguaranteed residual values of the leased assets of RM772,762,000 (2020: RM576,575,000).

The effective interest rate of the Corporation's finance lease receivable is 7.57% (2020: 7.60%). Included in minimum lease receivable is the estimated unguaranteed residual value of the leased assets of RM33,253,000 (2020: RM32,094,000).

As at the end of the financial year, the Group recognised additional finance lease receivables amounting to RM2,524,599,000 (2020: RM519,968,000) and RM65,629,000 (2020: RM Nil) in relation to delivery of ships and modification of lease contract from an operating lease to a finance lease respectively.

The movement in the allowance for impairment loss of finance lease receivables during the year are as follows:

	Group		Corporation	
	2021	2020	2021	2020
	RM'000	RM'000	RM'000	RM'000
At 1 January	63,335	73,138	6,512	7,421
Write back of impairment loss (Note 4)	(2,929)	(8,878)	(1,222)	(814)
Currency translation differences	(527)	(925)	226	(95)
At 31 December	59,879	63,335	5,516	6,512

21. Inventories

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
At cost	120,126	91,349	2,153	-

Inventories consist of bunkers, lubricants and raw materials. The cost of inventories recognised as cost of sales during the financial year of the Group and Corporation was RM670,195,000 (2020: RM737,274,000) and RM39,616,000 (2020: RM Nil).

22. Trade and other receivables

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
Trade receivables				
Third parties	2,931,431	2,294,520	74,629	471,397
Fellow subsidiaries	20,841	104,405	4,840	2,512
Associates	14,059	26	239	26
Joint ventures	30,517	75,181	29,954	34,029
	2,996,848	2,474,132	109,662	507,964
Finance lease receivables (Note 20(d))	1,347,489	1,282,856	84,161	75,514
Due from customers on contracts (Note 23)	496,218	491,259	-	-
	4,840,555	4,248,247	193,823	583,478
Less: Impairment loss on trade receivables:				
Third parties	(381,712)	(604,492)	(61,573)	(303,467)
Joint ventures	(22,557)	(21,770)	(22,557)	(21,770)
	(404,269)	(626,262)	(84,130)	(325,237)
Trade receivables, net	4,436,286	3,621,985	109,693	258,241

22. Trade and other receivables (cont'd.)

	Group		Corporation	
	2021	**2020**	**2021**	**2020**
	RM'000	**RM'000**	**RM'000**	**RM'000**
Other receivables				
Amount due from related parties:				
Holding company	146	109	-	-
Subsidiaries	-	-	278,349	1,375,158
Fellow subsidiaries	91	69	1,448	-
Joint ventures	8,469	9,278	4,528	807
	8,706	9,456	284,325	1,375,965
Loans and advances:				
Subsidiaries	-	-	513,068	597,392
Deposits	34,741	11,425	2,358	2,276
Prepayments	172,187	1,592,105	28,280	1,288,542
Others	103,189	172,805	42,686	42,287
	318,823	1,785,791	870,717	3,306,462
Less: Impairment loss on other receivables:				
Third parties	(765)	(1,066)	(94)	(123)
Joint ventures	-	-	(1,710)	(4,048)
	(765)	(1,066)	(1,804)	(4,171)
Other receivables, net	318,058	1,784,725	868,913	3,302,291
Total trade and other receivables	**4,754,344**	**5,406,710**	**978,606**	**3,560,532**
Add: Cash, deposits and bank balances (Note 24)	7,952,347	6,855,005	2,831,994	1,620,947
Add: Net loans and advances (Note 20(a))	190,648	181,787	439,568	616,600
Add: Net long term receivables (Note 20a))	230,483	103,546	131,346	-
Add: Long term finance lease receivables (Note 20(d))	15,439,517	13,754,515	870,035	919,746
Less: Due from customers on contracts (Note 23)	(496,218)	(491,259)	-	-
Less: Prepayments	(172,187)	(1,592,105)	(28,280)	(1,288,542)
Total financial assets carried at amortised cost	27,898,934	24,218,199	5,223,269	5,429,283

(a) Trade receivables

The Group's normal trade credit terms with its customers range from 7 to 90 days (2020: 7 to 90 days). Other credit terms are assessed and approved on a case-by-case basis and each customer is assigned a maximum credit limit.

22. Trade and other receivables (cont'd.)

(b) Other receivables and amounts due from related parties

The non-trade balances due from holding company, subsidiaries, associates and joint ventures arose in the normal course of business. Certain loans and advances to subsidiaries bear interest ranging from 1.51% to 4.25% (2020: 1.54% to 4.70%) per annum.

The ageing of trade receivables (excluding amount due from customers on contracts and finance lease receivables) as at the end of the reporting period is analysed below:

	Group		Corporation	
	2021	**2020**	**2021**	**2020**
	RM'000	**RM'000**	**RM'000**	**RM'000**
Current	620,518	921,512	54,567	405,908
Past due 1-30 days	120,138	178,893	2,004	2,405
Past due 31-60 days	95,041	104,424	1,465	11,402
Past due 61-90 days	97,459	129,479	1,219	1,824
Past due more than 90 days	2,063,692	1,139,824	50,407	86,425
	2,996,848	2,474,132	109,662	507,964
Less: Impairment	(404,269)	(626,262)	(84,130)	(325,237)
	2,592,579	**1,847,870**	**25,532**	**182,727**

The movement in the allowance for impairment loss of trade and other receivables and other non-current assets during the year are as follows:

	Group		Corporation	
	Trade and other receivables RM'000	**Other non-current assets RM'000 (Note 20(a))**	**Trade and other receivables RM'000**	**Other non-current assets RM'000 (Note 20(a))**
At 1 January 2021	627,328	2,417	329,408	2,417
Reclassification to long term receivables	(268,992)	268,992	(268,992)	268,992
Impairment loss (Note 5)	65,336	4,369	52,679	-
Write back of impairment loss (Note 4)	(1,195)	-	(2,507)	-
Write off	(20,730)	(2,417)	(20,730)	(2,417)
Unwinding of discount on trade receivables (Note 10(a))	(13,666)	-	(13,666)	-
Currency translation differences	16,953	2,272	9,742	2,244
At 31 December 2021	405,034	275,633	85,934	271,236

22. Trade and other receivables (cont'd.)

The movement in the allowance for impairment loss of trade and other receivables and other non-current assets during the year are as follows: (cont'd.)

	Group		Corporation	
	Trade and other receivables RM'000	Other non-current assets RM'000 (Note 20(a))	Trade and other receivables RM'000	Other non-current assets RM'000 (Note 20(a))
At 1 January 2020	664,200	2,460	381,509	2,460
Impairment loss (Note 5)	34,563	-	13,915	-
Write back of impairment loss (Note 4)	-	-	(136)	-
Write off	(42,017)	-	(42,017)	-
Unwinding of discount on trade receivables (Note 10(a))	(18,821)	-	(18,821)	-
Currency translation differences	(10,597)	(43)	(5,042)	(43)
At 31 December 2020	627,328	2,417	329,408	2,417

23. Due from/(to) customers on contracts

	Group	
	2021 RM'000	2020 RM'000
Construction contract costs incurred and recognised profits to date	7,142,683	4,967,569
Less: Progress billings	(4,016,759)	(4,491,705)
	3,125,924	475,864
Due from customers on contracts:		
Non-current (Note 20(a))	2,748,898	-
Current (Note 22)	496,218	491,259
	3,245,116	491,259
Due to customers on contracts (Note 26)	(119,192)	(15,395)
	3,125,924	475,864

The movement of amount due from/(to) customers on contracts is as follows:

	Group	
	2021 RM'000	2020 RM'000
At the beginning of the year	475,864	33,144
Revenue recognised during the year (Note 3)	3,748,218	1,926,878
Progress billings during the year	(1,098,158)	(1,484,158)
At the end of the year	3,125,924	475,864

24. Cash, deposits and bank balances

	Group		Corporation	
	2021	**2020**	**2021**	**2020**
	RM'000	**RM'000**	**RM'000**	**RM'000**
Cash with PETRONAS Integrated Financial Shared Services Centre	5,462,424	4,023,265	2,810,026	1,609,734
Cash and bank balances	2,088,103	1,840,120	52	42
Deposits with licensed banks	401,820	991,620	21,916	11,171
	7,952,347	6,855,005	2,831,994	1,620,947

To allow more efficient cash management for the Group and the Corporation, the Group's and the Corporation's cash and bank balances have, since 1 July 2013, been held in the In-House Account ("IHA") managed by PETRONAS Integrated Financial Shared Services Centre ("IFSSC").

Included in cash and bank balances and deposits with licensed banks of the Group is the retention account of RM940,954,000 (2020: RM1,303,393,000) which is restricted for use because of the requirement of loan covenants.

Included in cash with IFSSC and cash and bank balances of the Group and the Corporation are interest-bearing balances amounting to RM7,550,527,000 (2020: RM5,863,385,000) and RM2,810,078,000 (2020: RM1,609,776,000) respectively.

Other information on financial risks of cash and cash equivalents are disclosed in Note 38.

25. Non-current assets classified as held for sale

	Group	
	2021	**2020**
	RM'000	**RM'000**
Offshore floating assets, plant and machineries	14,312	4,834

The movement during the financial year relating to non-current assets held for sale are as follows:

	Group	
	2021	**2020**
	RM'000	**RM'000**
At 1 January	4,834	125,278
Transfer from ships and offshore floating assets (Note 14)	40,630	118,193
Transfer from plant and machineries (Note 14)	14,312	-
Write down (Note 5(a))	-	(10,216)
Disposals	(45,606)	(231,337)
Currency translation differences	142	2,916
At 31 December	14,312	4,834

In the current financial year, the Group has classified a ship, plant and machineries as held for sale with the intention of disposal in the immediate future.

26. Trade and other payables

	Group 2021 RM'000	Group 2020 RM'000	Corporation 2021 RM'000	Corporation 2020 RM'000
Trade payables				
Third parties	359,107	61,210	9,965	3,875
Subsidiaries	-	-	142,894	172,740
Holding company	425	10,430	204	9,914
Fellow subsidiaries	463	254	78	3
Associates	10,221	-	10,491	-
Accruals	1,396,596	1,033,681	162,569	132,798
Deferred income (Note 30)	168,602	194,939	-	-
Due to customers on contracts (Note 23)	119,192	15,395	-	-
	2,054,606	1,315,909	326,201	319,330
Other payables				
Amount due to related parties:				
Subsidiaries	-	-	292,974	305,112
Holding company	1,437	459	1,385	406
Fellow subsidiaries	988	690	-	-
Associates	435	965	435	-
Joint ventures	29,564	68,938	-	-
Accruals	574,288	533,919	61,367	46,912
Provisions (Note 26(c))	1,262,999	1,187,960	23,673	22,848
Others	117,447	400,413	70,044	329,130
	1,987,158	2,193,344	449,878	704,408
Total trade and other payables	**4,041,764**	**3,509,253**	**776,079**	**1,023,738**
Add: Total borrowings (Note 20(c))	17,029,016	13,440,386	663,189	1,224,737
Less: Due to customers on contracts (Note 23)	(119,192)	(15,395)	-	-
Less: Provisions (Note 26(c))	(1,262,999)	(1,187,960)	(23,673)	(22,848)
Less: Deferred income (Note 30)	(168,602)	(194,939)	-	-
Total financial liabilities carried at amortised cost	19,519,987	15,551,345	1,415,595	2,225,627

26. Trade and other payables (cont'd.)

(a) Trade payables

Trade payables are non-interest bearing and the normal trade credit terms granted to the Group ranges from 14 to 90 days (2020: 14 to 90 days).

(b) Other payables and amounts due to related parties

The non-trade balances due to holding company, subsidiaries, fellow subsidiaries, associates and joint ventures arose in the normal course of business.

(c) Other non-current liabilities and provisions

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
At 1 January	1,187,960	43,566	22,848	42,928
Arose during the year	206,811	1,215,213	10,572	-
Utilised	(100)	(20,803)	-	(20,169)
Currency translation differences	44,302	(50,016)	897	89
At 31 December	1,438,973	1,187,960	34,317	22,848
Analysed as:				
Due within 12 months	1,262,999	1,187,960	23,673	22,848
Due after 12 months	175,974	-	10,644	-
	1,438,973	1,187,960	34,317	22,848

Other non-current liabilities and provisions comprise provision for litigation claims, cost provisions for the construction of a FPSO and put option liabilities.

27. Share capital and treasury shares

	Group and Corporation			
	Number of shares		Amount	
	Share Capital '000	Treasury Shares '000	Share Capital RM'000 (i)	Treasury Shares RM'000
At 1 January/31 December 2021	4,463,794	(47)	8,923,262	(271)
At 1 January/31 December 2020	4,463,794	(47)	8,923,262	(271)

(i) The Group has one issued special preference share of RM1.

The special preference share, which may only be held by the Ministry of Finance (Incorporated) ("MoF") or its successors or any Minister, representative, or any person acting on behalf of the Government of Malaysia, carries rights as provided in the Corporation's Constitution. Certain matters, in particular the alterations of specified Rules in the Constitution, require the prior approval of the holder of the special preference share.

The holder of the special preference share is not entitled to any dividend nor to participate in the capital distribution upon dissolution of the Corporation but shall rank for repayment in priority to all other shares. The share does not carry any right to vote at General Meetings but the holder is entitled to attend and speak at such meetings.

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28. Other reserves

Group	Revaluation Reserve RM'000 28(a)	Capital Reserve RM'000 28(b)	Other Capital Reserve RM'000 28(c)	Put Option Reserve RM'000 28(d)	Statutory Reserve RM'000 28(e)	Hedging Reserve RM'000 28(f)	Currency Translation Reserve RM'000 28(g)	Total RM'000
At 1 January 2021	1,357	435,199	99,299	-	3,161	(577,475)	5,160,464	5,122,005
Currency translation differences:								
Group	-	-	-	-	-	-	1,092,169	1,092,169
Associates	-	-	-	-	-	-	(15)	(15)
Joint ventures	-	-	-	-	-	-	15,333	15,333
Fair value loss on cash flow hedges:								
Group	-	-	-	-	-	433,890	-	433,890
Joint ventures	-	-	-	-	-	7,226	-	7,226
Liquidation of a joint venture	-	-	-	-	(208)	-	(349)	(557)
Disposal of interest in joint ventures	-	-	-	-	-	-	(5,836)	(5,836)
Dilution of interest in subsidiaries	-	-	-	(10,572)	-	-	-	(10,572)
At 31 December 2021	1,357	435,199	99,299	(10,572)	2,953	(136,359)	6,261,766	6,653,643

28. Other reserves (cont'd.)

Group	Revaluation Reserve RM'000 28(a)	Capital Reserve RM'000 28(b)	Other Capital Reserve RM'000 28(c)	Statutory Reserve RM'000 28(e)	Hedging Reserve RM'000 28(f)	Currency Translation Reserve RM'000 28(g)	Total RM'000
At 1 January 2020	1,357	435,199	99,299	3,161	(159,929)	5,681,164	6,060,251
Currency translation differences:							
Group	-	-	-	-	-	(509,186)	(509,186)
Associates	-	-	-	-	-	(11)	(11)
Joint ventures	-	-	-	-	-	(11,503)	(11,503)
Fair value loss on cash flow hedges:							
Group	-	-	-	-	(387,618)	-	(387,618)
Joint ventures	-	-	-	-	(29,928)	-	(29,928)
At 31 December 2020	1,357	435,199	99,299	3,161	(577,475)	5,160,464	5,122,005

28. Other reserves (cont'd.)

The nature and purpose of each category of reserves are as follows:

(a) Revaluation reserve

Revaluation reserve represents surplus arising from revaluation of certain freehold land.

(b) Capital reserve

Capital reserve represents reserve arising from bonus issue by subsidiaries.

(c) Other capital reserve

Other capital reserve represents the Group’s share of its subsidiaries' reserve.

(d) Put option reserve

Put option reserve arises from the dilution of interest in subsidiaries, where an option was granted to a non-controlling interest to sell its equity stake back to the Group.

(e) Statutory reserve

Statutory reserve is maintained by overseas subsidiaries and joint ventures in accordance with the laws of the host countries.

(f) Hedging reserve

Hedging reserve represents the effective portion of the gain or loss on hedging instruments in the Group's cash flow hedges and includes the Group's share of hedging reserve of joint ventures.

(g) Currency translation reserve

Currency translation reserve comprises all foreign exchange differences arising from translation of the financial statements of the Corporation and foreign operations with different functional currencies from that of the Group's presentation currency.

29. Deferred tax

	Group 2021 RM'000	Group 2020 RM'000
At 1 January	(96,612)	(72,592)
Recognised in income statement (Note 11):		
In Malaysia	1,714	(128)
Outside Malaysia	93	(24,061)
	1,807	(24,189)
Currency translation differences	(279)	169
At 31 December	(95,084)	(96,612)
Presented after appropriate offsetting as follows:		
Deferred tax assets	(101,917)	(104,433)
Deferred tax liabilities	6,833	7,821
	(95,084)	(96,612)

The components and movements of deferred tax liabilities and assets during the financial year, prior to offsetting are as follows:

Deferred tax liabilities of the Group:

	Accelerated capital allowances RM'000	Others RM'000	Total RM'000
At 1 January 2021	84,234	1,905	86,139
Recognised in income statement:			
In Malaysia	2,173	(86)	2,087
Outside Malaysia	2,941	(1,512)	1,429
At 31 December 2021	89,348	307	89,655

29. Deferred tax (cont'd.)

Deferred tax liabilities of the Group (cont'd.):

	Accelerated capital allowances RM'000	Others RM'000	Total RM'000
At 1 January 2020	99,086	21,573	120,659
Recognised in income statement:			
In Malaysia	(12,440)	-	(12,440)
Outside Malaysia	(2,412)	(19,668)	(22,080)
At 31 December 2020	84,234	1,905	86,139

Deferred tax assets of the Group:

	Other payables RM'000	Tax losses, investment tax allowances and unabsorbed capital allowances RM'000	Others RM'000	Total RM'000
At 1 January 2021	(16,101)	(140,727)	(25,923)	(182,751)
Recognised in income statement:				
In Malaysia	3,264	(15,479)	11,842	(373)
Outside Malaysia	-	-	(1,336)	(1,336)
Currency translation differences	(193)	-	(86)	(279)
At 31 December 2021	(13,030)	(156,206)	(15,503)	(184,739)
At 1 January 2020	(17,480)	(154,641)	(21,130)	(193,251)
Recognised in income statement:				
In Malaysia	1,310	13,914	(2,912)	12,312
Outside Malaysia	-	-	(1,981)	(1,981)
Currency translation differences	69	-	100	169
At 31 December 2020	(16,101)	(140,727)	(25,923)	(182,751)

29. Deferred tax (cont'd.)

Deferred tax assets have not been recognised in respect of the following items:

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
Unused tax losses	5,587,727	5,639,686	5,534,674	5,589,224
Unabsorbed capital allowances	408,988	525,928	391,281	510,011
Unabsorbed investment tax allowances	1,077,162	709,378	-	-
Other deductible temporary differences	15,017	7,039	-	-
	7,088,894	6,882,031	5,925,955	6,099,235

In Malaysia, the unused tax losses can be carried forward and available for use for 10 years starting from the year of assessment 2019. The unused tax losses of the Corporation relate to the loss making non-resident ships and can be utilised to offset against future taxable profits.

The unabsorbed capital allowances and unabsorbed investment tax allowances are available indefinitely for offsetting against future taxable profits of the respective entities within the Group, subject to tax law and tax guidance issued by the tax authority enacted at the reporting date.

Deferred tax assets have not been recognised for certain subsidiaries with recent history of losses.

30. Deferred income

	Group	
	2021 RM'000	2020 RM'000
At 1 January	1,345,399	668,950
Recognised during the year in income statement	(428,952)	(404,167)
Advances received during the year	309,550	1,121,691
Currency translation differences	47,578	(41,075)
At 31 December	1,273,575	1,345,399
Current (Note 26)	168,602	194,939
Non-current	1,104,973	1,150,460
	1,273,575	1,345,399

Deferred income mainly relates to time charter income paid in advance by customers.

31. Cash flows from investing activities

	Group		Corporation	
	2021 RM'000	**2020 RM'000**	**2021 RM'000**	**2020 RM'000**
Purchase of ships, other property, plant and equipment and intangible assets	(3,775,209)	(5,108,280)	(87,393)	(105,121)
Loan to subsidiaries	-	-	(187,252)	(179,536)
Loan to a joint venture	-	(189,604)	-	-
Redemption of shares in subsidiaries	-	-	1,098,682	-
Dividend received from:				
Quoted and unquoted equity investment	1,926	1,087	1,926	1,087
Subsidiaries	-	-	1,322,063	1,382,324
Associates and joint ventures	232,853	456,056	219,239	221,371
Net repayment of loans due from subsidiaries	-	-	444,832	833,129
Proceeds from disposal of ships, and offshore floating assets	469,739	497,847	-	-
Proceeds from disposal of interest in a subsidiary	26,923	-	26,923	-
Proceeds from disposal of interest in joint ventures	50,306	-	-	-
Cash outflow from deconsolidation of a subsidiary	(48,587)	-	-	-
Investment in:				
Subsidiary	-	-	(74,213)	(292,438)
Joint ventures	(95,083)	(50,547)	-	-
Other investment	(6,774)	-	-	-
Interest received	19,232	81,293	23,172	29,004
Net fixed deposit placement	(10,569)	(5,874)	-	-
Net cash (used in)/generated from investing activities	(3,135,243)	(4,318,022)	2,787,979	1,889,820

32. Cash flows from financing activities

	Group 2021 RM'000	Group 2020 RM'000	Corporation 2021 RM'000	Corporation 2020 RM'000
Drawdown of term loans	5,099,178	6,208,196	-	-
Drawdown of revolving credits	1,036,415	1,245,768	746,275	735,303
Drawdown of loans from subsidiaries	-	-	746,275	770,366
Repayment of term loans	(1,541,614)	(2,824,030)	-	-
Repayment of revolving credits	(1,401,338)	(3,773,994)	(1,098,682)	(1,152,114)
Repayment of loan due to subsidiaries	-	-	(979,761)	(756,311)
Dividends (Note 13)	(1,473,035)	(1,473,035)	(1,473,035)	(1,473,035)
Dividends paid to minority shareholders of subsidiaries	(24,500)	(3,000)	-	-
Interest paid	(414,552)	(414,747)	(19,710)	(28,013)
Payment of lease liabilities	(188,327)	(316,302)	(13,928)	(13,896)
Withdrawal/(placement) of cash pledged with bank (restricted)	406,765	(37,563)	-	-
Net cash generated from/ (used in) financing activities	1,498,992	(1,388,707)	(2,092,566)	(1,917,700)

33. Related party disclosures

In addition to related party disclosures elsewhere in the financial statements, set out below are other significant related party transactions. The directors are of the opinion that, unless otherwise stated, the transactions below have been entered into in the normal course of business at terms agreed between the parties during the financial year.

As the holding company is wholly owned by the MoF, the Group is deemed to be related to entities that are controlled, jointly controlled or significantly influenced by the Government of Malaysia.

33. Related party disclosures (cont'd.)

	Group 2021 RM'000	Group 2020 RM'000	Corporation 2021 RM'000	Corporation 2020 RM'000
(a) Income from fellow subsidiaries				
Freight and charter hire revenue	2,170,795	2,174,576	723,219	724,723
Fabrication services	1,134,748	1,088,599	-	-
Finance lease income	320,398	344,699	-	-
Offshore, maintenance and manpower services	73,326	129,246	43,961	49,448
Marine and consultancy services	26,257	35,862	-	-
Sungai Udang Port management	20,572	22,669	-	-
(b) Purchase from fellow subsidiaries				
Purchase of bunkers, lubricants, spare parts and other materials	(145,002)	(72,657)	(47,634)	(23,551)
Purchase of service for rental of premises	(24,166)	(21,869)	(22,811)	(20,545)
Fees for representation in the Board of Directors*	(342)	(469)	(342)	(469)
(c) Management fee from subsidiaries				
Fees for representation in the Board of Directors**	-	-	936	954

* Fees paid directly to PETRONAS in respect of directors who are appointees of the holding company.

** Fees received from subsidiaries in respect of directors who are appointees of the Corporation.

33. Related party disclosures (cont'd.)

	Group 2021 RM'000	Group 2020 RM'000	Corporation 2021 RM'000	Corporation 2020 RM'000
(d) Purchase of service for repairs, conversion of ships, drydocking and fabrication from a subsidiary	-	-	(1,777)	(3,550)
(e) Purchase of ship operating and management services from a subsidiary	-	-	(16,918)	(175,655)
(f) Government of Malaysia's related entities				
(i) Purchase of goods and services				
Utilities	(23,967)	(28,680)	(4,065)	(4,687)

(g) Compensation of key management personnel ("KMP")

KMP are defined as persons having authority and responsibility for planning, directing and controlling the activities of the Group and of the Corporation, directly or indirectly, including any director of the Group and of the Corporation.

33. Related party disclosures (cont'd.)

(g) Compensation of key management personnel ("KMP") (cont'd.)

The remuneration of directors and other members of key management during the financial year were as follows:

	Group		Corporation	
	2021	2020	2021	2020
	RM'000	RM'000	RM'000	RM'000
Directors				
Directors' remuneration (Note 7)	5,358	4,924	4,817	4,370
Other key management personnel				
Salaries and benefits	26,322	29,816	7,976	10,658
Defined contribution plans	2,543	3,225	1,814	2,269
	28,865	33,041	9,790	12,927
Total compensation of KMP	34,223	37,965	14,607	17,297

34. Commitments

(a) Capital commitments

	Group 2021 RM'000	Group 2020 RM'000	Corporation 2021 RM'000	Corporation 2020 RM'000
Capital expenditure				
Approved and contracted for:				
Ships, offshore floating assets and other property, plant and equipment *	3,408,857	6,630,173	2,580	3,029,744
Information and communication technology	7,930	7,298	6,854	4,352
	3,416,787	6,637,471	9,434	3,034,096

* In the previous financial year, the approved and contracted capital expenditure included an amount totalling RM1,591,805,000 relating to the turnkey activities for the conversion of a vessel to an FPSO to be leased out to a customer under a time charter contract. Accordingly, the Group has excluded the approved and contracted amount relating to the vessel conversion as at 31 December 2021 of RM3,799,088,000 from the above capital commitments as the turnkey activities contribute to the recognition of contract assets per MFRS 15: Revenue from Contract with Customers.

(b) Operating lease commitments - Group and Corporation as lessor

	Group 2021 RM'000	Group 2020 RM'000	Corporation 2021 RM'000	Corporation 2020 RM'000
Future minimum rentals receivable:				
Not later than 1 year	3,576,603	3,385,275	720,156	837,299
Later than 1 year and not later than 5 years	10,046,308	10,412,559	2,548,209	2,545,628
Later than 5 years	7,498,415	9,274,854	4,001,632	3,998,741
	21,121,326	23,072,688	7,269,997	7,381,668

Operating lease income represent long-term lease arrangements with related and third parties for charter out of ships and offshore floating assets.

35. Contingent liabilities

	Group 2021 RM'000	Group 2020 RM'000	Corporation 2021 RM'000	Corporation 2020 RM'000
Secured				
Bank guarantee extended to a third party	18	386	-	-
Unsecured				
Performance bond on contract and bank guarantees extended to third parties	498,409	362,105	7,455	1,238

The Corporation no longer discloses the corporate guarantees given to banks for credit facilities granted to subsidiaries as these would instead be accounted as financial liabilities if considered likely to crystalise.

36. Segment information

(a) Business segments

The operating segments of the Group are as follows:

(i) Gas Assets & Solutions - provision of liquefied natural gas (“LNG”) carrier services and non-conventional gas asset solutions;

(ii) Petroleum & Product Shipping - provision of petroleum tanker and chemical tanker services;

(iii) Offshore Business - own, lease, operation and maintenance of offshore, floating, production and offloading terminals;

(iv) Marine & Heavy Engineering - marine repair, marine conversion and engineering and construction works; and

(v) Others - Integrated marine services, port & terminal services, maritime education & training and other diversified businesses.

Transfer prices between business segments are set on an arm's length basis in a manner similar to transactions with third parties. Segment revenue, expenses and results include transfers between business segments. These transfers are eliminated on consolidation.

36. Segment information (cont'd.)

(a) Business segments (cont'd.)

31 December 2021	Gas Assets & Solutions RM'000	Petroleum & Product Shipping RM'000	Offshore Business RM'000	Marine & Heavy Engineering RM'000	Others RM'000	Total RM'000	Eliminations and Adjustments RM'000		Consolidated RM'000
Revenue									
External sales	2,882,841	3,199,352	3,022,823	1,409,222	166,823	10,681,061	(9,354)		10,671,707
Inter-segment	-	1,046	16,077	58,093	213,545	288,761	(288,761)	A	-
	2,882,841	3,200,398	3,038,900	1,467,315	380,368	10,969,822	(298,115)		10,671,707
Results									
Segment results	1,893,081	1,101,321	777,797	(186,989)	(93,053)	3,492,157	17,326	A	3,509,483
Other operating income	53,973	260,646	10,249	8,137	1,824,455	2,157,460	(1,788,045)	A	369,415
Depreciation	(724,550)	(1,081,789)	(894)	(80,661)	(43,611)	(1,931,505)	(17,583)		(1,949,088)
Amortisation of intangible assets	-	-	-	-	(22,603)	(22,603)	-		(22,603)
Amortisation of prepaid lease payments on land and buildings	-	-	-	(7,036)	(99)	(7,135)	-		(7,135)
Impairment provisions	(92,900)	-	-	(9,010)	(10,000)	(111,910)	-		(111,910)
Gain on disposal of interest joint ventures	-	-	17,797	-	-	17,797	7,329		25,126
(Loss)/gain from deconsolidation of subsidiary	-	-	(2,159)	-	647	(1,512)	(729)		(2,241)
Net gain on disposal of ships and offshore floating assets	2,672	28,898	-	-	-	31,570	-		31,570
Finance income	28,248	434	18,147	14,359	48,130	109,318	(61,068)	A	48,250
Finance costs	(145,501)	(130,645)	(182,577)	(12,938)	(16,642)	(488,303)	70,960	A	(417,343)
Share of profit of associates	-	-	3,666	-	-	3,666	-		3,666
Share of (loss)/profit of joint ventures	(3,167)	10,365	286,537	-	(19)	293,716	3,716		297,432
Profit before taxation									1,774,622
Taxation									(41,075)
Profit after taxation									1,733,547
Non-controlling interests									97,717
Net profit attributable to equity holders of the Corporation									1,831,264
ASSETS									
Ships	6,396,751	15,074,979	-	-	24,601 *	21,496,331	-		21,496,331
Offshore floating assets	-	-	25,457	-	-	25,457	-		25,457
Other property, plant and equipment	85,441	73,565	55	1,525,527	205,344	1,889,932	-		1,889,932
Prepaid lease payments on land and buildings	-	-	-	201,982	3,543	205,525	-		205,525
Non-current assets classified as held for sale	-	-	-	14,312	-	14,312	-		14,312
Intangible assets	-	835,764	-	-	225,151	1,060,915	-		1,060,915
Investments in joint ventures	112,328	25,395	900,845	8,910	-	1,047,478	-		1,047,478
Finance lease receivables	7,889,169	-	8,897,837	-	-	16,787,006	-		16,787,006
Other assets (unallocated)	-	-	-	-	-	-	-	B	14,994,521
									57,521,477
LIABILITIES									
Interest-bearing loans and borrowings	4,995,520	6,979,761	5,255,910	370,560	67,749	17,669,500	(640,484)		17,029,016
Other liabilities (unallocated)								C	5,567,529
									22,596,545

* Included in the net book value of ships - others is Navy Auxiliary ship owned by the Corporation, Bunga Mas 6.

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36. Segment information (cont'd.)

(a) Business segments (cont'd.)

31 December 2020	Gas Assets & Solutions RM'000	Petroleum & Product Shipping RM'000	Offshore Business RM'000	Marine & Heavy Engineering RM'000	Others RM'000	Total RM'000	Eliminations and Adjustments RM'000	Consolidated RM'000
Revenue								
External sales	2,652,699	3,862,527	1,210,096	1,530,171	157,586	9,413,079	(11,845)	9,401,234
Inter-segment	-	1,022	78,352	37,444	1,303,037	1,419,855	(1,419,855) A	-
	2,652,699	3,863,549	1,288,448	1,567,615	1,460,623	10,832,934	(1,431,700)	9,401,234
Results								
Segment results	1,899,477	1,584,950	511,993	(43,355)	(156,212)	3,796,853	70,262 A	3,867,115
Other operating income	7,917	68,885	31,872	3,970	2,126,989	2,239,633	(2,097,952) A	141,681
Depreciation	(766,602)	(1,187,637)	(5,884)	(66,914)	(34,414)	(2,061,451)	(29,519)	(2,090,970)
Amortisation of intangible assets	-	-	-	-	(5,884)	(5,884)	-	(5,884)
Amortisation of prepaid lease payments on land and buildings	-	-	-	(7,259)	(100)	(7,359)	-	(7,359)
Impairment provisions	(11,585)	-	(19,791)	(300,000)	-	(331,376)	-	(331,376)
Provision of litigation claims	-	-	(1,049,248)	-	-	(1,049,248)	-	(1,049,248)
Write off of trade receivables and loss on re-measurement of finance lease receivables	-	-	(846,229)	-	-	(846,229)	-	(846,229)
Net gain/(loss) on disposal of ships and offshore floating assets	-	36,344	-	-	-	36,344	(11,209)	25,135
Finance income	50,215	3,024	27,876	13,479	103,884	198,478	(85,866) A	112,612
Finance costs	(143,644)	(141,491)	(165,382)	(911)	(30,656)	(482,084)	114,000 A	(368,084)
Share of profit/(loss) of associates and joint ventures	856	12,234	412,380	(189)	-	425,281	3,742	429,023
Loss before taxation								(123,584)
Taxation								(46,247)
Loss after taxation								(169,831)
Non-controlling interests								126,764
Net loss attributable to equity holders of the Corporation								(43,067)
ASSETS								
Ships	6,712,513	14,345,401	-	-	30,449 *	21,088,363	-	21,088,363
Offshore floating assets	-	-	51,308	-	-	51,308	-	51,308
Other property, plant and equipment	85,441	88,454	13,593	1,586,676	395,313	2,169,477	-	2,169,477
Prepaid lease payments on land and buildings	-	-	-	209,018	3,516	212,534	-	212,534
Non-current assets classified as held for sale	-	11,807	4,834	-	-	16,641	(11,807)	4,834
Intangible assets	-	803,901	225	-	15,096	819,222	-	819,222
Investments in joint ventures	7,122	28,002	828,703	8,910	324	873,061	-	873,061
Finance lease receivables	5,577,143	-	9,460,228	-	-	15,037,371	-	15,037,371
Other assets (unallocated)							B	11,564,839
								51,821,009
LIABILITIES								
Interest-bearing loans and borrowings	3,082,297	6,268,913	4,415,461	257,128	406,929	14,430,728	(990,342)	13,440,386
Other liabilities (unallocated)							C	5,229,504
								18,669,890

* Included in the net book value of ships - others is Navy Auxiliary ship owned by the Corporation, Bunga Mas 6.

36. Segment information (cont'd.)

(a) Business segments (cont'd.)

Note:

A Inter-segment revenues and transactions are eliminated on consolidation.

B Other assets comprise the following items:

	2021 RM'000	2020 RM'000
Investment in associates	21,042	696
Other non-current assets	3,289,195	389,502
Deferred tax assets	101,917	104,433
Inventories	120,126	91,349
Trade and other receivables (excluding finance lease receivables)	3,406,855	4,123,854
Cash, deposits and bank balances	7,952,347	6,855,005
Derivative assets	103,039	-
	14,994,521	11,564,839

C Other liabilities comprise the following items:

	2021 RM'000	2020 RM'000
Trade and other payables	4,041,764	3,509,253
Provision for taxation	19,867	23,273
Deferred tax liabilities	6,833	7,821
Derivative liabilities	218,118	538,697
Deferred income	1,104,973	1,150,460
Other non-current liabilities	175,974	-
	5,567,529	5,229,504

36. Segment information (cont'd.)

(b) Geographical segments

Although the Group's four core business segments are managed on a worldwide basis, the Group operates mainly in five principal geographical areas of the world, namely Malaysia, Americas, Asia, Africa and Europe. In Malaysia, its home country, the Group's operation comprise of Gas Assets & Solutions, Petroleum & Product Shipping, Offshore Business, Marine & Heavy Engineering and others.

The following table provides an analysis of the Group's revenue and carrying amount of assets by geographical segments:

	Malaysia RM'000	The Americas RM'000	Asia, Africa and Europe RM'000	Consolidated RM'000
31 December 2021				
Revenue	4,770,400	5,538,348	362,959	10,671,707
Assets	41,607,897	12,774,457	3,139,123	57,521,477
31 December 2020				
Revenue	5,040,726	4,259,234	101,274	9,401,234
Assets	40,573,047	9,792,224	1,455,738	51,821,009

(c) Information about major customers

Breakdown of revenue from major customers are as follows:

	2021 RM'000	2020 RM'000
Fellow subsidiaries:		
- Petronas Carigali Sdn Bhd	1,225,112	1,166,251
- Petronas LNG Sdn Bhd	1,182,534	1,165,600
- Malaysia LNG Sdn Bhd	966,248	982,609
	3,373,894	3,314,460

36. Segment information (cont'd.)

(c) Information about major customers (cont'd.)

	2021 RM'000	2020 RM'000
Third Parties:		
- Petróleo Brasileiro S.A. ("Petrobras")	2,773,079	281,744
- Sabah Shell Petroleum Company Limited	436,860	474,189
- Royal Dutch Shell PLC	390,136	538,887
- Equinor ASA	376,869	271,993
- Satellite Chemical Co. Ltd	294,411	8,820
- Marine Well Containment Company	192,788	195,581
- TOTAL SE	156,718	168,561
- SPI	122,721	115,548
- SINOPEC	118,160	89,077
- PBF Energy Inc.	101,162	156,525
	4,962,904	2,300,925

37. Fair value disclosures

Fair value information

The carrying amounts of cash, deposits and bank balances, short term receivables and payables and short term borrowings reasonably approximate their fair values due to the relatively short term nature of these financial instruments.

The carrying amounts of floating rate loans and borrowings reasonably approximate their fair values as they are repriced to market interest rates on or near the reporting date.

37. Fair value disclosures (cont'd.)

Fair value information (cont'd.)

The following table analyses assets and liabilities carried at fair value and those not carried at fair value, together with their fair values and carrying amounts shown in the statements of financial position.

	Note	Fair value of assets and liabilities carried at fair value			
		Level 1 RM'000	Level 2 RM'000	Level 3 RM'000	Total RM'000
Group					
At 31 December 2021					
Financial assets:					
Quoted equity investment	20(a)	50,971	-	-	50,971
Unquoted equity investments	20(a)	-	-	72,564	72,564
Interest rate swaps designated as hedging instruments	20(b)	-	103,039	-	103,039
		50,971	103,039	72,564	226,574
Non-financial assets:					
Non-current assets classified as held for sale	25	-	-	14,312	14,312
Financial liabilities:					
Forward currency contracts	20(b)	-	(4,701)	-	(4,701)
Interest rate swaps designated as hedging instruments	20(b)	-	(213,417)	-	(213,417)
		-	(218,118)	-	(218,118)
At 31 December 2020					
Financial assets:					
Quoted equity investment	20(a)	40,671	-	-	40,671
Unquoted equity investments	20(a)	-	-	63,498	63,498
		40,671	-	63,498	104,169

37. Fair value disclosures (cont'd.)

Fair value information (cont'd.)

	Note	Fair value of assets and liabilities carried at fair value			
		Level 1 RM'000	**Level 2 RM'000**	**Level 3 RM'000**	**Total RM'000**
Group					
At 31 December 2020 (cont'd.)					
Non-financial assets:					
Non-current assets classified as held for sale	25	-	-	4,834	4,834
Financial liabilities:					
Forward currency contracts	20(b)	-	(19,243)	-	(19,243)
Interest rate swaps designated as hedging instruments	20(b)	-	(519,454)	-	(519,454)
		-	(538,697)	-	(538,697)

37. Fair value disclosures (cont'd.)

Fair value information (cont'd.)

	Note	Level 1 RM'000	Level 2 RM'000	Level 3 RM'000	Total RM'000	Carrying amount RM'000
		Fair value of financial instruments not carried at fair value				
Group						
At 31 December 2021						
Financial assets:						
Long term receivables	20(a)	-	-	349,956	349,956	501,747
Finance lease receivables	20(d)	-	-	15,944,679	15,944,679	15,439,517
		-	-	16,294,635	16,294,635	15,941,264
Financial liabilities:						
Term loans - fixed rate	20(c)	-	(7,359,685)	-	(7,359,685)	(7,211,913)
Group						
At 31 December 2020						
Financial assets:						
Long term receivables	20(a)	-	-	93,775	93,775	103,546
Finance lease receivables	20(d)	-	-	14,331,388	14,331,388	13,754,515
		-	-	14,425,163	14,425,163	13,858,061
Financial liabilities:						
Term loans - fixed rate	20(c)	-	(9,492,882)	-	(9,492,882)	(9,293,628)

37. Fair value disclosures (cont'd.)

Fair value information (cont'd.)

		Fair value of assets and liabilities carried at fair value			
	Note	Level 1 RM'000	Level 2 RM'000	Level 3 RM'000	Total RM'000
Corporation					
At 31 December 2021					
Financial assets:					
Quoted equity investment	20(a)	50,971	-	-	50,971
Unquoted equity investments	20(a)	-	-	65,776	65,776
		50,971	-	65,776	116,747
At 31 December 2020					
Financial assets:					
Quoted equity investment	20(a)	40,671	-	-	40,671
Unquoted equity investments	20(a)	-	-	63,483	63,483
		40,671	-	63,483	104,154

37. Fair value disclosures (cont'd.)

Fair value information (cont'd.)

Corporation

	Note	Level 1 RM'000	Level 2 RM'000	Level 3 RM'000	Total RM'000	Carrying amount RM'000
		Fair value of financial instruments not carried at fair value				
At 31 December 2021						
Financial assets:						
Long term receivables	20(a)	-	-	262,242	262,242	402,582
Loans to subsidiaries	20(a)	-	446,044	-	446,044	439,568
Finance lease receivables	20(d)	-	-	820,997	820,997	870,035
		-	446,044	1,083,239	1,529,283	1,712,185
Financial liabilities:						
Loan from subsidiaries	20(c)	-	-	584,647	584,647	583,331
At 31 December 2020						
Financial assets:						
Loans to subsidiaries	20(a)	-	595,789	-	595,789	616,600
Finance lease receivables	20(d)	-	-	809,877	809,877	919,746
		-	595,789	809,877	1,405,666	1,536,346

37. Fair value disclosures (cont'd.)

Fair value information (cont'd.)

Transfers between Level 1 and Level 2 fair values

There has been no transfers between Level 1 and Level 2 fair values during the financial year.

Level 1 fair value measurements

Level 1 fair value is derived from quoted price (unadjusted) in active markets for identical assets that the entity can assess at the measurement date.

Level 2 fair value measurements

Level 2 fair value is estimated using inputs other than quoted prices included within Level 1 that are observable for the asset either directly or indirectly.

The following are descriptions of the valuation techniques and inputs used in the fair value measurement for assets and liabilities that are categorised within Level 2 of the fair value hierarchy:

Derivatives

Interest rate swap contracts are valued using a valuation technique with market observable inputs. The most frequently applied valuation techniques include forward pricing and swap models, using present value calculations. The models incorporate various inputs including the credit quality of counterparties, foreign exchange spot and forward rates, interest rate curves and forward rate curves.

Non-derivative financial liabilities

The fair value of the fixed rate loan and borrowings which is determined for disclosure purposes is calculated by discounting expected future cash flows at the market rate of interest at the end of the reporting period.

Level 3 fair value measurements

Level 3 fair value is estimated using unobservable inputs that are not based on observable market data.

37. Fair value disclosures (cont'd.)

Fair value information (cont'd.)

Level 3 fair value measurements (cont'd.)

The following table shows the information about fair value measurements using significant unobservable inputs within Level 3 of the fair value hierarchy:

	Group		Corporation			
	Fair value at 31 December 2021 RM'000	Fair value at 31 December 2020 RM'000	Fair value at 31 December 2021 RM'000	Fair value at 31 December 2020 RM'000	Valuation techniques	Unobservable inputs
Assets measured at fair value						
Non-current assets held for sale - Offshore floating assets and plant and machineries	14,312	4,834	-	-	Market comparable approach	Transacted comparable assets adjusted for the current condition of the assets/Sales price offered by potential buyers.
Financial assets not measured at fair value						
Long term receivables	349,956	93,775	262,242	-	Discounted cash flow method	Discounting expected future cash flows applying market rate of interest at the end of the reporting period.
Finance lease receivables	15,944,679	14,331,388	820,997	809,877	Discounted cash flow method	Discounting expected future cash flows applying latest estimated borrowing rate of the charterers.
	16,294,635	14,425,163	1,083,239	809,877		

An increase in market value of comparable assets used in the above valuation would result in an increase in the fair value and vice versa.

38. Financial risk management objectives and policies

The Group is exposed to various risks that are related to its core business of ship owning, ship operating, other shipping related activities and services, owning and operating of offshore facilities and marine repair, marine conversion and engineering and construction works. These risks arise in the normal course of the Group’s business.

The Group's Financial Risk Management Framework and Guidelines set the foundation for the establishment of effective risk management practices across the Group.

The Group's Financial Risk Management Policy seeks to ensure that adequate financial resources are available for the development of the Group's businesses whilst managing its interest rate risk (both fair value and cash flow), foreign currency risk, liquidity risk, credit risk and equity price risk. The Board of Directors reviews and agrees policies for managing each of these risks as summarised below. It is, and has been throughout the period under review, the Group's policy that no speculative trading in derivative financial instruments shall be undertaken.

The following sections provide details regarding the Group's and the Corporation's exposure to the above-mentioned financial risks and the objectives, policies and processes in place to manage these risks.

(a) Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of the Group’s financial instruments will fluctuate because of changes in market interest rates. As the Group has no significant long term interest-bearing financial assets, the Group's income and operating cash flows are substantially independent of changes in market interest rates. The Group's interest-bearing financial assets are mainly short term in nature and have been placed mostly in time deposits and overnight placements. The Group's interest rate risk arises primarily from interest-bearing loans and borrowings.

Borrowings at floating rates expose the Group to cash flow interest rate risk. The Group's interest rate risks arise from the volatility of the benchmark interest rates in United States Dollar ("USD"), which is the Group's main borrowing currency.

The Group manages its interest rate exposure by maintaining a mix of fixed and floating rate borrowings. As at 31 December 2021, 70.3% (2020: 79.2%) and 100% (2020: 14.0%) of the Group's and the Corporation's total borrowings were fixed rate in nature. To manage this mix in a cost-efficient manner, the Group enters into interest rate swaps in which the Group agrees to exchange at specified intervals, the difference between fixed and floating rate interest amounts calculated by reference to an agreed upon notional principal amount.

As at reporting date, the total notional principal amount of interest rate swaps of the Group is RM11.5 billion (2020: RM10.2 billion). The fixed interest rates relating to interest rate swaps at the reporting date ranges from 0.46% - 3.19% (2020: 0.62% - 3.19%) per annum.

38. Financial risk management objectives and policies (cont'd.)

(a) Interest rate risk (cont'd.)

The Group determines the existence of an economic relationship between the hedging instrument and hedged item based on the reference interest rates, tenors, maturities and notional amounts. If a hedging relationship is directly affected by uncertainty arising from IBOR reform, then the Group assumes for this purpose that the benchmark interest rate is not altered as a result of interest rate benchmark reform.

The following table demonstrates the sensitivity to a reasonably possible change in interest rates, with all other variables held constant, of the Group's and the Corporation's profit before taxation and equity via floating rate borrowings and interest rate swaps respectively.

	Increase/ (Decrease) in LIBOR basis points	Effect on profit before taxation (Decrease)/ Increase RM'000	Effect on other com-prehensive income Increase/ (Decrease) RM'000
As at 31 December 2021			
Group			
USD - 3 Months LIBOR	+10	(4,951)	30,020
USD - 3 Months LIBOR	-10	4,951	(30,020)
Corporation			
USD - 3 Months LIBOR	+10	-	-
USD - 3 Months LIBOR	-10	-	-
As at 31 December 2020			
Group			
USD - 3 Months LIBOR	+10	(2,308)	21,403
USD - 3 Months LIBOR	-10	2,308	(21,403)
Corporation			
USD - 3 Months LIBOR	+10	(1,071)	-
USD - 3 Months LIBOR	-10	1,071	-

As at 31 December 2021, the Group's and the Corporation's exposure to the risk of changes in market interest rate relates primarily to the Group's and the Corporation's placement of deposits with licensed banks, cash and bank balances, loans to subsidiaries and associate, interest-bearing loans and borrowings and loans from subsidiaries.

38. Financial risk management objectives and policies (cont'd.)

(a) Interest rate risk (cont'd.)

The interest-bearing financial instruments of the Group and of the Corporation based on carrying amount, as at reporting date were as follows:

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
Fixed rate instruments				
Financial assets				
Deposits with licensed banks	401,820	991,620	21,916	11,171
Deposits with IFSSC	5,462,424	4,023,265	2,810,026	1,609,734
Loans and advances to subsidiaries	-	-	222,106	644,439
Financial liabilities				
Fixed rate borrowings	369,636	248,396	-	-
Floating rate borrowings (swapped to fixed rate)	11,441,014	10,115,264	-	-
Loans from subsidiaries	-	-	648,116	167,548
Floating rate instruments				
Financial assets				
Cash and bank balances	2,088,103	1,840,120	52	42
Loans and advances to subsidiaries	-	-	730,530	569,553
Financial liabilities				
Floating rate borrowings	4,984,954	2,727,493	-	342,423
Loans from subsidiaries	-	-	-	684,845

The Group is also exposed to the ongoing interbank offered rates ("IBOR") reforms on its financial instruments that will be replaced or reformed as part of market-wide initiatives.

The Group's main IBOR exposure is indexed to USD LIBOR which will be discontinued on a revised timeline of 30 June 2023. The alternative reference rate is Secured Overnight Financing Rate ("SOFR"). The Group has established a transition committee which monitors and manages the Groupwide transition to alternative rates with an aim to achieve economically equivalent transactions and minimal impact upon transition. As at reporting date, transitional activities are currently ongoing, and the Group has no transactions for which benchmark rate had been replaced with an alternative benchmark rate.

38. Financial risk management objectives and policies (cont'd.)

(b) Foreign currency risk

The currencies giving rise to this risk are primarily RM and USD.

Approximately 3% (2020: 6%) and 4% (2020: 5%) of the Group and the Corporation's revenue are denominated in currency other than the currency of the primary economic environment which the entities operate.

Approximately 3% (2020: 7%) and 15% (2020: 16%) of the Group and the Corporation's cost of sales are denominated in currency other than the currency of the primary economic environment which the entities operate.

The Group maintains a natural hedge, wherever possible, by borrowing in currencies that matches the future revenue streams to be generated from its investments.

During the financial year, the Group held forward currency contracts designated as hedges of expected future receipts and payments denominated in USD, EUR and GBP for a subsidiary whose functional currency is Ringgit Malaysia. The forward currency contracts are being used to hedge the currency risk of the highly probable forecasted transactions. The cash flow hedges of the expected future receipts were assessed to be highly effective and a net unrealised gain of RM15,844,000 (2020: RM14,449,000) which represents the effective portion of the hedging relationship, is included in other comprehensive income.

With all other variables held constant, the following table demonstrates the sensitivity of the Group's and the Corporation's profit before taxation to a reasonably possible change in the USD and RM exchange rates.

	2021			2020		
	Change in currency rate %	Effect on profit before taxation Increase/ (Decrease) RM'000	Effect on other compre-hensive loss Increase/ (Decrease) RM'000	Change in currency rate %	Effect on profit before taxation Increase/ (Decrease) RM'000	Effect on other compre-hensive loss Increase/ (Decrease) RM'000
Group						
USD/RM	+10%	5,385	537	+10%	3,000	48,695
	-10%	(5,385)	(537)	-10%	(3,000)	(48,695)
Corporation						
USD/RM	+10%	33,022	-	+10%	36,639	-
	-10%	(33,022)	-	-10%	(36,639)	-

38. Financial risk management objectives and policies (cont'd.)

(b) Foreign currency risk (cont'd.)

The net unhedged financial receivables and payables and cash and bank balances of the Group and of the Corporation that are not denominated in their functional currencies are as follows:

Net financial receivables/(payables) and cash and bank balances held in non-functional currencies

Functional currency of Group entities	Ringgit Malaysia RM'000	United States Dollar RM'000	Great Britain Pound RM'000	Euro RM'000	Singapore Dollar RM'000	Total RM'000
At 31 December 2021						
Ringgit Malaysia	-	94,423	-	34	8,071	102,528
United States Dollar	44,934	-	(15,519)	16,592	3,510	49,517
	44,934	94,423	(15,519)	16,626	11,581	152,045
At 31 December 2020						
Ringgit Malaysia	-	76,599	-	(401)	4,120	80,318
United States Dollar	49,148	-	2,908	20,784	4,643	77,483
	49,148	76,599	2,908	20,383	8,763	157,801
Functional currency of Corporation						
At 31 December 2021						
United States Dollar	(365,701)	-	714	17,877	83	(347,027)
At 31 December 2020						
United States Dollar	(386,414)	-	836	24,262	(1,307)	(362,623)

38. Financial risk management objectives and policies (cont'd.)

(c) Liquidity risk

Liquidity risk is the risk that the Group and the Corporation will encounter difficulty in meeting their financial obligations due to shortage of funds. The Group's and the Corporation’s exposure to liquidity risk arise primarily from mismatches of the maturities of financial assets and liabilities. The Group's and the Corporation’s objective is to maintain a balance between continuity of funding and flexibility through the use of bank loans and various other sources of funding.

The Group and the Corporation have at their disposal cash and short term deposits amounting to RM6,994,301,000 (2020: RM5,545,089,000) and RM2,831,994,000 (2020: RM1,620,947,000) respectively. As at 31 December 2021, the Group and the Corporation have unutilised credit lines of RM6.7 billion (2020: RM6.0 billion) and RM5.4 billion (2020: RM4.8 billion) respectively, which could be used for working capital purposes.

38. Financial risk management objectives and policies (cont'd.)

(c) Liquidity risk (cont'd.)

The table below summarises the maturity profile of the Group and Corporation's financial liabilities as at the reporting date based on undiscounted contractual payments:

	Carrying amount RM'000	Contractual cash flows RM'000	Within 1 year RM'000	More than 1 - 2 years RM'000	More than 2 - 3 years RM'000	More than 3 - 4 years RM'000	More than 4 - 5 years RM'000	More than 5 years RM'000
At 31 December 2021								
Group								
Interest-bearing loans and borrowings	16,795,604	18,332,262	8,844,037	1,088,211	2,501,355	1,041,500	1,135,544	3,721,615
Lease liabilities	233,412	260,110	139,714	45,969	16,919	9,287	6,388	41,833
Trade and other payables	2,490,971	2,490,971	2,490,971	-	-	-	-	-
	19,519,987	21,083,343	11,474,722	1,134,180	2,518,274	1,050,787	1,141,932	3,763,448
Corporation								
Interest-bearing loans and borrowings	648,116	670,476	670,476	-	-	-	-	-
Lease liabilities	15,073	15,516	14,862	523	131	-	-	-
Trade and other payables	752,406	752,406	752,406	-	-	-	-	-
	1,415,595	1,438,398	1,437,744	523	131	-	-	-
At 31 December 2020								
Group								
Interest-bearing loans and borrowings	13,091,153	14,701,919	2,169,294	2,453,773	1,448,353	1,466,618	1,608,131	5,555,750
Lease liabilities	349,233	375,163	193,517	109,270	33,287	10,245	9,039	19,805
Trade and other payables	2,110,959	2,110,959	2,110,959	-	-	-	-	-
	15,551,345	17,188,041	4,473,770	2,563,043	1,481,640	1,476,863	1,617,170	5,575,555
Corporation								
Interest-bearing loans and borrowings	1,194,816	1,224,818	1,224,818	-	-	-	-	-
Lease liabilities	29,921	31,112	15,204	15,204	563	141	-	-
Trade and other payables	1,000,890	1,000,890	1,000,890	-	-	-	-	-
	2,225,627	2,256,820	2,240,912	15,204	563	141	-	-

38. Financial risk management objectives and policies (cont'd.)

(c) Liquidity risk (cont'd.)

Group

Hedging activities

The Group entered into IRS to hedge the cash flow risk of floating interest rate on the term loans. The notional amount swapped as at 31 December 2021 was RM11.5 billion (2020: RM10.2 billion). The swaps are settled quarterly, consistent with the interest payment schedule of the loan.

The following table indicates the periods in which the cash flows are expected to occur for cash flow hedges as at 31 December 2021 and 31 December 2020:

	Carrying amount RM'000	Contractual cash flows RM'000	Within 1 year RM'000	More than 1 - 2 years RM'000	More than 2 - 3 years RM'000	More than 3 - 4 years RM'000	More than 4 - 5 years RM'000	More than 5 years RM'000
At 31 December 2021								
Net cash outflows	(110,378)	(1,000,060)	(142,907)	(132,398)	(132,761)	(132,316)	(131,556)	(328,122)
At 31 December 2020								
Net cash outflows	(519,454)	(1,159,498)	(152,970)	(144,986)	(136,483)	(136,857)	(136,483)	(451,719)

The Group's hedging activities on the IRS are tested to be effective. During the year, the Group recognised in other comprehensive income a gain of RM423,354,000 (2020: loss of RM378,011,000) on the IRS of its subsidiaries due to higher market expectation of floating rates in comparison to the previous year's market expectations.

The Group's share of its joint ventures' in other comprehensive income a gain on unrealised gain on IRS during the year was RM14,169,000 (2020: loss of RM58,682,000) due to higher market expectation of floating rates in comparison to the previous year's market expectations.

38. Financial risk management objectives and policies (cont'd.)

(d) Credit risk

Credit risk is the risk of loss that may arise on outstanding financial instruments should a counterparty default on its obligations. The Group’s exposure to credit risk arises primarily from its operating activities (mainly trade receivables and finance lease receivables) and from its investing activities, including deposits with banks and financial institutions, foreign exchange transactions and other financial instruments.

At the reporting date, the Group’s maximum exposure to credit risk is represented by the carrying amount of each class of financial assets mentioned in Notes 20(a), 20(d), 22 and 24, and is recognised in the statements of financial position.

Receivables, finance lease receivables and contract assets

The Group and the Corporation determine concentrations of credit risk by monitoring the industry sector profile of their receivables on an ongoing basis. The credit risk concentration profile of the Group's and the Corporation's trade receivables including long term receivables, finance lease receivables and contract assets due from third parties at the reporting date are as follows:

	Group		Corporation	
	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
Gas Assets & Solutions	8,035,398	5,729,298	143,644	154,847
Petroleum and Product Shipping	299,153	254,949	-	-
Offshore Business	13,744,420	10,973,989	954,954	1,008,343
Marine and Heavy Engineering	721,037	355,100	-	-
Others	7,947	8,868	-	-
	22,807,955	17,322,204	1,098,598	1,163,190

At reporting date, approximately 3.1% (2020: 8.7%) and 84.6% (2020: 72.2%) of the Group’s and the Corporation's trade receivables including long term receivables, finance lease receivables and contract assets were due from related parties.

The Group and the Corporation perform credit rating assessment of all its counterparties in order to measure ECLs of trade receivables for all segments using the PETRONAS Credit Risk Rating System. This credit rating assessment considers quantitative assessment using the counterparties’ financial statements or a qualitative assessment of the counterparties, which includes but is not limited to their reputation, competitive position, industry and geopolitical outlook.

In determining the ECL, the probability of default assigned to each counterparty is based on their individual credit rating. This probability of default is derived by benchmarking against available third party and market information, which also incorporates forward looking information.

38. Financial risk management objectives and policies (cont'd.)

(d) Credit risk (cont'd.)

Receivables, finance lease receivables and contract assets (cont'd.)

The following table provides information about the exposure to credit risk and ECLs for receivables and contract assets which are grouped together as they are expected to have similar risk nature.

	Group		
2021	**Gross carrying amount RM'000**	**Loss allowance RM'000**	**Net balance RM'000**
Credit risk rating			
Low risk rating	613,182	(211)	612,971
Medium risk rating	23,001,778	(467,493)	22,534,285
High risk rating	485,107	(272,842)	212,265
	24,100,067	(740,546)	23,359,521
Representing:			
Trade and other receivables (Note 22)	5,159,378	(405,034)	4,754,344
Long term receivables, contract assets, loans and advances (Note 20(a))	3,441,293	(275,633)	3,165,660
Finance lease receivables (Note 20(d))	15,499,396	(59,879)	15,439,517
	24,100,067	(740,546)	23,359,521

	Corporation		
	Gross carrying amount RM'000	**Loss allowance RM'000**	**Net balance RM'000**
Credit risk rating			
Low risk rating	439,568	-	439,568
Medium risk rating	1,940,091	(91,450)	1,848,641
High risk rating	402,582	(271,236)	131,346
	2,782,241	(362,686)	2,419,555
Representing:			
Trade and other receivables (Note 22)	1,064,540	(85,934)	978,606
Long term receivables, contract assets, loans and advances (Note 20(a))	842,150	(271,236)	570,914
Finance lease receivables (Note 20(d))	875,551	(5,516)	870,035
	2,782,241	(362,686)	2,419,555

38. Financial risk management objectives and policies (cont'd.)

(d) Credit risk (cont'd.)

Receivables, finance lease receivables and contract assets (cont'd.)

	Group		
2020	**Gross carrying amount RM'000**	**Loss allowance RM'000**	**Net balance RM'000**
Credit risk rating			
Low risk rating	1,155,403	(2,995)	1,152,408
Medium risk rating	18,340,462	(439,584)	17,900,878
High risk rating	643,773	(250,501)	393,272
	20,139,638	(693,080)	19,446,558
Representing:			
Trade and other receivables (Note 22)	6,034,038	(627,328)	5,406,710
Long term receivables, contract assets, loans and advances (Note 20(a))	287,750	(2,417)	285,333
Finance lease receivables (Note 20(d))	13,817,850	(63,335)	13,754,515
	20,139,638	(693,080)	19,446,558

	Corporation		
	Gross carrying amount RM'000	**Loss allowance RM'000**	**Net balance RM'000**
Credit risk rating			
Low risk rating	616,600	-	616,600
Medium risk rating	4,413,429	(91,057)	4,322,372
High risk rating	405,186	(247,280)	157,906
	5,435,215	(338,337)	5,096,878
Representing:			
Trade and other receivables (Note 22)	3,889,940	(329,408)	3,560,532
Long term receivables, contract assets, loans and advances (Note 20(a))	619,017	(2,417)	616,600
Finance lease receivables (Note 20(d))	926,258	(6,512)	919,746
	5,435,215	(338,337)	5,096,878

Effective 1 July 2013, cash and bank balances were held in the In-House Account ("IHA") managed by PETRONAS Integrated Financial Shared Services Centre (“IFSSC”). The centralisation of fund management allows more effective cash visibility and fund management of the Group, as well as minimise exposure to counterparty credit risk. The beneficiary of these financial assets remains with the Corporation. PETRONAS IFSSC, which functions as a treasury management platform, in turn, places all funds under management in licensed financial institutions with strong credit ratings globally and in Malaysia. In addition, a majority of the Group's deposits are placed with licensed banks with strong credit ratings in Malaysia.

38. Financial risk management objectives and policies (cont'd.)

(d) Credit risk (cont'd.)

Credit risk from balances with banks and financial institutions is managed by Group Treasury in accordance with the Group's policy. The Group Treasury Investment Guideline defines the parameters within which the investment activities shall operate to achieve the Group's investment objective of preserving capital and generating optimal returns. In accordance with the guideline, investment of surplus funds are made only with highly credit rated counterparties.

The past due receivables balances are either secured by collaterals or relate mainly to customers who have never defaulted on payments but are slow paymasters and hence, are periodically monitored.

(e) Equity price risk

Equity price risk arises from the Group’s investment in quoted equity shares listed on Bursa Malaysia. At the reporting date, the exposure to the security carried at fair value was RM50,971,000 (2020: RM40,671,000).

The following table demonstrates the indicative effects on the Group's and the Corporation's investment in quoted equity shares applying reasonably foreseeable market movements in the following index rates:

	Group and Corporation		
	Carrying value RM'000	Weighted average change in index rate %	Effect on profit before taxation Increase/ (Decrease) RM'000
2021			
Malaysian quoted equity shares	50,971	+10	5,097
Malaysian quoted equity shares	50,971	-10	(5,097)
2020			
Malaysian quoted equity shares	40,671	+10	4,067
Malaysian quoted equity shares	40,671	-10	(4,067)

This analysis assumes all other variables remain constant and that the price of the Group's quoted equity investment is perfectly correlated to the market index.

39. Capital management

The Group, as an essential part of its capital management strategy, is committed towards achieving financial resilience and ensuring long-term business sustainability to a policy of financial prudence as outlined in the PETRONAS Group Corporate Financial Policy (formerly known as Group Corporate Financial Policy). The Group's capital structure consists of consolidated equity plus debt, defined as the current and long-term portions of the Group's debt.

The objective of the Group's capital management is to maintain an optimal capital structure and ensure availability of funds in order to meet financial obligations, support business growth and maximise shareholders' value. The Group monitors and maintains a prudent level of debt to total asset ratio to optimise shareholder value and to ensure compliance with covenants under debt and shareholders agreements and regulatory requirements if any.

There were no changes in the Group's approach to capital management during the year.

The debt to equity ratios of the Group and of the Corporation as at 31 December 2021 and 31 December 2020 are as follows:

		Group		Corporation	
	Note	2021 RM'000	2020 RM'000	2021 RM'000	2020 RM'000
Short term borrowings	20(c)	8,309,336	2,005,523	79,220	583,678
Long term borrowings	20(c)	8,719,680	11,434,863	583,969	641,059
Gross debts		17,029,016	13,440,386	663,189	1,224,737
Cash, deposits and bank balances	24	7,952,347	6,855,005	2,831,994	1,620,947
Net debts		9,076,669	6,585,381	(2,168,805)	(396,210)
Total equity		34,924,932	33,151,119	25,091,391	23,928,856
Gross debt equity ratio		0.49	0.41	0.03	0.05
Net debt equity ratio		0.26	0.20	(0.09)	(0.02)

The gearing ratio is not governed by MFRS and its definition and calculation may vary from one group/company to another.

40. Subsidiaries and principal activities

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
MISC Maritime Education Group Sdn. Bhd.	Malaysia	Dormant	100	100
MISC Tankers Sdn. Bhd.	Malaysia	Investment holding and provision of management services	100	100
Puteri Delima Sdn. Bhd.	Malaysia	Shipping	100	100
Puteri Firus Sdn. Bhd.	Malaysia	Shipping	100	100
Puteri Intan Sdn. Bhd.	Malaysia	Shipping	100	100
Puteri Nilam Sdn. Bhd.	Malaysia	Shipping	100	100
Puteri Zamrud Sdn. Bhd.	Malaysia	Shipping	100	100
Seri Camellia (L) Private Limited	Malaysia	Shipping	100	100
Seri Cempaka (L) Private Limited	Malaysia	Shipping	100	100
Seri Cenderawasih (L) Private Limited	Malaysia	Shipping	100	100
Seri Cemara (L) Private Limited	Malaysia	Shipping	100	100
Seri Camar (L) Private Limited	Malaysia	Shipping	100	100
Puteri Delima Satu (L) Private Limited	Malaysia	Shipping	100	100

40. Subsidiaries and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
Puteri Firus Satu (L) Private Limited	Malaysia	Shipping	100	100
Puteri Intan Satu (L) Private Limited	Malaysia	Shipping	100	100
Puteri Mutiara Satu (L) Private Limited	Malaysia	Shipping	100	100
Puteri Nilam Satu (L) Private Limited	Malaysia	Shipping	100	100
Puteri Zamrud Satu (L) Private Limited	Malaysia	Shipping	100	100
Asia LNG Transport Sdn. Bhd.	Malaysia	Ship owning and ship management	51	51
Asia LNG Transport Dua Sdn. Bhd.	Malaysia	Ship owning, ship management and investment holding	51	51
MISC PNG Shipping Limited	Malaysia	Investment holding	100	100
Gas Asia Terminal (L) Pte. Ltd.	Malaysia	Development and ownership of LNG floating storage units	100	100
M.I.S.C. Nigeria Ltd. *	Federal Republic of Nigeria	Dormant	60	60
Portovenere and Lerici (Labuan) Private Limited	Malaysia	Investment holding	100	100

40. Subsidiaries and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
Portovenere and Lerici (Singapore) Pte. Ltd.	Singapore	Shipping	100	100
Polaris LNG One Pte. Ltd.	Singapore	Owning and operating LNG ships for transportation of LNG	100	100
Polaris LNG Two Pte. Ltd.	Singapore	Owning and operating LNG ships for transportation of LNG	100	100
Seri Everest (Singapore) Pte. Ltd.	Singapore	Owning and operating VLEC for the transportation of liquefied ethane and/or liquefied petroleum gas	100	100
Seri Elbert (Singapore) Pte. Ltd.	Singapore	Owning and operating VLEC for the transportation of liquefied ethane and/or liquefied petroleum gas	100	100
Seri Erlang (Singapore) Pte. Ltd.	Singapore	Owning and operating VLEC for the transportation of liquefied ethane and/or liquefied petroleum gas	100	100

40. Subsidiaries and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
Seri Emory (Singapore) Pte. Ltd.	Singapore	Owning and operating VLEC for the transportation of liquefied ethane and/or liquefied petroleum gas	100	100
Seri Emei (Singapore) Pte. Ltd.	Singapore	Owning and operating VLEC for the transportation of liquefied ethane and/or liquefied petroleum gas	100	100
Seri Emperor (Singapore) Pte. Ltd.	Singapore	Owning and operating VLEC for the transportation of liquefied ethane and/or liquefied petroleum gas	100	100
MISC Tanker Holdings Sdn. Bhd.	Malaysia	Investment holding	100	100
MISC Tanker Holdings (Bermuda) Ltd.	Bermuda	Investment holding	100	100
AET Tanker Holdings Sdn. Bhd.	Malaysia	Investment holding	100	100
AET Pte. Ltd. #	Singapore	Investment holding	100	100

40. Subsidiaries and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
AET Singapore Holdings Pte. Ltd. #	Singapore	Investment holding	100	100
AET UK Limited #	United Kingdom	Management services and commercial management	100	100
AET Sea Shuttle AS #	Norway	Ship owning and marine transportation services	95	95
AET Sea Shuttle II AS #	Norway	Ship owning and marine transportation services	95	95
AET Norway AS	Norway	Management services and related activities	100	-
AET Shuttle Tankers II Pte. Ltd. #	Singapore	Ship owning and marine transportation services	100	100
AET Labuan Pte. Ltd.	Malaysia	Investment holding	100	100
AET DP Shuttle Tankers Sdn. Bhd.	Malaysia	Ship owning and marine transportation services	100	-
AET Shuttle Tankers Sdn. Bhd.	Malaysia	Ship owning	100	100

40. Subsidiaries and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
AET DP Shuttle Pte. Ltd. #	Singapore	Ship owning and marine transportation services	100	100
AET DP Shuttle II Pte. Ltd. #	Singapore	Ship owning and marine transportation services	100	100
AET Shuttle Tankers III Pte. Ltd. #	Singapore	Ship owning and marine transportation services	100	100
AET Bermuda Holdings Limited	Bermuda	Investment holding	100	100
AET Tankers VLCC Pte. Ltd.	Singapore	Ship owning and marine transportation services	100	-
AET Tankers Pte. Ltd. #	Singapore	Ship owning and marine transportation services	100	100
AET Tankers India Private Limited #	India	Dormant	100	100
AET Singapore One Pte. Ltd. #	Singapore	Ship owning	100	100
AET Azerbaijan Limited	Azerbaijan	Dormant	100	100
AET Inc. Limited	Bermuda	Ship owning and marine transportation services	100	100

40. Subsidiaries and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
AET Bermuda One Limited	Bermuda	Ship owning	100	100
AET Labuan One Pte. Ltd.	Malaysia	Ship owning	100	100
AET STS Limited Inc. *	Panama	Marine transportation services	100	100
AET Agencies Inc.	The United States of America	Shipping agent and lightering services	100	100
AET Offshore Services Inc.	The United States of America	Lightering services	100	100
AET Lightering Services LLC	The United States of America	Marine transportation services and lightering services	100	100
AET Tankers (Suezmax) Pte. Ltd. #	Singapore	Ship owning	100	100
AET MCV Gamma L.L.C.	Republic of the Marshall Islands	Marine transportation services	100	100
Paramount Tankers Corp.	Republic of the Marshall Islands	Investment holding	100	100
Atenea Services S.A.	British Virgin Islands	Ship owning and marine transportation services	100	100

40. Subsidiaries and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
Hendham Enterprises Ltd.	British Virgin Islands	Ship owning and marine transportation services	100	100
Odley Worldwide Inc.	British Virgin Islands	Ship owning and marine transportation services	100	100
Oldson Ventures Ltd.	British Virgin Islands	Ship owning and marine transportation services	100	100
Twyford International Business Corp.	British Virgin Islands	Ship owning and marine transportation services	100	100
Zangwill Business Corp.	British Virgin Islands	Ship owning and marine transportation services	100	100
AET Holdings (L) Pte. Ltd.	Malaysia	Investment holding	100	100
AET Petroleum Tanker (M) Sdn. Bhd.	Malaysia	Ship owning and marine transportation services	100	100
AET Malaysia One Sdn. Bhd.	Malaysia	Investment holding	100	100
AET Brasil Servicos Maritimos Ltda #	Brazil	Crew management services	100	100

40. Subsidiaries and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
AET Brasil Servicos STS Ltda #	Brazil	Marine transportation services and lightering services	100	100
AET Tankers Kazakhstan LLP	Kazakhstan	Dormant	100	100
AET MCV Delta Sdn. Bhd.	Malaysia	Investment holding	100	100
AET MCV Alpha L.L.C	Republic of the Marshall Islands	Ship owning	100	100
AET MCV Beta L.L.C	Republic of the Marshall Islands	Ship owning	100	100
AET Product Tankers Sdn. Bhd.	Malaysia	Ship owning and marine transportation services	100	100
AET Tankers VLCC II Sdn. Bhd.	Malaysia	Ship owning and marine transportation services	100	-
MISC Offshore Holdings (Brazil) Sdn. Bhd.	Malaysia	Investment holding	100	100
MISC Offshore (USA) LLC	The United States of America	Providing support services in the bidding and execution of offshore deepwater FPSO projects	100	100

40. Subsidiaries and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
MISC do Brasil Servicos de Energia Ltda	Brazil	Dormant	100	100
MISC Offshore Floating Terminals (L) Ltd.	Malaysia	Owning offshore floating terminals	100	100
MISC Offshore Floating Terminals Dua (L) Ltd.	Malaysia	Owning offshore floating terminals	100	100
Malaysia Offshore Mobile Production Dua (Labuan) Ltd.	Malaysia	Provision of professional services to oil and gas industry	100	100
Malaysia Offshore Mobile Production (Labuan) Ltd.	Malaysia	Owning mobile offshore production units	100	100
MISC Offshore (Americas) Holdings Pte. Ltd.	Malaysia	Investment holding	100	100
MISC Offshore (Singapore) Pte. Ltd. #	Singapore	Owning and leasing of FPSO unit	100	100
MISC Offshore Services Pte. Ltd.	Singapore	Provision of operations and maintenance services for deepwater offshore assets	100	100

40. Subsidiaries and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
MISC Serviços de Petróleo do Brasil Ltda	Brazil	To operate and maintain marine units for the exploration and production of oil and natural gas in Brazil and to provide any services related to such activities	100	100
Gumusut-Kakap Semi-Floating Production System (L) Limited	Malaysia	Owning and leasing of semi-submersible floating production system	100	100
Mekar Bergading Offshore Floating (L) Limited	Malaysia	Owning operation and maintenance of FSO vessels	100	100
FPSO Ventures Sdn. Bhd.	Malaysia	Provision of operations and maintenance of FPSO, FSO, MOPU and Fixed Facilities and management consultancy to the oil and gas industry	-	51
Malaysia Marine and Heavy Engineering Holdings Berhad ^	Malaysia	Investment holding	66.5	66.5

40. Subsidiaries and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
Malaysia Marine and Heavy Engineering Sdn. Bhd. ("MMHE")	Malaysia	Provision of oil and gas engineering and construction works, marine conversion and repair services	66.5	66.5
MMHE LNG Sdn. Bhd.	Malaysia	Dormant	66.5	66.5
Techno Indah Sdn. Bhd.	Malaysia	Dormant	66.5	66.5
MMHE EPIC Marine & Services Sdn. Bhd.	Malaysia	Provision of repair services and dry docking of marine vessels	46.6	46.6
Malaysia Marine and Heavy Engineering Saudi Limited *	Saudi Arabia	Provision of engineering, procurement, construction, installation and commissioning services for offshore and onshore facilities	66.5	66.5

MISC Berhad
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40. Subsidiaries and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
MHS Integrated Engineering Sdn. Bhd.	Malaysia	Plant turnaround and shutdown maintenance	59.9	59.9
MMHE International Sdn. Bhd.	Malaysia	Dormant	66.5	66.5
Malaysian Maritime Academy Sdn. Bhd.	Malaysia	Education and training for seamen and maritime personnel	100	100
MISC Capital (L) Ltd.	Malaysia	Special purpose vehicle for financing arrangement	100	100
MISC Capital Two (Labuan) Limited	Malaysia	Special purpose vehicle to finance the business operation of MISC Bhd or Companies Controlled by it	100	-
MISC International (L) Ltd.	Malaysia	Investment holding	100	100
MISC Enterprises Holdings Sdn. Bhd.	Malaysia	In Members' Voluntary Liquidation	100	100

40. Subsidiaries and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
MTTI Sdn. Bhd.	Malaysia	In Members' Voluntary Liquidation	100	100
MISC Agencies Sdn. Bhd.	Malaysia	Investment holding	100	100
MISC Agencies (Netherlands) B.V. *	Netherlands	Property owning	100	100
MISC Agencies India Private Limited *	India	In liquidation	60	60
MISC Berhad (UK) Limited	United Kingdom	Commercial operation	100	100
MISC Ferry Services Sdn. Bhd.	Malaysia	Dormant	100	100
Magellan X Holdings (L) Pte Ltd	Malaysia	Investment holding	100	100
Magellan X Pte. Ltd #	Singapore	Providing support services in the development of digital products and solutions	100	100

40. Subsidiaries and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
CHORD X Pte. Ltd #	Singapore	Providing data-driven solutions for maritime and industrial machinery application	88.5	100
SOL-X Pte. Ltd #	Singapore	Providing health, safety, security, operations and workflow management technology solutions	87.5	100
Spares CNX Pte. Ltd #	Singapore	Providing inventory management and procurement systems	89	100
MISC Maritime Services Sdn. Bhd.	Malaysia	Provision of maritime services and consultancy and maritime audit	100	100
Sungai Udang Port Sdn. Bhd.	Malaysia	Operation and management of Sungai Udang Port	100	100

40. Subsidiaries and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
Eaglestar Marine Holdings (L) Pte Ltd.	Malaysia	Provision of integrated marine services and investment holding	100	100
Eaglestar Shipmanagement (L) Pte Ltd.	Malaysia	Provision of ship management and marine related services	100	100
Eaglestar Marine (S) Pte Ltd. #	Singapore	Hiring of personnel	100	100
Eaglestar Shipmanagement (S) Pte. Ltd. #	Singapore	Provision of ship management and marine related services	100	100
Eaglestar Shipmanagement (USA) LLC	The United States of America	Provision of ship management and marine related services	100	100
Eaglestar Shipmanagement GAS (S) Pte. Ltd. #	Singapore	Provision of ship management and marine related services	100	100

40. Subsidiaries and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
Eaglestar Shipmanagement Ventures (S) Pte. Ltd. #	Singapore	Provision of ship management and marine related services	100	100
Eaglestar Marine B.V.	Netherlands	Provision of marine and procurement services	100	100
MISC Ship Management Sdn. Bhd.	Malaysia	Investment holding	100	100
Eaglestar Marine (Malaysia) Sdn. Bhd. (formerly known as AET Shipmanagement (Malaysia) Sdn. Bhd.)	Malaysia	Shipping management	100	100
Eaglestar Marine India Private Limited #	India	Provision of crew management services	100	100

* Audited by firms of auditors other than Ernst & Young
\# Audited by affiliates of Ernst & Young PLT Malaysia
^ Listed on the Main Board of Bursa Malaysia Securities Berhad

41. Associates and principal activities

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
FPSO Ventures Sdn. Bhd.	Malaysia	Provision of operations and maintenance of FPSO, FSO, MOPU and Fixed Facilities and management consultancy to the oil and gas industry	20	-
MISC Agencies Lanka (Pvt) Limited	Sri Lanka	In liquidation	40	40
Eaglestar Marine (Philippines) Corporation	Philippines	Provision of crew management services	24	24
Nikorma Transport Limited	Nigeria	LNG transportation	-	30

42. Joint arrangements and principal activities

(a) Joint ventures and principal activities

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
Malaysia Vietnam Offshore Terminal (L) Ltd. ****	Malaysia	FSO owner	51	51
Malaysia Deepwater Floating Terminal (Kikeh) Ltd. ****	Malaysia	FPSO owner	51	51
Malaysia Deepwater Production Contractors Sdn. Bhd. ****	Malaysia	Operating and maintaining FPSO terminal	51	51

42. Joint arrangements and principal activities (cont'd.)

(a) Joint ventures and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
Vietnam Offshore Floating Terminal (Ruby) Ltd. ***	Malaysia	FPSO owner	40	40
Diamond LNG Shipping 5 Pte. Ltd. ****	Singapore	Owning and chartering LNG vessel	25.5	25.5
Diamond LNG Shipping 6 Pte. Ltd. ****	Singapore	Owning and chartering LNG vessel	25.5	25.5
Western Pacific Shipping Ltd. ****	Bermuda	Dormant	60	60
Future Horizon (L) Pte. Ltd. ****	Malaysia	Carrying on LNG carriage and LNG bunkering operations	51	51
ELS Lightering Services S.A. ****	Uruguay	Lightering services	50	50
Akudel S.A. ****	Uruguay	Lightering activity	49	49
Cawerty S.A. ****	Uruguay	Lightering activity	49	49

42. Joint arrangements and principal activities (cont'd.)

(a) Joint ventures and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
Zascul S.A. ****	Uruguay	Lightering activity	49	49
Lifisol S.A. ****	Uruguay	Provision of oil spill prevention and response services	50	50
Ship Service S.A. ****	Uruguay	Ship management services	50	50
SBM Systems Inc.***	Switzerland	FPSO owner	-	49
FPSO Brasil Venture S.A.***	Switzerland	Investment and offshore activities	-	49
SBM Operacoes Ltda. ***	Brazil	Operating and maintaining FPSO terminals	-	49

42. Joint arrangements and principal activities (cont'd.)

(a) Joint ventures and principal activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
Brazilian Deepwater Floating Terminals Ltd. ***	Bermuda	Construction of FPSO	49	49
Brazilian Deepwater Production Ltd. ***	Bermuda	Chartering of FPSO	49	49
Brazilian Deepwater Production Contractors Ltd. ***	Bermuda	Operation and maintenance of FPSO	49	49
Operacoes Maritimas em Mar Profundo Brasileiro Ltda. ***	Brazil	Operation and maintenance of FPSO	49	49
Brazilian Deepwater Production B.V. ***	Netherlands	Chartering of FPSO	49	49
MMHE-TPGM Sdn. Bhd. ****	Malaysia	Dormant	39.9	39.9
MMHE-ATB Sdn. Bhd. ***	Malaysia	In Liquidation	26.6	26.6

42. Joint arrangements and principal activities (cont'd.)

(a) Joint ventures and principal activities (cont'd.)

	Country of incorporation	Principal activities	Effective interest held (%) 2021	2020
T.En MHB Hull Engineering Sdn. Bhd. **** (formerly known as Technip MHB Hull Engineering Sdn. Bhd.)	Malaysia	Dormant	33.3	33.3
SL-MISC International	Sudan	In liquidation	49	49
MISC Shipping Services UAE (LLC) ***	United Arab Emirates	Liquidated	-	49

*** Even though the Group holds less than 50% equity interest in these companies, all material operational and financial matters require unanimous consent of the joint venture parties.

**** Even though the Group holds 50% or more than 50% equity interest in these companies, all material operational and financial matters require unanimous consent of the joint venture parties.

(b) Joint operations

Details of the Group's joint operations are as follows:

Name	Effective interest held by the Group (%) 2021	2020
Technip MMHE (Malikai) Joint Venture	33	33
Technip MMHE (SK316) Joint Venture	33	33
Technip MMHE (Kasawari) Joint Venture	40	40

Technip MMHE (Malikai) Joint Venture, Technip MMHE (SK316) Joint Venture and Technip MMHE (Kasawari) Joint Venture are unincorporated joint ventures between the subsidiary, MMHE and Technip Geoproduction (M) Sdn. Bhd. to undertake specific engineering, procurement and construction, installation and commissioning projects.

43. Significant events

(a) Material litigation

(i) Gumusut-Kakap Semi-Floating Production System (L) Limited ("GKL") and Sabah Shell Petroleum Limited ("SSPC")

We refer to previous announcements made by MISC Berhad ("MISC or the Corporation") in respect of the Arbitration Proceedings commenced by the Corporation's wholly-owned subsidiary, GKL against SSPC.

As announced on 10 April 2020, the Arbitral Tribunal has issued its Award on 8 April 2020 ("Award") which found, among others, as follows:

1) That GKL's claim in relation to the achievement of Handover Completion under the Contract was rejected and the Arbitral Tribunal decided that Handover Completion did not occur prior to 11 October 2014;

2) In relation to GKL's claims for Variation Works, GKL was awarded:

   a. USD 222,132,575.60;
   b. That an amount of USD88,791,006.17 is deducted from USD222,132,575.60 being manpower costs incurred by way of the Variation Works for rectification of defects (which the Tribunal held GKL to be liable for);
   c. That the remainder sum of USD133,341,569.49 is converted to an Additional Lease Rate and represents a reduction from the Additional Lease Rate awarded by the Adjudication Awards. The new Additional Lease Rate is payable from the date of the Award. The base rate is unaffected by the Award and will continue for the Fixed Term.

3) SSPC was awarded the following sums:

   a. USD236,378,824.46 for defects rectification work (inclusive of USD15,000,000.00 for Liquidated Damages);
   b. USD88,317,146.13 as a refund for overpayment of the Additional Lease Rate originally awarded in the Adjudication Proceedings for the period of April 2014 to January 2020 due to the reduction of the Additional Lease Rate as set out in Item 2(c) above;

43. Significant events (cont'd.)

(a) Material litigation (cont'd.)

(i) Gumusut-Kakap Semi-Floating Production System (L) Limited ("GKL") and Sabah Shell Petroleum Limited ("SSPC") (cont'd.)

3) SSPC was awarded the following sums (cont'd.):

c. Applicable interest up to the date of the Award;
d. Costs of USD 12,746,570.70;
e. Interest at 6.65% on the sums awarded from the date of the Award until payment.

4) SSPC is entitled to set-off the above claims against moneys owed by SSPC to GKL under the Contract, including but not limited to the lease rate.

5) Any GST payable pursuant to the Goods and Services Tax Act 2014 to be accounted by the parties.

Proceedings Post the Award

GKL was advised that it has legal grounds to challenge the Award and on 7 July 2020, GKL has filed the following court applications:

(i) an Originating Summons dated 7 July 2020 for setting aside of parts of the Arbitral Award dated 8 April 2020 **("Setting Aside OS")**; and

(ii) a Notice of Application for an injunction to restrain SSPC from setting off the sums that GKL was ordered to pay to SSPC under the Arbitral Award dated 8 April 2020 **("Injunction NOA").**

Setting Aside OS

On 7 July 2020, GKL filed an Originating Summons to set aside parts of the Arbitral Award dated 8 April 2020. The proceeding of this Setting Aside OS was delayed due to the COVID-19 situation and the various applications filed by both Parties in relation to this matter:

(i) Injunction NOA

On 6 October 2020, GKL withdrew the Injunction NOA on the basis that a statutory stay of enforcement is automatically imposed on SSPC upon GKL's application to set aside SSPC's Award enforcement.

43. Significant events (cont'd.)

(a) Material litigation (cont'd.)

(i) Gumusut-Kakap Semi-Floating Production System (L) Limited ("GKL") and Sabah Shell Petroleum Limited ("SSPC") (cont'd.)

Setting Aside OS (cont'd.)

(i) Injunction NOA (cont'd.)

Additionally, GKL had filed an interim application preventing SSPC from enforcing the Award prior to the determination of the Setting Aside OS. This application was heard on 16 August 2021 and 1 October 2021. On 25 October 2021, the High Court dismissed GKL's interim application and decided that SSPC has the right to set off the award against the charter hire without full grounds of judgment. GKL has since obtained the High Court's written grounds of judgment and is of the opinion that there are grounds to appeal against the High Court's decision in dismissing GKL's interim application. As such, on 22 November 2021 GKL filed an appeal to the Court of Appeal against the High Court's decision. This appeal has now been fixed for hearing on 6 July 2022 with a final case management date fixed on 22 June 2022 for any final instructions that may be required.

(ii) SSPC Expungement Application

SSPC filed an interim application to expunge the affidavit of GKL's quantum expert **("SSPC Expungement Application")**, which was filed by GKL to clarify certain issues in support of the Setting Aside OS.

This application was heard on 9 August 2021 and 9 September 2021. On 1 October 2021, the High Court allowed SSPC's application with costs. Although no reasons were given by the High Court, attempts are being made by GKL's lawyers to try and secure the same. Despite the High Court's decision in allowing SSPC's Expungement Application, GKL's lawyers have advised that this argument can still be shown from the records and therefore, the expungement of the quantum expert's affidavit does not affect GKL's arguments in the Setting Aside.

GKL's Setting Aside OS was partly heard on 20 and 25 October 2021 and 13 January 2022 where GKL's counsel presented its case before the Judge at the High Court. The matter is fixed for continued hearing on 16 February 2022, 17 February 2022 and 4 April 2022.

43. Significant events (cont'd.)

(a) Material litigation (cont'd.)

(ii) Malaysia Marine and Heavy Engineering Sdn Bhd ("MMHE") and Kebabangan Petroleum Operating Company Sdn Bhd ("KPOC")

MMHE, a subsidiary of the Group, had on 13 March 2019 received a notice of arbitration from KPOC in relation to claims arising from the Kebabangan ("KBB") field project. KPOC claims that MMHE is in breach of the contract in respect of the appointed supplier of the valves per the contract. The actual valves procured were claimed to be defective and thus KPOC has suffered substantial loss and damage.

By way of Final Award dated 23 July 2021 that was made available to MMHE on 3 August 2021 ("Final Award"), Arbitral Tribunal has ordered that MMHE shall pay KPOC the following:-

(a) The sum of RM17,241,178 as damages for the expenses incurred by KPOC for assessment, procurement and replacement of valves in the period of 2016 to 2019, together with interest at the rate of 5% per annum from 11 October 2019 to the date of payment;

(b) The sum of RM9,820,770 as damages suffered by KPOC in having to procure 1,365 valves and install 1,454 valves in the future, together with interest at the rate of 5% per annum from 11 October 2019 till the date of payment; and

(c) The sum of RM1,029,167 for its legal fees and expenses.

In the Final Award, the Arbitral Tribunal also dismissed all of KPOC's claim for loss of revenue in the sum of RM28,030,906.

On 30 September 2021, MMHE filed an application to set aside the Final Award pursuant to Section 37 of the Arbitration Act 2005, whereby MMHE seeks for the Final Award to be set aside on grounds, amongst others, that there was a breach of the rules of natural justice in connection with the making of the Final Award.

KPOC, in this regard, has filed an application to seek leave from the High Court to register and enforce the Final Award as a Judgment of the High Court.

The Hearing of both applications were heard on 11 February 2022. During that hearing application, the Judge ordered for both Originating Summons to be heard simultaneously in a single session and a new hearing date is fixed on 15 April 2022.

MMHE is of the view that it has a fair chance to set aside the Final Award and therefore has not made any provision in respect of this claim.

43. Significant events (cont'd.)

(b) Impact of the COVID-19 pandemic

The COVID-19 pandemic has not materially affected the financial performance, financial position, cash flows and liquidity of Gas Assets & Solutions and Offshore Business segments in the year to date.

However, the financial performance of the Petroleum & Product Shipping segment for the year to date was affected by the lower tanker freight rates due to the impact of the pandemic on global oil demand.

Additionally, the Marine & Heavy Engineering segment was also impacted by the COVID-19 pandemic. The Heavy Engineering sub-segment’s loss widened due to additional cost provisions made for on-going projects due to the extended project completion date despite recording higher revenue than prior year. As a result of the extended project completion date, certain Heavy Engineering projects may potentially be exposed to risks of significant Liquidated Damages ("LDs"). However, as the extended project completion date was mainly caused by COVID-19, the Group expects to be able to defend against any application of the LDs. Furthermore, the client has agreed in principle to extend certain project milestones which the Group is now striving to meet. As such, the Group did not recognise any impact of the potential LDs in the current financial year. At the same time, the Group is also pursuing COVID-19 cost recovery and other claims from the client on the same projects. The Group will continue to monitor the situation and will account for any potential LDs and cost recovery claims accordingly. The Marine sub-segment continues to record losses from lower revenue in the current year as a result of the border restrictions.

In terms of cash flow and liquidity, the Group has not experienced any major delinquencies in its receivables account relating to the COVID-19 pandemic.

As at 31 December 2021, the Group recorded net current asset position of RM413,230,000 and cash, deposit and bank balances of RM7,952,347,000. As a result, the Group does not anticipate any financial difficulties to meet its debt obligations in the foreseeable future as well as its ability to operate as a going concern as of the date of this report.

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Registration No. 196801000580 (8178-H)

Independent auditors' report to the members of MISC Berhad (Incorporated in Malaysia)

Report on the audit of the financial statements

Opinion

We have audited the financial statements of MISC Berhad, which comprise the statements of financial position as at 31 December 2021 of the Group and of the Corporation, and the income statements, statements of comprehensive income, statements of changes in equity and statements of cash flows of the Group and of the Corporation for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, as set out on pages 9 to 180.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Group and of the Corporation as at 31 December 2021, and of their financial performance and their cash flows for the year then ended in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the requirements of the Companies Act 2016 in Malaysia.

Basis for opinion

We conducted our audit in accordance with approved standards on auditing in Malaysia and International Standards on Auditing. Our responsibilities under those standards are further described in the *Auditors' responsibilities for the audit of the financial statements* section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Independence and other ethical responsibilities

We are independent of the Group and of the Corporation in accordance with the By-Laws (on Professional Ethics, Conduct and Practice) of the Malaysian Institute of Accountants ("By-Laws") and the International Code of Ethics for Professional Accountants (including International Independence Standards) ("IESBA Code"), and we have fulfilled our other ethical responsibilities in accordance with the By-Laws and the IESBA Code.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the Group and of the Corporation for the current year. These matters were addressed in the context of our audit of the financial statements of the Group and of the Corporation as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

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Independent auditors' report to the members of MISC Berhad (cont'd.) (Incorporated in Malaysia)

Key audit matters (cont'd.)

We have fulfilled the responsibilities described in the *Auditors' responsibilities for the audit of the financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis of our audit opinion on the accompanying financial statements.

<table>
<tr><th>Key audit matters</th><th>How we addressed the key audit matters</th></tr>
<tr><td>Impairment of goodwill -
(Refer to Note 16 - Intangible assets, to the financial statements)

The Group is required to perform annual impairment test of cash generating units ("CGUs") or groups of CGUs to which goodwill has been allocated. The Group estimated the recoverable amount of its CGUs or groups of CGUs to which the goodwill is allocated based on value-in-use ("VIU").

Estimating the VIU of CGUs or groups of CGUs involves estimating the future cash inflows and outflows and discounting them at an appropriate rate.

The Group's goodwill as at 31 December 2021 of RM835.8 million solely relates to the Petroleum segment. We focused on the impairment review of the goodwill as significant judgements were involved in the terminal value and growth rate of the expected cash flows as well as the determination of an appropriate discount rate, which may cause possible variations in the recoverable amount of the CGU to which the goodwill has been allocated.</td><td>Our audit procedures included, among others evaluating the assumptions and methodologies used by the Group, in particular the assumptions to which the recoverable amount of the CGUs are most sensitive such as the terminal value of the expected cash flows, the growth rate as well as the discount rate used.

We have assessed and tested the key assumptions used by management to estimate the projected cash flows for the CGU as follows:

(a) obtained an understanding of the relevant internal controls over estimating the recoverable amount of the CGU;

(b) evaluated, with the involvement of our internal valuation specialist the appropriateness of methodology and approach applied and the discount rate used to determine the present value of the cash flows and whether the rate used reflects the current market assessments of the time value of money and the risks specific to the CGU;

(c) evaluated the forecasted cash flow including the terminal value and growth rate of the expected cash flows; and</td></tr>
</table>

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Independent auditors' report to the members of MISC Berhad (cont'd.)
(Incorporated in Malaysia)

Key audit matters (cont'd.)

Key audit matters	How we addressed the key audit matters
Impairment of goodwill - *(Refer to Note 16 - Intangible assets, to the financial statements) (cont'd.)*	(d) assessed the sensitivity of the goodwill balance to changes in the discount rate, terminal value and growth rate of cash flows. In addition, we also evaluated the adequacy of the disclosures of each key assumption on which the Group has based its cash flow projections and to which the recoverable amount is most sensitive, as disclosed in Note 16 to the financial statements.
Impairment of non-current assets - *(Refer to Note 14 - Ships, offshore floating assets and other property, plant and equipment, to the financial statements)* The Group is required to perform impairment test of CGU whenever there is an indication that the CGU may be impaired by comparing the carrying amount with its recoverable amount. i. <u>Ships in operations (RM18,214.8 million) and right-of-use assets of ships in operations (RM93 million)</u> In addition, continued volatility of charter hire rates and certain ships' contracts which have expired or are approaching expiry were also identified by management as indicators that the carrying amount of certain ships and right-of-use assets may be impaired.	i) <u>Ships and right-of-use assets of ships in operations</u> Our audit procedures to assess management's impairment testing based on VIU included the following: (a) obtained an understanding of the relevant internal controls over estimating the VIU of the CGU; (b) assessed the assumptions of future charter hire rates by comparing to the terms and conditions stipulated in the time charter party agreements entered into with the lessee, in particular the daily charter hire rates; (c) assessed whether the assumptions on the operating costs are supportable when compared to the past trends; and

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Independent auditors' report to the members of MISC Berhad (cont'd.) (Incorporated in Malaysia)

Key audit matters (cont'd.)

Key audit matters	How we addressed the key audit matters
Impairment of non-current assets - *(Refer to Note 14 - Ships, offshore floating assets and other property, plant and equipment, to the financial statements) (cont'd.)* i. Ships in operations (RM18,214.8 million) and right-of-use assets of ships in operations (RM93 million) (cont'd.) Accordingly, the Group and the Corporation estimated the recoverable amount of the ships and right-of-use assets of ships in operations using the higher of fair value less costs to sell ("FVLCS") and VIU. For recoverable amount that is based on FVLCS, the Group engaged independent valuers to assess the fair value of the ships. The Group and the Corporation recorded a total impairment loss of RM92.9 million and RM52.8 million respectively during the current financial year. This impairment review was significant to our audit because the assessment process is based on assumptions that are highly judgemental.	i) Ships and right-of-use assets of ships in operations (cont'd.) (d) evaluated, with the involvement of our internal valuation specialist the appropriateness of the methodology and approach applied and the discount rates used to determine the present value of the cash flows and whether the rates used reflect the current market assessments of the time value of money and the risks specific to the asset. Our audit procedures to assess management's impairment testing based on FVLCS are as follows: (e) considered the independence, competence, capabilities and objectivity of the external valuers; and (f) obtained an understanding of the methodology adopted by the independent valuers in estimating the fair value of the ships and assessed whether such methodology is consistent with those used in the industry.

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Independent auditors' report to the members of
MISC Berhad (cont'd.)
(Incorporated in Malaysia)

Key audit matters (cont'd.)

Key audit matters	How we addressed the key audit matters
Impairment of non-current assets - *(Refer to Note 14 - Ships, offshore floating assets and other property, plant and equipment, to the financial statements) (cont'd.)* ii. Other property, plant and equipment and right-of-use assets (RM1,889.9 million) Malaysia Marine and Heavy Engineering Holdings Berhad ("MHB") Group is in a loss-making position and the carrying amount of MHB Group's net assets exceeds its market capitalisation, thereby indicating potential impairment of MHB Group's other property, plant and equipment and right-of-use assets. Accordingly, the Group estimated the recoverable amount of the property, plant and equipment and right-of-use assets of MHB Group using VIU based on cash flow projections derived from budgets approved by Board covering a five year period including terminal value. Estimating the VIU involves estimating the future cash inflows and outflows and discounting them at an appropriate discount rate. This impairment review was significant to our audit because the assessment process is complex and is based on assumptions that are highly judgemental.	ii) Other property, plant and equipment and right-of-use assets Our audit procedures included, among others evaluating the assumptions and methodologies used by the Group, in particular those relating to the discount rate and projected cash flows including terminal value for the CGU. The areas that involved significant audit effort and judgement were the assessment of the probability of securing the future revenue contracts, possible variations in the amount and timing of cash flows and the determination of an appropriate discount rate. Our procedures to assess management's impairment testing included the following: (a) obtained an understanding of the relevant internal controls over estimating the recoverable amount of the CGU; (b) enquired with business development teams to obtain an understanding of the status of negotiations and the likelihood of securing the revenue contracts for contracts above our testing threshold, including timing of commencement and expected value of revenue contracts; (c) evaluated the reasonableness of the estimated profits to be derived from those revenue contracts above our testing threshold by comparing the estimated margins with the historical margins realised by MHB Group in recent years;

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Independent auditors' report to the members of MISC Berhad (cont'd.) (Incorporated in Malaysia)

Key audit matters (cont'd.)

Key audit matters	How we addressed the key audit matters
Impairment of non-current assets - *(Refer to Note 14 - Ships, offshore floating assets and other property, plant and equipment, to the financial statements) (cont'd.)*	ii) Other property, plant and equipment and right-of-use assets (cont'd.) (d) assessed, with the involvement of our internal valuation specialist the appropriateness of the methodology and approach applied and the discount rate used to determine the present value of the cash flows and whether the rate used reflects the current market assessments of the time value of money and the risks specific to the CGU; and (e) evaluated the reasonableness of the terminal value and growth rate of the expected cash flows.
Recognition of revenue and cost of construction and marine projects- *(Refer to Note 3 - Revenue and Note 23 - Due from/(to) customers on contracts, to the financial statements)* A significant proportion of the Group's revenues and profits are derived from long-term construction and marine projects which span more than one accounting period. We focused on this area because management applies significant judgement and estimates in determining the stage of completion in respect of heavy engineering and marine projects and in estimating total estimated project costs.	In addressing this area of audit focus, we obtained an understanding of the relevant internal controls over the accuracy and timing of revenue and cost recognised in the financial statements, including controls performed by the management in estimating total project costs, profit margin and POC of projects. In addition, we also performed the following: (a) obtained an understanding of the relevant internal controls over the accuracy and timing of revenue recognised in the financial statements, including controls performed by the management in estimating budgeted project costs, estimated project margins and stage of completion;

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Independent auditors' report to the members of
MISC Berhad (cont'd.)
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Key audit matters (cont'd.)

Key audit matters	How we addressed the key audit matters
Recognition of revenue and cost of construction and marine projects - *(Refer to Note 3 - Revenue and Note 23 - Due from/(to) customers on contracts, to the financial statements) (cont'd.)* The Group uses the percentage-of-completion ("POC") method in accounting for the revenue of these long-term contracts. The stage of completion is measured by reference to the percentage of completion of the contracts. Cost is recognised based on actual costs incurred to date.	(b) read all key contracts to obtain an understanding of the specific terms and conditions; (c) agreed contract sum to the original signed customer contracts and/or approved variation orders; (d) reviewed management meeting minutes to obtain an understanding of the performance and status of the projects above our testing threshold; (e) reviewed management's budgeted project costs to ensure adequacy of costs to complete; (f) assessed the reasonableness of inputs used in the determination of the POC in light of supporting evidences such as engineers' reports in relation to marine projects and actual invoices or signed progress reports by third party for heavy engineering projects and tested the underlying calculations of the POC; (g) considered the historical accuracy of management's budgeted project margins in assessing the reasonableness of estimated margins of similar projects; (h) assessed and ensured that actual project costs including foreseeable losses are appropriately accrued and supported by documentary evidences, such as work completion reports and material acceptance certificates, which represent activities performed to date; (i) reperformed the calculations of the revenue based on the POC method and where applicable, considered the implications of any changes in estimates; and (j) evaluated the presentation and disclosures of construction contracts in the financial statements, including significant accounting policies.

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Independent auditors' report to the members of MISC Berhad (cont'd.) (Incorporated in Malaysia)

Key audit matters (cont'd.)

Key audit matters	How we addressed the key audit matters
Contingent liability - *(Refer to Note 43(a)(i) - Significant Events - Material litigation - Gumusut-Kakap Semi-Floating Production System (L) Limited ("GKL") and Sabah Shell Petroleum Limited ("SSPC"), to the financial statements)* We focused on this area as the eventual outcome of claims is uncertain and the positions taken by the Directors are based on the application of material judgement and estimation. Accordingly, unexpected adverse outcomes against the positions taken by the Directors could significantly impact the Group's reported profit and statement of financial position.	In addressing this area of audit focus, we considered whether an obligation exists, the appropriateness of provisioning and/or disclosure based on the facts and circumstances available. We have performed the following: (a) Obtained and reviewed the relevant correspondences in relation to Arbitration and Litigation cases; (b) Compared the opinion provided by the Group's external legal counsel against management's assessment on the measurement and/or disclosures for the contingent liability; (c) Considered the independence, reputation and capabilities of the external legal counsel; (d) Obtained legal confirmations from the Group's external legal counsel; and (e) Considered whether the Group's disclosures of the application of judgement in estimating provisions and contingent liabilities adequately reflected the uncertainties associated with legal and regulatory matters.

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**Independent auditors' report to the members of
MISC Berhad (cont'd.)
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Information other than the financial statements and auditors' report thereon

The directors of the Corporation are responsible for the other information. The other information comprises the information included in the Group's 2021 Annual Report, but does not include the financial statements of the Group and of the Corporation and our auditors' report thereon. The Group's 2021 Annual Report is expected to be made available to us after the date of this auditors' report.

Our opinion on the financial statements of the Group and of the Corporation does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements of the Group and of the Corporation, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the financial statements of the Group and of the Corporation or our knowledge obtained in the audit or otherwise appears to be materially misstated.

Responsibilities of the directors for the financial statements

The directors of the Corporation are responsible for the preparation of financial statements of the Group and of the Corporation that give a true and fair view in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the requirements of the Companies Act 2016 in Malaysia. The directors are also responsible for such internal control as the directors determine is necessary to enable the preparation of financial statements of the Group and of the Corporation that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements of the Group and of the Corporation, the directors are responsible for assessing the Group's and the Corporation's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or the Corporation or to cease operations, or have no realistic alternative but to do so.

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Independent auditors' report to the members of MISC Berhad (cont'd.) (Incorporated in Malaysia)

Auditors' responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements of the Group and of the Corporation as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with approved standards on auditing in Malaysia and International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with approved standards on auditing in Malaysia and International Standards on Auditing, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements of the Group and of the Corporation, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Corporation's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's or the Corporation's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements of the Group and of the Corporation or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group or the Corporation to cease to continue as a going concern.

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Independent auditors' report to the members of
MISC Berhad (cont'd.)
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Auditors' responsibilities for the audit of the financial statements (cont'd.)

- Evaluate the overall presentation, structure and content of the financial statements of the Group and of the Corporation, including the disclosures, and whether the financial statements of the Group and of the Corporation represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the financial statements of the Group. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the directors, we determine those matters that were of most significance in the audit of the financial statements of the Group and of the Corporation for the current year and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on other legal and regulatory requirements

In accordance with the requirements of the Companies Act 2016 in Malaysia, we report that the subsidiaries of which we have not acted as auditors, are disclosed in Note 40 to the financial statements.

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**Independent auditors' report to the members of
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Other matters

This report is made solely to the members of the Company, as a body, in accordance with Section 266 of the Companies Act 2016 in Malaysia and for no other purpose. We do not assume responsibility to any other person for the content of this report.

Ernst & Young PLT 202006000003 (LLP0022760-LCA) & AF 0039 Chartered Accountants	Ismed Darwis Bin Bahatiar 02921/04/2022 J Chartered Accountant

Kuala Lumpur, Malaysia
21 February 2022

MISC BERHAD
Registration No. 196801000580 (8178-H)
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Directors' Report and Audited Financial Statements
31 December 2020

Registration No. 196801000580 (8178-H)

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(Incorporated in Malaysia)

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Directors' report

The directors hereby present their report together with the audited financial statements of the Group and of the Corporation for the financial year ended 31 December 2020.

Principal activities

The principal activities of the Corporation consist of shipowning, ship operating and other activities related to shipping services and operating offshore floating terminals.

The principal activities of the subsidiaries, associates and joint arrangements are described in Notes 40, 41 and 42 to the financial statements respectively. The directors deem such information is included in the Directors' Report by such reference and shall form part of the Directors' Report.

There have been no significant changes in the nature of the principal activities during the financial year.

Holding company

The immediate and ultimate holding company of the Corporation is Petroliam Nasional Berhad ("PETRONAS"), a company incorporated and domiciled in Malaysia.

Subsidiaries

The details of the Corporation's subsidiaries are disclosed in Note 40 to the financial statements.

Results

	Group RM'000	Corporation RM'000
(Loss)/profit for the year	(169,831)	1,912,336
Attributable to:		
Equity holders of the Corporation	(43,067)	1,912,336
Non-controlling interests	(126,764)	-
	(169,831)	1,912,336

There were no material transfers to or from reserves or provisions during the financial year other than as disclosed in the financial statements.

In the opinion of the directors, the results of the operations of the Group and of the Corporation during the financial year were not substantially affected by any item, transaction or event of a material and unusual nature other than the write off of trade receivables and loss on re-measurement of finance lease receivables and provision for litigation claims as disclosed in Note 9 to the financial statements.

Dividends

The amount of dividends paid by the Corporation since 31 December 2019 were as follows:

In respect of the financial year ended 31 December 2019 as reported in the directors' report of that year:

	RM'000
A fourth tax exempt dividend of 9.0 sen per ordinary share, declared on 18 February 2020 and paid on 17 March 2020	401,737
A special tax exempt dividend of 3.0 sen per ordinary share, declared on 18 February 2020 and paid on 17 March 2020	133,912

In respect of the financial year ended 31 December 2020:

A first tax exempt dividend of 7.0 sen per ordinary share, declared on 8 May 2020 and paid on 9 June 2020	312,462
A second tax exempt dividend of 7.0 sen per ordinary share, declared on 13 August 2020 and paid on 15 September 2020	312,462
A third tax exempt dividend of 7.0 sen per ordinary share, declared on 17 November 2020 and paid on 15 December 2020	312,462

A fourth tax exempt dividend in respect of the financial year ended 31 December 2020 of 12.0 sen per ordinary share amounting to a dividend payable of RM535,649,000 will be paid on 16 March 2021.

The fourth tax exempt dividend in respect of the financial year ended 31 December 2020 is not reflected in the current year's financial statements. The dividend will be accounted for in equity as an appropriation of retained profits in the financial year ending 31 December 2021.

Directors

The names of the directors of the Corporation in office since the beginning of the financial year to the date of this report are:

Datuk Abu Huraira bin Abu Yazid (Appointed on 9 October 2020)
Dato' Ab. Halim bin Mohyiddin
Datuk Nasarudin bin Md Idris
Lim Beng Choon
Dato' Sekhar Krishnan
Yee Yang Chien
Mohd Yusri bin Mohamed Yusof
Liza binti Mustapha
Dato' Rozalila binti Abdul Rahman
Datin Norazah binti Mohamed Razali (Appointed on 9 October 2020)
Mohammad Suhaimi bin Mohd Yasin (Appointed on 9 October 2020)
Tan Sri Noh bin Haji Omar (Appointed on 1 June 2020 and subsequently resigned on 17 June 2020)
Tengku Muhammad Taufik (Resigned on 15 July 2020)

The names of directors of subsidiaries are set out in their respective subsidiary's directors' report and the Board deems such information is included in the Corporation's Directors' Report by such reference and shall form part of the Corporation's Directors' Report.

Directors' benefits

Neither at the end of the financial year, nor at any time during that year, did there subsist any arrangement to which the Corporation was a party, whereby the directors might acquire benefits by means of acquiring of shares in or debentures of the Corporation or any other body corporate.

Since the end of the previous financial year, no director has received or become entitled to receive a benefit (other than benefits included in the aggregate amount of remunerations received or due and receivable by the directors or fixed salary of full-time employees of the Corporation and other related corporations as disclosed in Note 7 to the financial statements) by reason of a contract made by the Corporation or a related corporation with any director or with a firm of which he is a member, or with a company in which he has a substantial financial interest.

Directors' interests

According to the register of directors' shareholdings, the interests and deemed interests of directors in office at the end of the financial year in shares in the Corporation and its related corporations during the financial year were as follows:

	Number of ordinary shares			
	1 January 2020	Bought	Sold	31 December 2020
Fellow subsidiary - PETRONAS Gas Berhad				
Direct				
Dato' Ab. Halim bin Mohyiddin	5,000	-	-	5,000
Datuk Nasarudin bin Md Idris	3,000	-	-	3,000

	Number of stapled securities			
	1 January 2020	Bought	Sold	31 December 2020
Fellow subsidiaries - KLCC Property Holdings Berhad and KLCC Real Estate Investment Trust				
Direct				
Datuk Nasarudin bin Md Idris	5,000	-	-	5,000

	Number of ordinary shares			
	1 January 2020 /Date of Appointment	Bought	Sold	31 December 2020
Fellow subsidiary - PETRONAS Chemicals Group Berhad				
Direct				
Dato' Ab. Halim bin Mohyiddin	5,000	-	-	5,000
Datuk Nasarudin bin Md Idris	10,000	-	-	10,000
Mohd Yusri bin Mohamed Yusof	13,000	16,000	-	29,000
Mohammad Suhaimi bin Mohd Yasin	6,000	-	-	6,000

Directors' interests (cont'd.)

	Number of ordinary shares			
	1 January 2020	Bought	Sold	31 December 2020
Subsidiary				
- Malaysia Marine and Heavy Engineering Holdings Berhad				
Direct				
Dato' Ab. Halim bin Mohyiddin	5,000	-	-	5,000
Datuk Nasarudin bin Md Idris	10,000	-	-	10,000

Other than as disclosed above, none of the other directors in office at the end of the financial year had any interest and deemed interests in shares in the Corporation or its related corporations during the financial year.

Indemnity and insurance costs

During the financial year, PETRONAS and its subsidiaries (hereinafter referred to as "PETRONAS Group"), including the Corporation, maintained a Directors' and Officers' Liability Insurance in accordance with Section 289 of the Companies Act 2016. The total insured limit for the Directors and Officers Liability Insurance effected for the Directors and Officers of the PETRONAS Group was RM1,290 million (2019: RM1,290 million) per occurrence and in the aggregate. The insurance premium for the Corporation is RM16,267 (2019: RM16,267).

Other statutory information

(a) Before the financial statements of the Group and of the Corporation were made out, the directors took reasonable steps:

   (i) to ascertain that proper action had been taken in relation to the writing off of bad debts and the making of provision for doubtful debts, and satisfied themselves that all known bad debts had been written off and that adequate provision had been made for doubtful debts; and

   (ii) to ensure that any current assets which were unlikely to realise their value as shown in the accounting records in the ordinary course of business had been written down to an amount which they might be expected so to realise.

Other statutory information (cont'd.)

(b) At the date of this report, the directors are not aware of any circumstances which would render:

(i) the amount written off for bad debts or the amount of the provision for doubtful debts in the financial statements of the Group and of the Corporation inadequate to any substantial extent; and

(ii) the values attributed to the current assets in the financial statements of the Group and of the Corporation misleading.

(c) At the date of this report, the directors are not aware of any circumstances which have arisen which would render adherence to the existing method of valuation of assets or liabilities of the Group and of the Corporation misleading or inappropriate.

(d) At the date of this report, the directors are not aware of any circumstances not otherwise dealt with in this report or financial statements of the Group and of the Corporation which would render any amount stated in the financial statements misleading.

(e) At the date of this report, there does not exist:

(i) any charge on the assets of the Group or of the Corporation which has arisen since the end of the financial year which secures the liabilities of any other person; or

(ii) any contingent liability of the Group or of the Corporation which has arisen since the end of the financial year.

(f) In the opinion of the directors:

(i) no contingent or other liability has become enforceable or is likely to become enforceable within the period of twelve months after the end of the financial year which will or may affect the ability of the Group and of the Corporation to meet their obligations when they fall due; and

(ii) no item, transaction or event of a material and unusual nature has arisen in the interval between the end of the financial year and the date of this report which is likely to substantially affect the results of the operations of the Group or of the Corporation for the financial year in which this report is made.

The Corporation has been granted a relief order pursuant to Section 255(1) of the Companies Act 2016 relieving the Corporation's Directors from full compliance to the requirements under Section 253(2) of the Companies Act 2016.

Registration No. 196801000580 (8178-H)

MISC Berhad
(Incorporated in Malaysia)

Auditors

The auditors, Ernst & Young PLT, have expressed their willingness to continue in office.

The auditors' remuneration are disclosed in Note 5 to the financial statements.

Signed on behalf of the Board in accordance with a resolution of the directors dated 23 February 2021.

Datuk Abu Huraira bin Abu Yazid

Yee Yang Chien

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MISC Berhad
(Incorporated in Malaysia)

Statement by directors
Pursuant to Section 251(2) of the Companies Act 2016

We, Datuk Abu Huraira bin Abu Yazid and Yee Yang Chien, being two of the directors of MISC Berhad, do hereby state that, in the opinion of the directors, the accompanying financial statements set out on pages 9 to 186 are drawn up in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the requirements of the Companies Act 2016 in Malaysia so as to give a true and fair view of the financial position of the Group and of the Corporation as at 31 December 2020 and of their financial performance and cash flows for the year then ended.

Signed on behalf of the Board in accordance with a resolution of the directors dated 23 February 2021.

Datuk Abu Huraira bin Abu Yazid

Yee Yang Chien

Statutory declaration
Pursuant to Section 251(1)(b) of the Companies Act 2016

I, Raja Azlan Shah bin Raja Azwa, being the officer primarily responsible for the financial management of MISC Berhad, do solemnly and sincerely declare that the accompanying financial statements set out on pages 9 to 186 are in my opinion correct, and I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Statutory Declarations Act, 1960.

Subscribed and solemnly declared by the abovenamed Raja Azlan Shah bin Raja Azwa, at Kuala Lumpur in Wilayah Persekutuan on 23 February 2021.

Raja Azlan Shah bin Raja Azwa

Before me,

PESURUHJAYA SUMPAH
W 725
ABDUL SHUKOR MD NOOR
01.01.2021 - 31.12.2023
MALAYSIA

43, Leboh Ampang
50100 Kuala Lumpur

Registration No. 196801000580 (8178-H)

MISC Berhad
(Incorporated in Malaysia)

Income statements
For the year ended 31 December 2020

	Note	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
Revenue	3	9,401,234	8,962,724	1,013,630	1,015,989
Cost of sales		(6,521,409)	(6,215,588)	(623,392)	(613,124)
Gross profit		2,879,825	2,747,136	390,238	402,865
Other operating income	4	141,681	118,853	1,668,786	1,693,065
Impairment provisions	5(a)	(331,376)	(214,943)	(37,071)	(101,407)
Gain on disposal of ships and an offshore floating asset		25,135	7,884	-	-
Gain on acquisition of a business	8	-	23,731	-	23,731
Write off of trade receivables and loss on re-measurement of finance lease receivables	9	(846,229)	-	-	-
Provision for litigation claims	9	(1,049,248)	-	-	-
Finance income	10(a)	112,612	169,249	121,459	195,140
General and administrative expenses		(1,116,923)	(1,105,913)	(194,038)	(218,068)
Finance costs	10(b)	(368,084)	(484,303)	(30,824)	(129,416)
Share of profit of joint ventures		428,782	250,629	-	-
Share of profit of an associate		241	-	-	-
(Loss)/profit before taxation	5	**(123,584)**	**1,512,323**	**1,918,550**	**1,865,910**
Taxation	11	(46,247)	(76,056)	(6,214)	(1,496)
(Loss)/profit after taxation		**(169,831)**	**1,436,267**	**1,912,336**	**1,864,414**
Attributable to:					
Equity holders of the Corporation		(43,067)	1,426,355	1,912,336	1,864,414
Non-controlling interests		(126,764)	9,912	-	-
		(169,831)	1,436,267	1,912,336	1,864,414
(Loss)/earnings per share attributable to equity holders of the Corporation (sen)					
Basic	12	(1.0)	32.0		
Diluted	12	(1.0)	32.0		

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

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MISC Berhad
(Incorporated in Malaysia)

Statements of comprehensive income
For the year ended 31 December 2020

	Group		Corporation	
	2020	**2019**	**2020**	**2019**
	RM'000	**RM'000**	**RM'000**	**RM'000**
(Loss)/profit after taxation	(169,831)	1,436,267	1,912,336	1,864,414
Other comprehensive loss				
Items that may be reclassified subsequently to profit or loss				
Loss on currency translation	(505,591)	(363,183)	(431,683)	(259,910)
Cash flow hedges:				
Fair value loss				
Group	(392,460)	(163,408)	-	-
Joint ventures	(58,682)	-	-	-
Total other comprehensive loss for the year	**(956,733)**	**(526,591)**	**(431,683)**	**(259,910)**
Total comprehensive (loss)/income for the year	**(1,126,564)**	**909,676**	**1,480,653**	**1,604,504**
Total comprehensive (loss)/income attributable to:				
Equity holders of the Corporation	(981,313)	902,602	1,480,653	1,604,504
Non-controlling interests	(145,251)	7,074	-	-
	(1,126,564)	**909,676**	**1,480,653**	**1,604,504**

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

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MISC Berhad
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Statements of financial position as at 31 December 2020

	Note	Group 2020 RM'000	Group 2019 RM'000
Non-current assets			
Ships	14	21,088,363	20,975,927
Offshore floating assets	14	51,308	82,357
Other property, plant and equipment	14	2,169,477	2,228,917
Prepaid lease payments on land and buildings	15	212,534	219,843
Intangible assets	16	819,222	840,653
Investments in associates	18	696	482
Investments in joint ventures	19	873,061	925,715
Other non-current financial assets	20(a)	389,502	225,903
Finance lease receivables	20(d)	13,754,515	15,007,971
Deferred tax assets	29	104,433	103,499
		39,463,111	40,611,267
Current assets			
Inventories	21	91,349	165,731
Trade and other receivables	22	5,406,710	3,930,705
Cash, deposits and bank balances	24	6,855,005	7,030,814
		12,353,064	11,127,250
Non-current assets classified as held for sale	25	4,834	125,278
		12,357,898	11,252,528
Current liabilities			
Trade and other payables	26	3,509,253	2,186,588
Derivative liabilities	20(b)	11,671	1,560
Interest-bearing loans and borrowings	20(c)	2,005,523	5,599,481
Provision for taxation		23,273	14,165
		5,549,720	7,801,794
Net current assets		6,808,178	3,450,734
		46,271,289	44,062,001

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

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MISC Berhad
(Incorporated in Malaysia)

Statements of financial position as at 31 December 2020 (cont'd.)

	Note	Group 2020 RM'000	Group 2019 RM'000
Equity			
Equity attributable to equity holders of the Corporation			
Share capital	27	8,923,262	8,923,262
Treasury shares	27	(271)	(271)
Other reserves	28	5,122,005	6,060,251
Retained profits		18,227,848	19,743,950
		32,272,844	34,727,192
Non-controlling interests		878,275	1,026,526
		33,151,119	35,753,718
Non-current liabilities			
Interest-bearing loans and borrowings	20(c)	11,434,863	7,552,692
Deferred tax liabilities	29	7,821	30,907
Derivative liabilities	20(b)	527,026	158,360
Deferred income	30	1,150,460	566,324
		13,120,170	8,308,283
		46,271,289	44,062,001

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

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MISC Berhad
(Incorporated in Malaysia)

Statements of financial position as at 31 December 2020

	Note	Corporation 2020 RM'000	2019 RM'000
Non-current assets			
Ships	14	4,022,953	4,403,005
Other property and equipment	14	154,873	323,468
Prepaid lease payments on land and buildings	15	3,516	3,566
Investments in subsidiaries	17	14,981,888	14,986,590
Investments in associates	18	124	124
Investments in joint ventures	19	191,998	195,384
Other non-current financial assets	20(a)	720,754	1,079,755
Finance lease receivables	20(d)	919,746	1,012,006
		20,995,852	22,003,898
Current assets			
Trade and other receivables	22	3,560,532	1,747,140
Cash, deposits and bank balances	24	1,620,947	2,817,049
		5,181,479	4,564,189
Current liabilities			
Trade and other payables	26	1,023,738	996,929
Interest-bearing loans and borrowings	20(c)	583,678	1,620,012
		1,607,416	2,616,941
Net current assets		3,574,063	1,947,248
		24,569,915	23,951,146
Equity			
Equity attributable to equity holders of the Corporation			
Share capital	27	8,923,262	8,923,262
Treasury shares	27	(271)	(271)
Other reserves		3,400,795	3,832,478
Retained profits		11,605,070	11,165,769
		23,928,856	23,921,238
Non-current liability			
Interest-bearing loans and borrowings	20(c)	641,059	29,908
		24,569,915	23,951,146

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

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Consolidated statements of changes in equity
For the year ended 31 December 2020

			← Attributable to equity holders of the Corporation →										
				← Non Distributable →		Distributable	← Non Distributable →						
Group	**Note**	**Total equity RM'000**	**Equity attributable to equity holders of the Corporation RM'000**	**Share capital* RM'000**	**Treasury shares RM'000**	**Retained profits RM'000**	**Other reserves, total RM'000**	**Other capital reserve RM'000**	**Capital reserve RM'000**	**Revaluation reserve RM'000**	**Statutory reserve RM'000**	**Hedging reserve RM'000**	**Currency translation reserve RM'000**	**Non-controlling interests RM'000**
2020														
At 1 January 2020		35,753,718	34,727,192	8,923,262	(271)	19,743,950	6,060,251	99,299	435,199	1,357	3,161	(159,929)	5,681,164	1,026,526
Total comprehensive loss		(1,126,564)	(981,313)	-	-	(43,067)	(938,246)	-	-	-	-	(417,546)	(520,700)	(145,251)
Transactions with equity holders														
Dividends	13	(1,473,035)	(1,473,035)	-	-	(1,473,035)	-	-	-	-	-	-	-	-
Dividends paid to non-controlling interest		(3,000)	-	-	-	-	-	-	-	-	-	-	-	(3,000)
Total transactions with equity holders		(1,476,035)	(1,473,035)	-	-	(1,473,035)	-	-	-	-	-	-	-	(3,000)
At 31 December 2020		33,151,119	32,272,844	8,923,262	(271)	18,227,848	5,122,005	99,299	435,199	1,357	3,161	(577,475)	5,160,464	878,275
2019														
At 1 January 2019		36,177,165	35,163,713	8,923,262	(271)	19,656,718	6,584,004	99,299	435,199	1,357	3,161	2,956	6,042,032	1,013,452
Total comprehensive income		909,676	902,602	-	-	1,426,355	(523,753)	-	-	-	-	(162,885)	(360,868)	7,074
Transactions with equity holders														
Dividends	13	(1,339,123)	(1,339,123)	-	-	(1,339,123)	-	-	-	-	-	-	-	-
Dividends paid to non-controlling interest		(3,000)	-	-	-	-	-	-	-	-	-	-	-	(3,000)
Arising from increase in investment in subsidiary		9,000	-	-	-	-	-	-	-	-	-	-	-	9,000
Total transactions with equity holders		(1,333,123)	(1,339,123)	-	-	(1,339,123)	-	-	-	-	-	-	-	6,000
At 31 December 2019		35,753,718	34,727,192	8,923,262	(271)	19,743,950	6,060,251	99,299	435,199	1,357	3,161	(159,929)	5,681,164	1,026,526

* Included in share capital is one special preference share of RM1.

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

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Statements of changes in equity
For the year ended 31 December 2020

			← Non Distributable	→	Distributable	← Non Distributable	→
Corporation	**Note**	**Total equity RM'000**	**Share capital* RM'000**	**Treasury shares RM'000**	**Retained profits RM'000**	**Other reserves, total RM'000**	**Currency translation reserve RM'000**
2020							
At 1 January 2020		23,921,238	8,923,262	(271)	11,165,769	3,832,478	3,832,478
Total comprehensive income		1,480,653	-	-	1,912,336	(431,683)	(431,683)
Transactions with equity holders							
Dividends	13	(1,473,035)	-	-	(1,473,035)	-	-
At 31 December 2020		23,928,856	8,923,262	(271)	11,605,070	3,400,795	3,400,795
2019							
At 1 January 2019		23,655,857	8,923,262	(271)	10,640,478	4,092,388	4,092,388
Total comprehensive income		1,604,504	-	-	1,864,414	(259,910)	(259,910)
Transactions with equity holders							
Dividends	13	(1,339,123)	-	-	(1,339,123)	-	-
At 31 December 2019		23,921,238	8,923,262	(271)	11,165,769	3,832,478	3,832,478

* Included in share capital is one special preference share of RM1.

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

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Statements of cash flows
For the year ended 31 December 2020

	Group 2020 RM'000	Group 2019 RM'000
CASH FLOWS FROM OPERATING ACTIVITIES		
(Loss)/profit before taxation	(123,584)	1,512,323
Adjustments for:		
Writeback of impairment loss on:		
- Finance lease receivables	(8,878)	(5,455)
Impairment loss on:		
- Trade and other receivables	34,563	36,839
Bad debts written off	6,120	1,065
Ships, offshore floating assets, other property, plant and equipment and right-of-use assets:		
- Depreciation	2,090,970	2,215,528
- Written off	23,639	13,189
- Impairment loss	331,376	214,943
Amortisation of prepaid lease payments	7,359	7,405
Amortisation of upfront fees for borrowings	21,531	26,188
Amortisation of intangible assets	5,884	6,373
Gain on disposal of ships and an offshore floating asset	(25,135)	(7,884)
Net unrealised foreign exchange (gain)/loss	(4,905)	1,636
Changes in fair value of hedging derivatives	3,235	-
Dividend income from equity investments	(1,087)	(1,572)
Write off of trade receivables and loss on re-measurement of finance lease receivables	846,229	-
Provision for litigation claims	1,049,248	-
Gain on acquisition of a business	-	(23,731)
Fair value movement in other investments	6,953	5,175
Finance income	(112,612)	(169,249)
Finance costs	368,084	484,303
Share of profit of joint ventures	(428,782)	(250,629)
Share of profit of an associate	(241)	-
Operating profit before working capital changes	4,089,967	4,066,447
Inventories	74,712	82,518
Trade and other receivables	399,611	1,398,311
Trade and other payables	465,496	119,132
Deferred income	619,447	(39,900)
Cash generated from operations	5,649,233	5,626,508
Net tax paid	(61,328)	(47,451)
Net cash generated from operating activities	5,587,905	5,579,057

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

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MISC Berhad
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Statements of cash flows (cont'd.)
For the year ended 31 December 2020

	Note	Group 2020 RM'000	Group 2019 RM'000
CASH FLOWS FROM INVESTING ACTIVITIES			
Net cash used in investing activities	31	(4,318,022)	(1,533,025)
CASH FLOWS FROM FINANCING ACTIVITIES			
Net cash used in financing activities	32	(1,388,707)	(3,772,691)
Net (decrease)/increase in cash and cash equivalents		(118,824)	273,341
Cash and cash equivalents at beginning of financial year		5,740,435	5,534,849
Currency translation differences		(76,522)	(67,755)
Cash and cash equivalents at end of financial year		5,545,089	5,740,435
Cash and cash equivalents comprise:			
Cash, deposits and bank balances	24	6,855,005	7,030,814
Less: Cash pledged with bank - restricted		(1,303,393)	(1,289,730)
Deposits with maturity more than 90 days		(6,523)	(649)
Cash and cash equivalents		5,545,089	5,740,435

	2020 RM'000	2019 RM'000
Total cash outflows for leases		
- Lease liabilities	316,302	447,834
- Short term leases and leases of low-value assets	219,628	295,762
	535,930	743,596

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

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MISC Berhad
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Statements of cash flows
For the year ended 31 December 2020

	Corporation 2020 RM'000	Corporation 2019 RM'000
CASH FLOWS FROM OPERATING ACTIVITIES		
Profit before taxation	1,918,550	1,865,910
Adjustments for:		
Ships, other property and equipment and right-of-use assets:		
- Depreciation	366,673	365,692
- Written off	95	525
- Impairment loss	10,444	8,582
Amortisation of prepaid lease payments	100	124
Writeback of impairment loss on:		
- Trade and other receivables	(136)	-
- Finance lease receivables	(814)	(369)
Impairment loss on:		
- Trade and other receivables	13,915	22,019
Bad debts written off	-	524
Impairment loss on investment in subsidiaries	26,627	92,825
Net unrealised foreign exchange gain	(4,748)	(3,432)
Dividend income from equity investments	(1,604,782)	(1,492,990)
Gain on acquisition of a business	-	(23,731)
Fair value movement in other investments	6,953	5,175
Finance income	(121,459)	(195,140)
Finance costs	30,824	129,416
Gain from liquidation of a subsidiary	-	(151,869)
Operating profit before working capital changes	642,242	623,261
Trade and other receivables	(1,844,293)	1,112,584
Trade and other payables	39,495	(90,830)
Cash (used in)/generated from operations	(1,162,556)	1,645,015
Net tax paid	(6,214)	-
Net cash (used in)/generated from operating activities	(1,168,770)	1,645,015

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

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Statements of cash flows (cont'd.)
For the year ended 31 December 2020

	Note	Corporation 2020 RM'000	Corporation 2019 RM'000
CASH FLOWS FROM INVESTING ACTIVITIES			
Net cash generated from investing activities	31	1,889,820	1,958,663
CASH FLOWS FROM FINANCING ACTIVITIES			
Net cash used in financing activities	32	(1,917,700)	(2,714,093)
Net (decrease)/increase in cash and cash equivalents		(1,196,650)	889,585
Cash and cash equivalents at beginning of financial year		2,817,049	1,957,819
Currency translation differences		548	(30,355)
Cash and cash equivalents at end of financial year		1,620,947	2,817,049
Cash and cash equivalents comprise:			
Cash, deposits and bank balances	24	1,620,947	2,817,049

	2020 RM'000	2019 RM'000
Total cash outflows for leases		
- Lease liabilities	13,896	13,288
- Short term leases and leases of low-value assets	5,632	4,335
	19,528	17,623

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

1. Corporate information

The Corporation is a public limited liability company, incorporated and domiciled in Malaysia, and is listed on the Main Market of Bursa Malaysia Securities Berhad ("Bursa Malaysia"). The registered office of the Corporation is located at Level 25, Menara Dayabumi, Jalan Sultan Hishamuddin, 50050 Kuala Lumpur.

The immediate and ultimate holding company of the Corporation is PETRONAS, a company incorporated and domiciled in Malaysia.

The principal activities of the Corporation consist of shipowning, ship operating and other activities related to shipping services and operating offshore floating terminals.

The principal activities of the subsidiaries, associates and joint arrangements are described in Notes 40, 41 and 42 respectively.

There have been no significant changes in the nature of the principal activities during the financial year.

The financial statements were authorised for issue by the Board of Directors in accordance with a resolution of the directors on 23 February 2021.

2. Significant accounting policies

2.1 Basis of preparation

The financial statements of the Group and of the Corporation comply with Malaysian Financial Reporting Standards ("MFRS"), International Financial Reporting Standards ("IFRS") and the requirements of the Companies Act 2016 in Malaysia.

The financial statements of the Group and of the Corporation have been prepared on a historical cost basis unless otherwise indicated in the accounting policies below.

The functional currency of the Corporation is United States Dollar (“USD”). The individual financial statements of each entity in the Group are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The Group's and the Corporation's financial statements are presented in Ringgit Malaysia ("RM").

2. Significant accounting policies (cont'd.)

2.2 Changes in accounting policies and effects arising from the adoption of new and revised MFRSs

The Group and the Corporation had on 1 January 2020 adopted new MFRSs, amendments to MFRS and IC Interpretation (collectively referred to as "pronouncements") that have been issued by the Malaysian Accounting Standards Board ("MASB") as follows:

Effective for annual periods beginning on or after 1 January 2020

- Amendments to MFRS 3: Business Combinations (Definition of a Business)
- Amendments to MFRS 7: Financial Instruments: Disclosures (Interest Rate Benchmark Reform)
- Amendments to MFRS 9: Financial Instruments (Interest Rate Benchmark Reform)
- Amendments to MFRS 16: Leases (COVID-19 Related Rent Concessions)
- Amendments to MFRS 101: Presentation of Financial Statements (Definition of Material)
- Amendments to MFRS 108: Accounting Policies, Changes in Accounting Estimates and Errors (Definition of Material)
- Amendments to MFRS 139: Financial Instruments: Disclosure (Interest Rate Benchmark Reform)

The adoption of the above pronouncements did not have any significant financial impact to the Group and the Corporation other than as set out below:

(i) Amendments to MFRS 7: Financial Instruments: Disclosures, Amendments to MFRS 9: Financial Instruments and Amendments to MFRS 139: Financial Instruments (Interest Rate Benchmark Reform)

Interest rate benchmark reform is a market-wide reform of interest rate benchmarks, including the replacement of some interbank offered rates (IBORs) with alternative benchmark rates. The reform has led to uncertainty about the long-term viability of some interest rate benchmarks.

The amendments, issued to address the pre-replacement issues and uncertainty arising from the interest rate benchmark reform, provides temporary relief from applying specific hedge accounting requirements to hedging relationships directly affected by the interest rate benchmark reform until the uncertainty arising from this reform is no longer present. The relief provided by the amendments requires the Group to assume that the interest rate on which the hedged cash flows are based is not altered because of the interest rate benchmark reform.

2. Significant accounting policies (cont'd.)

2.2 Changes in accounting policies and effects arising from the adoption of new and revised MFRSs (cont'd.)

(i) Amendments to MFRS 7: Financial Instruments: Disclosures, Amendments to MFRS 9: Financial Instruments and Amendments to MFRS 139: Financial Instruments (Interest Rate Benchmark Reform) (cont'd.)

The Group holds interest rate swaps for risk management purposes which are designated as cash flow hedging relationships and are indexed to USD London Interbank Offered Rate ("USD LIBOR"). As at 31 December 2020, the Group hedged items and hedging instruments continue to be indexed to USD LIBOR. However, the Group's USD LIBOR cash flow hedging relationships extend beyond the anticipated cessation date for USD LIBOR. Following the uncertainty about when and how the replacement may occur with respect to the relevant hedged items and hedging instruments which may impact the hedging relationship, the Group applies the amendments to MFRS 9 which provides temporary relief from potential effects on this uncertainty caused by the interest rate benchmark reform.

2.3 Summary of significant accounting policies

The accounting policies set out below have been applied consistently to the periods presented in these financial statements by the Group and the Corporation, unless otherwise stated.

(a) Subsidiaries and basis of consolidation

(i) Subsidiaries

Subsidiaries are entities including structured entities controlled by the Corporation. The Corporation controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Potential voting rights are considered when assessing control only when such rights are substantive.

The Corporation considers it has de facto power over an investee when, despite not having the majority of voting rights, it has the current ability to direct the activities of the investee that significantly affect the investee's return.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(a) Subsidiaries and basis of consolidation (cont'd.)

(i) Subsidiaries (cont'd.)

In the Corporation's separate financial statements, investments in subsidiaries are measured at cost less impairment losses, unless the investment is classified as held for sale or distribution. On disposal of such investments, the difference between net disposal proceeds and their carrying amounts is included in the income statement.

(ii) Basis of consolidation

The consolidated financial statements comprise the financial statements of the Corporation and its subsidiaries as at the reporting date. The financial statements of the subsidiaries are prepared for the same reporting date as the Corporation. Subsidiaries are consolidated from the date of acquisition, being the date which the Corporation obtains control and continue to be consolidated until the date that such control ceases.

All intercompany transactions are eliminated on consolidation and hence, revenue and profits relate to external transactions only. Unrealised losses resulting from intercompany transactions are also eliminated, except for instances where cost cannot be recovered.

A business combination is a transaction or other event in which an acquirer obtains control of one or more businesses. Business combinations are accounted for using the acquisition method from the acquisition date, which is the date on which control is transferred to the Group and the Corporation. The identifiable assets acquired and liabilities assumed are measured at their fair values at the acquisition date. The cost of an acquisition is measured as the aggregate of the fair value of the consideration transferred and the amount of any non-controlling interests in the acquiree. Non-controlling interests are stated either at fair value or at the proportionate share of the acquiree’s identifiable net assets at the acquisition date.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(a) Subsidiaries and basis of consolidation (cont'd.)

(ii) Basis of consolidation (cont'd.)

When a business combination is achieved in stages, the Group and the Corporation remeasure their previously held non-controlling equity interest in the acquiree at fair value at the acquisition date, with any resulting gain or loss recognised in the income statement. Increase in the Group’s and the Corporation's ownership interest in an existing subsidiary is accounted for as equity transactions, with differences between the fair value of consideration paid and the Group’s and the Corporation's proportionate share of net assets acquired, recognised directly in equity.

Transaction costs, other than those associated with the issuance of debt or equity securities, that the Group and the Corporation incur in connection with a business combination are expensed as incurred.

Non-controlling interests

Non-controlling interests at the end of the reporting period, being the portion of the net assets of subsidiaries attributable to equity interests that are not owned by the Corporation, whether directly or indirectly through subsidiaries, are presented in the consolidated statement of financial position and statement of changes in equity within equity, separately from equity attributable to the shareholders of the Corporation. Non-controlling interests in the results of the Group are presented in the consolidated income statement and comprehensive income as an allocation of the income statement and other comprehensive income for the year between the non-controlling interests and shareholders of the Corporation.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(a) Subsidiaries and basis of consolidation (cont'd.)

(ii) Basis of consolidation (cont'd.)

Losses applicable to the non-controlling interests in a subsidiary are allocated to the non-controlling interests, even if doing so causes the non-controlling interests to have a deficit balance.

The Group treats all changes in its ownership interest in a subsidiary that do not result in a loss of control as equity transactions between the Group and its non-controlling interest holders. Any difference between the Group’s share of net assets before and after the change, and any consideration received or paid, is recognised directly in equity as transactions with shareholders.

Loss of Control

Upon the loss of control of a subsidiary, the Group and the Corporation derecognise the assets and liabilities of the former subsidiary, any non-controlling interests and the other components of equity related to the former subsidiary from the consolidated statement of financial position. Any surplus or deficit arising on the loss of control is recognised in the income statement. If the Group and the Corporation retain any interest in the previous subsidiary, then such interest is measured at fair value at the date that control is lost. Subsequently, it is accounted for as an equity-accounted investee or as a fair value through other comprehensive income ("FVOCI") financial assets depending on the level of influence retained.

(b) Associates

Associates are entities in which the Group and the Corporation have significant influence including representation on the Board of Directors, but not control or joint control, over the financial and operating policies of the investee company.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(b) Associates (cont'd.)

Investments in associates are accounted for in the consolidated financial statements using the equity method less any impairment losses, unless it is classified as held for sale or distribution. Under the equity method, the investment in associate is carried in the consolidated statement of financial position at cost, adjusted for post-acquisition changes in the Group's share of net assets of the associate. The Group's share of the net profit or loss of the associate is recognised in the consolidated income statements. Where there has been a change recognised directly in the equity of the associate, the Group recognises its shares of such changes. In applying the equity method, unrealised gains and losses on transactions between the Group and the associate are eliminated to the extent of the Group's interest in the associate. After the application of the equity method, the Group determines whether it is necessary to recognise any additional impairment loss with respect to the Group's net investment in the associate. The associate is equity accounted for from the date the Group and the Corporation obtain significant influence until the date the Group and the Corporation cease to have significant influence over the associate.

Goodwill relating to an associate is included in the carrying amount of the investment and is not amortised. Any excess of the Group's share of the associate's net fair value of identifiable assets, liabilities and contingent liabilities over the cost of the investment is excluded from the carrying amount of the investment and is instead included as income in the determination of the Group's share of the associate's profit or loss in the period in which the investment is acquired.

When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any long-term interests that in substance form part of the Group's net investment in the associate, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

The most recent available audited financial statements of the associates are used by the Group in applying the equity method. Where the dates of the audited financial statements used are not coterminous with those of the Group, the share of results is arrived at from the last audited financial statements available and management financial statements to the end of the financial year. Uniform accounting policies are adopted for like transactions and events in similar circumstances.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(b) Associates (cont'd.)

When the Group and the Corporation cease to have significant influence over an associate, it is accounted for as a disposal of the entire interest in that associate, with a resulting gain or loss being recognised in the income statement. Any retained interest in the former associate at the date when significant influence is lost is remeasured at fair value, and this amount is regarded as the initial carrying amount of a financial asset.

When the Group's and the Corporation's interest in an associate decrease but does not result in a loss of significant influence, any retained interest is not remeasured. Any gain or loss arising from the decrease in interest is recognised in the income statement. Any gains or losses previously recognised in other comprehensive income are also reclassified proportionately to the income statement.

In the Corporation's separate financial statements, investments in associates are stated at cost less impairment losses. On disposal of such investments, the difference between net disposal proceeds and their carrying amounts is included in the income statement.

(c) Joint arrangements

Joint arrangements are arrangements in which the Group and the Corporation have joint control, established by contracts requiring unanimous consent for decisions about the activities that significantly affect the arrangements' returns.

Joint arrangements are classified as either joint operations or joint ventures. A joint arrangement is classified as a joint operation when the Group or the Corporation has rights to the assets and obligations for the liabilities relating to an arrangement. A joint arrangement is classified as a joint venture when the Group or the Corporation has rights only to the net assets of the arrangement.

Investment in a joint venture is accounted for in the consolidated financial statements using the equity method of accounting. Under the equity method, the investment in joint venture is carried in the consolidated statement of financial position at cost adjusted for post-acquisition changes in the Group's share of net assets of the joint venture. The Group's share of the net profit or loss of the joint venture is recognised in the income statement. Where there has been a change recognised directly in the equity of the joint venture, the Group recognises its share of such changes.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(c) Joint arrangements (cont'd.)

(i) Joint ventures

In applying the equity method, unrealised gains and losses on transactions between the Group and the joint venture are eliminated to the extent of the Group's interest in the joint venture. After application of the equity method, the Group determines whether it is necessary to recognise any additional impairment loss with respect to the Group's net investment in the joint venture. The Group determines at each reporting date whether there is any objective evidence that the investment in the joint venture is impaired. If this is the case, the Group calculates the amount of impairment as the difference between the recoverable amount of the joint venture and its carrying value and recognises the amount in the income statement. The joint venture is equity accounted for from the date the Group and the Corporation obtain joint control until the date the Group and the Corporation cease to have joint control over the joint venture.

Goodwill relating to a joint venture is included in the carrying amount of the investment and is not amortised. Any excess of the Group's share of the net fair value of the joint venture's identifiable assets, liabilities and contingent liabilities over the cost of the investment is excluded from the carrying amount of the investment and is instead included as income in the determination of the Group's share of the joint venture's profit or loss in the year in which the investment is acquired.

When the Group's share of losses in a joint venture equals or exceeds its interest in the joint venture, including any long-term interests that, in substance, form part of the Group's net investment in the joint venture, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the joint venture.

The most recent available audited financial statements of the joint ventures are used by the Group in applying the equity method. Where the dates of the audited financial statements used are not coterminous with those of the Group, the share of results is arrived at from the last audited financial statements available and management financial statements to the end of the accounting year. Uniform accounting policies are adopted for like transactions and events in similar circumstances.

In the Corporation's separate financial statements, investments in joint ventures are stated at cost less impairment losses. On disposal of such investments, the difference between net disposal proceeds and their carrying amounts is included in the income statement.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(c) Joint arrangements (cont'd.)

(ii) Joint operations

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets and obligations for the liabilities relating to the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

The Group as a joint operator recognises in relation to its interest in a joint operation:

(i) its assets, including its share of any assets held jointly;
(ii) its liabilities, including its share of any liabilities incurred jointly;
(iii) its revenue from the sale of its share of the output arising from the joint operation;
(iv) its share of the revenue from the sale of the output by the joint operation; and
(v) its expenses, including its share of any expenses incurred jointly.

The Group accounts for the assets, liabilities, revenues and expenses relating to its interest in a joint operation in accordance with the MFRSs applicable to the particular assets, liabilities, revenues and expenses.

Profits and losses resulting from transactions between the Group and its joint operation are recognised in the Group’s financial statements only to the extent of unrelated investors’ interests in the joint operation.

(d) Intangible assets

(i) Goodwill

Goodwill acquired in a business combination is initially measured at cost, being the excess of the cost of the business combination over the Group's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities. Following the initial recognition, goodwill is measured at cost less any accumulated impairment losses. Goodwill is not amortised but is instead reviewed for impairment, annually or more frequently, if events or changes in circumstances indicate that the carrying value may be impaired. Gains or losses on the disposal of an entity include the carrying amount of goodwill related to the entity sold.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(d) Intangible assets (cont'd.)

(ii) Other intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is their fair values at the date of acquisition. Following initial recognition, intangible assets are carried at cost less any accumulated amortisation and any accumulated impairment losses. The useful lives of intangible assets are assessed to be either finite or indefinite.

Intangible assets with finite lives are amortised on a straight-line basis over their estimated economic useful lives and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method for an intangible asset with a finite useful life are reviewed at each reporting date.

Intangible assets with indefinite useful lives are not amortised but tested for impairment, annually or more frequently, if the events or changes in circumstances indicate that the carrying value may be impaired either individually or at the cash-generating-unit level. The useful life of an intangible asset with an indefinite life is also reviewed annually to determine whether the useful life assessment continues to be supportable.

(e) Ships, offshore floating assets, other property, plant and equipment ("PPE") and depreciation

All ships, offshore floating assets and other PPE are initially recorded at cost. Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the Corporation and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognised. All other repairs and maintenance are charged to the income statement during the financial period in which they are incurred.

Subsequent to initial recognition, ships, offshore floating assets, and other PPE are stated at cost less accumulated depreciation and any accumulated impairment losses.

Freehold land has an unlimited useful life and therefore is not depreciated. Ships and offshore floating assets under construction and projects in progress are also not depreciated as these assets are not available for use.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(e) Ships, offshore floating assets, other property, plant and equipment ("PPE") and depreciation (cont'd.)

Depreciation of ships and offshore floating assets commences from the date of delivery of such assets. Depreciation of ships and offshore floating assets in operation and other PPE is provided for on a straight-line basis to depreciate the cost of each asset to its residual value over the estimated useful life at the following annual rates:

Ships	3.3% - 5.0%
Offshore floating assets	8.3% - 9.1%
Buildings	2.0% - 7.0%
Drydocks and waste plant	2.0% - 10.0%
Motor vehicles	10.0% - 33.3%
Furniture, fittings and equipment	10.0% - 33.3%
Computer software and hardware	15.0% - 33.3%
Plant and machineries	6.7% - 20.0%

Drydocking expenditure is capitalised and depreciated over a period of 30 months or the period until the next drydocking date, whichever is shorter.

The right-of-use asset is depreciated using the straight-line method from the lease commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term.

The residual values, useful lives and depreciation method are reviewed at each financial period end to ensure that the amount, method and period of depreciation are consistent with previous estimates and the expected pattern of consumption of the future economic benefits embodied in the ships, offshore floating assets, and other PPE.

Ships, offshore floating assets, and other PPE are derecognised upon disposal, or when no future economic benefits are expected from their use or disposal. The difference between the net disposal proceeds, if any, and the net carrying amount is recognised in the income statement.

(f) Impairment of non-financial assets

The carrying amounts of non-financial assets, other than deferred tax assets, inventories and non-current assets classified as held for sale, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the asset's recoverable amount is estimated to determine the amount of impairment loss, if any.

For goodwill, the recoverable amount is estimated at each reporting date, or more frequently when indicators of impairment are identified.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(f) Impairment of non-financial assets (cont'd.)

For the purpose of impairment testing of these assets, recoverable amount is usually determined on an individual asset basis. If an asset does not generate cash flows that are largely independent of those from other assets, recoverable amount is determined for the cash-generating-unit ("CGU") to which the asset belongs. Goodwill acquired in a business combination is allocated to each of the Group's CGUs, or groups of CGUs, that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the Group are assigned to those units or groups of units from the acquisition date.

An asset's recoverable amount is the higher of the asset or CGU's fair value less costs of disposal and its value-in-use. In assessing value-in-use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Where the carrying amount of an asset exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount. Impairment losses recognised in respect of a CGU or groups of CGUs are firstly allocated to reduce the carrying amount of any associated goodwill to those units or groups of units. Any excess losses thereof, will result in a reduction to the carrying amount of the other assets in the unit or groups of units on a pro-rata basis.

An impairment loss is recognised in the income statement in the period in which it arises.

Impairment loss on goodwill is not reversed in a subsequent period. An impairment loss for an asset, other than goodwill, is reversed if, and only if, there has been a change in the estimates, used to determine the asset's recoverable amount, since the last impairment loss was recognised. The carrying amount of an asset, other than goodwill, is increased to its revised recoverable amount, provided that this amount does not exceed the asset's carrying amount had no impairment loss been recognised for the asset in prior years. A reversal of impairment loss for an asset, other than goodwill, is recognised in the income statement.

(g) Inventories

Inventories which comprise bunkers, lubricants and raw materials are held for own consumption and are stated at lower of cost and net realisable value. Cost is arrived at on the weighted average basis and comprises the purchase price and other direct charges. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs necessary to complete the sale.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(h) Financial assets

Initial recognition and measurement

Financial assets are classified and measured at amortised cost, FVOCI or fair value through profit or loss ("FVTPL"), as appropriate.

A financial instrument is recognised in the statement of financial position when, and only when, the Group and the Corporation becomes a party to the contractual provisions of the instrument.

With the exception of trade receivables that do not contain a significant financing component, the Group and the Corporation initially measure a financial asset at its fair value plus, in the case of a financial asset not at FVTPL, transaction costs. Trade receivables that do not contain a significant financing component is initially measured at the transaction price.

The Group and the Corporation determine the classification of financial assets at initial recognition and are not reclassified subsequent to their initial recognition unless the Group and the Corporation change their business model for managing financial assets in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

Amortised cost

Amortised cost category comprises financial assets that are held within a business model whose objective is to hold assets to collect contractual cash flows and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Fair value through other comprehensive income

This category comprises debt instruments where it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets, and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

FVOCI category also comprises investment in equity that is not held for trading (equity instruments), and the Group and the Corporation did not irrevocably elect to present subsequent changes in the investment's FVOCI. This election is made on an investment-by-investment basis.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(h) Financial assets (cont'd.)

Initial recognition and measurement (cont'd.)

Fair value through profit or loss

All financial assets not classified as measured at amortised cost or FVOCI as described above are measured at FVTPL. This includes derivative financial assets (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument as per Note 2.3(j)). On initial recognition, the Group and the Corporation may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortised cost or at FVOCI as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

Subsequent measurement

Amortised cost

Subsequent to initial recognition, financial assets at amortised costs are measured using the effective interest rate ("EIR") method and are subject to impairment. Gains and losses are recognised in income statement when the asset is derecognised, modified or impaired. Interest income and foreign exchange gains or losses are recognised in income statement.

The Group’s and the Corporation's financial assets at amortised cost include cash and bank balances, trade and other receivables, finance lease receivables and long term receivables.

Fair value through other comprehensive income

Financial assets categorised as FVOCI are subsequently measured at fair value with unrealised gains and losses recognised directly in other comprehensive income and accumulated under FVOCI reserve in equity. For debt instruments, when the investment is derecognised or determined to be impaired, the cumulative gain or loss previously recorded in equity is reclassified to the income statement. For equity instruments, the gains or losses accumulated in other comprehensive income are never reclassified to income statement.

The Group and the Corporation have not designated any financial assets at FVOCI.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(h) Financial assets (cont'd.)

Subsequent measurement (cont'd.)

Fair value through profit or loss

Financial assets categorised as FVTPL are subsequently measured at their fair value with gains or losses recognised in the income statement.

The Group's and the Corporation's financial assets at FVTPL include quoted and unquoted equity investments.

All financial assets, except for those measured at FVTPL and equity investments measured at FVOCI, are subject to impairment as disclosed in Note 2.3(m).

Derecognition

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognised (i.e. removed from the Group’s consolidated statement of financial position) when:

- the rights to receive cash flows from the asset have expired; or
- the Group and the Corporation have transferred their rights to receive cash flows from the asset or have assumed an obligation to pay the received cash flows in full without material delay to a third party under a "pass through" arrangement and either:

  (a) the Group and the Corporation have transferred substantially all the risks and rewards of the asset; or

  (b) the Group and the Corporation have neither transferred nor retained substantially all the risks and rewards of the asset, but have transferred control of the asset.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(h) Financial assets (cont'd.)

Derecognition (cont'd.)

When the Group and the Corporation have transferred their rights to receive cash flows from an asset or has entered into a "pass through" arrangement, they evaluate if, and to what extent, they have retained the risks and rewards of ownership. When they have neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Group and the Corporation continue to recognise the transferred asset to the extent of their continuing involvement. In that case, the Group and the Corporation also recognise an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group and the Corporation have retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group and the Corporation could be required to repay.

(i) Financial liabilities

Initial recognition and measurement

Financial liabilities are classified, at initial recognition as financial liabilities at FVTPL or amortised cost, as appropriate.

A financial liability is initially measured at fair value plus or minus, in the case of a financial instrument at amortised cost, any directly attributable transaction cost incurred at the acquisition or issuance of the financial instrument.

Subsequent measurement

Fair value through profit or loss

FVTPL category comprises financial liabilities that are derivatives (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument), contingent consideration in a business combination and financial liabilities that are specifically designated into this category upon initial recognition.

Financial liabilities categorised as FVTPL are subsequently measured at their fair value with gains or losses, including any interest expense are recognised in the income statement.

The Group’s financial liabilities at FVTPL include derivative liabilities.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(i) Financial liabilities (cont'd.)

Subsequent measurement (cont'd.)

Amortised cost

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortised cost using the EIR method. Gains and losses are recognised in income statemet when the liabilities are derecognised as well as through the EIR amortisation process.

Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortisation is included as finance costs in the income statement.

The Group’s and the Corporation's financial liabilities at amortised cost include trade and other payables and interest-bearing loans and borrowings.

Derecognition

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expired. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognised in the income statement.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(j) Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs when the guaranteed debtor fails to make payment when due.

Financial guarantee contracts are recognised initially as liabilities at fair value, net of transaction costs. Subsequent to initial recognition, financial guarantee contracts are recognised as income in profit or loss over the period of the guarantee. If the debtor fails to make payment relating to financial guarantee contract when it is due and the Group, as the issuer, is required to reimburse the holder for the associated loss, the liability is measured at the higher of:

- the best estimate of the expenditure required to settle the present obligation at the reporting date; and
- the amount initially recognised less cumulative amortisation.

(k) Effective interest rate method

Amortised cost was computed using the EIR method. This method used effective interest rate that exactly discounts estimated future cash receipts or payments through the expected life of the financial instrument to the net carrying amount of the financial instrument. Amortised cost takes into account any transaction costs and any discount or premium on settlement.

(l) Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount is reported in the consolidated statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the assets and settle the liabilities simultaneously.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(m) Impairment of financial assets

The Group and the Corporation recognise loss allowances for expected credit losses ("ECL") on financial assets measured at amortised cost and finance lease receivables.

The Group and the Corporation measure loss allowances on debt securities at an amount equal to lifetime ECL, except for debt securities that are determined to have low credit risk at the reporting date, other debt securities for which credit risk has not increased significantly since initial recognition and finance lease receivables, which are measured as 12 month ECL.

Loss allowances for trade receivables and contract assets (amount due from customers on contracts) are always measured at an amount equal to lifetime ECL.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECL, the Group and the Corporation consider reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Group's and the Corporation's historical experience, informed credit assessment and forward-looking information.

The Group and the Corporation assume that the credit risk on a financial asset has increased significantly if it is past due.

The Group and the Corporation consider a financial asset to be in default when the borrower is unlikely to pay its credit obligations to the Group and the Corporation in full, without recourse by the Group and the Corporation to take actions such as realising security.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(m) Impairment of financial assets (cont'd.)

Lifetime ECL are the ECL that result from all possible default events over the expected life of a financial instrument, while 12 month ECL are the portion of ECL that result from default events that are possible within the 12 months after the reporting date.

ECL are measured as a function of probability of default and loss given default. Probability of default is the likelihood of default over a particular time horizon and is derived using external credit ratings, if they are available, or internal credit ratings based on quantitative or qualitative information for the counterparty. Loss given default is the assumption of the proportion of financial asset that cannot be recovered by conversion of collateral to cash or by legal process, and is assessed based on the Group's and the Corporation's historical experience.

An impairment loss in respect of financial assets measured at amortised cost is recognised in profit or loss and the carrying amount of the asset is reduced through the use of an allowance account.

An impairment loss in respect of debt investments measured at FVOCI is recognised in profit or loss and the allowance account is recognised in other comprehensive income.

Information about the exposure to credit risk and ECL for financial assets as at 31 December 2020 is disclosed in Note 22 and Note 38(d).

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(n) Derivative financial instruments and hedge accounting

The Group uses derivative financial instruments such as interest rate swaps and currency hedge to hedge its interest rate risk and foreign currency risk. Such derivative financial instruments are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently remeasured at fair value at each reporting date. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

Any gains or losses arising from changes in fair value on derivatives during the year that do not qualify for hedge accounting and the ineffective portion of an effective hedge are recognised in the income statement.

For the purpose of hedge accounting, hedges are classified as:

- fair value hedges when hedging the exposure to changes in fair value of a recognised asset or liability or an unrecognised firm commitment, or an identified portion of such an asset, liability or firm commitment, that is attributable to a particular risk and could affect the income statement;

- cash flow hedges when hedging the exposure to variability in cash flows that is either attributable to a particular risk associated with a recognised asset or a liability or a highly probable forecast transaction and could affect the income statement; or

- hedges of a net investment in a foreign operation.

Cash flow hedges

In a cash flow hedge, the portion of the gain or loss on the hedging instrument that is determined to be an effective hedge is recognised in other comprehensive income and the ineffective portion is recognised in income statement.

Subsequently, the cumulative gain or loss recognised in other comprehensive income is reclassified from equity into income statement in the same period or periods during which the hedged forecast cash flows affect the income statement. If the hedge item is a non-financial asset or liability, the associated gain or loss recognised in other comprehensive income is removed from equity and included in the initial amount of the asset or liability. However, loss recognised in other comprehensive income that will not be recovered in one or more future periods is reclassified from equity into income statement.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(n) Derivative financial instruments and hedge accounting (cont'd.)

Cash flow hedges (cont'd.)

Cash flow hedge accounting is discontinued prospectively when the hedging instrument expires or is sold, terminated or exercised, the hedge is no longer highly effective, the forecast transaction is no longer expected to occur or the hedge designation is revoked. If the hedge is for a forecast transaction, the cumulative gain or loss on the hedging instrument remains in equity until the forecast transaction occurs. When the forecast transaction is no longer expected to occur, any related cumulative gain or loss recognised in other comprehensive income on the hedging instrument is reclassified from equity into income statement.

(o) Leases

A contract is, or contains, a lease if the contract conveys a right to control the use of an identified asset for a period of time in exchange for a consideration. To assess whether a contract conveys the right to control the use of an identified asset, the Group and the Corporation assess whether:

- the contract involves the use of an identified asset – this may be specified explicitly or implicitly and should be physically distinct or represent substantially all of the capacity of a physically distinct asset. If the supplier has a substantive substitution right, then the asset is not identified;

- the customer has the right to obtain substantially all of the economic benefits from use of the asset throughout the period of use; and

- the customer has the right to direct the use of the asset when it has the decision-making rights that are most relevant to changing how and for what purpose the asset is used. The customer has the right to direct the use of the asset if either the customer has the right to operate the asset; or the customer designed the asset in a way that predetermines how and for what purpose it will be used throughout the period of use.

At inception or on reassessment of a contract that contains a lease component, the Group and the Corporation allocate the consideration in the contract to each lease and non-lease component on the basis of their relative stand-alone prices.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(o) Leases (cont'd.)

Group and Corporation as a lessee

Initial recognition and measurement

The Group and the Corporation recognise a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the respective Group entities' incremental borrowing rate is used. Generally, the Group entities use their incremental borrowing rate as the discount rate.

Lease payments included in the measurement of the lease liability comprise the following:

- fixed payments, including in-substance fixed payments;
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable under a residual value guarantee;
- the exercise price under a purchase option that the Group and the Corporation are reasonably certain to exercise; and
- penalties for early termination of a lease unless the Group and the Corporation are reasonably certain not to early terminate the contract.

The Group and the Corporation exclude variable lease payments that linked to future performance or usage of the underlying asset from the lease liability. Instead, these payments are recognised in profit or loss in the period in which the performance or use occurs.

The Group and the Corporation assess at lease commencement whether it is reasonably certain to exercise the extension options in determining the lease term.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(o) Leases (cont'd.)

Group and Corporation as a lessee (cont'd.)

Initial recognition and measurement (cont'd.)

The Group and the Corporation have elected not to recognise right-of-use assets and lease liabilities for short-term leases that have a lease term of 12 months or less and leases of low-value assets. The Group and the Corporation recognise the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

The Group and the Corporation present right-of-use assets that do not meet the definition of investment property in ships, offshore floating assets, other PPE as disclosed in Note 14 and lease liabilities in interest-bearing loans and borrowings as disclosed in Note 20(c).

Subsequent measurement

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. The estimated useful lives of right-of-use assets are determined on the same basis as those of ships, offshore floating assets, and other PPE. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a revision of in-substance fixed lease payments, or if there is a change in the Group’s and the Corporation’s estimate of the amount expected to be payable under a residual value guarantee, or if the Group and the Corporation change their assessment of whether they will exercise a purchase, extension or termination option. The Group and the Corporation will reassess whether it is reasonably certain to exercise the extension option if there is a significant change in circumstances within their control.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(o) Leases (cont'd.)

Group and Corporation as a lessee (cont'd.)

Subsequent measurement (cont'd.)

When the lease liability is remeasured as described in the above paragraph, a corresponding adjustment is made to the carrying amount of the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

When there is lease modification due to increase in the scope of lease by adding the right-to-use one or more underlying assets, the Group and the Corporation assess whether the lease modification shall be accounted for as a separate lease or similar to reassessment of lease liability. The Group and the Corporation account for lease modification as a separate lease when the consideration for the lease increases by an amount commensurate with the stand-alone price for the increase in scope and any appropriate adjustments.

When there is lease modification due to decrease in scope, the Group and the Corporation decrease the carrying amount of the right-of-use asset and remeasure the lease liability to reflect the partial or full termination of the lease. The corresponding gain or loss shall be recognised in income statement. Lease liabilities are remeasured for all other lease modifications with corresponding adjustments to the right-of-use assets.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(o) Leases (cont'd.)

Group and Corporation as a lessor

Initial recognition and measurement

When the Group and the Corporation act as a lessor, it determines at lease inception whether each lease is a finance lease or an operating lease.

To classify each lease, the Group and the Corporation make an overall assessment of whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then it is an operating lease.

If an arrangement contains lease and non-lease components, the Group and the Corporation apply MFRS 15 Revenue from Contracts with Customers to allocate the consideration in the contract based on the stand-alone selling price.

The Group and the Corporation recognise assets held under a finance lease in its statement of financial position and presents them as a receivable at an amount equal to the net investment in the lease. The Group and the Corporation use the interest rate implicit in the lease to measure the net investment in the lease.

When the Group or the Corporation is an intermediate lessor, it accounts for its interests in the head lease and the sub-lease separately. It assesses the lease classification of a sub-lease with reference to the right-of-use asset arising from the head lease, not with reference to the underlying asset. If a head lease is a short-term lease to which the Group or the Corporation apply the exemption described above, then it classifies the sub-lease as an operating lease.

Subsequent measurement

The Group and the Corporation recognise lease payments received under operating leases as income on a straight-line basis over the lease term.

In the case of a finance lease, the Group and the Corporation recognise finance income over the lease term, based on a pattern reflecting a constant periodic rate of return on the Group's and the Corporation's net investment in the lease. The Group and the Corporation aim to allocate finance income over the lease term on a systematic and rational basis. The Group and the Corporation apply the lease payments relating to the period against the gross investment in the lease to reduce both the principal and the unearned finance income. The net investment in the lease is subject to impairment requirements in MFRS 9 Financial Instruments as per Note 2.3(m).

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(o) Leases (cont'd.)

Prepaid lease payments

Leasehold land which in substance is an operating lease are classified as prepaid lease payments. The payment made on entering into a lease arrangement or acquiring a leasehold land is accounted for as prepaid lease payments that are amortised over the lease term in accordance with the pattern of benefits provided.

Leasehold land is classified into long term lease and short term lease. Long term lease is defined as a lease with an unexpired lease period of fifty years or more. Short term lease is defined as a lease with an unexpired lease period of less than fifty years.

(p) Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are capitalised as part of the cost of those assets.

The capitalisation of borrowing costs as part of the cost of a qualifying asset commences when expenditure for the assets is being incurred, borrowing costs are being incurred and activities that are necessary to prepare the asset for its intended use or sale are in progress. Capitalisation of borrowing costs ceases when all activities necessary to prepare the qualifying asset for its intended use or sale are completed.

In capitalising general borrowing costs, the Group shall determine the amount of borrowing costs eligible for capitalisation by applying a capitalisation rate. The capitalisation rate shall be the weighted average of the borrowing costs applicable to all general borrowings of the Group. General borrowing are all borrowings that are outstanding during the period, except for specific borrowings that are made specifically to obtain a qualifying asset that is not yet ready for its intended use or sale. If a specific borrowing remains outstanding after the related qualifying asset is ready for its intended use or sale, it becomes part of the Group’s general borrowing.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(q) Taxation

Income tax on the income statement for the year comprises current and deferred tax. Current tax is the expected amount of income taxes payable in respect of the taxable profit for the year and is measured using the tax rates that have been enacted at the reporting date.

Deferred tax is provided using the liability method on temporary differences between the tax bases and the carrying amounts for financial reporting purposes of assets and liabilities at the reporting date.

Deferred tax liabilities are recognised for all temporary differences, except:

- where the deferred tax liability arises from the initial recognition of goodwill, or of an asset or liability in a transaction that is not a business combination, and at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and

- in respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognised for all deductible temporary differences, carry forward of unused tax credits and unused tax losses, to the extent that is probable that taxable profit will be available and can be utilised, except:

- where the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination, and at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and

- in respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, deferred tax assets are recognised only to the extent that is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilised.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(q) Taxation (cont'd.)

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax assets to be utilised. Unrecognised deferred tax assets are reassessed at each reporting date and are recognised to the extent that it has become probable that future taxable profit will allow the deferred tax assets to be utilised.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realised or the liability is settled, based on the tax rates and tax laws that have been enacted or substantially enacted at the reporting date.

Deferred tax relating to items recognised outside the income statement is recognised outside the income statement. Deferred tax items are recognised in relation to the underlying transaction either in other comprehensive income or directly in equity. Deferred tax arising from a business combination is adjusted against goodwill on acquisition.

Deferred tax assets and deferred tax liabilities are offset, if a legally enforceable right exists to set off current tax assets against current tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(r) Provisions

Provisions are recognised when all of the following conditions have been satisfied:

- the Group and the Corporation have a present obligation (legal or constructive) as a result of a past event;

- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and

- a reliable estimate of the amount can be made.

Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate. Where the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability. When discounting is used, the accretion in the provision due to the passage of time is recognised as a finance cost.

Possible obligations whose existence will only be confirmed by the occurrence or non-occurrence of one or more future events, not wholly within the control of the Group and the Corporation, are not recognised in the financial statements but are disclosed as contingent liabilities, unless the possibility of an outflow of economic resources is considered remote.

Provision for warranty is made based on service histories to cover the estimated liability that may arise during the warranty period. Any surplus provision will be written back at the end of the warranty period, while additional provision is made as and when necessary.

(s) Employee benefits

(i) Short term benefits

Wages, salaries, bonuses and social security contributions are recognised as an expense in the period in which the associated services are rendered by employees. Short term accumulating compensated absences such as paid annual leave are recognised when services are rendered by employees that increase their entitlement to future compensated absences. Short term non-accumulating compensated absences such as sick leave are recognised when the absences occur.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(s) Employee benefits (cont'd.)

(ii) Defined contribution plans

Defined contribution plans are post-employment benefit plans, under which the Group and the Corporation pay fixed contributions into separate entities or funds and will have no legal or constructive obligation to pay further contributions if any of the funds do not hold sufficient assets to pay all employee benefits relating to employee services in the current period and preceding financial years. Such contributions are recognised as an expense in the income statement as incurred. As required by law, companies in Malaysia make such contributions to the Employees Provident Fund ("EPF"). Some of the Group's foreign subsidiaries also make contributions to their respective countries' statutory and/or voluntary pension schemes.

(iii) Termination benefits

Termination benefits are payable when employment is terminated before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group and the Corporation recognise termination benefits as a liability and an expense when it is demonstrably committed to either terminate the employment of current employees according to a detailed plan without possibility of withdrawal, or providing termination benefits as a result of an offer made to encourage voluntary redundancy. In the case of an offer made to encourage voluntary redundancy, the measurement of termination benefits is based on the number of employees expected to accept the offer. Benefits falling due more than twelve months after reporting date are discounted to present value.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(t) Foreign currencies

(i) Functional and presentation currency

The individual financial statements of each entity in the Group are measured using the currency of the primary economic environment in which the entity operates (“the functional currency”). The functional currency of the Corporation is United States Dollar (“USD”). The Group's and the Corporation's financial statements are presented in Ringgit Malaysia (“RM”).

In preparing the financial statements of the individual entities, transactions in currencies other than the entity's functional currency (“foreign currencies”) are recorded using the exchange rates prevailing at the dates of the transactions. At each reporting date, monetary items denominated in foreign currencies are translated to the functional currency at the rates prevailing on the reporting date. Non-monetary items carried at fair value that are denominated in foreign currencies are translated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(t) Foreign currencies (cont'd.)

(ii) Foreign currency transactions

Exchange differences arising on the settlement of monetary items, or on translating monetary items at the reporting date are included in the income statement, except for exchange differences arising on monetary items that form part of the Group's net investment in foreign operation, which are recognised initially in other comprehensive income and accumulated under foreign currency translation reserve in equity. The foreign currency translation reserve is reclassified from equity to income statement of the Group on disposal of the foreign operation.

Exchange differences arising on monetary items that form part of the Group's net investment in foreign operation, where that monetary item is denominated in a currency other than the functional currency of either the reporting entity or the foreign operation, are recognised in the income statement for the year. Exchange differences arising on monetary items that form part of the Corporation's net investment in foreign operation, regardless of the currency of the monetary item, are recognised in the income statement of the Corporation's financial statements or the individual financial statements of the foreign operation, as appropriate.

Exchange differences arising on the translation of non-monetary items carried at fair value are included in the income statement for the year, except for the differences arising on the retranslation of non-monetary items (in respect of which gains and losses are recognised directly in other comprehensive income). Exchange differences arising from such non-monetary items are also recognised directly in equity.

(iii) Foreign operations

The results and financial position of operations that have a functional currency different from the presentation currency (“RM”) ("Foreign Operation") are translated into RM as follows:

- Assets and liabilities for each statement of financial position presented are translated at the closing rate prevailing at the reporting date;

- Income and expenses for each income statement are translated at the exchange rate at the date of the transactions or an average rate that approximates those rates; and

- All resulting exchange differences are taken to the currency translation reserve within other comprehensive income.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(u) Revenue and other income recognition

(i) Revenue from contracts with customers

Revenue is measured based on the consideration specified in a contract with a customer and exclude amounts collected on behalf of third parties. The Group and the Corporation recognise revenue when or as it transfers control over a product or service to the customer. An asset is transferred when (or as) the customer obtains control of the asset.

An entity transfers control of a good or service over time and, therefore, satisfies a performance obligation and recognises revenue over time, if one of the following criteria is met:

(a) The customer simultaneously receives and consumes the benefits provided by the entity's performance as the entity performs;

(b) The entity's performance creates or enhances an asset (for example, work in progress) that the customer controls as the asset is created or enhanced; or

(c) The entity's performance does not create an asset with an alternative use to the entity and the entity has an enforceable right to payment for performance completed to date.

If a performance obligation is not satisfied over time in accordance with the above criteria, the Group and the Corporation satisfy the performance obligation at a point in time.

(a) Construction contract and marine repair

The Group recognises revenue from construction contract and marine repair with customers mainly from its Marine & Heavy Engineering segment.

The Group's contract with customers mainly contain one performance obligation where the Group is contracted to construct a specific asset for a customer or to provide repair and maintenance services.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(u) Revenue and other income recognition (cont'd.)

(i) Revenue from contracts with customers (cont'd.)

(a) Construction contract and marine repair (cont'd.)

The Group considers whether there are other promises in the contract with customers that are separate performance obligations. The Group typically only provides assurance type warranties to assure that the completed project complies with agreed-upon specifications of the contract and therefore, does not give rise to a separate performance obligation.

Where the outcome of a contract cannot be reliably estimated, contract revenue is recognised to the extent of contract costs incurred, that is probable to be recoverable. Contract costs are recognised as expenses in the period in which they are incurred. When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognised as an expense immediately.

Transaction price comprises the initial amount of consideration agreed in the contract, variations in contract work, claims and incentive payments to the extent that it is probable that they will result in revenue and they are capable of being reliably measured.

If the consideration in a contract includes a variable amount, the Group estimates the amount of consideration to which it will be entitled in exchange for transferring the goods or services to the customer. The variable consideration is estimated at contract inception and constrained until it is highly probable that a significant revenue reversal will not occur when the associated uncertainty with the variable consideration is subsequently resolved.

The Group's construction contracts contain penalty clauses (i.e. liquidated and ascertained damages) for late delivery. When it is probable that the construction contract will not be fulfilled on time, the penalty will be deducted from the contract transaction price.

Revenue from construction contract is recognised progressively based on percentage of completion method determined based on either input or output method. Output method is measured by reference to the proportion of physical completion based on technical milestones defined under the contracts and taking into account the nature of activities and its associated risks. Input method is measured based on the ratio of costs incurred to date to total estimated costs.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(u) Revenue and other income recognition (cont'd.)

(i) Revenue from contracts with customers (cont'd.)

(a) Construction contract and marine repair (cont'd.)

In determining the appropriate method for measuring progress, the Group shall consider the method that best depicts the Group's peformance in transferring control of goods or services promised to a customer.

Contract assets represent the Group's right to consideration in exchange for goods or services that the Group has transferred to a customer when that right is conditioned on something other than the passage of time. Contract assets are subjected to impairment in accordance to MFRS 9: Financial Instruments. The contract assets of the Group comprise of amounts due from customers on contracts.

Contract liabilities represent the Group's obligation to transfer goods or services to a customer for which the Group has received consideration from the customer. The contract liabilities of the Group comprise of amounts due to customers on contracts.

(b) Voyage and lightering income

The Group's contracts for voyage charters consist of a single performance obligation to provide the charterer with an integrated transportation service within a specified time period. The consideration in the contract (or "freight") is determined either on a variable rate related to the cargo (e.g. cargo weight) or on a lump-sum basis. In addition, a voyage charter agreement usually includes a "laytime and demurrage" clause. If the laytime is exceeded, the charterer is responsible to pay the carrier specified damages, which may include liquidated damages called demurrage.

Voyage and lightering income is recognised on percentage of completion basis, calculated on a voyage loading-to-discharge basis. The revenue is recognised evenly over the period from a ship's departure from its cargo loading point to its next discharge point, at time when the revenue is determinable for the specified load and discharge point and collectability is reasonably assured.

(c) Other shipping related income and non-shipping income

Income from services rendered is recognised net of service taxes and discounts as and when the services are performed.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(u) Revenue and other income recognition (cont'd.)

(ii) Charter income

Time charter and bareboat charter hire income as well as that of other services rendered are accounted for as a lease income on a straight-line basis over the firm period of the contract, as service is performed.

Non-lease component of the time charter income is not separately disclosed as the pattern of revenue recognition for lease and non-lease components are the same and the lease and non-lease components are treated as a combined unit of account, classified as an operating lease.

Revenue and voyage expenses of ships operating in pool arrangements are pooled and the resulting net pool revenues, calculated on a time charter equivalent basis, are allocated to the pool participants according to the number of days a ship operates in the pool with weighting adjustments made to reflect differing capacity and performance capabilities. The net pool revenues generated are recorded as charter hire income on an accrual basis.

(iii) Finance income on lease receivables

Finance income on lease receivables is recognised according to the effective interest rate method so as to provide constant periodic rate of return on the net investment.

(iv) Interest income

Interest income is recognised on an accrual basis using the effective interest method.

(v) Dividend income

Dividend income is recognised when the Group's and the Corporation's right to receive payment is established.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(v) Non-current assets held for sale

Non-current assets are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the asset is available for immediate sale in its present condition, subject only to terms that are usual and customary.

Immediately before classification as held for sale, the measurement of the non-current assets is brought up-to-date in accordance with applicable MFRS. Then, on initial classification as held for sale, non-current assets are measured in accordance with MFRS 5: Non-Current Assets Held for Sale and Discontinued Operations that is, at the lower of carrying amount and fair value less costs to sell. Any differences are included in the income statement.

(w) Repairs and maintenance

Repairs and maintenance costs are recognised in the income statement in the period they are incurred.

(x) Cash and cash equivalents

Cash and cash equivalents comprise cash at bank and on hand, demand deposits with banks and other financial institutions, and short-term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value, being within three months of maturity at acquisition. Bank overdrafts that are repayable on demand and form an integral part of the Group's and the Corporation's cash management are also included as a component of cash and cash equivalents for the purpose of the consolidated statement of cash flows.

(y) Equity instruments

Ordinary shares are classified as equity. Dividends on ordinary shares are recognised in equity in the period in which they are declared.

The transaction costs of an equity transaction are accounted for as a deduction from equity, net of tax. Equity transaction costs comprise only those incremental external costs directly attributable to the equity transaction which would otherwise have been avoided.

2. Significant accounting policies (cont'd.)

2.3 Summary of significant accounting policies (cont'd.)

(z) Fair value measurements

Fair value of an asset or a liability, except for lease transactions, is determined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The measurement assumes that the transaction to sell the asset or transfer the liability takes place either in the principal market or in the absence of a principal market, in the most advantageous market.

(i) Financial instruments

The fair value of financial instruments that are actively traded in organised financial markets is determined by reference to quoted market bid prices at the close of business at the end of reporting date. For financial instruments where there is no active market, fair value is determined using valuation techniques. Such techniques may include:

- using recent arm's length market transactions;
- reference to the current fair value of another instrument that is substantially the same; and
- discounted cash flow analysis or other valuation models.

(ii) Non-financial assets

For a non-financial asset, the fair value measurement takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

When measuring the fair value of an asset or a liability, the Group and the Corporation use observable market data as far as possible. Fair value is categorised into different levels in a fair value hierarchy based on the input used in the valuation technique as follows:

- Level 1 - Quoted prices (unadjusted) in active markets for identical assets and liabilities.
- Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3 - Inputs for the asset or liability that are not based on observable market data (unobservable input).

The fair value of an asset to be transferred between levels is determined as of the date of the event or change in circumstances that caused the transfer.

2. Significant accounting policies (cont'd.)

2.4 Pronouncements not yet in effect

The following pronouncements that have been issued by the MASB will become effective in future financial reporting periods and have not been adopted by the Group and the Corporation:

Effective for annual periods beginning on or after 1 January 2021

- Amendments to MFRS 9: Financial Instruments (Interest Rate Benchmark Reform - Phase 2)
- Amendments to MFRS 139: Financial Instruments: Recognition and Measurement (Interest Rate Benchmark Reform - Phase 2)
- Amendments to MFRS 7: Financial Instruments: Disclosures (Interest Rate Benchmark Reform - Phase 2)
- Amendments to MFRS 4: Insurance Contract (Interest Rate Benchmark Reform - Phase 2)
- Amendments to MFRS 16: Leases (Interest Rate Benchmark Reform - Phase 2)

Effective for annual periods beginning on or after 1 January 2022

- Amendments to MFRS 1 First-time Adoption of Malaysian Financial Reporting Standards (Annual Improvements to MFRS Standards 2018 - 2020)
- Amendments to MFRS 9 Financial Instruments (Annual Improvements to MFRS Standards 2018 - 2020)
- Amendments to Illustrative Examples accompanying MFRS 16 Leases (Annual Improvements to MFRS Standards 2018 - 2020)
- Amendments to MFRS 3 Business Combinations (Reference to the Conceptual Framework)
- Amendments to MFRS 116 Property, Plant and Equipment (Property, Plant and Equipment−Proceeds before Intended Use)
- Amendments to MFRS 137 Provisions, Contingent Liabilities and Contingent Assets (Onerous Contracts−Cost of Fulfilling a Contract)

Effective for annual periods beginning on or after 1 January 2023

- Amendments to MFRS 101 Presentation of Financial Statements (Classification of Liabilities as Current or Non-current)

Effective for a date yet to be confirmed

- Amendments to MFRS 10: Consolidated Financial Statements: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture
- Amendments to MFRS 128: Investments in Associates and Joint Ventures: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture

2. Significant accounting policies (cont'd.)

2.4 Pronouncements not yet in effect (cont'd.)

The Group and the Corporation are expected to apply the abovementioned pronouncements beginning from the respective dates the pronouncements become effective. The initial application of the abovementioned pronouncements is not expected to have any material impact to the financial statements of the Group and of the Corporation except for the following:

Interest Rate Benchmark Reform - Phase 2 (Amendments to MFRS 9, MFRS 139, MFRS 7 and MFRS 16)

At 31 December 2020, the Group has cash flow hedges of USD LIBOR risk. The Group expects that indexation of the hedged items and hedging instruments to USD LIBOR will be replaced with a risk free rate. Whenever the replacement occurs, the Group expects to apply the amendments related to hedge accounting. However, there is uncertainty about when and how replacement may occur. When the change occurs to the hedged item or the hedging instrument, the Group will remeasure the cumulative change in fair value of the hedged item or the fair value of the interest rate swap, respectively based on the risk free rate. Hedging relationships may experience hedge ineffectiveness if there is a timing or other mismatch between the transition of the hedge item and that of the hedging instrument to the risk free rate. The Group does not expect that amounts accumulated in the cash flow hedge reserve will be immediately reclassified to profit or loss because of IBOR transition.

2. Significant accounting policies (cont'd.)

2.5 Significant accounting estimates and judgements

(a) Critical judgements made in applying accounting policies

(i) Fair value of financial instruments

Where the fair value of financial assets and financial liabilities recorded in the statements of financial position cannot be derived from active markets, they are determined using valuation techniques, including the discounted cash flow method. Where possible, the inputs to these valuation models are taken from observable markets. However, when this is considered unfeasible, a degree of judgement is made in establishing fair values. The judgements made include having considered a host of factors including liquidity risk, credit risk and volatility. Changes in assumptions about these factors could affect the reported fair value of financial instruments. Further disclosure of fair value of financial instruments is provided in Note 37.

(ii) Lease classification as lessor

When the Group and the Corporation enter into a new lease arrangement, the terms and conditions of the contract are analysed in order to assess whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. To identify whether risks and rewards are transferred, the Group and the Corporation systematically consider, among others, all the examples and indicators listed in MFRS 16: Leases on a contract-by-contract basis. By performing such analysis, the Group and the Corporation make significant judgement to determine whether the arrangement results in a finance lease or an operating lease. This judgement can have a significant effect on the amounts recognised in the financial statements and its recognition of profits in the future. The most important judgement areas assessed by the Group and the Corporation are:

(i) determination of the asset's fair value;
(ii) determination of the economic life of the asset;
(iii) the probability of the lessee exercising the purchase option (if relevant) at a price that is significantly lower than the fair value at the inception date; and
(iv) determination of whether the asset is of such a specialised nature that only the lessee can use it without major modifications.

2. Significant accounting policies (cont'd.)

2.5 Significant accounting estimates and judgements (cont'd.)

(b) Key sources of estimation uncertainty

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date that have significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below:

(i) Construction contracts

The Group recognises revenue and expenses from construction contracts in the income statement by using the stage of completion method. The stage of completion is measured by reference to the completion of physical proportion of the contract work (output method) or cost incurred for work performed up to the reporting period relative to the total expected cost to the satisfaction of those order (input method).

Significant performance obligation is required in determining the stage of completion, the extent of the contract costs incurred, the estimated total contract revenue and costs, as well as the recoverability of the construction costs. In making this judgement, the Group evaluates based on past experience and by relying on the work of internal specialists as well as Group's best estimate of the probable future benefits and obligations associated with the contract.

(ii) Impairment of goodwill

The Group determines whether goodwill is impaired on an annual basis. This requires an estimation of the value-in-use of the CGU to which goodwill is allocated. Estimating a value-in-use amount requires management to make an estimate of the expected future cash flows from the CGU and also to choose a suitable discount rate in order to calculate the present value of those cash flows. Further details of the impairment losses recognised, carrying amount, the key assumptions applied in the impairment assessment of goodwill and sensitivity analysis to changes in the assumptions are provided in Note 16.

2. Significant accounting policies (cont'd.)

2.5 Significant accounting estimates and judgements (cont'd.)

(b) Key sources of estimation uncertainty (cont'd.)

(iii) Provisions

Provisions are recognised in accordance with the accounting policy in Note 2.3(r). To determine whether it is probable that an outflow of resources will be required to settle the obligation and a reliable estimate of the amount can be made, the Group and the Corporation take into consideration factors such as existence of legal/contractual agreements, past historical experience, external advisors' assessments and other available information.

Further details of provisions balances recognised is disclosed in Note 26(c) and Note 9.

(iv) Impairment of ships, offshore floating assets, other property, plant and equipment and right-of-use assets

The Group and the Corporation have performed a review of the recoverable amount of their ships, offshore floating assets, other PPE and right-of-use assets during the financial year. The review led to the recognition of impairment losses as disclosed in Note 5(a).

The Group and the Corporation carried out the impairment test based on a variety of estimations, including the value-in-use of the CGU to which ships, offshore floating assets, other PPE and right-of-use are allocated. Estimating the value-in-use requires the Group and the Corporation to make an estimate of the expected future cash flows from the CGU and also to choose a suitable discount rate to calculate the present value of those cash flows.

Further details of the impairment losses recognised are disclosed in Note 14(b).

(v) Impairment of trade and other receivables

The Group and the Corporation assess at each reporting date whether there is any objective evidence that their trade and other receivables is impaired. To determine whether there is objective evidence of impairment, factors such as the probability of insolvency or significant financial difficulties of the debtor and default or significant delay in payments are considered.

Where there is objective evidence of impairment, the amount and timing of future cash flows are estimated based on historical loss experience for assets with similar credit risk characteristics.

2. Significant accounting policies (cont'd.)

2.5 Significant accounting estimates and judgements (cont'd.)

(b) Key sources of estimation uncertainty (cont'd.)

(v) Impairment of trade and other receivables (cont'd.)

The Group and the Corporation have performed a review of the recoverable amount of their receivable during the financial year. The review led to the recognition of impairment losses as disclosed in Note 22.

(vi) Deferred tax assets

Deferred tax assets are recognised for all deductible temporary differences, unused tax losses and unabsorbed capital allowances to the extent that it is probable that taxable profit will be available against which the losses and capital allowances can be utilised. Significant management judgement is required to determine the amount of deferred tax assets that can be recognised, based on the likely timing and level of future taxable profits, together with future tax planning strategies. The total carrying value of recognised deferred tax assets and the unrecognised tax losses, capital allowances and investment tax allowances are as disclosed in Note 29.

(vii) Discount rate used in leases

Where the interest rate implicit in the lease cannot be readily determined, the Group and the Corporation use the incremental borrowing rate to measure the lease liabilities. The incremental borrowing rate is the interest rate that the Group and the Corporation would have to pay to borrow over a similar term, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment. Therefore, the incremental borrowing rate requires estimation particularly when no observable rates are available or when they need to be adjusted to reflect the terms and conditions of the lease. The Group and the Corporation estimate the incremental borrowing rate using observable inputs when available and is required to make certain entity-specific estimates.

3. Revenue

	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
Revenue from contracts with customers				
Voyage, lightering and other shipping related income	2,099,762	2,721,968	-	-
Construction contract and marine repair (Note 23)	1,926,878	936,523	-	-
Non-shipping income	303,605	382,765	7,673	5,079
	4,330,245	4,041,256	7,673	5,079
Revenue from charter				
Charter income	4,091,421	3,862,807	926,574	927,547
Finance income on lease receivables	979,568	1,058,661	79,383	83,363
	5,070,989	4,921,468	1,005,957	1,010,910
Total revenue	9,401,234	8,962,724	1,013,630	1,015,989

Non-shipping income mainly represents revenue generated from the operation and maintenance of offshore floating assets, management of operation of ports, marine terminals and marine vessels, provision of marine support services and consulting services for marine matters.

Timing of recognition for revenue from contracts with customers

The following table provides the disaggregation of revenue from contracts with customers based on timing of recognition:

	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
Goods and services transferred at a point in time	543,511	440,230	-	-
Services transferred over time	3,786,734	3,601,026	7,673	5,079
Total	4,330,245	4,041,256	7,673	5,079

3. Revenue (cont'd.)

Contract balances

The following table provides information about receivables, contracts assets and contracts liabilities from contracts with customers.

	Group 2020 RM'000	2019 RM'000
Receivables	416,563	714,045
Contract assets (Note 23)	491,259	39,137
Contract liabilities (Note 23)	(15,395)	(5,993)
	892,427	747,189

Amount due from customers on contracts primarily relates to the Group's rights to consideration for work completed but not billed at the reporting date. Amount due from customers on contracts are transferred to receivables when rights become unconditional.

Amount due to customers on contracts primarily relate to the advance consideration received from the customer, for which revenue is recognised over time when the Group progressively satisfies its performance obligation.

Transaction price allocated to the remaining performance obligations

The following table shows revenue expected to be recognised in the future related to performance obligations that are unsatisfied (or partially satisfied) at the reporting date. The disclosure is only providing information for contracts that have a duration of more than one year.

	Under 1 year RM'000	1-5 years RM'000	Total RM'000
Group			
Construction contract and marine repair	3,989,827	5,858,006	9,847,833
Non-shipping income	50,951	180,921	231,872
Total	4,040,778	6,038,927	10,079,705

4. Other operating income

	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
Rental income	61	81	-	-
Exchange gain:				
Realised	7,981	15	9,130	-
Unrealised	9,260	7,485	12,043	8,789
Management services:				
Subsidiaries	-	-	2,601	2,053
Joint ventures	9,301	4,722	9,301	4,722
Gain from liquidation of a subsidiary	-	-	-	151,869
Dividend income from equity investment:				
Subsidiaries	-	-	1,382,324	1,283,518
Joint ventures	-	-	221,371	207,769
Quoted equity investments	1,074	1,562	1,074	1,693
Unquoted equity investments	13	10	13	10
Writeback of impairment loss on: (Note 22)				
- Trade and other receivables	-	-	136	-
- Finance lease receivables	8,878	5,455	814	369
Cadet course fees	11,845	13,718	-	-
Government grants*	7,790	-	-	-
Miscellaneous income from:				
Subsidiaries	-	-	13,692	7,290
Fellow subsidiaries	15,544	43,987	-	1,568
Third parties	69,934	41,818	16,287	23,415
	141,681	118,853	1,668,786	1,693,065

* In response to the COVID-19 pandemic, the Government of Singapore introduced Jobs Support Scheme (JSS) as a wage support to employers to retain their local employees during this period of economic uncertainty. The grant was recognised in profit or loss as the related wages and salaries were recognised.

5. (Loss)/profit before taxation

The following amounts have been included in arriving at (loss)/profit before taxation:

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
Amortisation of intangible assets (Note 16)	5,884	6,373	-	-
Amortisation of prepaid lease payments on land and buildings (Note 15)	7,359	7,405	100	124
Amortisation of upfront fees	21,531	26,188	-	-
Auditors' remuneration:				
Auditors of the Corporation:				
- Statutory audits	4,888	4,423	824	824
- Other services	1,013	1,119	769	886
Inventories used (Note 21)	730,514	915,284	-	-
Fair value movement in other investments	6,953	5,175	6,953	5,175
Exchange loss:				
- Realised	19,726	19,669	12,745	14,902
- Unrealised	4,355	9,121	7,295	5,357
Impairment loss for: (Note 22)				
- Trade and other receivables	34,563	36,839	13,915	22,019
Bad debts written off	6,120	1,065	-	524
Operating lease rental:*				
- Ships	177,196	257,384	-	-
- Equipment	18,578	10,462	2,993	548
- Land and buildings	23,854	27,916	2,639	3,787
Ships, offshore floating assets, other property, plant and equipment and right-of-use assets: (Note 14)				
- Depreciation	2,090,970	2,215,528	366,673	365,692
- Written off	23,639	13,189	95	525
Impairment provisions (Note 5(a))	331,376	214,943	37,071	101,407
Staff costs (Note 6)	1,775,287	1,765,161	270,419	243,914
Non-executive directors' remuneration (Note 7)	1,739	1,567	1,185	1,039
Changes in fair value of hedging derivatives	3,235	-	-	-

* The Group leases ships, equipment, land and buildings. These leases are short term and/or leases of low-value assets. The Group has elected not to recognise right-of-use assets and lease liabilities for these leases.

5. (Loss)/profit before taxation (cont'd.)

(a) Impairment provisions

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
Ships, offshore floating assets and other property, plant and equipment (Note 14)	318,868	154,949	10,444	8,582
Right-of-use assets (Note 14)	2,292	40,386	-	-
Loss on termination of contracts	-	19,608	-	-
Non-current assets held for sale written down (Note 25)	10,216	-	-	-
Investments in subsidiaries (Note 17)	-	-	26,627	92,825
	331,376	214,943	37,071	101,407

As a result of COVID-19 pandemic and depressed oil price environment where most oil and gas companies are expected to postpone their upstream projects and reduce capital expenditure, the Group had recorded an impairment loss amounting to RM300,000,000 on its Marine & Heavy Engineering segment's other property, plant and equipment and right-of-use assets during the year in anticipation of a prolonged recovery in the industry resulting from these events.

6. Staff costs

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
Wages, salaries and bonuses	1,445,251	1,434,880	229,877	202,621
Contributions to defined contribution plans	95,510	87,289	21,578	16,594
Social security costs	9,117	7,890	631	498
Other staff related expenses	225,409	235,102	18,333	24,201
	1,775,287	1,765,161	270,419	243,914

Included in staff costs of the Group and of the Corporation are executive director's remuneration (excluding benefits-in-kind) amounting to RM3,107,000 (2019: RM2,778,000) respectively as further disclosed in Note 7.

7. Directors' remuneration

The details of remuneration receivable by directors of the Corporation during the financial year are as follows:

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
Executive:				
Salaries and other emoluments	1,700	1,587	1,700	1,587
Bonus	690	535	690	535
Defined contribution plans	717	656	717	656
Total executive directors' remuneration (excluding benefits-in-kind)	3,107	2,778	3,107	2,778
Estimated money value of benefits-in-kind	78	272	78	272
Total executive directors' remuneration (including benefits-in-kind)	3,185	3,050	3,185	3,050
Non-executive directors' remuneration:				
Fees	1,185	1,039	1,185	1,039
Fees from subsidiaries	554	528	-	-
Total non-executive directors' remuneration (Note 5)	1,739	1,567	1,185	1,039
Total directors' remuneration including benefits-in-kind (Note 33(g))	4,924	4,617	4,370	4,089

The number of directors of the Corporation whose total remuneration during the financial year fell within the following bands is analysed below:

	Number of directors	
	2020	2019
Executive director:		
RM3,000,001 - RM3,050,000	-	1
RM3,150,001 - RM3,200,000	1	-

7. Directors' remuneration (cont'd.)

	Number of directors	
	2020	2019
Non-executive directors*:		
RM1 - RM50,000	4	-
RM150,001 - RM200,000	2	2
RM200,001 - RM250,000	2	1
RM250,001 - RM300,000	-	1
RM700,001 - RM750,000	-	1
RM750,001 - RM800,000	1	-
	9	5

* Excludes the directors of the Corporation whose fees are paid directly to the immediate holding company of the Corporation, PETRONAS.

8. Gain on acquisition of a business

In the previous financial year, the Corporation had on 26 November 2018 signed a sale and purchase agreement of LNG Portovenere with LNG Shipping S.p.A. with a purchase price of RM130,283,000. This transaction constitutes a business acquisition and the Group recognised gain on acquisition of a business of RM23,731,000.

9. Write off of trade receivables and loss on re-measurement of finance lease receivables and provision for litigation claims

Following the decision by the Arbitral Tribunal as disclosed in Note 43(a)(i), the Group has written off its trade receivables and accounted for the loss on re-measurement of finance lease receivables amounting to RM846,229,000. Based on legal opinion obtained from the Group's legal counsel, the Group has also recognised a provision for litigation claims amounting to RM1,049,248,000, representing an estimate of the outcome arising from the Awards issued by the Arbitral Tribunal and the Group's intention to pursue an application to set aside a substantial portion of the Award. The Group is of the view that the provision will not prejudice the Group's legal ground to challenge the decision by the Arbitral Tribunal.

10. (a) Finance income

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
Interest income:				
Subsidiaries	-	-	64,128	106,839
Third party	9,505	17,779	9,505	17,779
Deposits	84,286	134,993	29,005	54,045
Unwinding of discount on trade receivables	18,821	16,477	18,821	16,477
Total finance income	112,612	169,249	121,459	195,140

10. (b) Finance costs

	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
Interest expense on loans and borrowings from:				
Subsidiaries	-	-	15,263	103,898
Banks and financial institutions	344,708	442,191	14,249	23,755
Interest on lease liabilities (Note 20(c))	23,376	42,112	1,312	1,763
Total finance costs	368,084	484,303	30,824	129,416

11. Taxation

	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
Current income tax:				
Malaysian income tax	41,199	47,549	6,214	1,496
Foreign tax	17,999	34,621	-	-
Under/(over) provision in prior year:				
Malaysian income tax	11,075	(7,705)	-	-
Foreign tax	163	1,742	-	-
	70,436	76,207	6,214	1,496
Deferred tax (Note 29):				
Relating to origination and reversal of temporary differences	(38,005)	(8,770)	-	-
Under provision in prior year	13,816	8,619	-	-
	(24,189)	(151)	-	-
Taxation for the year	46,247	76,056	6,214	1,496

Domestic income tax is calculated at the statutory tax rate of 24% of the estimated assessable profit for the financial year.

11. Taxation (cont'd.)

A reconciliation of income tax expense applicable to (loss)/profit before taxation at the statutory income tax rate to income tax expense at the effective income tax rate of the Group and of the Corporation is as follows:

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
(Loss)/profit before taxation	(123,584)	1,512,323	1,918,550	1,865,910
Taxation at Malaysian statutory tax rate of 24%	(29,660)	362,958	460,452	447,818
Effect of different tax rates in other countries/ jurisdictions	363,681	(32,144)	-	-
Income not subject to tax:				
Tax exempt shipping income	(528,894)	(570,322)	(135,908)	(148,113)
Others	(10,717)	(21,187)	(406,620)	(397,423)
Expenses not deductible for tax purposes	293,261	445,497	116,982	152,495
Effect of share of results of associates and joint ventures	(102,966)	(60,151)	-	-
Utilisation of previously unrecognised tax losses	(28,004)	(53,281)	(28,692)	(53,281)
Deferred tax assets recognised on unutilised investment tax allowances	(102,743)	(1,624)	-	-
Deferred tax assets not recognised during the year	167,235	3,654	-	-
Deferred tax under provided in prior year	13,816	8,619	-	-
Income tax under/(over) provided in prior year	11,238	(5,963)	-	-
Taxation for the year	46,247	76,056	6,214	1,496

11. Taxation (cont'd.)

Section 54A of the Income Tax Act, 1967 was amended effective from Year of Assessment ("YA") 2012, in which the tax exemption on shipping profits was reduced from 100% to 70%. The implementation of the amended Section 54A, however, was deferred and on 10 July 2020, the Ministry of Finance ("MoF") issued an approval letter for the extension of the 100% shipping tax exemption up to YA2023 subject to the following two conditions to be implemented by the Ministry of Transport ("MoT"):

a) Each Malaysian shipowner to comply with the minimum requirements in terms of annual operating expenditure and number of full-time employees. MoT has been requested to establish the framework for each category of vessels; and

b) MoT to develop a framework and implement the imposition of annual tonnage fee to Malaysian shipowners by 1 January 2022.

   In respect of the imposition of tonnage fee, MoF has indicated in their letter that if MoT fails to start imposing tonnage fee from 1 January 2022, the 100% tax exemption will be reverted to 70% from YA2022.

The Group has available options to ensure that the Group continues to enjoy the tax benefit arising from shipping income.

12. (Loss)/earnings per share

Basic (loss)/earnings per share is calculated by dividing (loss)/profit for the year attributable to ordinary equity holders of the Corporation by the weighted average number of ordinary shares outstanding during the financial year. The Group does not have any financial instrument which may dilute its basic (loss)/earnings per share.

	Group	
	2020	**2019**
(Loss)/profit after taxation attributable to equity holders of the Corporation (RM'000)	(43,067)	1,426,355
Number of ordinary shares in issue ('000)	4,463,794	4,463,794
Weighted average number of ordinary shares in issue ('000)	4,463,794	4,463,794
Basic (loss)/earnings per share (sen)	(1.0)	32.0
Diluted (loss)/earnings per share (sen)	(1.0)	32.0

13. Dividends

	2020 RM'000	2019 RM'000
Dividends recognised during the year:		
In respect of financial year ended 31 December 2018:		
Fourth tax exempt dividend of 9.0 sen per share	-	401,737
In respect of financial year ended 31 December 2019:		
First tax exempt dividend of 7.0 sen per share	-	312,462
Second tax exempt dividend of 7.0 sen per share	-	312,462
Third tax exempt dividend of 7.0 sen per share	-	312,462
Fourth tax exempt dividend of 9.0 sen per share	401,737	-
Special tax exempt dividend of 3.0 sen per share	133,912	-
In respect of financial year ended 31 December 2020:		
First tax exempt dividend of 7.0 sen per share	312,462	-
Second tax exempt dividend of 7.0 sen per share	312,462	-
Third tax exempt dividend of 7.0 sen per share	312,462	-
	1,473,035	1,339,123

A fourth tax exempt dividend in respect of the financial year ended 31 December 2020 of 12.0 sen per share amounting to a dividend payable of RM535,649,000 will be paid on 16 March 2021.

The fourth tax exempt dividend in respect of the financial year ended 31 December 2020 is not reflected in the current year's financial statements. The dividend will be accounted for in equity as an appropriation of retained profits in the financial year ending 31 December 2021.

14. Ships, offshore floating assets and other property, plant and equipment

	Cost										
Group - 31 December 2020	**At 1.1.2020 RM'000**	**Additions RM'000**	**Disposals RM'000**	**Write-offs*** RM'000**	**Transfers RM'000**	**Reclassification out of PPE** RM'000**	**Reclassified to held for sale RM'000**	**Termination of lease contract RM'000**	**Remeasurement of lease RM'000**	**Currency translation differences RM'000**	**At 31.12.2020 RM'000**
Ships											
Ships in operation*	40,440,901	489,779	(670,112)	(304,979)	2,901,011	(337,632)	(199,592)	-	-	(682,046)	41,637,330
Right-of-use - ships in operation*	2,502,983	22,827	-	(1,052,789)	-	-	-	(16,730)	(496)	3,630	1,459,425
Ships under construction	2,295,581	2,485,965	-	-	(2,882,109)	-	-	-	-	(21,611)	1,877,826
	45,239,465	2,998,571	(670,112)	(1,357,768)	18,902	(337,632)	(199,592)	(16,730)	(496)	(700,027)	44,974,581
Offshore floating assets											
Subject to operating lease as a lessor - offshore floating assets in operation	1,137,815	-	-	-	-	-	(206,689)	-	-	(3,857)	927,269

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	Cost										
	At 1.1.2020 RM'000	Additions RM'000	Disposals RM'000	Write-offs*** RM'000	Transfers RM'000	Reclassification out of PPE** RM'000	Reclassified to held for sale RM'000	Termination of lease contract RM'000	Remeasurement of lease RM'000	Currency translation differences RM'000	At 31.12.2020 RM'000
Group - 31 December 2020											
Other property, plant and equipment											
Freehold land	12,757	-	-	-	-	-	-	-	-	128	12,885
Freehold buildings, drydocks and waste plant	1,666,810	311	-	(99)	468,111	-	-	-	-	(496)	2,134,637
Leasehold buildings	73,882	-	-	-	-	-	-	-	-	327	74,209
Motor vehicles	20,181	262	(181)	-	-	-	-	-	-	(28)	20,234
Furniture, fittings and equipment	168,544	4,270	(1,482)	-	2,957	-	-	-	-	(988)	173,301
Computer software and hardware	302,267	5,955	(1,955)	-	170	-	-	-	-	(3,280)	303,157
Projects in progress	607,537	336,817	-	-	(587,564)	-	-	-	-	(4,987)	351,803
Plant and machineries	686,195	16,210	(4,953)	(51)	97,424	-	-	-	-	(824)	794,001
	3,538,173	363,825	(8,571)	(150)	(18,902)	-	-	-	-	(10,148)	3,864,227
Right-of-use assets											
- office premise, warehouse and wharf	178,162	16,465	(8,084)	-	-	-	-	-	-	(2,393)	184,150
- computer software and hardware	643	-	-	-	-	-	-	-	-	-	643
	178,805	16,465	(8,084)	-	-	-	-	-	-	(2,393)	184,793
	3,716,978	380,290	(16,655)	(150)	(18,902)	-	-	-	-	(12,541)	4,049,020
Grand total	**50,094,258**	**3,378,861**	**(686,767)**	**(1,357,918)**	**-**	**(337,632)**	**(406,281)**	**(16,730)**	**(496)**	**(716,425)**	**49,950,870**

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	Accumulated depreciation/impairment										Net book value
	At 1.1.2020 RM'000	Depreciation charge for the year RM'000	Impairment losses RM'000	Disposals RM'000	Write-offs*** RM'000	Reclassification out of PPE** RM'000	Reclassified to held for sale RM'000	Termination of lease contract RM'000	Currency translation differences RM'000	At 31.12.2020 RM'000	At 31.12.2020 RM'000
Group - 31 December 2020											
Ships											
Ships in operation*	22,113,034	1,741,070	11,585	(428,737)	(281,355)	(167,681)	(94,425)	-	(328,313)	22,565,178	19,072,152
Right-of-use - ships in operation*	2,150,504	227,054	-	-	(1,052,789)	-	-	(4,137)	408	1,321,040	138,385
Ships under construction	-	-	-	-	-	-	-	-	-	-	1,877,826
	24,263,538	1,968,124	11,585	(428,737)	(1,334,144)	(167,681)	(94,425)	(4,137)	(327,905)	23,886,218	21,088,363
Offshore floating assets											
Subject to operating lease as a lessor - offshore floating assets in operation	1,055,458	8,181	9,575	-	-	-	(193,663)	-	(3,590)	875,961	51,308

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	← Accumulated depreciation/impairment									→	Net book value
Group - 31 December 2020	**At 1.1.2020 RM'000**	**Depreciation charge for the year RM'000**	**Impairment losses RM'000**	**Disposals RM'000**	**Write-offs*** RM'000**	**Reclassification out of PPE** RM'000**	**Reclassified to held for sale RM'000**	**Termination of lease contract RM'000**	**Currency translation differences RM'000**	**At 31.12.2020 RM'000**	**At 31.12.2020 RM'000**
Other property, plant and equipment											
Freehold land	-	-	-	-	-	-	-	-	-	-	12,885
Freehold buildings, drydocks and waste plant	628,278	31,770	242,778	-	(84)	-	-	-	409	903,151	1,231,486
Leasehold buildings	24,606	25	-	-	-	-	-	-	377	25,008	49,201
Motor vehicles	17,915	828	320	(181)	-	-	-	-	(30)	18,852	1,382
Furniture, fittings and equipment	113,338	8,374	-	(1,371)	-	-	-	-	(628)	119,713	53,588
Computer software and hardware	271,420	13,054	611	(1,983)	-	-	-	-	(4,332)	278,770	24,387
Projects in progress	-	-	-	-	-	-	-	-	-	-	351,803
Plant and machineries	362,259	30,296	53,999	(4,951)	(51)	-	-	-	(800)	440,752	353,249
	1,417,816	84,347	297,708	(8,486)	(135)	-	-	-	(5,004)	1,786,246	2,077,981
Right-of-use assets											
- office premise, warehouse and wharf	69,831	30,143	2,279	(8,169)	-	-	-	-	(1,389)	92,695	91,455
- computer software and hardware	414	175	13	-	-	-	-	-	-	602	41
	70,245	30,318	2,292	(8,169)	-	-	-	-	(1,389)	93,297	91,496
	1,488,061	114,665	300,000	(16,655)	(135)	-	-	-	(6,393)	1,879,543	2,169,477
Grand total	**26,807,057**	**2,090,970**	**321,160**	**(445,392)**	**(1,334,279)**	**(167,681)**	**(288,088)**	**(4,137)**	**(337,888)**	**26,641,722**	**23,309,148**

* Included in ships in operation and right-of-use - ships in operation are ships subject to operating lease as a lessor with a carrying amount of RM15,833,310,000 (2019:RM14,409,219,000) and RMNil (2019: RM34,647,392) respectively based on the ships contractual arrangement as at 31 December 2020. Certain ships in operation are used interchangeably between time charter and spot charter during the financial year.

** Reclassification out of PPE relates to capital expenditure which are reimbursable and reclassed to other receivables.

*** Amount mainly relates to derecognition of previous dry docking / major spares upon capitalisation of replacement costs.

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	Cost									
Group - 31 December 2019	**At 1.1.2019 RM'000**	**Additions RM'000**	**Disposals RM'000**	**Write-offs*** RM'000**	**Transfers RM'000**	**Reclassification out of PPE** RM'000**	**Reclassified to held for sale RM'000**	**Termination of lease contract RM'000**	**Currency translation differences RM'000**	**At 31.12.2019 RM'000**
Ships										
Ships in operation*	41,783,627	397,987	(128,775)	(367,590)	582,598	(42,670)	(1,400,528)	-	(383,748)	40,440,901
Right-of-use - ships in operation*	2,484,287	155,301	-	-	-	-	-	(129,557)	(7,048)	2,502,983
Ships under construction	1,360,089	1,540,284	-	-	(578,585)	(3,476)	-	-	(22,731)	2,295,581
	45,628,003	2,093,572	(128,775)	(367,590)	4,013	(46,146)	(1,400,528)	(129,557)	(413,527)	45,239,465
Offshore floating assets										
Subject to operating lease as a lessor - offshore floating assets in operation	1,343,326	-	-	-	-	-	(196,698)	-	(8,813)	1,137,815

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	Cost									
Group - 31 December 2019	At 1.1.2019 RM'000	Additions RM'000	Disposals RM'000	Write-offs*** RM'000	Transfers RM'000	Reclassification out of PPE** RM'000	Reclassified to held for sale RM'000	Termination of lease contract RM'000	Currency translation differences RM'000	At 31.12.2019 RM'000
Other property, plant and equipment										
Freehold land	12,976	-	-	-	-	-	-	-	(219)	12,757
Freehold buildings, drydocks and waste plant	1,674,066	104	(5,519)	(3,077)	2,025	-	-	-	(789)	1,666,810
Leasehold buildings	73,882	-	-	-	-	-	-	-	-	73,882
Motor vehicles	20,975	-	(545)	(231)	-	-	-	-	(18)	20,181
Furniture, fittings and equipment	166,791	4,548	(4,486)	(128)	2,429	(12)	-	-	(598)	168,544
Computer software and hardware	293,061	1,355	(2,374)	(310)	13,337	-	-	-	(2,802)	302,267
Projects in progress	308,901	330,665	(2,287)	-	(27,209)	-	-	-	(2,533)	607,537
Plant and machineries	686,273	4,073	(2,089)	(6,903)	5,405	-	-	-	(564)	686,195
	3,236,925	340,745	(17,300)	(10,649)	(4,013)	(12)	-	-	(7,523)	3,538,173
Right-of-use assets										
- office premise, warehouse and wharf	155,365	23,909	-	-	-	-	-	-	(1,112)	178,162
- computer software and hardware	643	-	-	-	-	-	-	-	-	643
	156,008	23,909	-	-	-	-	-	-	(1,112)	178,805
	3,392,933	364,654	(17,300)	(10,649)	(4,013)	(12)	-	-	(8,635)	3,716,978
Grand total	**50,364,262**	**2,458,226**	**(146,075)**	**(378,239)**	**-**	**(46,158)**	**(1,597,226)**	**(129,557)**	**(430,975)**	**50,094,258**

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	Accumulated depreciation/impairment										Net book value
	At 1.1.2019 RM'000	Depreciation charge for the year RM'000	Impairment losses RM'000	Disposals RM'000	Write-offs*** RM'000	Reclassification out of PPE** RM'000	Reclassified to held for sale RM'000	Termination of lease contract RM'000	Currency translation differences RM'000	At 31.12.2019 RM'000	At 31.12.2019 RM'000
Group - 31 December 2019											
Ships											
Ships in operation*	21,918,883	1,699,991	85,490	(71,552)	(354,612)	(408)	(985,044)	-	(179,714)	22,113,034	18,327,867
Right-of-use - ships in operation*	1,795,495	352,764	40,386	-	-	-	-	(34,484)	(3,657)	2,150,504	352,479
Ships under construction	-	-	-	-	-	-	-	-	-	-	2,295,581
	23,714,378	2,052,755	125,876	(71,552)	(354,612)	(408)	(985,044)	(34,484)	(183,371)	24,263,538	20,975,927
Offshore floating assets											
Subject to operating lease as a lessor - offshore floating assets in operation	1,121,122	38,108	69,459	-	-	-	(165,345)	-	(7,886)	1,055,458	82,357

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	Accumulated depreciation/impairment										Net book value
	At 1.1.2019 RM'000	Depreciation charge for the year RM'000	Impairment losses RM'000	Disposals RM'000	Write-offs*** RM'000	Reclassification out of PPE** RM'000	Reclassified to held for sale RM'000	Termination of lease contract RM'000	Currency translation differences RM'000	At 31.12.2019 RM'000	At 31.12.2019 RM'000
Group - 31 December 2019											
Other property, plant and equipment											
Freehold land	-	-	-	-	-	-	-	-	-	-	12,757
Freehold buildings, drydocks and waste plant	601,380	35,871	-	(5,519)	(3,029)	-	-	-	(425)	628,278	1,038,532
Leasehold buildings	24,589	-	-	-	-	-	-	-	17	24,606	49,276
Motor vehicles	17,577	1,127	-	(545)	(231)	-	-	-	(13)	17,915	2,266
Furniture, fittings and equipment	104,868	13,358	-	(4,413)	(125)	-	-	-	(350)	113,338	55,206
Computer software and hardware	266,179	8,822	-	(850)	(210)	-	-	-	(2,521)	271,420	30,847
Projects in progress	-	-	-	-	-	-	-	-	-	-	607,537
Plant and machineries	333,442	38,878	-	(2,751)	(6,843)	-	-	-	(467)	362,259	323,936
	1,348,035	98,056	-	(14,078)	(10,438)	-	-	-	(3,759)	1,417,816	2,120,357
Right-of-use assets											
- office premise, warehouse and wharf	43,655	26,425	-	-	-	-	-	-	(249)	69,831	108,331
- computer software and hardware	230	184	-	-	-	-	-	-	-	414	229
	43,885	26,609	-	-	-	-	-	-	(249)	70,245	108,560
	1,391,920	124,665	-	(14,078)	(10,438)	-	-	-	(4,008)	1,488,061	2,228,917
Grand total	**26,227,420**	**2,215,528**	**195,335**	**(85,630)**	**(365,050)**	**(408)**	**(1,150,389)**	**(34,484)**	**(195,265)**	**26,807,057**	**23,287,201**

* Included in ships in operation and right-of-use - ships in operation are ships subject to operating lease as a lessor with a carrying amount of RM14,409,219,000 and RM34,647,392 respectively based on the ships contractual arrangement as at 31 December 2019. Certain ships in operation are used interchangeably between time charter and spot charter during the financial year.

** Reclassification out of PPE relates to capital expenditure which are reimbursable and reclassed to other receivables.

*** Amount mainly relates to derecognition of previous dry docking / major spares upon capitalisation of replacement costs.

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	Cost							
	At 1.1.2020 RM'000	Additions RM'000	Write-offs** RM'000	Disposals RM'000	Transfers RM'000	Reclassification out of PPE* RM'000	Currency translation differences RM'000	At 31.12.2020 RM'000
Corporation - 31 December 2020								
Ships								
Subject to operating lease as a lessor								
- ships in operation	9,896,486	73,264	(59,257)	-	-	(36,547)	(132,983)	9,740,963
Other property and equipment								
Freehold land	7,361	-	-	-	-	-	(127)	7,234
Freehold buildings	22,533	-	-	-	-	-	(135)	22,398
Motor vehicles	378	-	-	-	-	-	(6)	372
Furniture, fittings and equipment	33,362	430	-	(297)	1,291	-	(637)	34,149
Computer software and hardware	174,884	550	-	(2,107)	(297)	-	(2,953)	170,077
Projects in progress	222,684	21,428	-	-	(994)	(168,600)	2,271	76,789
	461,202	22,408	-	(2,404)	-	(168,600)	(1,587)	311,019
Right-of-use								
- office premise	82,575	-	-	-	-	-	(968)	81,607
	543,777	22,408	-	(2,404)	-	(168,600)	(2,555)	392,626
Grand total	**10,440,263**	**95,672**	**(59,257)**	**(2,404)**	**-**	**(205,147)**	**(135,538)**	**10,133,589**

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	← Accumulated depreciation/impairment						→	Net book value
	At 1.1.2020 RM'000	Depreciation RM'000	Impairment losses RM'000	Write-offs** RM'000	Disposals RM'000	Currency translation differences RM'000	At 31.12.2020 RM'000	At 31.12.2020 RM'000
Corporation - 31 December 2020								
Ships								
Subject to operating lease as a lessor								
- ships in operation	5,493,481	343,037	10,444	(59,162)	-	(69,790)	5,718,010	4,022,953
Other property and equipment								
Freehold land	413	448	-	-	-	325	1,186	6,048
Freehold buildings	936	-	-	-	-	-	936	21,462
Motor vehicles	369	-	-	-	-	(6)	363	9
Furniture, fittings and equipment	18,199	4,086	-	-	(224)	(462)	21,599	12,550
Computer software and hardware	159,978	4,902	-	-	(2,117)	(2,885)	159,878	10,199
Projects in progress	-	-	-	-	-	-	-	76,789
	179,895	9,436	-	-	(2,341)	(3,028)	183,962	127,057
Right-of-use								
- office premise	40,414	14,200	-	-	-	(823)	53,791	27,816
	220,309	23,636	-	-	(2,341)	(3,851)	237,753	154,873
Grand total	**5,713,790**	**366,673**	**10,444**	**(59,162)**	**(2,341)**	**(73,641)**	**5,955,763**	**4,177,826**

* Reclassification out of PPE relates to capital expenditure which are reimbursable and reclassed to other receivables.
** Amount mainly relates to derecognition of previous dry docking / major spares upon capitalisation of replacement costs.

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	Cost							
	At 1.1.2019 RM'000	Additions RM'000	Write-offs** RM'000	Disposals RM'000	Transfers RM'000	Reclassification out of PPE* RM'000	Currency translation differences RM'000	At 31.12.2019 RM'000
Corporation - 31 December 2019								
Ships								
Subject to operating lease as a lessor - ships in operation	9,980,691	107,475	(96,740)	-	-	(9,789)	(85,151)	9,896,486
Other property and equipment								
Freehold land	7,442	-	-	-	-	-	(81)	7,361
Freehold buildings	22,770	-	-	-	-	-	(237)	22,533
Motor vehicles	927	-	-	(545)	-	-	(4)	378
Furniture, fittings and equipment	33,747	327	(128)	(218)	-	-	(366)	33,362
Computer software and hardware	166,450	531	(241)	(2,107)	12,167	-	(1,916)	174,884
Projects in progress	105,907	132,957	-	(1,637)	(12,167)	-	(2,376)	222,684
	337,243	133,815	(369)	(4,507)	-	-	(4,980)	461,202
Right-of-use - office premise	80,081	3,081	-	-	-	-	(587)	82,575
	417,324	136,896	(369)	(4,507)	-	-	(5,567)	543,777
Grand total	**10,398,015**	**244,371**	**(97,109)**	**(4,507)**	**-**	**(9,789)**	**(90,718)**	**10,440,263**

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

	Accumulated depreciation/impairment							Net book value
	At 1.1.2019 RM'000	Depreciation RM'000	Impairment losses RM'000	Write-offs** RM'000	Disposals RM'000	Currency translation differences RM'000	At 31.12.2019 RM'000	At 31.12.2019 RM'000
Corporation - 31 December 2019								
Ships								
Subject to operating lease as a lessor - ships in operation	5,275,533	342,274	8,582	(96,251)	-	(36,657)	5,493,481	4,403,005
Other property and equipment								
Freehold land	-	415	-	-	-	(2)	413	6,948
Freehold buildings	936	-	-	-	-	-	936	21,597
Motor vehicles	894	24	-	-	(545)	(4)	369	9
Furniture, fittings and equipment	14,895	3,816	-	(124)	(199)	(189)	18,199	15,163
Computer software and hardware	157,166	5,298	-	(209)	(523)	(1,754)	159,978	14,906
Projects in progress	-	-	-	-	-	-	-	222,684
	173,891	9,553	-	(333)	(1,267)	(1,949)	179,895	281,307
Right-of-use - office premise	26,693	13,865	-	-	-	(144)	40,414	42,161
	200,584	23,418	-	(333)	(1,267)	(2,093)	220,309	323,468
Grand total	**5,476,117**	**365,692**	**8,582**	**(96,584)**	**(1,267)**	**(38,750)**	**5,713,790**	**4,726,473**

* Reclassification out of PPE relates to capital expenditure which are reimbursable and reclassed to other receivables.
** Amount mainly relates to derecognition of previous dry docking / major spares upon capitalisation of replacement costs.

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

(a) The net carrying amounts of ships pledged as security for borrowings (Note 20(c)) are as follows:

	Group	
	2020	**2019**
	RM'000	**RM'000**
Ships in operation	8,991,447	6,300,806

(b) The volatility of charter hire rates, expired charter contracts or contracts that are approaching the expiry date were identified as indications that the carrying amount of certain ships may be impaired. The indications of impairment identified for the Group's Marine & Heavy Engineering segment's other property, plant and equipment and right-of-use assets are disclosed in Note 5(a).

The Group and the Corporation have performed a review of the recoverable amount of their ships, offshore floating assets, other property, plant and equipment and right-of-use assets during the financial year. The review led to the recognition of net impairment losses of RM321,160,000 (2019: RM195,335,000) and RM10,444,000 (2019: RM8,582,000) for the Group and the Corporation respectively, as disclosed in Note 5(a).

The recoverable amount was based on the higher of fair value less costs of disposal or value-in-use, and determined at the CGU of each asset.

14. Ships, offshore floating assets and other property, plant and equipment (cont'd.)

Recoverable amount determined from value-in-use ("VIU")

As at the current financial year, the Group's recoverable amount for impaired other property, plant and equipment and right-of-use assets of its Marine & Heavy Engineering segment of RM1,795,583,000 was determined from the VIU calculations using cash flow projections discounted at rate ranging from 10.5% to 11.0%. Impairment losses of RM300,000,000 for the Group was recognised in the current financial year using this basis.

As at the end of the previous financial year, the Group's recoverable amount for impaired ships and right-of-use assets of RM21,877,000 was determined from the VIU calculations using cash flow projections discounted at rate 7.8%. Impairment losses of RM40,386,000 for the Group was recognised in the previous financial year using this basis.

Recoverable amount determined from fair value less costs of disposal

The fair values of certain ships and offshore floating assets were determined based on valuation performed by independent valuers based on comparable ships and offshore floating assets.

Impairment of RM21,160,000 (2019: RM154,949,000) and RM10,444,000 (2019: RM8,582,000) for the Group and the Corporation respectively were recognised using this basis.

Both fair value measurement and VIU were categorised as Level 3 fair value as defined in Note 2.3(z).

(c) Included in additions to the ships under construction and project-in-progress of the Group is finance costs capitalised during the year of RM73,655,000 (2019: RM67,245,000), including general borrowing costs.

15. Prepaid lease payments on land and buildings

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
At 1 January	219,843	212,988	3,566	3,730
Addition	-	14,300	-	-
Amortisation for the year (Note 5)	(7,359)	(7,405)	(100)	(124)
Currency translation differences	50	(40)	50	(40)
At 31 December	212,534	219,843	3,516	3,566
Analysed as:				
Leasehold land	209,018	216,277	-	-
Leasehold buildings	3,516	3,566	3,516	3,566
	212,534	219,843	3,516	3,566

Included in leasehold land of the Group is the carrying value of a long term leasehold and foreshore land of a subsidiary of RM209,018,000 (2019: RM216,277,000) which cannot be disposed off, charged or subleased without the prior consent of the Johor State Government.

16. Intangible assets

	Group Goodwill RM'000	Other intangible assets RM'000	Total RM'000
Cost			
At 1 January 2019	992,030	212,557	1,204,587
Currency translation differences	(9,855)	-	(9,855)
At 31 December 2019/1 January 2020	982,175	212,557	1,194,732
Currency translation differences	(15,547)	-	(15,547)
At 31 December 2020	966,628	212,557	1,179,185
Accumulated amortisation and impairment			
At 1 January 2019	162,501	185,205	347,706
Amortisation for the year (Note 5)	-	6,373	6,373
At 31 December 2019/1 January 2020	162,501	191,578	354,079
Amortisation for the year (Note 5)	-	5,884	5,884
At 31 December 2020	162,501	197,462	359,963
Net carrying amount			
At 31 December 2020	804,127	15,095	819,222
At 31 December 2019	819,674	20,979	840,653

Impairment test for goodwill

(a) Goodwill has been allocated to the Group's CGUs identified according to business segment as follows:

	Group 2020 RM'000	2019 RM'000
Petroleum & Product Shipping	803,902	819,449
Offshore Business	225	225
	804,127	819,674

16. Intangible assets (cont'd.)

(b) The Group performed a review on the recoverable amount of goodwill during the financial year. Generally, the recoverable amounts are based on the higher of fair value less costs to sell or value-in-use for the CGUs to which the goodwill is allocated.

The recoverable amount of a CGU is determined using the value-in-use method, based on cash flow projections derived from financial projections approved by the management covering a five-year period. The discount rate used is based on the pre-tax weighted average cost of capital determined by the management.

Goodwill for the Petroleum & Product Shipping segment represents goodwill arising from acquisition of American Eagle Tanker Inc. ("AET"). An impairment review of the carrying amount of the goodwill at the reporting date was undertaken by comparing to the recoverable amount of the CGU, which was derived based on value-in-use calculations. The value-in-use is most sensitive to the following key assumptions:

(i) Risk adjusted discount rate used is 6.90% (2019: 6.90%). The discount rate reflects the current market assessment of the risks specific to the Petroleum & Product Shipping segment. This is the benchmark used by the management to assess operating performance and to evaluate future investments.

An increase of 1.81% (2019: 0.85%) or 181 (2019: 85) basis points in discount rate would result in recoverable amount that equates to the carrying amount of the CGU.

(ii) Terminal value and growth rate - The terminal value is based on expected cash flows for year 2025 into perpetuity with terminal year growth rate of 1.8% (2019: 2.0%). Terminal year charter rates are referenced to ten-year historical market rates.

A decrease of 9.66% (2019: 4.66%) or 966 (2019: 466) basis points in the charter rates in deriving at the terminal value would result in recoverable amount that equates to the carrying amount of the CGU.

The decrease in terminal growth rate is not sensitive towards the recoverable amount of the CGU.

(iii) Spot and time charter rates are estimated based on forecasts by industry research publications.

17. Investments in subsidiaries

	Corporation 2020 RM'000	Corporation 2019 RM'000
At 1 January	14,986,590	18,669,894
Additional investments in subsidiaries (Note a)	292,438	14,000
Liquidation of a subsidiary (Note b)	-	(3,438,308)
Impairment of investment in unquoted subsidiaries (Note 5(a))	(26,627)	(92,825)
Currency translation differences	(270,513)	(166,171)
At 31 December	14,981,888	14,986,590
Quoted shares	260,459	265,050
Unquoted shares	14,721,429	14,721,540
	14,981,888	14,986,590

Included in unquoted shares are preference shares of RM9,031,255,000 (2019: RM9,062,931,000) which bear interest ranging from 5.00% to 6.00% (2019: 3.00% to 6.00%) per annum.

(a) Additional investments in subsidiaries:

(i) During the current financial year, the Corporation had incorporated a new subsidiary, Magellan X Holdings (L) Pte Ltd ("Magellan X Holdings (L)"), under the Labuan Companies Act, 1990 with a total paid-up capital of RM292,438,000. The principal activities of Magellan X Holdings (L) is investment holding.

(ii) In the previous financial year, the Corporation increased its investment in Eaglestar Marine Holdings (L) Pte. Ltd. ("EMH") by RM14,000,000 in support of the subsidiary's debt capitalisation exercise via issuance of ordinary shares.

(b) In the previous financial year, the Corporation had initiated the liquidation of its wholly owned subsidiary, MTTI Sdn. Bhd. via members' voluntary winding up pursuant to Section 439(1)(b) of the Companies Act 2016. Subsequent to the liquidation commencement, the Corporation derecognised its investment in MTTI Sdn. Bhd. up to the amount of outstanding loan from MTTI Sdn. Bhd. in the previous financial year.

Details of the subsidiaries are disclosed in Note 40.

17. Investments in subsidiaries (cont'd.)

Non-controlling interests in subsidiaries

The Group's subsidiaries that have material non-controlling interests ("NCI") are Malaysia Marine and Heavy Engineering Holdings Berhad ("MHB"), Asia LNG Transport Sdn. Bhd. ("ALT") and Asia LNG Transport Dua Sdn. Bhd. ("ALT 2") as shown below:

	MHB RM'000	ALT RM'000	ALT 2 RM'000	Others* RM'000	Total RM'000
2020					
NCI percentage of ownership interest and voting interest	33.5%	49.0%	49.0%		
Carrying amount of NCI as at 31 December	632,447	125,622	16,304	103,902	878,275
(Loss)/profit allocated to NCI for the year ended 31 December	(138,466)	(2,592)	(85)	14,379	(126,764)
2019					
NCI percentage of ownership interest and voting interest	33.5%	49.0%	49.0%		
Carrying amount of NCI as at 31 December	775,755	130,146	46,386	74,239	1,026,526
(Loss)/profit allocated to NCI for the year ended 31 December	(9,457)	(5,252)	8,567	16,054	9,912

* Other individually immaterial subsidiaries

MISC Berhad
(Incorporated in Malaysia)

17. Investments in subsidiaries (cont'd.)

Non-controlling interests in subsidiaries (cont'd.)

Summarised financial information before intra-group elimination

	MHB RM'000	ALT RM'000	ALT 2 RM'000
As at 31 December 2020			
Non-current assets	1,897,783	83,224	64,132
Current assets	1,248,568	128,546	81,398
Non-current liabilities	(242,964)	-	-
Current liabilities	(937,684)	(1,471)	(235)
Net assets	1,965,703	210,299	145,295
Year ended 31 December 2020			
Revenue	1,566,750	42,040	-
(Loss)/profit for the year	(401,286)	9,815	(173)
Total comprehensive loss	(415,736)	(9,231)	(61,391)
Cash inflows/(outflows) from operating activities	136,062	29,199	(267)
Cash (outflows)/inflows from investing activities	(216,552)	2,612	(49,458)
Cash inflows from financing activities	57,630	-	-
Net (decrease)/increase in cash and cash equivalents	(22,860)	31,811	(49,725)
As at 31 December 2019			
Non-current assets	2,034,854	104,007	15,783
Current assets	1,183,122	101,338	131,242
Non-current liabilities	(187,471)	-	-
Current liabilities	(649,068)	(917)	(146)
Net assets	2,381,437	204,428	146,879

17. Investments in subsidiaries (cont'd.)

Non-controlling interests in subsidiaries (cont'd.)

Summarised financial information before intra-group elimination (cont'd.)

	MHB RM'000	ALT RM'000	ALT 2 RM'000
Year ended 31 December 2019			
Revenue	1,009,541	37,562	161
(Loss)/profit for the year	(34,220)	5,204	19,396
Total comprehensive (loss)/income	(35,780)	(12,960)	15,880
Cash inflows/(outflows) from operating activities	123,852	13,186	(6,439)
Cash (outflows)/inflows from investing activities	(175,497)	(16,146)	89,195
Cash inflows from financing activities	124,015	-	-
Net increase/(decrease) in cash and cash equivalents	72,370	(2,960)	82,756

18. Investments in associates

	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
Unquoted shares outside Malaysia, at cost	325	331	124	124
Share of post-acquisition profit	686	455	-	-
Share of other post-acquisition reserves	(315)	(304)	-	-
Carrying amount of the investment	696	482	124	124

Details of the associates are disclosed in Note 41.

19. Investments in joint ventures

	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
Unquoted shares in Malaysia, at cost	173,228	176,184	167,803	170,762
Unquoted shares outside Malaysia, at cost	221,280	176,124	24,195	24,622
	394,508	352,308	191,998	195,384
Share of post-acquisition profits	423,035	450,736	-	-
Share of other post-acquisition reserves	132,731	201,819	-	-
	950,274	1,004,863	191,998	195,384
Less: Accumulated impairment loss	(77,213)	(79,148)	-	-
Carrying amount of the investment	873,061	925,715	191,998	195,384

a) During the current financial year, the Corporation through its subsidiary, Asia LNG Transport Dua Sdn. Bhd. ("ALT Dua"), a 51%-owned subsidiary of the Corporation entered into a shareholders' agreement with Mitsubishi Corporation ("MC") and Nippon Yusen Kabushiki Kaisha ("NYK") for the acquisition of shares in Diamond LNG Shipping 5 Pte. Ltd. ("DLS5"), a company incorporated in Singapore, from NYK for a cash consideration of RM35,103,000. Subsequent thereto, DLS5 became a 50%-owned joint venture company of ALT Dua and 25% owned by MC and NYK respectively.

b) Pursuant to an Amended and Restated Shareholders’ Agreement entered into on 7 December 2020 between SBM Holding Inc. S.A. (“SBM”) and MISC Offshore Holdings (Brazil) Sdn. Bhd. (“MOHB”), a wholly-owned subsidiary of the Corporation, relating to the operation of joint venture companies for the ownership, conversion, chartering and operation of a Floating Production Storage and Offloading System “Espirito Santo” (“FPSO Espirito Santo”), a new company known as Brazilian Deepwater Production B.V. (“BDPBV”) was incorporated under the laws of The Netherlands. BDPBV is a 49%-owned joint venture company of MOHB and its principal activity is chartering of Floating Production Storage and Offloading System. BDPBV is to replace the original chartering joint venture company named Brazilian Deepwater Production Limited, to own and charter the FPSO Espirito Santo. The total investment in BDPBV by the Group amounts to RM24,000.

c) During the current financial year, the Corporation had on 26 March 2020 completed the transfer of business from Diamond LNG Shipping 6 Ltd. (“DLS6 Bahamas”), a company incorporated in The Bahamas, to Diamond LNG Shipping 6 Pte. Ltd. (“DLS6 Singapore”), a company incorporated in Singapore. The business transfer is to align business ownership structure and optimise cost of operations. Subsequent thereto, DLS6 Singapore became a 50%-owned joint venture company of ALT Dua. The principal activity of DLS6 Singapore is owning and chartering of an LNG vessel. DLS6 Bahamas is to be dissolved thereafter.

19. Investments in joint ventures (cont'd.)

d) The Group has discontinued recognising its share of losses in a joint venture as the share of losses exceeds the Group's interest in this joint venture. As such, the Group did not recognise its share of losses of this joint venture in the current year and the Group's cumulative share of unrecognised losses in this joint venture amounting to RM24,377,000 (2019: RM4,244,000).

e) In the previous financial year, the Corporation through its subsidiary, Asia LNG Transport Dua Sdn. Bhd. ("ALT Dua"), a 51%-owned subsidiary of the Corporation entered into a shareholders' agreement with MC and NYK for the acquisition of shares in DLS6 Bahamas, a company incorporated in The Bahamas, from NYK for a cash consideration of RM15,949,000. Subsequent thereto, DLS6 became a 50%-owned joint venture company of ALT Dua and 25% owned by MC and NYK respectively.

f) In the previous financial year, the Corporation entered into a shareholders agreement between the Corporation and Avenir LNG Limited ("Avenir") to incorporate a joint venture company. Pursuant to that, Future Horizon (L) Pte. Ltd. ("Future Horizon"), then a wholly-owned subsidiary of the Corporation had increased its issued and paid up capital by the issuance and allotment of new ordinary shares to the Corporation and Avenir. Upon completion of the allotment of shares, Future Horizon became a 51%-owned joint venture company of the Corporation. The total investment in Future Horizon by the Corporation amounts to RM42,000.

Details of the joint ventures are disclosed in Note 42.

The material joint ventures are Malaysia Deepwater Floating Terminal (Kikeh) Limited ("MDFT") and Malaysia Vietnam Offshore Terminal (L) Limited ("MVOT").

The following tables summarise the financial information of the Group’s material joint ventures, as adjusted for any differences in accounting policies and reconciles the information to the carrying amount of the Group’s interest in joint ventures.

The summarised financial information of the material joint ventures are as follows:

	MDFT RM'000	MVOT RM'000
As at 31 December 2020		
Non-current assets	823,678	713,825
Current assets	2	114,200
Cash and cash equivalents	10,505	214,498
Non-current liabilities	-	(907)
Current liabilities	(39,741)	(410,658)
Net assets	794,444	630,958

19. Investments in joint ventures (cont'd.)

	MDFT RM'000	MVOT RM'000
Year ended 31 December 2020		
Profit after taxation/total comprehensive income	196,479	65,471
Included in the total comprehensive income is:		
Revenue	403,806	301,542
Other income	74	209
Depreciation and amortisation	(201,049)	(248)
Interest income	37	254
Interest expenses	-	(146)
Income tax expense	(5,991)	(2,315)
As at 31 December 2019		
Non-current assets	1,034,353	274,491
Current assets	2	417,665
Cash and cash equivalents	227	51,065
Current liabilities	(61,178)	(165,022)
Net assets	973,404	578,199
Year ended 31 December 2019		
Profit after taxation/total comprehensive income	196,323	92,462
Included in the total comprehensive income is:		
Revenue	400,512	489,521
Other income	-	65
Depreciation and amortisation	(198,218)	(564)
Interest income	91	234
Income tax expense	(6,073)	(6,917)

19. Investments in joint ventures (cont'd.)

Group

	2020			
	MDFT RM'000	**MVOT RM'000**	**Others* RM'000**	**Total RM'000**
Reconciliation of net assets to carrying amount				
As at 31 December				
Group's share of net assets	405,166	321,788	196,880	923,834
Elimination of unrealised (profits)/loss	(22,682)	2,089	(30,180)	(50,773)
Carrying amount in the statement of financial position	382,484	323,877	166,700	873,061
Group's share of results				
Year ended 31 December				
Group's share of profit after taxation/ total comprehensive income	103,285	34,097	291,400	428,782

	2019			
	MDFT RM'000	**MVOT RM'000**	**Others* RM'000**	**Total RM'000**
Reconciliation of net assets to carrying amount				
As at 31 December				
Group's share of net assets	496,436	294,881	162,436	953,753
Elimination of unrealised profits	(25,762)	-	(2,276)	(28,038)
Carrying amount in the statement of financial position	470,674	294,881	160,160	925,715
Group's share of results				
Year ended 31 December				
Group's share of profit after taxation/ total comprehensive income	100,125	47,156	103,348	250,629

* Other individually immaterial joint ventures

20. Other financial assets and financial liabilities

(a) Other non-current financial assets

	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
Unquoted equity investments (Note 37)	63,498	65,137	63,483	65,122
Quoted equity investment (Note 37)	40,671	47,255	40,671	47,255
Total equity instruments	104,169	112,392	104,154	112,377
Long term receivables (Note 37)	103,546	113,511	-	-
Loans and advances:				
Subsidiaries	-	-	616,600	967,378
Associate	2,417	2,460	2,417	2,460
Joint venture	181,787	-	-	-
	184,204	2,460	619,017	969,838
Less:				
Impairment on loans to associate	(2,417)	(2,460)	(2,417)	(2,460)
Net loans and advances (Note 22)	181,787	-	616,600	967,378
Total long term receivables	285,333	113,511	616,600	967,378
Total other non-current financial assets	389,502	225,903	720,754	1,079,755

Long term receivables relate to a subsidiary's accrued revenue earned but not invoiced.

The loans and advances to subsidiaries are unsecured and bear interest ranging from 1.54% to 4.25% (2019: 3.00% to 4.70%) per annum.

20. Other financial assets and financial liabilities (cont'd.)

(b) Derivative liabilities

	Group 2020 RM'000	Group 2019 RM'000
Derivative liabilities		
Current:		
Forward currency contracts (i)	11,671	1,560
Non-current:		
Forward currency contracts (i)	7,572	-
Interest rate swaps ("IRS") - effective hedges (ii)	519,454	158,360

(i) As at 31 December 2020, the Group held forward currency contracts designated as hedges of future payments denominated in USD. The forward currency contracts are being used to hedge the foreign currency risk of the highly probable forecasted transactions. The notional amount of the currency hedging arrangement as at 31 December 2020 was RM596.9 million (2019: RM119.0 million).

(ii) The Group entered into IRS arrangements to hedge certain USD term loan facilities. Under these arrangements, the Group pays fixed interest rate ranging from 0.62% - 3.19% (2019: 1.79% - 3.19%) per annum and receives cash flows at floating rates. The IRS arrangements entered by the Group mature between year 2022 and year 2030 (2019: year 2022 and year 2030). The notional amount of the IRS arrangement as at 31 December 2020 was RM10.2 billion (2019: RM7.6 billion).

(c) Interest-bearing loans and borrowings

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
Short term borrowings				
Secured:				
Term loans				
Fixed rate	1,070,032	750,408	-	-
Floating rate	408,467	1,425,203	-	-
Revolving credits	-	2,354,594	-	-
	1,478,499	4,530,205	-	-

20. Other financial assets and financial liabilities (cont'd.)

(c) Interest-bearing loans and borrowings (cont'd.)

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
Short term borrowings				
Unsecured:				
Revolving credits	342,423	755,128	342,423	755,128
Loans from subsidiaries				
Fixed rate	-	-	167,548	113,099
Floating rate	-	-	59,323	737,910
Lease liabilities	184,601	314,148	14,384	13,875
	527,024	1,069,276	583,678	1,620,012
	2,005,523	5,599,481	583,678	1,620,012
Long term borrowings				
Secured:				
Term loans				
Fixed rate (Note 37)	9,293,628	7,009,714	-	-
Floating rate	1,683,865	219,012	-	-
	10,977,493	7,228,726	-	-
Unsecured:				
Revolving credit	292,738	-	-	-
Loans from subsidiaries				
Floating rate	-	-	625,522	-
Lease liabilities	164,632	323,966	15,537	29,908
	457,370	323,966	641,059	29,908
	11,434,863	7,552,692	641,059	29,908
Total borrowings				
Term loans	12,455,992	9,404,337	-	-
Revolving credits	635,161	3,109,722	342,423	755,128
Loans from subsidiaries	-	-	852,393	851,009
Lease liabilities	349,233	638,114	29,921	43,783
	13,440,386	13,152,173	1,224,737	1,649,920

20. Other financial assets and financial liabilities (cont'd.)

(c) Interest-bearing loans and borrowings (cont'd.)

The secured term loans and revolving credits are secured by mortgages over certain ships, together with charter agreements and insurance of the relevant assets as well as retention accounts. The carrying values of the ships pledged and retention accounts restricted for use are stated in Note 14(a) and Note 24 respectively.

The range of interest rates as at the reporting date of the above interest-bearing loans and borrowings are as follows:

	Group		Corporation	
	2020	2019	2020	2019
	%	%	%	%
Fixed rate				
Term loans	1.85-4.44	2.90-4.44	-	-
Loans from subsidiaries	-	-	3.00	3.00
Lease liabilities	3.49-6.73	3.49-6.83	3.49	3.49
Floating rate				
Term loans	1.24-1.74	2.91-3.41	-	-
Revolving credits	0.89-1.59	2.48-2.91	0.89-1.39	2.48-2.66
Loans from subsidiaries	-	-	1.74	2.56

20. Other financial assets and financial liabilities (cont'd.)

(c) Interest-bearing loans and borrowings (cont'd.)

Changes in liabilities arising from financing activities:

	Group			
	Term Loans RM'000	Revolving Credits RM'000	Lease Liabilities RM'000	Total RM'000
At 1 January 2020	9,404,337	3,109,722	638,114	13,152,173
Drawdown/additions	6,208,196	1,245,768	37,952	7,491,916
Repayment	(2,824,030)	(3,773,994)	(339,678)	(6,937,702)
Amortisation of upfront fees	18,102	3,429	-	21,531
Accretion of interest (Note 10(b))	-	-	23,376	23,376
Termination of lease contract	-	-	(12,593)	(12,593)
The effect of changes in foreign exchange rates	(350,613)	50,236	2,062	(298,315)
At 31 December 2020	**12,455,992**	**635,161**	**349,233**	**13,440,386**

	Corporation			
	Loans from subsidiaries RM'000	Revolving Credits RM'000	Lease Liabilities RM'000	Total RM'000
At 1 January 2020	851,009	755,128	43,783	1,649,920
Drawdown/additions	770,366	735,303	-	1,505,669
Repayment	(756,311)	(1,152,114)	(15,208)	(1,923,633)
Accretion of interest (Note 10(b))	-	-	1,312	1,312
The effect of changes in foreign exchange rates	(12,671)	4,106	34	(8,531)
At 31 December 2020	**852,393**	**342,423**	**29,921**	**1,224,737**

20. Other financial assets and financial liabilities (cont'd.)

(c) Interest-bearing loans and borrowings (cont'd.)

	Group			
	Term Loans RM'000	Revolving Credits RM'000	Lease Liabilities RM'000	Total RM'000
At 1 January 2019	10,099,715	2,950,191	987,881	14,037,787
Drawdown/additions	5,388,187	187,111	178,866	5,754,164
Repayment	(5,992,531)	(1,500)	(489,946)	(6,483,977)
Amortisation of upfront fees	12,496	7,963	-	20,459
Transaction cost paid	(1,919)	-	-	(1,919)
Accretion of interest (Note 10(b))	-	-	42,112	42,112
Termination of lease contract	-	-	(75,465)	(75,465)
The effect of changes in foreign exchange rates	(101,611)	(34,043)	(5,334)	(140,988)
At 31 December 2019	**9,404,337**	**3,109,722**	**638,114**	**13,152,173**

	Corporation			
	Loans from subsidiaries RM'000	Revolving Credits RM'000	Lease Liabilities RM'000	Total RM'000
At 1 January 2019	5,533,954	763,416	54,581	6,351,951
Drawdown/additions	859,944	-	2,429	862,373
Repayment	(2,093,029)	-	(15,051)	(2,108,080)
Liquidation of a subsidiary (Note 17)	(3,438,308)	-	-	(3,438,308)
Accretion of interest (Note 10(b))	-	-	1,763	1,763
The effect of changes in foreign exchange rates	(11,552)	(8,288)	61	(19,779)
At 31 December 2019	**851,009**	**755,128**	**43,783**	**1,649,920**

20. Other financial assets and financial liabilities (cont'd.)

(c) Interest-bearing loans and borrowings (cont'd.)

The following tables set out the carrying amounts of liabilities as at the reporting date and the remaining maturities of the Group's and the Corporation's financial instruments:

At 31 December 2020	Within 1 year RM'000	More than 1 year and within 2 years RM'000	More than 2 years and within 3 years RM'000	More than 3 years and within 4 years RM'000	More than 4 years and within 5 years RM'000	More than 5 years RM'000	Total RM'000
Group							
Fixed rate							
Term loans	1,070,032	1,652,809	980,424	1,024,157	1,039,984	4,596,254	10,363,660
Lease liabilities	184,601	106,504	28,661	6,264	6,053	17,150	349,233
	1,254,633	1,759,313	1,009,085	1,030,421	1,046,037	4,613,404	10,712,893
Floating rate							
Term loans	408,467	204,856	217,493	225,423	388,273	647,820	2,092,332
Revolving credits	342,423	292,738	-	-	-	-	635,161
	750,890	497,594	217,493	225,423	388,273	647,820	2,727,493
Total borrowings	2,005,523	2,256,907	1,226,578	1,255,844	1,434,310	5,261,224	13,440,386
Corporation							
Fixed rate							
Loans from subsidiaries	167,548	-	-	-	-	-	167,548
Lease liabilities	14,384	14,896	547	94	-	-	29,921
	181,932	14,896	547	94	-	-	197,469
Floating rate							
Revolving credits	342,423	-	-	-	-	-	342,423
Loans from subsidiaries	59,323	625,522	-	-	-	-	684,845
	401,746	625,522	-	-	-	-	1,027,268
Total borrowings	583,678	640,418	547	94	-	-	1,224,737

20. Other financial assets and financial liabilities (cont'd.)

(c) Interest-bearing loans and borrowings (cont'd.)

At 31 December 2019	Within 1 year RM'000	More than 1 year and within 2 years RM'000	More than 2 years and within 3 years RM'000	More than 3 years and within 4 years RM'000	More than 4 years and within 5 years RM'000	More than 5 years RM'000	Total RM'000
Group							
Fixed rate							
Term loans	750,408	789,246	1,364,861	678,489	720,761	3,456,357	7,760,122
Lease liabilities	314,148	189,740	67,914	36,554	6,382	23,376	638,114
	1,064,556	978,986	1,432,775	715,043	727,143	3,479,733	8,398,236
Floating rate							
Term loans	1,425,203	219,012	-	-	-	-	1,644,215
Revolving credits	3,109,722	-	-	-	-	-	3,109,722
	4,534,925	219,012	-	-	-	-	4,753,937
Total borrowings	5,599,481	1,197,998	1,432,775	715,043	727,143	3,479,733	13,152,173
Corporation							
Fixed rate							
Loans from subsidiaries	113,099	-	-	-	-	-	113,099
Lease liabilities	13,875	14,367	14,878	528	135	-	43,783
	126,974	14,367	14,878	528	135	-	156,882
Floating rate							
Revolving credits	755,128	-	-	-	-	-	755,128
Loans from subsidiaries	737,910	-	-	-	-	-	737,910
	1,493,038	-	-	-	-	-	1,493,038
Total borrowings	1,620,012	14,367	14,878	528	135	-	1,649,920

20. Other financial assets and financial liabilities (cont'd.)

(d) Finance lease receivables

Finance lease receivables represent lease rental and interest receivable due from customers in relation to the lease of ships and offshore floating assets by the Group and the Corporation.

The following table sets out maturity analysis of lease receivables, showing undiscounted lease payments to be received after the reporting date.

	Group		Corporation	
	2020	**2019**	**2020**	**2019**
	RM'000	**RM'000**	**RM'000**	**RM'000**
Less than 1 year	2,180,922	2,333,665	146,305	149,291
1 to 2 years	2,025,787	2,210,340	146,305	148,884
2 to 3 years	2,042,492	2,066,592	146,305	148,884
3 to 4 years	1,972,797	2,085,346	146,706	148,884
4 to 5 years	1,885,547	2,014,173	146,305	149,291
More than 5 years	10,798,036	11,970,577	739,634	901,552
Total undiscounted lease payments	20,905,581	22,680,693	1,471,560	1,646,786
Unearned interest income	(5,804,875)	(6,211,906)	(469,788)	(555,519)
Net investment in lease	15,100,706	16,468,787	1,001,772	1,091,267

The following table sets out maturity analysis of the present value of lease receivables, showing the discounted lease payments to be received after the reporting date.

	Group		Corporation	
	2020	**2019**	**2020**	**2019**
	RM'000	**RM'000**	**RM'000**	**RM'000**
Less than 1 year	1,282,856	1,387,678	75,514	71,840
1 to 2 years	1,201,506	1,345,722	81,227	76,845
2 to 3 years	1,291,937	1,281,873	87,372	82,659
3 to 4 years	1,301,989	1,377,393	94,406	88,912
4 to 5 years	1,293,091	1,392,280	101,126	96,070
More than 5 years	8,729,327	9,683,841	562,127	674,941
	15,100,706	16,468,787	1,001,772	1,091,267
Less: Impairment (Note 22)	(63,335)	(73,138)	(6,512)	(7,421)
	15,037,371	16,395,649	995,260	1,083,846

20. Other financial assets and financial liabilities (cont'd.)

(d) Finance lease receivables (cont'd.)

The following table sets out maturity analysis of the present value of lease receivables, showing the discounted lease payments to be received after the reporting date

	Group		Corporation	
	2020	**2019**	**2020**	**2019**
	RM'000	**RM'000**	**RM'000**	**RM'000**
Analysed as:				
Due within 12 months (Note 22)	1,282,856	1,387,678	75,514	71,840
Due after 12 months (Note 22)	13,754,515	15,007,971	919,746	1,012,006
	15,037,371	16,395,649	995,260	1,083,846

The effective interest rate of the Group's finance lease receivables is between 3.75% to 7.60% (2019: 4.10% to 7.60%). Included in minimum lease receivables are the estimated unguaranteed residual values of the leased assets of RM576,575,000 (2019: RM557,323,000).

The effective interest rate of the Corporation's finance lease receivables is 7.60% (2019: 7.60%). Included in minimum lease receivables is the estimated unguaranteed residual value of the leased assets of RM32,094,000 (2019: RM32,659,000).

As at the end of the financial year, the Group recognised additional finance lease receivables amounting to RM519,968,000 (2019: RM154,014,000) in relation to the delivery of a ship.

21. Inventories

	Group 2020 RM'000	Group 2019 RM'000
At cost	91,349	165,731

Inventories consist of bunkers, lubricants and raw materials. The cost of inventories recognised as cost of sales during the financial year of the Group was RM730,514,000 (2019: RM915,284,000).

22. Trade and other receivables

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
Trade receivables				
Third parties	2,294,520	2,603,223	471,397	517,724
Fellow subsidiaries	104,405	73,147	2,512	28,733
Associates	26	44	26	44
Joint ventures	75,181	30,952	34,029	26,532
	2,474,132	2,707,366	507,964	573,033
Finance lease receivables (Note 20(d))	1,282,856	1,387,678	75,514	71,840
Due from customers on contracts (Note 23)	491,259	39,137	-	-
	4,248,247	4,134,181	583,478	644,873
Less: Impairment loss on trade receivables:				
Third parties	(604,492)	(641,334)	(303,467)	(355,655)
Joint ventures	(21,770)	(22,154)	(21,770)	(22,154)
	(626,262)	(663,488)	(325,237)	(377,809)
Trade receivables, net	3,621,985	3,470,693	258,241	267,064

22. Trade and other receivables (cont'd.)

	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
Other receivables				
Amount due from related parties:				
Holding company	109	109	-	-
Subsidiaries	-	-	1,375,158	740,780
Fellow subsidiaries	69	9,297	-	-
Joint ventures	9,278	10,384	807	1,408
	9,456	19,790	1,375,965	742,188
Loans and advances:				
Subsidiaries	-	-	597,392	692,525
Deposits	11,425	10,058	2,276	2,315
Prepayments	1,592,105	193,875	1,288,542	6,765
Others	172,805	237,001	42,287	39,983
	1,785,791	460,724	3,306,462	1,483,776
Less: Impairment loss on other receivables:				
Third parties	(1,066)	(712)	(123)	(71)
Subsidiaries	-	-	(4,048)	(3,629)
	(1,066)	(712)	(4,171)	(3,700)
Other receivables, net	1,784,725	460,012	3,302,291	1,480,076
Total trade and other receivables	**5,406,710**	**3,930,705**	**3,560,532**	**1,747,140**
Add: Cash, deposits and bank balances (Note 24)	6,855,005	7,030,814	1,620,947	2,817,049
Add: Net loans and advances (Note 20(a))	181,787	-	616,600	967,378
Add: Long term receivables (Note 20a))	103,546	113,511	-	-
Add: Long term finance lease receivables (Note 20(d))	13,754,515	15,007,971	919,746	1,012,006
Less: Due from customers on contracts (Note 23)	(491,259)	(39,137)	-	-
Less: Prepayments	(1,592,105)	(193,875)	(1,288,542)	(6,765)
Total financial assets carried at amortised cost	24,218,199	25,849,989	5,429,283	6,536,808

(a) Trade receivables

The Group's normal trade credit terms with its customers range from 7 to 90 days (2019: 7 to 90 days). Other credit terms are assessed and approved on a case-by-case basis and each customer is assigned a maximum credit limit.

22. Trade and other receivables (cont'd.)

(b) Other receivables and amounts due from related parties

The non-trade balances due from holding company, subsidiaries, associates and joint ventures arose in the normal course of business. Certain loans and advances to subsidiaries bear interest ranging from 1.54% to 4.70% (2019: 3.00% to 4.70%) per annum.

The ageing of trade receivables net of impairment (excluding amount due from customers on contracts and finance lease receivables) as at the end of the reporting period is analysed below:

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
At net				
Current	677,020	952,764	161,194	165,440
Past due 1-30 days	178,894	186,832	2,405	26,418
Past due 31-60 days	104,425	38,806	11,402	2,349
Past due 61-90 days	129,480	26,783	1,824	1,017
Past due more than 90 days	758,051	838,693	5,902	-
	1,847,870	2,043,878	182,727	195,224

The movement in the allowance for impairment loss of trade, other and finance lease receivables during the year are as follows:

	Group		Corporation	
	Trade and Other Receivables RM'000	Finance Lease Receivables RM'000 (Note 20(d))	Trade and Other Receivables RM'000	Finance Lease Receivables RM'000 (Note 20(d))
At 1 January 2020	664,200	73,138	381,509	7,421
Impairment loss (Note 5)	34,563	-	13,915	-
Write back of impairment loss (Note 4)	-	(8,878)	(136)	(814)
Write off	(42,017)	-	(42,017)	-
Unwinding of discount on trade receivables (Note 10(a))	(18,821)	-	(18,821)	-
Currency translation differences	(10,597)	(925)	(5,042)	(95)
At 31 December 2020	627,328	63,335	329,408	6,512

22. Trade and other receivables (cont'd.)

(b) Other receivables and amounts due from related parties (cont'd.)

	Group		Corporation	
	Trade and Other Receivables RM'000	Finance Lease Receivables RM'000 (Note 20(d))	Trade and Other Receivables RM'000	Finance Lease Receivables RM'000 (Note 20(d))
At 1 January 2019	709,961	79,398	436,574	7,872
Impairment loss (Note 5)	36,839	-	22,019	-
Write back of impairment loss (Note 4)	-	(5,455)	-	(369)
Write off	(41,425)	-	(41,425)	-
Unwinding of discount on trade receivables (Note 10(a))	(16,477)	-	(16,477)	-
Currency translation differences	(24,698)	(805)	(19,182)	(82)
At 31 December 2019	664,200	73,138	381,509	7,421

23. Due from/(to) customers on contracts

	Group	
	2020 RM'000	2019 RM'000
Construction contract costs incurred and recognised profits to date	4,967,569	4,174,689
Less: Progress billings	(4,491,705)	(4,141,545)
	475,864	33,144
Due from customers on contracts (Note 22)	491,259	39,137
Due to customers on contracts (Note 26)	(15,395)	(5,993)
	475,864	33,144

The movement of amount due from/(to) customers on contracts is as follows:

	Group	
	2020 RM'000	2019 RM'000
At the beginning of the year	33,144	218,880
Revenue recognised during the year (Note 3)	1,926,878	936,523
Progress billings during the year	(1,484,158)	(1,122,259)
At the end of the year	475,864	33,144

24. Cash, deposits and bank balances

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
Cash with PETRONAS Integrated Financial Shared Services Centre	4,023,265	4,355,497	1,609,734	2,803,030
Cash and bank balances	1,840,120	1,561,907	42	86
Deposits with licensed banks	991,620	1,113,410	11,171	13,933
	6,855,005	7,030,814	1,620,947	2,817,049

To allow more efficient cash management for the Group and the Corporation, the Group's and the Corporation's cash and bank balances have, since 1 July 2013, been held in the In-House Account ("IHA") managed by PETRONAS Integrated Financial Shared Services Centre ("IFSSC").

Included in cash and bank balances and deposits with licensed banks of the Group is the retention account of RM1,303,393,000 (2019: RM1,289,730,000) which is restricted for use because of the requirement of loan covenants.

Included in cash with IFSSC and cash and bank balances of the Group and the Corporation are interest-bearing balances amounting to RM5,863,385,000 (2019: RM5,917,404,000) and RM1,609,776,000 (2019: RM2,803,116,000) respectively.

Other information on financial risks of cash and cash equivalents are disclosed in Note 38.

25. Non-current assets classified as held for sale

	Group 2020 RM'000	2019 RM'000
Ships and offshore floating assets	4,834	125,278

The movement during the financial year relating to non-current assets held for sale are as follows:

	Group 2020 RM'000	2019 RM'000
At 1 January	125,278	-
Write down (Note 5(a))	(10,216)	-
Transfer from ships and offshore floating assets (Note 14)	118,193	446,837
Disposals	(231,337)	(320,244)
Currency translation differences	2,916	(1,315)
At 31 December	4,834	125,278

In the current financial year, the Group has classified certain ships and offshore floating assets as held for sale with the intention of disposal in the immediate future.

26. Trade and other payables

	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
Trade payables				
Third parties	61,210	153,988	3,875	5,883
Subsidiaries	-	-	172,740	117,325
Holding company	10,430	6,824	9,914	6,567
Fellow subsidiaries	254	1,341	3	30
Accruals	1,033,681	982,004	132,798	266,642
Deferred income (Note 30)	194,939	102,626	-	-
Due to customers on contracts (Note 23)	15,395	5,993	-	-
	1,315,909	1,252,776	319,330	396,447
Other payables				
Amount due to related parties:				
Subsidiaries	-	-	305,112	339,311
Holding company	459	457	406	404
Fellow subsidiaries	690	6	-	4
Associates	965	965	-	-
Joint ventures	68,938	67,583	-	2,923
Accruals	533,919	562,075	46,912	40,867
Provisions (Note 26(c))	1,187,960	43,566	22,848	42,928
Others	400,413	259,160	329,130	174,045
	2,193,344	933,812	704,408	600,482

26. Trade and other payables (cont'd.)

	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
Total trade and other payables	**3,509,253**	**2,186,588**	**1,023,738**	**996,929**
Add: Total borrowings (Note 20(c))	13,440,386	13,152,173	1,224,737	1,649,920
Less: Due to customers on contracts (Note 23)	(15,395)	(5,993)	-	-
Less: Provisions (Note 26(c))	(1,187,960)	(43,566)	(22,848)	(42,928)
Less: Deferred income (Note 30)	(194,939)	(102,626)	-	-
Total financial liabilities carried at amortised cost	15,551,345	15,186,576	2,225,627	2,603,921

(a) Trade payables

Trade payables are non-interest bearing and the normal trade credit terms granted to the Group ranges from 14 to 90 days (2019: 14 to 90 days).

(b) Other payables and amounts due to related parties

The non-trade balances due to holding company, subsidiaries, fellow subsidiaries, associates and joint ventures arose in the normal course of business.

(c) Provisions

	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
At 1 January	43,566	72,717	42,928	64,950
Arose during the year	1,215,213	-	-	-
Utilised	(20,803)	(28,665)	(20,169)	(21,541)
Currency translation differences	(50,016)	(486)	89	(481)
At 31 December	1,187,960	43,566	22,848	42,928

27. Share capital and treasury shares

	Group and Corporation			
	Number of shares		Amount	
	Share Capital '000	Treasury Shares '000	Share Capital RM'000 (i)	Treasury Shares RM'000
At 1 January/31 December 2020	4,463,794	(47)	8,923,262	(271)
At 1 January/31 December 2019	4,463,794	(47)	8,923,262	(271)

(i) The Group has one issued special preference share of RM1.

The special preference share, which may only be held by the Ministry of Finance (Incorporated) ("MoF") or its successors or any Minister, representative, or any person acting on behalf of the Government of Malaysia, carries rights as provided in the Corporation's Constitution. Certain matters, in particular the alterations of specified Rules in the Constitution, require the prior approval of the holder of the special preference share.

The holder of the special preference share is not entitled to any dividend nor to participate in the capital distribution upon dissolution of the Corporation but shall rank for repayment in priority to all other shares. The share does not carry any right to vote at General Meetings but the holder is entitled to attend and speak at such meetings.

28. Other reserves

	Revaluation Reserve RM'000 28(a)	Capital Reserve RM'000 28(b)	Other Capital Reserve RM'000 28(c)	Statutory Reserve RM'000 28(d)	Hedging Reserve RM'000 28(e)	Currency Translation Reserve RM'000 28(f)	Total RM'000
Group							
At 1 January 2020	1,357	435,199	99,299	3,161	(159,929)	5,681,164	6,060,251
Currency translation differences:							
Group	-	-	-	-	-	(509,186)	(509,186)
Associate	-	-	-	-	-	(11)	(11)
Joint ventures	-	-	-	-	-	(11,503)	(11,503)
Fair value loss on cash flow hedges:							
Group	-	-	-	-	(387,618)	-	(387,618)
Joint ventures	-	-	-	-	(29,928)	-	(29,928)
At 31 December 2020	1,357	435,199	99,299	3,161	(577,475)	5,160,464	5,122,005

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28. Other reserves (cont'd.)

	Revaluation Reserve RM'000	Capital Reserve RM'000	Other Capital Reserve RM'000	Statutory Reserve RM'000	Hedging Reserve RM'000	Currency Translation Reserve RM'000	Total RM'000
	28(a)	28(b)	28(c)	28(d)	28(e)	28(f)	
Group							
At 1 January 2019	1,357	435,199	99,299	3,161	2,956	6,042,032	6,584,004
Currency translation differences:							
Group	-	-	-	-	-	(353,608)	(353,608)
Associate	-	-	-	-	-	(1)	(1)
Joint ventures	-	-	-	-	-	(7,259)	(7,259)
Fair value loss on cash flow hedges:							
Group	-	-	-	-	(162,885)	-	(162,885)
At 31 December 2019	1,357	435,199	99,299	3,161	(159,929)	5,681,164	6,060,251

28. Other reserves (cont'd.)

The nature and purpose of each category of reserves are as follows:

(a) Revaluation reserve

Revaluation reserve represents surplus arising from revaluation of certain freehold land.

(b) Capital reserve

Capital reserve represents reserve arising from bonus issue by subsidiaries.

(c) Other capital reserve

Other capital reserve represents the Group’s share of its subsidiaries' reserve.

(d) Statutory reserve

Statutory reserve is maintained by overseas subsidiaries and joint ventures in accordance with the laws of the host countries.

(e) Hedging reserve

Hedging reserve represents the effective portion of the gain or loss on hedging instruments in the Group's cash flow hedges and includes the Group's share of hedging reserve of joint ventures.

(f) Currency translation reserve

Currency translation reserve comprises all foreign exchange differences arising from translation of the financial statements of the Corporation and foreign operations with different functional currencies from that of the Group's presentation currency.

29. Deferred tax

	Group 2020 RM'000	2019 RM'000
At 1 January	(72,592)	(71,961)
Recognised in income statement (Note 11):		
In Malaysia	(128)	(229)
Outside Malaysia	(24,061)	78
	(24,189)	(151)
Currency translation differences	169	(480)
At 31 December	(96,612)	(72,592)
Presented after appropriate offsetting as follows:		
Deferred tax assets	(104,433)	(103,499)
Deferred tax liabilities	7,821	30,907
	(96,612)	(72,592)

The components and movements of deferred tax liabilities and assets during the financial year, prior to offsetting are as follows:

Deferred tax liabilities of the Group:

	Accelerated capital allowances RM'000	Others RM'000	Total RM'000
At 1 January 2020	99,086	21,573	120,659
Recognised in income statement:			
In Malaysia	(12,440)	-	(12,440)
Outside Malaysia	(2,412)	(19,668)	(22,080)
At 31 December 2020	84,234	1,905	86,139

29. Deferred tax (cont'd.)

Deferred tax liabilities of the Group (cont'd.):

	Accelerated capital allowances RM'000	Others RM'000	Total RM'000
At 1 January 2019	91,733	22,140	113,873
Recognised in income statement:			
In Malaysia	7,353	-	7,353
Outside Malaysia	-	(567)	(567)
At 31 December 2019	99,086	21,573	120,659

Deferred tax assets of the Group:

	Other payables RM'000	Tax losses, investment tax allowances and unabsorbed capital allowances RM'000	Others RM'000	Total RM'000
At 1 January 2020	(17,480)	(154,641)	(21,130)	(193,251)
Recognised in income statement:				
In Malaysia	1,310	13,914	(2,912)	12,312
Outside Malaysia	-	-	(1,981)	(1,981)
Currency translation differences	69	-	100	169
At 31 December 2020	(16,101)	(140,727)	(25,923)	(182,751)
At 1 January 2019	(17,965)	(145,460)	(22,409)	(185,834)
Recognised in income statement:				
In Malaysia	372	(9,181)	1,227	(7,582)
Outside Malaysia	645	-	-	645
Currency translation differences	(532)	-	52	(480)
At 31 December 2019	(17,480)	(154,641)	(21,130)	(193,251)

29. Deferred tax (cont'd.)

Deferred tax assets have not been recognised in respect of the following items:

	Group		Corporation	
	2020	2019	2020	2019
	RM'000	RM'000	RM'000	RM'000
Unused tax losses	5,410,156	5,526,840	5,367,154	5,486,705
Unabsorbed capital allowances	39,714	33,507	-	-
Unabsorbed investment tax allowances	709,378	24,534	-	-
Other deductible temporary differences	5,931	170	-	-
	6,165,179	5,585,051	5,367,154	5,486,705

In Malaysia, the unused tax losses can be carried forward and available for use for 7 years starting from the year of assessment 2019. The unused tax losses of the Corporation relate to the loss making non-resident ships and can be utilised to offset against future taxable profits.

The unabsorbed capital allowances and unabsorbed investment tax allowances are available indefinitely for offsetting against future taxable profits of the respective entities within the Group, subject to tax law and tax guidance issued by the tax authority enacted at the reporting date.

Deferred tax assets have not been recognised for certain subsidiaries with recent history of losses.

30. Deferred income

	Group	
	2020	2019
	RM'000	RM'000
At 1 January	668,950	682,668
Recognised during the year in income statement	(404,167)	(100,296)
Advances received during the year	1,121,691	93,808
Currency translation differences	(41,075)	(7,230)
At 31 December	1,345,399	668,950
Current (Note 26)	194,939	102,626
Non-current	1,150,460	566,324
	1,345,399	668,950

Deferred income relates to time charter income paid in advance by customers.

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31. Cash flows from investing activities

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
Purchase of ships, offshore floating assets and other property, plant and equipment	(5,108,280)	(2,160,987)	(105,121)	(169,222)
Loan to a subsidiary	-	-	(179,536)	-
Loan to a joint venture	(189,604)	-	-	-
Acquisition of a business	-	(130,283)	-	(130,283)
Dividend received from:				
Quoted and unquoted equity investments	1,087	1,572	1,087	1,703
Subsidiaries	-	-	1,382,324	1,283,518
Joint ventures	456,056	285,422	221,371	207,769
Net repayment of loans due from subsidiaries	-	-	833,129	711,179
Proceeds from disposal of ships, offshore floating assets and other property, plant and equipment and non-current assets classified as held for sale	497,847	373,684	-	-
Investment in a subsidiary	-	-	(292,438)	-
Investment in joint ventures	(50,547)	(15,991)	-	(42)
Interest received	81,293	126,181	29,004	54,041
Net fixed deposit (placement)/ withdrawal	(5,874)	1,677	-	-
Payment of prepaid lease	-	(14,300)	-	-
Net cash (used in)/generated from investing activities	(4,318,022)	(1,533,025)	1,889,820	1,958,663

32. Cash flows from financing activities

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
Drawdown of term loans	6,208,196	5,388,187	-	-
Drawdown of revolving credits	1,245,768	187,111	735,303	-
Drawdown of loans from subsidiaries	-	-	770,366	859,944
Repayment of term loans	(2,824,030)	(5,992,531)	-	-
Repayment of revolving credits	(3,773,994)	(1,500)	(1,152,114)	-
Repayment of loan due to subsidiaries	-	-	(756,311)	(2,093,029)
Dividends (Note 13)	(1,473,035)	(1,339,123)	(1,473,035)	(1,339,123)
Dividends paid to minority shareholders of subsidiaries	(3,000)	(3,000)	-	-
Interest paid	(414,747)	(492,700)	(28,013)	(128,597)
Payment of lease liabilities	(316,302)	(447,834)	(13,896)	(13,288)
Placement of cash pledged with bank - restricted	(37,563)	(1,071,301)	-	-
Net cash used in financing activities	(1,388,707)	(3,772,691)	(1,917,700)	(2,714,093)

33. Related party disclosures

In addition to related party disclosures elsewhere in the financial statements, set out below are other significant related party transactions. The directors are of the opinion that, unless otherwise stated, the transactions below have been entered into in the normal course of business at terms agreed between the parties during the financial year.

As the holding company is wholly owned by the MoF, the Group is deemed to be related to entities that are controlled, jointly controlled or significantly influenced by the Government of Malaysia.

33. Related party disclosures (cont'd.)

	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
(a) Income from fellow subsidiaries				
Freight and charter hire revenue	2,174,576	2,006,230	724,723	676,772
Fabrication services	1,088,599	530,094	-	-
Finance lease income	344,699	355,117	-	-
Offshore, maintenance and manpower services	129,246	168,057	49,448	53,459
Marine and consultancy services	35,862	37,072	-	-
Sungai Udang Port management	22,669	33,755	-	-
(b) Purchase from fellow subsidiaries				
Purchase of bunkers, lubricants, spare parts and other materials	(72,657)	(113,845)	(23,551)	(61,010)
Purchase of service for rental of premises	(21,869)	(22,202)	(20,545)	(20,815)
Fees for representation in the Board of Directors*	(469)	(528)	(469)	(528)
(c) Management fee from subsidiaries				
Fees for representation in the Board of Directors**	-	-	954	1,090

* Fees paid directly to PETRONAS in respect of directors who are appointees of the holding company.

** Fees received from subsidiaries in respect of directors who are appointees of the Corporation.

33. Related party disclosures (cont'd.)

	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
(d) Purchase of service for repairs, conversion of ships, drydocking and fabrication from a subsidiary	-	-	(3,550)	(13,801)
(e) Purchase of ship operating and management services from a subsidiary	-	-	(175,655)	(164,012)
(f) Government of Malaysia's related entities				
(i) Provision of shipping and shipping related services				
Freight revenue	-	20,638	-	-
(ii) Purchase of goods and services				
Utilities	(28,680)	(31,157)	(4,687)	(5,341)

(g) Compensation of key management personnel ("KMP")

KMP are defined as persons having authority and responsibility for planning, directing and controlling the activities of the Group and of the Corporation, directly or indirectly, including any director of the Group and of the Corporation.

33. Related party disclosures (cont'd.)

(g) Compensation of key management personnel ("KMP") (cont'd.)

The remuneration of directors and other members of key management during the financial year were as follows:

	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
Directors				
Directors' remuneration (Note 7)	4,924	4,617	4,370	4,089
Other key management personnel				
Salaries and benefits	29,816	26,599	10,658	8,057
Defined contribution plans	3,225	2,618	2,269	1,839
	33,041	29,217	12,927	9,896
Total compensation of KMP	37,965	33,834	17,297	13,985

34. Commitments

(a) Capital commitments

	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
Capital expenditure				
Approved and contracted for:				
Ships, offshore floating assets and other property, plant and equipment	6,630,173	4,102,834	3,029,744	1,654,503
Information and communication technology	7,298	9,857	4,352	7,359
Share of capital commitments of a joint venture	-	115,795	-	-
	6,637,471	4,228,486	3,034,096	1,661,862

34. Commitments (cont'd.)

(b) Operating lease commitments - Group and Corporation as lessor

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
Future minimum rentals receivable:				
Not later than 1 year	3,385,275	3,262,255	837,299	883,291
Later than 1 year and not later than 5 years	10,412,559	9,837,459	2,545,628	2,580,322
Later than 5 years	9,274,854	9,973,111	3,998,741	4,750,789
	23,072,688	23,072,825	7,381,668	8,214,402

Operating lease income represent long-term lease arrangements with related and third parties for charter out of ships and offshore floating assets.

35. Contingent liabilities

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
Secured				
Bank guarantee extended to a third party	386	199	-	-
Unsecured				
Performance bond on contract and bank guarantees extended to third parties	362,105	411,271	1,238	2,513

The Corporation no longer discloses the corporate guarantees given to banks for credit facilities granted to subsidiaries as these would instead be accounted as financial liabilities if considered likely to crystalise.

36. Segment information

(a) Business segments

The operating segments of the Group are as follows:

(i) LNG Asset Solutions - provision of liquefied natural gas ("LNG") carrier services;

(ii) Petroleum & Product Shipping - provision of petroleum tanker and chemical tanker services;

(iii) Offshore Business - own, lease, operation and maintenance of offshore, floating, production and offloading terminals;

(iv) Marine & Heavy Engineering - marine repair, marine conversion and engineering and construction works; and

(v) Others - Integrated marine services, port & terminal services, maritime education & training and other diversified businesses.

Transfer prices between business segments are set on an arm's length basis in a manner similar to transactions with third parties. Segment revenue, expenses and results include transfers between business segments. These transfers are eliminated on consolidation.

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36. Segment information (cont'd.)

(a) Business segments (cont'd.)

31 December 2020	LNG Asset Solutions RM'000	Petroleum & Product Shipping RM'000	Offshore Business RM'000	Marine & Heavy Engineering RM'000	Others RM'000	Total RM'000	Eliminations and Adjustments RM'000		Consolidated RM'000
REVENUE									
External sales	2,652,699	3,862,527	1,210,096	1,530,171	157,586	9,413,079	(11,845)		9,401,234
Inter-segment	-	1,022	78,352	37,444	1,303,037	1,419,855	(1,419,855)	A	-
	2,652,699	3,863,549	1,288,448	1,567,615	1,460,623	10,832,934	(1,431,700)		9,401,234
RESULTS									
Segment results	1,899,477	1,584,950	511,993	(43,355)	(156,212)	3,796,853	70,262	A	3,867,115
Other operating income	7,917	68,885	31,872	3,970	2,126,989	2,239,633	(2,097,952)	A	141,681
Depreciation	(766,602)	(1,187,637)	(5,884)	(66,914)	(34,414)	(2,061,451)	(29,519)		(2,090,970)
Amortisation of intangible assets	-	-	-	-	(5,884)	(5,884)	-		(5,884)
Amortisation of prepaid lease payments on land and buildings	-	-	-	(7,259)	(100)	(7,359)	-		(7,359)
Impairment provisions	(11,585)	-	(19,791)	(300,000)	-	(331,376)	-		(331,376)
Provision of litigation claims	-	-	(1,049,248)	-	-	(1,049,248)	-		(1,049,248)
Write off of trade receivables and loss on re-measurement of finance lease receivables	-	-	(846,229)	-	-	(846,229)	-		(846,229)
Net gain on disposal of ships and offshore floating assets	-	36,344	-	-	-	36,344	(11,209)		25,135
Finance income	50,215	3,024	27,876	13,479	103,884	198,478	(85,866)	A	112,612
Finance costs	(143,644)	(141,491)	(165,382)	(911)	(30,656)	(482,084)	114,000	A	(368,084)
Share of profit/(loss) of an associate and joint ventures	856	12,234	412,380	(189)	-	425,281	3,742		429,023
Loss before taxation									(123,584)
Taxation									(46,247)
Loss after taxation									(169,831)
Non-controlling interests									126,764
Net loss attributable to equity holders of the Corporation									(43,067)
ASSETS									
Ships	6,712,513	14,345,401	-	-	30,449 *	21,088,363	-		21,088,363
Offshore floating assets	-	-	51,308	-	-	51,308	-		51,308
Non-current assets classified as held for sale	-	11,807	4,834	-	-	16,641	(11,807)		4,834
Intangible assets	-	803,901	225	-	15,096	819,222	-		819,222
Investments in joint ventures	7,122	28,002	828,703	8,910	324	873,061	-		873,061
Finance lease receivables	5,577,143	-	9,460,228	-	-	15,037,371	-		15,037,371
Other assets (unallocated)								B	13,946,850
									51,821,009
LIABILITIES									
Interest-bearing loans and borrowings	3,082,297	6,268,913	4,415,461	257,128	406,929	14,430,728	(990,342)		13,440,386
Other liabilities (unallocated)								C	5,229,504
									18,669,890

* Included in the net book value of ships - others is Navy Auxiliary ship owned by the Corporation, Bunga Mas 6.

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36. Segment information (cont'd.)

(a) Business segments (cont'd.)

31 December 2019	LNG Asset Solutions RM'000	Petroleum & Product Shipping RM'000	Offshore Business RM'000	Marine & Heavy Engineering RM'000	Others RM'000	Total RM'000	Eliminations and Adjustments RM'000		Consolidated RM'000
REVENUE									
External sales	2,582,056	4,302,936	980,785	936,523	174,142	8,976,442	(13,718)		8,962,724
Inter-segment	-	1,840	105,434	73,299	1,353,591	1,534,164	(1,534,164)	A	-
	2,582,056	4,304,776	1,086,219	1,009,822	1,527,733	10,510,606	(1,547,882)		8,962,724
RESULTS									
Segment results	1,823,227	1,613,646	515,160	24,365	(162,778)	3,813,620	56,909	A	3,870,529
Other operating income	46,454	24,912	17,075	1,155	1,913,961	2,003,557	(1,884,704)	A	118,853
Depreciation	(766,445)	(1,280,300)	(56,585)	(76,555)	(32,624)	(2,212,509)	(3,019)		(2,215,528)
Amortisation of intangible assets	-	-	-	-	(6,373)	(6,373)	-		(6,373)
Amortisation of prepaid lease payments on land and buildings	-	-	-	(7,280)	(125)	(7,405)	-		(7,405)
Impairment provisions	(28,594)	(116,890)	(69,459)	-	-	(214,943)	-		(214,943)
Net gain/(loss) on disposal of ships and offshore floating assets	17,614	(6,469)	(3,261)	-	-	7,884	-		7,884
Gain on acquisition of a business	23,731	-	-	-	-	23,731	-		23,731
Finance income	87,118	2,102	19,727	17,850	322,198	448,995	(279,746)	A	169,249
Finance costs	(159,142)	(200,988)	(198,631)	-	(215,667)	(774,428)	290,125	A	(484,303)
Share of profit of joint ventures	-	15,176	230,318	1,348	-	246,842	3,787		250,629
Profit before taxation									1,512,323
Taxation									(76,056)
Profit after taxation									1,436,267
Non-controlling interests									(9,912)
Net profit attributable to equity holders of the Corporation									1,426,355
ASSETS									
Ships	7,494,843	13,444,226	-	-	36,858 *	20,975,927	-		20,975,927
Offshore floating assets	-	-	82,357	-	-	82,357	-		82,357
Non-current assets classified as held for sale	-	110,391	14,887	-	-	125,278	-		125,278
Intangible assets	-	819,449	225	-	20,979	840,653	-		840,653
Investments in joint ventures	16,563	29,010	870,685	9,099	358	925,715	-		925,715
Finance lease receivables	5,501,110	-	10,894,539	-	-	16,395,649	-		16,395,649
Other assets (unallocated)								B	12,518,216
									51,863,795
LIABILITIES									
Interest-bearing loans and borrowings	3,411,205	6,051,298	4,317,341	189,476	1,302,610	15,271,930	(2,119,757)		13,152,173
Other liabilities (unallocated)								C	2,957,904
									16,110,077

* Included in the net book value of ships - others is Navy Auxiliary ship owned by the Corporation, Bunga Mas 6.

36. Segment information (cont'd.)

(a) Business segments (cont'd.)

Note

A Inter-segment revenues and transactions are eliminated on consolidation.

B Other assets comprise the following items:

	2020 RM'000	2019 RM'000
Other property, plant and equipment	2,169,477	2,228,917
Prepaid lease payments on land and buildings	212,534	219,843
Investment in associates	696	482
Other non-current financial assets	389,502	225,903
Deferred tax assets	104,433	103,499
Inventories	91,349	165,731
Trade and other receivables (excluding finance lease receivables)	4,123,854	2,543,027
Cash, deposits and bank balances	6,855,005	7,030,814
	13,946,850	12,518,216

C Other liabilities comprise the following items:

	2020 RM'000	2019 RM'000
Trade and other payables	3,509,253	2,186,588
Provision for taxation	23,273	14,165
Deferred tax liabilities	7,821	30,907
Derivative liabilities	538,697	159,920
Deferred income	1,150,460	566,324
	5,229,504	2,957,904

36. Segment information (cont'd.)

(b) Geographical segments

Although the Group's four major business segments are managed on a worldwide basis, they operate in five principal geographical areas of the world. In Malaysia, its home country, the Group's areas of operation comprise LNG Asset Solutions, Petroleum & Product Shipping, Offshore Business, Marine & Heavy Engineering and others.

The following table provides an analysis of the Group's revenue and carrying amount of assets by geographical segments:

	Malaysia RM'000	The Americas RM'000	Asia, Africa and Europe RM'000	Consolidated RM'000
31 December 2020				
Revenue	5,040,726	4,259,234	101,274	9,401,234
Assets	40,573,047	9,792,224	1,455,738	51,821,009
31 December 2019				
Revenue	4,570,446	4,302,936	89,342	8,962,724
Assets	42,306,314	8,504,938	1,052,543	51,863,795

(c) Information about major customers

Breakdown of revenue from major customers are as follows:

	2020 RM'000	2019 RM'000
Fellow subsidiaries:		
- PETRONAS Carigali Sdn. Bhd.	1,166,251	603,609
- PETRONAS LNG Sdn. Bhd.	1,165,600	1,088,252
- Malaysia LNG Sdn. Bhd.	982,609	951,989
	3,314,460	2,643,850

36. Segment information (cont'd.)

(c) Information about major customers (cont'd.)

	2020 RM'000	2019 RM'000
Third Parties:		
- Royal Dutch Shell PLC	538,887	381,495
- Sabah Shell Petroleum Company Limited	474,189	521,418
- Petróleo Brasileiro S.A. ("Petrobras")	281,744	222,457
- Equinor ASA	271,993	232,820
- Marine Well Containment Company	195,581	232,663
- BP PLC	190,893	180,031
- Trafigura Group Pte Ltd	177,753	68,766
- KOCH Shipping Pte Ltd	175,848	257,160
- Total SE	168,561	142,089
- PBF Energy Inc.	156,525	201,965
	2,631,974	2,440,864

37. Fair value disclosures

Fair value information

The carrying amounts of cash, deposits and bank balances, short term receivables and payables and short term borrowings reasonably approximate their fair values due to the relatively short term nature of these financial instruments.

The carrying amounts of floating rate loans and borrowings reasonably approximate their fair values as they are repriced to market interest rates on or near the reporting date.

37. Fair value disclosures (cont'd.)

Fair value information (cont'd.)

The following table analyses assets and liabilities carried at fair value and those not carried at fair value, together with their fair values and carrying amounts shown in the statements of financial position.

	Note	Fair value of assets and liabilities carried at fair value			
		Level 1 RM'000	Level 2 RM'000	Level 3 RM'000	Total RM'000
Group					
At 31 December 2020					
Financial assets:					
Quoted equity investment	20(a)	40,671	-	-	40,671
Unquoted equity investments	20(a)	-	-	63,498	63,498
		40,671	-	63,498	104,169
Non-financial assets:					
Non-current assets classified as held for sale	25	-	-	4,834	4,834
Financial liabilities:					
Forward currency contracts	20(b)	-	(19,243)	-	(19,243)
Interest rate swaps designated as hedging instruments	20(b)	-	(519,454)	-	(519,454)
		-	(538,697)	-	(538,697)
At 31 December 2019					
Financial assets:					
Quoted equity investment	20(a)	47,255	-	-	47,255
Unquoted equity investments	20(a)	-	-	65,137	65,137
		47,255	-	65,137	112,392

37. Fair value disclosures (cont'd.)

Fair value information (cont'd.)

	Note	Fair value of assets and liabilities carried at fair value			
		Level 1 RM'000	Level 2 RM'000	Level 3 RM'000	Total RM'000
Group					
At 31 December 2019 (cont'd.)					
Non-financial assets:					
Non-current assets classified as held for sale	25	-	-	125,278	125,278
Financial liabilities:					
Forward currency contracts	20(b)	-	(1,560)	-	(1,560)
Interest rate swaps designated as hedging instruments	20(b)	-	(158,360)	-	(158,360)
		-	(159,920)	-	(159,920)

37. Fair value disclosures (cont'd.)

Fair value information (cont'd.)

	Note	Fair value of financial instruments not carried at fair value Level 1 RM'000	Level 2 RM'000	Level 3 RM'000	Total RM'000	Carrying amount RM'000
Group						
At 31 December 2020						
Financial assets:						
Long term receivables	20(a)	-	-	93,775	93,775	103,546
Finance lease receivables	20(d)	-	-	14,331,388	14,331,388	13,754,515
		-	-	14,425,163	14,425,163	13,858,061
Financial liabilities:						
Term loans - fixed rate	20(c)	-	(9,492,882)	-	(9,492,882)	(9,293,628)
Group						
At 31 December 2019						
Financial assets:						
Long term receivables	20(a)	-	-	96,453	96,453	113,511
Finance lease receivables	20(d)	-	-	15,364,445	15,364,445	15,007,971
		-	-	15,460,898	15,460,898	15,121,482
Financial liabilities:						
Term loans - fixed rate	20(c)	-	(6,460,927)	-	(6,460,927)	(7,009,714)

37. Fair value disclosures (cont'd.)

Fair value information (cont'd.)

	Note	Fair value of assets and liabilities carried at fair value Level 1 RM'000	Level 2 RM'000	Level 3 RM'000	Total RM'000
Corporation					
At 31 December 2020					
Financial assets:					
Quoted equity investment	20(a)	40,671	-	-	40,671
Unquoted equity investments	20(a)	-	-	63,483	63,483
		40,671	-	63,483	104,154
At 31 December 2019					
Financial assets:					
Quoted equity investment	20(a)	47,255	-	-	47,255
Unquoted equity investments	20(a)	-	-	65,122	65,122
		47,255	-	65,122	112,377

37. Fair value disclosures (cont'd.)

Fair value information (cont'd.)

	Note	Fair value of financial instruments not carried at fair value Level 1 RM'000	Level 2 RM'000	Level 3 RM'000	Total RM'000	Carrying amount RM'000
Corporation						
At 31 December 2020						
Financial assets:						
Loans to subsidiaries	20(a)	-	595,789	-	595,789	616,600
Finance lease receivables	20(d)	-	-	809,877	809,877	919,746
		-	595,789	809,877	1,405,666	1,536,346
At 31 December 2019						
Financial assets:						
Loans to subsidiaries	20(a)	-	871,860	-	871,860	967,378
Finance lease receivables	20(d)	-	-	1,016,558	1,016,558	1,012,006
		-	871,860	1,016,558	1,888,418	1,979,384

37. Fair value disclosures (cont'd.)

Fair value information (cont'd.)

Transfers between Level 1 and Level 2 fair values

There has been no transfers between Level 1 and Level 2 fair values during the financial year.

Level 1 fair value measurements

Level 1 fair value is derived from quoted price (unadjusted) in active markets for identical assets that the entity can assess at the measurement date.

Level 2 fair value measurements

Level 2 fair value is estimated using inputs other than quoted prices included within Level 1 that are observable for the asset either directly or indirectly.

The following are descriptions of the valuation techniques and inputs used in the fair value measurement for assets and liabilities that are categorised within Level 2 of the fair value hierarchy:

Derivatives

Interest rate swap contracts are valued using a valuation technique with market observable inputs. The most frequently applied valuation techniques include forward pricing and swap models, using present value calculations. The models incorporate various inputs including the credit quality of counterparties, foreign exchange spot and forward rates, interest rate curves and forward rate curves.

Non-derivative financial liabilities

The fair value of the fixed rate loan and borrowings which is determined for disclosure purposes is calculated by discounting expected future cash flows at the market rate of interest at the end of the reporting period.

Level 3 fair value measurements

Level 3 fair value is estimated using unobservable inputs that are not based on observable market data.

37. Fair value disclosures (cont'd.)

Fair value information (cont'd.)

Level 3 fair value measurements (cont'd.)

The following table shows the information about fair value measurements using significant unobservable inputs within Level 3 of the fair value hierarchy:

	Group		Corporation			
	Fair value at 31 December 2020 RM'000	**Fair value at 31 December 2019 RM'000**	**Fair value at 31 December 2020 RM'000**	**Fair value at 31 December 2019 RM'000**	**Valuation techniques**	**Unobservable inputs**
Assets measured at fair value						
Non-current assets held for sale						
- Ships and offshore floating assets	4,834	125,278	-	-	Market comparable approach	Transacted comparable ships adjusted for the current condition of the assets/Sales price offered by potential buyers.
Financial assets not measured at fair value						
Long term receivables	93,775	96,453	-	-	Discounted cash flow method	Discounting expected future cash flows applying market rate of interest at the end of the reporting period.
Finance lease receivables	14,331,388	15,364,445	809,877	1,016,558	Discounted cash flow method	Discounting expected future cash flows applying latest estimated borrowing rate of the charterers.
	14,425,163	15,460,898	809,877	1,016,558		

An increase in market value of comparable assets used in the above valuation would result in an increase in the fair value and vice versa.

38. Financial risk management objectives and policies

The Group is exposed to various risks that are related to its core business of shipowning, ship operating, other shipping related activities and services, owning and operating of offshore facilities and marine repair, marine conversion and engineering and construction works. These risks arise in the normal course of the Group's business.

The Group's Financial Risk Management Framework and Guidelines set the foundation for the establishment of effective risk management practices across the Group.

The Group's Financial Risk Management Policy seeks to ensure that adequate financial resources are available for the development of the Group's businesses whilst managing its interest rate risk (both fair value and cash flow), foreign currency risk, liquidity risk, credit risk and equity price risk. The Board of Directors reviews and agrees policies for managing each of these risks as summarised below. It is, and has been throughout the period under review, the Group's policy that no speculative trading in derivative financial instruments shall be undertaken.

The following sections provide details regarding the Group's and the Corporation's exposure to the above-mentioned financial risks and the objectives, policies and processes in place to manage these risks.

(a) Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of the Group's financial instruments will fluctuate because of changes in market interest rates. As the Group has no significant long term interest-bearing financial assets, the Group's income and operating cash flows are substantially independent of changes in market interest rates. The Group's interest-bearing financial assets are mainly short term in nature and have been placed mostly in time deposits and overnight placements. The Group's interest rate risk arises primarily from interest-bearing loans and borrowings.

Borrowings at floating rates expose the Group to cash flow interest rate risk. The Group's interest rate risks arise from the volatility of the benchmark interest rates in USD, which is the Group's main borrowing currency.

The Group manages its interest rate exposure by maintaining a mix of fixed and floating rate borrowings. As at 31 December 2020, 79.2% (2019: 62.0%) and 14.0% (2019: 7.0%) of the Group's and the Corporation's total borrowings were fixed rate in nature. To manage this mix in a cost-efficient manner, the Group enters into interest rate swaps in which the Group agrees to exchange at specified intervals, the difference between fixed and floating rate interest amounts calculated by reference to an agreed upon notional principal amount.

38. Financial risk management objectives and policies (cont'd.)

(a) Interest rate risk (cont'd.)

As at reporting date, the total notional principal amount of interest rate swaps of the Group is RM10.2 billion (2019: RM7.6 billion). The fixed interest rates relating to interest rate swaps at the reporting date ranges from 0.62% - 3.19% (2019: 1.79% - 3.19%) per annum.

The following table demonstrates the sensitivity to a reasonably possible change in interest rates, with all other variables held constant, of the Group's and the Corporation's profit before taxation and equity via floating rate borrowings and interest rate swaps respectively.

	Increase/ (Decrease) in LIBOR basis points	Effect on profit before taxation (Decrease)/ Increase RM'000	Effect on other comprehensive income Increase/ (Decrease) RM'000
As at 31 December 2020			
Group			
USD - 3 Months LIBOR	+10	(2,308)	21,403
USD - 3 Months LIBOR	-10	2,308	(21,403)
Corporation			
USD - 3 Months LIBOR	+10	(1,071)	-
USD - 3 Months LIBOR	-10	1,071	-
As at 31 December 2019			
Group			
USD - 3 Months LIBOR	+70	(33,627)	26,436
USD - 3 Months LIBOR	-70	33,627	(26,436)
Corporation			
USD - 3 Months LIBOR	+70	(10,561)	-
USD - 3 Months LIBOR	-70	10,561	-

38. Financial risk management objectives and policies (cont'd.)

(a) Interest rate risk (cont'd.)

As at 31 December 2020, the Group's and the Corporation's exposure to the risk of changes in market interest rate relates primarily to the Group's and the Corporation's placement of deposits with licensed banks, cash and bank balances, loans to subsidiaries and associate, interest-bearing loans and borrowings and loans from subsidiaries.

The interest-bearing financial instruments of the Group and of the Corporation based on carrying amount, as at reporting date were as follows:

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
Fixed rate instruments				
Financial assets				
Deposits with licensed banks	991,620	1,113,410	11,171	13,933
Deposits with IFSSC	4,023,265	4,355,497	1,609,734	2,803,030
Loans and advances to subsidiaries	-	-	644,439	988,376
Financial liabilities				
Fixed rate borrowings	248,396	178,871	-	-
Floating rate borrowings (swapped to fixed rate)	10,115,264	7,581,251	-	-
Loans from subsidiaries	-	-	167,548	113,099
Floating rate instruments				
Financial assets				
Cash and bank balances	1,840,120	1,561,907	42	86
Loans and advances to subsidiaries	-	-	569,553	671,527
Financial liabilities				
Floating rate borrowings	2,727,493	4,753,937	342,423	755,128
Loans from subsidiaries	-	-	684,845	737,910

38. Financial risk management objectives and policies (cont'd.)

(b) Foreign currency risk

The currencies giving rise to this risk are primarily RM and USD.

Approximately 6% (2019: 4%) and 5% (2019: 4%) of the Group and the Corporation's revenue are denominated in currency other than the currency of the primary economic environment which the entities operate.

Approximately 7% (2019: 1%) and 16% (2019: 12%) of the Group and the Corporation's cost of sales are denominated in currency other than the currency of the primary economic environment which the entities operate.

The Group maintains a natural hedge, wherever possible, by borrowing in currencies that matches the future revenue streams to be generated from its investments.

During the financial year, the Group held forward currency contracts designated as hedges of expected future receipts and payments denominated in USD for a subsidiary whose functional currency is RM. The forward currency contracts are being used to hedge the currency risk of the highly probable forecasted transactions. The cash flow hedges of the expected future receipts were assessed to be highly effective and a net unrealised loss of RM14,449,000 (2019: RM1,560,000) which represents the effective portion of the hedging relationship, is included in other comprehensive income.

With all other variables held constant, the following table demonstrates the sensitivity of the Group's and the Corporation's profit before taxation to a reasonably possible change in the USD and RM exchange rates.

		2020			2019	
	Change in currency rate %	Effect on profit before taxation Increase/ (Decrease) RM'000	Effect on other compre-hensive loss Increase/ (Decrease) RM'000	Change in currency rate %	Effect on profit before taxation Increase/ (Decrease) RM'000	Effect on other compre-hensive loss Increase/ (Decrease) RM'000
Group						
USD/RM	+10%	3,000	48,695	+5%	3,370	5,863
	-10%	(3,000)	(48,695)	-5%	(3,370)	(5,863)
Corporation						
USD/RM	+10%	36,639	-	+5%	20,569	-
	-10%	(36,639)	-	-5%	(20,569)	-

38. Financial risk management objectives and policies (cont'd.)

(b) Foreign currency risk (cont'd.)

The net unhedged financial receivables and payables and cash and bank balances of the Group and of the Corporation that are not denominated in their functional currencies are as follows:

Net financial receivables/(payables) and cash and bank balances held in non-functional currencies

Functional currency of Group entities	Ringgit Malaysia RM'000	United States Dollar RM'000	Great Britain Pound RM'000	Euro RM'000	Singapore Dollar RM'000	Total RM'000
At 31 December 2020						
Ringgit Malaysia	-	76,599	-	(401)	4,120	80,318
United States Dollar	49,148	-	2,908	20,784	4,643	77,483
	49,148	76,599	2,908	20,383	8,763	157,801
At 31 December 2019						
Ringgit Malaysia	-	86,006	-	(333)	(447)	85,226
United States Dollar	(19,331)	-	5,851	26,318	44,604	57,442
	(19,331)	86,006	5,851	25,985	44,157	142,668
Functional currency of Corporation						
At 31 December 2020						
United States Dollar	(386,414)	-	836	24,262	(1,307)	(362,623)
At 31 December 2019						
United States Dollar	(427,451)	-	610	17,503	(250)	(409,588)

38. Financial risk management objectives and policies (cont'd.)

(c) Liquidity risk

Liquidity risk is the risk that the Group and the Corporation will encounter difficulty in meeting their financial obligations due to shortage of funds. The Group's and the Corporation’s exposure to liquidity risk arise primarily from mismatches of the maturities of financial assets and liabilities. The Group's and the Corporation’s objective is to maintain a balance between continuity of funding and flexibility through the use of bank loans and various other sources of funding.

The Group and the Corporation have at their disposal cash and short term deposits amounting to RM5,545,089,000 (2019: RM5,740,435,000) and RM1,620,947,000 (2019: RM2,817,049,000) respectively. As at 31 December 2020, the Group and the Corporation have unutilised credit lines of RM5.6 billion (2019: RM2.6 billion) and RM4.8 billion (2019: RM2.6 billion) respectively, which could be used for working capital purposes.

38. Financial risk management objectives and policies (cont'd.)

(c) Liquidity risk (cont'd.)

The table below summarises the maturity profile of the Group and Corporation's financial liabilities as at the reporting date based on undiscounted contractual payments:

	Carrying amount RM'000	Contractual cash flows RM'000	Within 1 year RM'000	More than 1 - 2 years RM'000	More than 2 - 3 years RM'000	More than 3 - 4 years RM'000	More than 4 - 5 years RM'000	More than 5 years RM'000
At 31 December 2020								
Group								
Interest-bearing loans and borrowings	13,091,153	14,701,919	2,169,294	2,453,773	1,448,353	1,466,618	1,608,131	5,555,750
Lease liabilities	349,233	363,425	189,874	107,216	31,819	9,028	8,116	17,372
Trade and other payables	2,110,959	2,110,959	2,110,959	-	-	-	-	-
	15,551,345	17,176,303	4,470,127	2,560,989	1,480,172	1,475,646	1,616,247	5,573,122
Corporation								
Interest-bearing loans and borrowings	1,194,816	1,224,818	1,224,818	-	-	-	-	-
Lease liabilities	29,921	30,013	14,427	14,943	549	94	-	-
Trade and other payables	1,000,890	1,000,890	1,000,890	-	-	-	-	-
	2,225,627	2,255,721	2,240,135	14,943	549	94	-	-
At 31 December 2019								
Group								
Interest-bearing loans and borrowings	12,514,059	13,921,576	5,620,465	1,250,822	1,570,393	847,147	864,238	3,768,511
Lease liabilities	638,114	685,392	338,246	186,147	96,258	29,799	7,804	27,138
Trade and other payables	2,034,403	2,034,403	2,034,403	-	-	-	-	-
	15,186,576	16,641,371	7,993,114	1,436,969	1,666,651	876,946	872,042	3,795,649
Corporation								
Interest-bearing loans and borrowings	1,606,137	1,652,192	1,652,192	-	-	-	-	-
Lease liabilities	43,783	46,231	15,184	15,184	15,184	543	136	-
Trade and other payables	954,001	954,001	954,001	-	-	-	-	-
	2,603,921	2,652,424	2,621,377	15,184	15,184	543	136	-

38. Financial risk management objectives and policies (cont'd.)

(c) Liquidity risk (cont'd.)

Group

Hedging activities

The Group entered into IRS to hedge the cash flow risk of floating interest rate on the term loans. The notional amount swapped as at 31 December 2020 was RM10.2 billion (2019: RM7.6 billion). The swaps are settled quarterly, consistent with the interest payment schedule of the loan.

The following table indicates the periods in which the cash flows are expected to occur for cash flow hedges as at 31 December 2020 and 31 December 2019:

	Carrying amount RM'000	Contractual cash flows RM'000	Within 1 year RM'000	More than 1 - 2 years RM'000	More than 2 - 3 years RM'000	More than 3 - 4 years RM'000	More than 4 - 5 years RM'000	More than 5 years RM'000
At 31 December 2020								
Net cash outflows	(538,697)	(1,159,498)	(152,970)	(144,986)	(136,483)	(136,857)	(136,483)	(451,719)
At 31 December 2019								
Net cash outflows	(159,920)	(229,280)	(23,895)	(23,830)	(22,666)	(21,340)	(21,398)	(116,151)

The Group's hedging activities on the IRS are tested to be effective. During the year, the Group recognised in other comprehensive income a loss of RM378,011,000 (2019: loss of RM161,848,000) on the IRS of its subsidiaries due to market expectation of lower floating rates in comparison to the fixed rate under the IRS arrangements.

The Group's share of its joint ventures' in other comprehensive income a loss on IRS during the year was RM58,682,000 (2019: RMNil) due to market expectation of lower floating rates in comparison to the fixed rate under the IRS arrangements.

38. Financial risk management objectives and policies (cont'd.)

(d) Credit risk

Credit risk is the risk of loss that may arise on outstanding financial instruments should a counterparty default on its obligations. The Group’s exposure to credit risk arises primarily from its operating activities (mainly trade receivables and finance lease receivables) and from its investing activities, including deposits with banks and financial institutions, foreign exchange transactions and other financial instruments.

At the reporting date, the Group’s maximum exposure to credit risk is represented by the carrying amount of each class of financial assets mentioned in Notes 20(a), 22 and 24, and is recognised in the statements of financial position.

Receivables and contract assets

The Group and the Corporation determine concentrations of credit risk by monitoring the industry sector profile of their receivables on an ongoing basis. The credit risk concentration profile of the Group's and the Corporation's trade receivables due from third parties at the reporting date are as follows:

	Group		Corporation	
	2020 RM'000	2019 RM'000	2020 RM'000	2019 RM'000
LNG Asset Solutions	152,155	168,031	155,545	144,919
Petroleum & Product Shipping	151,403	331,406	-	-
Offshore Business	1,133,410	1,126,964	12,385	17,150
Marine & Heavy Engineering	244,192	313,792	-	-
Others	8,868	21,696	-	-
	1,690,028	1,961,889	167,930	162,069

At reporting date, approximately 3.1% (2019: 2.6%) and 55.7% (2019: 83.8%) of the Group’s and the Corporation's trade and other receivables were due from related parties.

The Group and the Corporation perform credit rating assessment of all its counterparties in order to measure ECL of trade receivables for all segments using the PETRONAS Credit Risk Rating System. This credit rating assessment considers quantitative assessment using the counterparties’ financial statements or a qualitative assessment of the counterparties, which includes but is not limited to their reputation, competitive position, industry and geopolitical outlook.

In determining the ECL, the probability of default assigned to each counterparty is based on their individual credit rating. This probability of default is derived by benchmarking against available third party and market information, which also incorporates forward looking information.

38. Financial risk management objectives and policies (cont'd.)

(d) Credit risk (cont'd.)

Receivables and contract assets (cont'd.)

The following table provides information about the exposure to credit risk and ECL for receivables and contract assets as at 31 December 2020 which are grouped together as they are expected to have similar risk nature.

	Group		
2020	**Gross carrying amount RM'000**	**Loss allowance RM'000**	**Net balance RM'000**
Credit risk rating			
Low risk rating	971,199	(578)	970,621
Medium risk rating	18,340,462	(439,584)	17,900,878
High risk rating	540,227	(250,501)	289,726
	19,851,888	(690,663)	19,161,225
Representing:			
Trade and other receivables (Note 22)	6,034,038	(627,328)	5,406,710
Finance lease receivables (Note 20(d))	13,817,850	(63,335)	13,754,515
	19,851,888	(690,663)	19,161,225

	Corporation		
	Gross carrying amount RM'000	**Loss allowance RM'000**	**Net balance RM'000**
Credit risk rating			
Medium risk rating	4,413,429	(91,057)	4,322,372
High risk rating	402,769	(244,863)	157,906
	4,816,198	(335,920)	4,480,278
Representing:			
Trade and other receivables (Note 22)	3,889,940	(329,408)	3,560,532
Finance lease receivables (Note 20(d))	926,258	(6,512)	919,746
	4,816,198	(335,920)	4,480,278

38. Financial risk management objectives and policies (cont'd.)

(d) Credit risk (cont'd.)

Receivables and contract assets (cont'd.)

	Group		
2019	**Gross carrying amount RM'000**	**Loss allowance RM'000**	**Net balance RM'000**
Credit risk rating			
Low risk rating	1,072,864	(642)	1,072,222
Medium risk rating	18,064,097	(437,796)	17,626,301
High risk rating	539,053	(298,900)	240,153
	19,676,014	(737,338)	18,938,676
Representing:			
Trade and other receivables (Note 22)	4,594,905	(664,200)	3,930,705
Finance lease receivables (Note 20(d))	15,081,109	(73,138)	15,007,971
	19,676,014	(737,338)	18,938,676

	Corporation		
	Gross carrying amount RM'000	**Loss allowance RM'000**	**Net balance RM'000**
Credit risk rating			
Medium risk rating	2,705,116	(93,479)	2,611,637
High risk rating	442,960	(295,451)	147,509
	3,148,076	(388,930)	2,759,146
Representing:			
Trade and other receivables (Note 22)	2,128,649	(381,509)	1,747,140
Finance lease receivables (Note 20(d))	1,019,427	(7,421)	1,012,006
	3,148,076	(388,930)	2,759,146

38. Financial risk management objectives and policies (cont'd.)

(d) Credit risk (cont'd.)

Effective 1 July 2013, cash and bank balances were held in the In-House Account ("IHA") managed by PETRONAS Integrated Financial Shared Services Centre (“IFSSC”). The centralisation of fund management allows more effective cash visibility and fund management of the Group, as well as minimise exposure to counterparty credit risk. The beneficiary of these financial assets remains with the Corporation. PETRONAS IFSSC, which functions as a treasury management platform, in turn, places all funds under management in licensed financial institutions with strong credit ratings globally and in Malaysia. In addition, a majority of the Group's deposits are placed with licensed banks with strong credit ratings in Malaysia.

Credit risk from balances with banks and financial institutions is managed by Group Treasury in accordance with the Group's policy. The Group Treasury Investment Guideline defines the parameters within which the investment activities shall operate to achieve the Group's investment objective of preserving capital and generating optimal returns. In accordance with the guideline, investment of surplus funds are made only with highly credit rated counterparties.

The past due receivables balances are either secured by collaterals or relate mainly to customers who have never defaulted on payments but are slow paymasters and hence, are periodically monitored.

(e) Equity price risk

Equity price risk arises from the Group’s investment in quoted equity shares listed on Bursa Malaysia. At the reporting date, the exposure to the security carried at fair value was RM40,671,000 (2019: RM47,255,000).

The following table demonstrates the indicative effects on the Group's and the Corporation's investment in quoted equity shares applying reasonably foreseeable market movements in the following index rates:

	Group and Corporation		
	Carrying value RM'000	Weighted average change in index rate %	Effect on profit before taxation Increase/ (Decrease) RM'000
2020			
Malaysian quoted equity shares	40,671	+10	4,067
Malaysian quoted equity shares	40,671	-10	(4,067)
2019			
Malaysian quoted equity shares	47,255	+15	7,088
Malaysian quoted equity shares	47,255	-15	(7,088)

38. Financial risk management objectives and policies (cont'd.)

(e) Equity price risk (cont'd.)

This analysis assumes all other variables remain constant and that the price of the Group's quoted equity investment is perfectly correlated to the market index.

39. Capital management

The Group, as an essential part of its capital management strategy, is committed towards achieving financial resilience and ensuring long-term business sustainability to a policy of financial prudence as outlined in the PETRONAS Group Corporate Financial Policy (formerly known as Group Corporate Financial Policy). The Group's capital structure consists of consolidated equity plus debt, defined as the current and long-term portions of the Group's debt.

The objective of the Group's capital management is to maintain an optimal capital structure and ensure availability of funds in order to meet financial obligations, support business growth and maximise shareholders' value. The Group monitors and maintains a prudent level of debt to total asset ratio to optimise shareholder value and to ensure compliance with covenants under debt and shareholders agreements and regulatory requirements if any.

There were no changes in the Group's approach to capital management during the year.

The debt to equity ratios of the Group and of the Corporation as at 31 December 2020 and 31 December 2019 are as follows:

	Note	Group 2020 RM'000	Group 2019 RM'000	Corporation 2020 RM'000	Corporation 2019 RM'000
Short term borrowings	20(c)	2,005,523	5,599,481	583,678	1,620,012
Long term borrowings	20(c)	11,434,863	7,552,692	641,059	29,908
Gross debts		13,440,386	13,152,173	1,224,737	1,649,920
Cash, deposits and bank balances	24	6,855,005	7,030,814	1,620,947	2,817,049
Net debts		6,585,381	6,121,359	(396,210)	(1,167,129)
Total equity		33,151,119	35,753,718	23,928,856	23,921,238
Gross debt equity ratio		0.41	0.37	0.05	0.07
Net debt equity ratio		0.20	0.17	(0.02)	(0.05)

The gearing ratio is not governed by MFRS and its definition and calculation may vary from one group/company to another.

40. Subsidiaries and activities

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
MISC Tankers Sdn. Bhd.	Malaysia	Investment holding and provision of management services	100	100
Puteri Intan Sdn. Bhd.	Malaysia	Shipping	100	100
Puteri Delima Sdn. Bhd.	Malaysia	Shipping	100	100
Puteri Nilam Sdn. Bhd.	Malaysia	Shipping	100	100
Puteri Zamrud Sdn. Bhd.	Malaysia	Shipping	100	100
Puteri Firus Sdn. Bhd.	Malaysia	Shipping	100	100
Seri Camellia (L) Private Limited	Malaysia	Shipping	100	100
Seri Cempaka (L) Private Limited	Malaysia	Shipping	100	100
Seri Cenderawasih (L) Private Limited	Malaysia	Shipping	100	100
Seri Cemara (L) Private Limited	Malaysia	Shipping	100	100
Seri Camar (L) Private Limited	Malaysia	Shipping	100	100
Asia LNG Transport Sdn. Bhd.	Malaysia	Shipowning and ship management	51	51

40. Subsidiaries and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
Asia LNG Transport Dua Sdn. Bhd.	Malaysia	Shipowning, ship management and investment holding	51	51
Puteri Intan Satu (L) Private Limited	Malaysia	Shipping	100	100
Puteri Delima Satu (L) Private Limited	Malaysia	Shipping	100	100
Puteri Nilam Satu (L) Private Limited	Malaysia	Shipping	100	100
Puteri Zamrud Satu (L) Private Limited	Malaysia	Shipping	100	100
Puteri Firus Satu (L) Private Limited	Malaysia	Shipping	100	100
Puteri Mutiara Satu (L) Private Limited	Malaysia	Shipping	100	100
M.I.S.C. Nigeria Limited *	Nigeria	Dormant	60	60
MISC PNG Shipping Limited	Malaysia	Investment holding	100	100
Gas Asia Terminal (L) Pte. Ltd.	Malaysia	Development and ownership of LNG floating storage units	100	100
Portovenere and Lerici (Labuan) Private Limited	Malaysia	Investment holding	100	100
Portovenere and Lerici (Singapore) Pte. Ltd.	Singapore	Shipping	100	100

40. Subsidiaries and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
Polaris LNG One Pte. Ltd.	Singapore	Owning and operating LNG ships for transportation of LNG	100	100
Polaris LNG Two Pte. Ltd.	Singapore	Owning and operating LNG ships for transportation of LNG	100	100
Seri Everest (Singapore) Pte. Ltd.	Singapore	Owning and operating VLEC for the transportation of liquefied ethane and/or liquefied petroleum gas	100	-
Seri Elbert (Singapore) Pte. Ltd.	Singapore	Owning and operating VLEC for the transportation of liquefied ethane and/or liquefied petroleum gas	100	-
Seri Erlang (Singapore) Pte. Ltd.	Singapore	Owning and operating VLEC for the transportation of liquefied ethane and/or liquefied petroleum gas	100	-

40. Subsidiaries and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
Seri Emory (Singapore) Pte. Ltd.	Singapore	Owning and operating VLEC for the transportation of liquefied ethane and/or liquefied petroleum gas	100	-
Seri Emei (Singapore) Pte. Ltd.	Singapore	Owning and operating VLEC for the transportation of liquefied ethane and/or liquefied petroleum gas	100	-
Seri Emperor (Singapore) Pte. Ltd.	Singapore	Owning and operating VLEC for the transportation of liquefied ethane and/or liquefied petroleum gas	100	-
MISC Tanker Holdings Sdn. Bhd.	Malaysia	Investment holding	100	100
MISC Tanker Holdings (Bermuda) Limited	Bermuda	Investment holding	100	100
AET Tanker Holdings Sdn. Bhd.	Malaysia	Investment holding	100	100
AET Product Tankers Sdn. Bhd.	Malaysia	Shipowning and marine transportation services	100	100

40. Subsidiaries and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
AET Petroleum Tanker (M) Sdn. Bhd.	Malaysia	Shipowning and marine transportation services	100	100
AET Shipmanagement (Malaysia) Sdn. Bhd.	Malaysia	Ship management	100	100
AET Holdings (L) Pte. Ltd.	Malaysia	Investment holding	100	100
AET Inc. Limited	Bermuda	Shipowning and marine transportation services	100	100
Eaglestar Marine India Private Limited #	India	Provision of crew management services	100	100
AET Lightering Services LLC	The United States of America	Marine transportation services and lightering services	100	100
AET STS Limited Inc. *	Panama	Marine transportation services	100	100
AET Bermuda One Limited	Bermuda	Shipowning	100	100
AET Tankers Pte. Ltd. #	Singapore	Shipowning and marine transportation services	100	100
AET UK Limited #	United Kingdom	Management services and commercial management	100	100

40. Subsidiaries and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
AET Offshore Services Inc.	The United States of America	Lightering services	100	100
AET Agencies Inc.	The United States of America	Shipping agent and lightering services	100	100
AET Tankers India Private Limited #	India	Dormant	100	100
AET Azerbaijan Limited	Azerbaijan	Dormant	100	100
AET Singapore One Pte. Ltd. #	Singapore	Shipowning	100	100
AET Tanker Kazakhstan LLP	Kazakhstan	Dormant	100	100
AET Tankers (Suezmax) Pte. Ltd. #	Singapore	Shipowning	100	100
AET Shuttle Tankers Sdn. Bhd.	Malaysia	Shipowning	100	100
AET MCV Delta Sdn. Bhd.	Malaysia	Investment holding	100	100
AET MCV Alpha LLC	Republic of Marshall Islands	Shipowning	100	100
AET MCV Beta LLC	Republic of Marshall Islands	Shipowning	100	100
AET MCV Gamma LLC	Republic of Marshall Islands	Marine transportation services	100	100
AET Labuan One Pte. Ltd.	Malaysia	Shipowning	100	100

40. Subsidiaries and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
AET Brasil Servicos Maritimos Ltda. #	Brazil	Crew management services	100	100
AET Brasil Servicos STS Ltda. #	Brazil	Marine transportation services and lightering services	100	100
AET Sea Shuttle AS #	Norway	Shipowning and marine transportation services	95	95
Paramount Tankers Corp.	Republic of the Marshall Islands	Investment holding	100	100
Atenea Services S.A.	British Virgin Islands	Shipowning and marine transportation services	100	100
Hendham Enterprises Ltd.	British Virgin Islands	Shipowning and marine transportation services	100	100
Odley Worldwide Inc.	British Virgin Islands	Shipowning and marine transportation services	100	100
Oldson Ventures Ltd.	British Virgin Islands	Shipowning and marine transportation services	100	100

40. Subsidiaries and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
Twyford International Business Corp.	British Virgin Islands	Shipowning and marine transportation services	100	100
Zangwill Business Corp.	British Virgin Islands	Shipowning and marine transportation services	100	100
AET Labuan Pte. Ltd.	Malaysia	Investment holding	100	100
AET Bermuda Holdings Limited	Bermuda	Investment holding	100	100
AET Shuttle Tankers II Pte. Ltd. #	Singapore	Shipowning and marine transportation services	100	100
AET Singapore Holdings Pte. Ltd. #	Singapore	Investment holding	100	100
AET Pte. Ltd. #	Singapore	Investment holding	100	100
AET Sea Shuttle II AS #	Norway	Shipowning and marine transportation services	95	95
AET DP Shuttle Pte. Ltd. #	Singapore	Shipowning and marine transportation services	100	-
AET DP Shuttle II Pte. Ltd. #	Singapore	Shipowning and marine transportation services	100	-

40. Subsidiaries and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
AET Shuttle Tankers III Pte. Ltd. #	Singapore	Shipowning and marine transportation services	100	-
AET Malaysia One Sdn. Bhd.	Malaysia	Investment holding	100	-
MISC Offshore Holdings (Brazil) Sdn. Bhd.	Malaysia	Investment holding	100	100
MISC do Brasil Servicos de Energia Ltda	Brazil	Dormant	100	100
FPSO Ventures Sdn. Bhd.	Malaysia	Provision of operations and maintenance of FPSO, FSO, MOPU and Fixed facilities and management consultancy to the oil and gas industry	51	51
MISC Offshore Floating Terminals (L) Ltd.	Malaysia	Owning offshore floating terminals	100	100
Malaysia Offshore Mobile Production (Labuan) Ltd.	Malaysia	Owning mobile offshore production units	100	100
MISC Offshore Floating Terminals Dua (L) Limited	Malaysia	Owning offshore floating terminals	100	100

40. Subsidiaries and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
Malaysia Offshore Mobile Production Dua (Labuan) Ltd.	Malaysia	Provision of professional services to oil and gas industry	100	100
Gumusut-Kakap Semi-Floating Production System (L) Limited	Malaysia	Ownership and leasing of semi-submersible floating production system	100	100
Mekar Bergading Offshore Floating (L) Limited	Malaysia	Owning, operation and maintenance of FSO vessels	100	100
MISC Offshore (USA) LLC	The United States of America	Providing support services in the bidding and execution of offshore deepwater FPSO projects	100	100
MISC Offshore (Singapore) Pte. Ltd. #	Singapore	Owning and leasing of FPSO unit	100	100
MISC Offshore (Americas) Holdings Pte. Ltd.	Malaysia	Investment holding	100	-

40. Subsidiaries and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
MISC Serviços de Petróleo do Brasil Ltda.	Brazil	To operate and maintain marine units for the exploration and production of oil and natural gas in Brazil and to provide any services related to such activities	100	-
MISC Offshore Services Pte. Ltd.	Singapore	Provision of operations and maintenance services for deepwater offshore assets	100	100

40. Subsidiaries and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
Malaysia Marine and Heavy Engineering Holdings Berhad ^	Malaysia	Investment holding	66.5	66.5
Malaysia Marine and Heavy Engineering Sdn. Bhd. ("MMHE")	Malaysia	Provision of oil and gas engineering and construction works, marine conversion and repair services	66.5	66.5
MMHE LNG Sdn. Bhd.	Malaysia	Dormant	66.5	66.5
Techno Indah Sdn. Bhd.	Malaysia	Dormant	66.5	66.5
MMHE International Sdn. Bhd.	Malaysia	Dormant	66.5	66.5
MMHE EPIC Marine & Services Sdn. Bhd.	Malaysia	Provision of repair services and dry docking of marine vessels	46.6	46.6
Malaysia Marine and Heavy Engineering Saudi Limited	Saudi Arabia	Provision of engineering, procurement, construction, installation and commissioning services for offshore and onshore facilities	66.5	66.5

40. Subsidiaries and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
MHS Integrated Engineering Sdn. Bhd.	Malaysia	Plant turnaround and shutdown maintenance	59.9	-
Eaglestar Marine Holdings (L) Pte. Ltd.	Malaysia	Provision of integrated marine services and investment holding	100	100
Eaglestar Shipmanagement (L) Pte. Ltd.	Malaysia	Provision of ship management and marine related services	100	100
Eaglestar Marine (S) Pte. Ltd. #	Singapore	Hiring of personnel	100	100
Eaglestar Marine B.V.	Netherlands	Provision of marine and procurement services	100	100

40. Subsidiaries and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
Eaglestar Shipmanagement (USA) LLC	The United States of America	Provision of ship management and marine related services	100	100
Eaglestar Shipmanagement (S) Pte. Ltd. #	Singapore	Provision of ship management and marine related services	100	100
Eaglestar Shipmanagement GAS (S) Pte. Ltd. #	Singapore	Provision of ship management and marine related services	100	-
Eaglestar Shipmanagement Ventures (S) Pte. Ltd. #	Singapore	Provision of ship management and marine related services	100	-
Magellan X Holdings (L) Pte. Ltd.	Malaysia	Investment holding	100	100

40. Subsidiaries and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
Magellan X Pte. Ltd. #	Singapore	Providing support services in the development of digital products and solutions	100	100
CHORD X Pte. Ltd. #	Singapore	Providing data-driven solutions for maritime and industrial machinery application	100	100
SOL-X Pte. Ltd. #	Singapore	Providing health, safety, security, operations and workflow management solutions	100	100
Spares CNX Pte. Ltd. #	Singapore	Providing inventory management and procurement systems	100	100

40. Subsidiaries and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
MISC Maritime Education Group Sdn. Bhd. (formerly known as Magellan X Holdings Sdn. Bhd.)	Malaysia	Dormant	100	100
Malaysian Maritime Academy Sdn. Bhd.	Malaysia	Education and training for seamen and maritime personnel	100	100
MISC Ship Management Sdn. Bhd.	Malaysia	Investment holding	100	100
MISC Enterprises Holdings Sdn. Bhd.	Malaysia	In Member's Voluntary Liquidation	100	100
MISC Agencies Sdn. Bhd.	Malaysia	Investment holding	100	100
MISC Agencies (Netherlands) B.V. *	Netherlands	Property owning	100	100
MISC Berhad (UK) Limited	United Kingdom	Commercial operation	100	100
MISC Agencies India Private Limited *	India	In liquidation	60	60
MISC Ferry Services Sdn. Bhd.	Malaysia	Dormant	100	100

40. Subsidiaries and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
MISC International (L) Ltd.	Malaysia	Investment holding	100	100
MISC Capital (L) Ltd.	Malaysia	Special purpose vehicle for financing arrangement	100	100
MTTI Sdn. Bhd.	Malaysia	In Member's Voluntary Liquidation	100	100
MISC Maritime Services Sdn. Bhd.	Malaysia	Provision of maritime services and consultancy and maritime audit	100	100
Sungai Udang Port Sdn. Bhd.	Malaysia	Operation and management of Sungai Udang Port	100	100

* Audited by firms of auditors other than Ernst & Young
\# Audited by affiliates of Ernst & Young PLT Malaysia
^ Listed on the Main Board of Bursa Malaysia Securities Berhad

41. Associates and activities

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
Nikorma Transport Limited	Nigeria	LNG transportation	30	30
Eaglestar Marine (Philippines) Corporation	Philippines	Provision of crew management services	24	24
MISC Agencies Lanka (Pvt) Limited	Sri Lanka	In liquidation	40	40

42. Joint arrangements and activities

(a) Joint ventures and activities

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
Western Pacific Shipping Ltd. ****	Bermuda	Providing shipping solutions for LNG project requirements and other general shipping requirements of Papua New Guinea	60	60

42. Joint arrangements and activities (cont'd.)

(a) Joint ventures and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
Diamond LNG Shipping 6 Ltd. ***	The Bahamas	Owning, chartering and operating of vessel	-	25.5
Future Horizon (L) Pte. Ltd. ****	Malaysia	Carrying on LNG carriage and LNG bunkering operations	51	51
Diamond LNG Shipping 5 Pte. Ltd. ****	Singapore	Owning and chartering LNG vessel	25.5	-
Diamond LNG Shipping 6 Pte. Ltd. ****	Singapore	Owning and chartering LNG vessel	25.5	-
ELS Lightering Services S.A. ****	Uruguay	Lightering services	50	50
Akudel S.A. ****	Uruguay	Lightering activity	49	49
Cawerty S.A. ****	Uruguay	Lightering activity	49	49
Zascul S.A. ****	Uruguay	Lightering activity	49	49
Lifisol S.A. ****	Uruguay	Provision of oil spill prevention and response services	50	50
Ship Service S.A. ****	Uruguay	Ship management services	50	50

42. Joint arrangements and activities (cont'd.)

(a) Joint ventures and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
Malaysia Vietnam Offshore Terminal (L) Ltd. ****	Malaysia	FSO owner	51	51
Vietnam Offshore Floating Terminal (Ruby) Ltd. ***	Malaysia	FPSO owner	40	40
SBM Systems Inc.***	Switzerland	FPSO owner	49	49
FPSO Brasil Venture S.A.***	Switzerland	Investment and offshore activities	49	49
SBM Operacoes Ltda. ***	Brazil	Operating and maintaining FPSO terminals	49	49
Operacoes Maritimas em Mar Profundo Brasileiro Ltda. ***	Brazil	Operation and maintenance of FPSO	49	49
Brazilian Deepwater Floating Terminals Ltd. ***	Bermuda	Construction of FPSO	49	49

42. Joint arrangements and activities (cont'd.)

(a) Joint ventures and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
Brazilian Deepwater Production Ltd. ***	Bermuda	Chartering of FPSO	49	49
Brazilian Deepwater Production Contractors Ltd. ***	Bermuda	Operation and maintenance of FPSO	49	49
Malaysia Deepwater Floating Terminal (Kikeh) Ltd. ****	Malaysia	FPSO owner	51	51
Malaysia Deepwater Production Contractors Sdn. Bhd. ****	Malaysia	Operating and maintaining FPSO terminal	51	51
Brazilian Deepwater Production B.V. ***	Netherlands	Chartering of FPSO	49	-
MMHE-TPGM Sdn. Bhd. ****	Malaysia	Dormant	39.9	39.9
MMHE-ATB Sdn. Bhd. ***	Malaysia	Dormant	26.6	26.6
Technip MHB Hull Engineering Sdn. Bhd. ****	Malaysia	Dormant	33.3	33.3
SL-MISC International Line Co. Ltd. ***	Sudan	In liquidation	49	49

42. Joint arrangements and activities (cont'd.)

(a) Joint ventures and activities (cont'd.)

Name of company	Country of incorporation	Principal activities	Effective interest held (%) 2020	2019
MISC Shipping Services UAE (LLC) ***	United Arab Emirates	Dormant	49	49

*** Even though the Group holds less than 50% equity interest in these companies, all material operational and financial matters require unanimous consent of the joint venture parties.

**** Even though the Group holds 50% or more than 50% equity interest in these companies, all material operational and financial matters require unanimous consent of the joint venture parties.

(b) Joint operations

Details of the Group's joint operations are as follows:

Name	Effective interest held by the Group (%) 2020	2019
Technip MMHE (Malikai) Joint Venture	33	33
Technip MMHE (SK316) Joint Venture	33	33
Technip MMHE (Kasawari) Joint Venture	40	40

Technip MMHE (Malikai) Joint Venture, Technip MMHE (SK316) Joint Venture and Technip MMHE (Kasawari) Joint Venture are unincorporated joint ventures between the subsidiary, MMHE and Technip Geoproduction (M) Sdn. Bhd. to undertake specific engineering, procurement and construction, installation and commissioning projects.

43. Significant events

(a) Material litigation

(i) Gumusut-Kakap Semi-Floating Production System (L) Limited ("GKL") and Sabah Shell Petroleum Limited ("SSPC")

We refer to previous announcements made by MISC Berhad ("MISC or the Corporation") in respect of the Arbitration Proceedings commenced by the Corporation's wholly-owned subsidiary, GKL against SSPC.

As announced on 10 April 2020, the Arbitral Tribunal has issued its Award on 8 April 2020 ("Award") which found, among others, as follows:

1) That GKL's claim in relation to the achievement of Handover Completion under the Contract was rejected and the Arbitral Tribunal decided that Handover Completion did not occur prior to 11 October 2014;

2) In relation to GKL's claims for Variation Works, GKL was awarded:

   a. USD222,132,575.60;
   b. That an amount of USD88,791,006.17 is deducted from USD222,132,575.60 being manpower costs incurred by way of the Variation Works for rectification of defects (which the Tribunal held GKL to be liable for);
   c. That the remainder sum of USD133,341,569.49 is converted to an Additional Lease Rate and represents a reduction from the Additional Lease Rate awarded by the Adjudication Awards. The new Additional Lease Rate is payable from the date of the Award. The base rate is unaffected by the Award and will continue for the Fixed Term.

3) SSPC was awarded the following sums:

   a. USD236,378,824.46 for defects rectification work (inclusive of USD15,000,000.00 for Liquidated Damages);
   b. USD88,317,146.13 as a refund for overpayment of the Additional Lease Rate originally awarded in the Adjudication Proceedings for the period of April 2014 to January 2020 due to the reduction of the Additional Lease Rate as set out in Item 2(c) above;
   c. Applicable interest up to the date of the Award;
   d. Costs of USD12,746,570.70;
   e. Interest at 6.65% on the sums awarded in the Award from the date of the Award until payment.

43. Significant events (cont'd.)

(a) Material litigation (cont'd.)

(i) Gumusut-Kakap Semi-Floating Production System (L) Limited ("GKL") and Sabah Shell Petroleum Limited ("SSPC") (cont'd.)

4) SSPC is entitled to set-off the above claims against moneys owed by SSPC to GKL under the Contract, including but not limited to the lease rate.

5) Any GST payable pursuant to the Goods and Services Tax Act 2014 to be accounted by the parties.

GKL is advised that it has legal grounds to challenge the Award and on 7 July 2020, GKL has filed the following court applications:

(i) an Originating Summons dated 7 July 2020 for setting aside of parts of the Arbitral Award dated 8 April 2020 ("**Setting Aside OS**"); and

(ii) a Notice of Application for an injunction to restrain SSPC from setting off the sums that GKL was ordered to pay to SSPC under the Arbitral Award dated 8 April 2020 ("**Injunction NOA**").

Setting Aside OS and Injunction NOA

On 6 October 2020, GKL withdrew the Injunction NOA on the basis that a statutory stay of enforcement is automatically imposed on SSPC upon GKL's application to set aside SSPC's Award enforcement.

On 9 October 2020, the Court gave further directions for Parties' to exchange affidavits which have been duly exhausted. Parties are prepared for the hearing, pending the outcome of an interim application to transfer the proceedings to another court filed by SSPC.

SSPC's ex-parte application for enforcement of the Award

GKL has filed its application to set aside the ex-parte Order on 27 July 2020 and to transfer these proceedings to the same court hearing GKL's OS. Directions in respect of the setting aside application will be given once the transfer application has been determined.

Hearing of GKL's setting aside application is expected within Quarter 2 2021.

43. Significant events (cont'd.)

(a) Material litigation (cont'd.)

(ii) Malaysia Marine and Heavy Engineering Sdn Bhd (“MMHE”) and EA Technique (M) Berhad ("EAT")

MMHE, a subsidiary of the Group, had on 27 September 2019 received a Notice of Arbitration from EAT for a number of claims in relation to the contract entered into by MMHE in June 2015 for the Provision of Demolition, Refurbishment and Conversion of Donor Vessel into a Floating, Storage and Offloading Facility for Full Development Project, North Malay Basin, hereinafter referred to as the “Conversion Contract”.

During the period of the contract, MMHE issued Additional Work Orders (“AWOs”) to EAT, claiming for payments for work done. Disputes and differences have arisen between the parties over the valuation of the invoices and AWOs issued.

On 22 June 2019, EAT and MMHE entered into an agreement via a Letter of Undertaking (“LOU”) to settle the sums due under the invoices and AWOs. Under the LOU, the parties agreed to perform a joint review of the claims made by MMHE over a specified period. However, both parties were unable to reach an amicable settlement and as a result thereof, EAT initiated arbitration proceedings against MMHE to resolve the disputes.

MMHE received the Final Award dated 10 November 2020 on 11 November 2020 on the arbitration proceedings. The Arbitral Tribunal ordered EAT to pay MMHE a total of USD29.5 million and costs in the sum of RM4.7 million (together with interest at 5% per annum from date of Award to the date of full payment). Under the Final Award, MMHE is not liable to pay any sum to EAT.

On 4 December 2020, EAT applied to the Tribunal to make a determination on certain defences in respect of specific AWOs which the Tribunal had allegedly omitted to address in the Final Award and to make corrections to the Final Award pursuant to Section 35 of the Arbitration Act 2005 ("Correction Application"). The Arbitral Tribunal invited submissions from the parties in respect of the Correction Application and on 12 January 2021, the Tribunal dismissed EAT’s Correction Application.

On 14 December 2020, EAT applied to Court to refer questions of law arising from the Final Award pursuant to Section 42 of the Arbitration Act 2005 ("Reference Application"). On 8 February 2021, MMHE applied to Court to summarily dispose the Reference Application pursuant to Order 14A of the Rules of Court 2012 ("Summary Disposal Application"). In that circumstances, the Court directed for the Summary Disposal Application to be disposed first before the Reference Application.

43. Significant events (cont'd.)

(a) Material litigation (cont'd.)

(ii) Malaysia Marine and Heavy Engineering Sdn Bhd (“MMHE”) and EA Technique (M) Berhad ("EAT") (cont'd.)

On 26 January 2021, EAT applied to Court to set aside the Final Award pursuant to Section 37 of the Arbitration Act 2005 ("Setting Aside Application"). MMHE informed the Court that it would be filing an application for EAT to pay the sum awarded to MMHE into Court pending the disposal of the Setting Aside Application. In that circumstances, the Court directed for the Payment into Court and Transfer Applications to be disposed first before the Setting Aside Application.

As of the date of this report, the Reference Application and Setting Aside Application and the interlocutory proceedings filed thereunder are still ongoing.

In parallel to the Arbitration, MMHE also referred part of its claim in the Arbitration to Adjudication proceedings pursuant to the Construction Industry Payment and Adjudication Act 2012 (“CIPAA”). In the 1st Adjudication Decision dated 27 May 2019, the Adjudicator awarded MMHE the sum of USD21.5 million. In the 2nd Adjudication Decision dated 2 December 2019, the Adjudicator awarded MMHE the sum of USD6.1 million.

EAT has applied to set aside and/or stay the 1st and 2nd Adjudication Decision and MMHE has applied to register and enforce the Adjudication decisions in High Court. The High Court, on 1 June 2020, dismissed EAT’s Setting Aside Application and allowed MMHE’s Enforcement Application for the 1st Adjudication Decision. The Court on 27 October 2020 dismissed EAT’s application to stay the 1st Adjudication Decision CIPAA Award.

On 2 July 2020, EAT served to MMHE sealed Notices of Appeal to the Court of Appeal dated 26 June 2020, seeking to appeal against the High Court’s decision in dismissing the 1st Setting Aside Application and allowing MMHE’s 1st Enforcement Application. EAT’s appeal is fixed for Hearing on 6 July 2021.

In view that MMHE was successful in respect of 1st Setting Aside and/or Stay and the 1st Enforcement Application, MMHE, on 2 November 2020, presented a Winding Up Petition against EAT. In turn, EAT filed an Affidavit to oppose the Winding Up Petition and also filed an application to strike out the Winding Up Petition. Both the Winding Up Petition as well as EAT’s striking out application will be heard on 3 March 2021.

In respect of the setting aside, stay and enforcement applications for the 2nd Adjudication Decision, the hearing was initially fixed on 24 February 2021 but has been subsequently vacated by the Court in view of the extended Movement Control Order. Parties are in the midst of fixing a replacement hearing date.

43. Significant events (cont'd.)

(a) Material litigation (cont'd.)

(ii) Malaysia Marine and Heavy Engineering Sdn Bhd ("MMHE") and EA Technique (M) Berhad ("EAT") (cont'd.)

As legal proceedings are still on-going, MMHE is of the opinion that the amount granted in the Final Award is not yet certain and have not recognised any additional income from the Final Award in the current financial year.

(iii) Kebabangan Petroleum Operating Company Sdn Bhd ("KPOC") v MMHE

MMHE, a subsidiary of the Group, had on 14 March 2019 received a notice of arbitration from KPOC in relation to claims arising from the Kebabangan ("KBB") field project. KPOC claims that MMHE was and is in breach of the contract in respect of the appointed supplier of the valves per the contract. The actual valves procured were claimed to be defective and thus KPOC has suffered substantial loss and damage.

Pursuant to the Statement of Claims by KPOC dated 13 October 2019, total claims of approximately RM93.2 million were made in relation to as loss and damage in respect of the valves procured by MMHE.

The arbitration has commenced with evidentiary hearing concluded on 19 January 2021. The Tribunal directed KPOC and MMHE to file and exchange written submission on or before 2 March 2021 and then to file and exchange reply submission on or before 2 April 2021. Both are to file and exchange their rebuttal submission purely responsive on cost on or before 9 April 2021. The Tribunal will then hear the oral submissions on 14 April 2021.

Apart from the Arbitration, MMHE reserves its right to persue any other legal actions as may be permitted under Malaysian law, including, if appropriate, to seek indemnity from the ultimate supplier of the said valves.

MMHE is of the view that it has a fair chance to defend against KPOC's claims and therefore has not made any provisions in respect of this claim.

43. Significant events (cont'd.)

(b) Impact of the COVID-19 pandemic

The COVID-19 pandemic has not materially affected the financial performance, financial position, cash flows and liquidity of LNG Asset Solutions and Offshore Business segments in the current financial year.

However, the Petroleum & Product Shipping segment's financial performance in the second half of the financial year was affected by the lower freight rates due to the impact of the pandemic on global oil demand.

Additionally, the Marine & Heavy Engineering business was also impacted by the COVID-19 pandemic. The brief shutdown of yard operations, prolonged border control measures and the introduction of Standard Operating Procedures ("SOPs") under the new normal have resulted in extended duration to the segment's on-going heavy engineering projects and lower repair jobs in the marine segment. As a result, the segment recorded an impairment loss on the property, plant and equipment and right-of-use assets of RM300.0 million and suffered direct and indirect costs associated to COVID-19 in the current financial year. The assumptions used in the impairment assessment is disclosed in Note 14 to the financial statements.

In terms of receipts from customers, the Group has not experienced significant increase in receivables turnover days in the current financial year as a result of the pandemic.

As at 31 December 2020, the Group recorded net current asset position of RM6,808.2 million and cash, deposits and bank balances of RM6,855.0 million. Accordingly, the Group has the ability to continue as a going concern as of the date of this report.

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Registration No. 196801000580 (8178-H)

Independent auditors' report to the members of MISC Berhad (Incorporated in Malaysia)

Report on the audit of the financial statements

Opinion

We have audited the financial statements of MISC Berhad, which comprise the statements of financial position as at 31 December 2020 of the Group and of the Corporation, and the income statements, statements of comprehensive income, statements of changes in equity and statements of cash flows of the Group and of the Corporation for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, as set out on pages 9 to 186.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Group and of the Corporation as at 31 December 2020, and of their financial performance and their cash flows for the year then ended in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the requirements of the Companies Act 2016 in Malaysia.

Basis for opinion

We conducted our audit in accordance with approved standards on auditing in Malaysia and International Standards on Auditing. Our responsibilities under those standards are further described in the *Auditors' responsibilities for the audit of the financial statements* section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Independence and other ethical responsibilities

We are independent of the Group and of the Corporation in accordance with the By-Laws (on Professional Ethics, Conduct and Practice) of the Malaysian Institute of Accountants ("By-Laws") and the International Code of Ethics for Professional Accountants (including International Independence Standards) ("IESBA Code"), and we have fulfilled our other ethical responsibilities in accordance with the By-Laws and the IESBA Code.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the Group and of the Corporation for the current year. These matters were addressed in the context of our audit of the financial statements of the Group and of the Corporation as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

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Registration No. 196801000580 (8178-H)

Independent auditors' report to the members of MISC Berhad (cont'd.)
(Incorporated in Malaysia)

Key audit matters (cont'd.)

We have fulfilled the responsibilities described in the *Auditors' responsibilities for the audit of the financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis of our audit opinion on the accompanying financial statements.

Key audit matters	How we addressed the key audit matters
Impairment of goodwill - *(Refer to Note 16 - Intangible assets, to the financial statements)* The Group is required to perform annual impairment test of cash generating units ("CGUs") or groups of CGUs to which goodwill has been allocated. The Group estimated the recoverable amount of its CGUs or groups of CGUs to which the goodwill is allocated based on value-in-use ("VIU"). Estimating the VIU of CGUs or groups of CGUs involves estimating the future cash inflows and outflows and discounting them at an appropriate rate. Included in the Group's goodwill as at 31 December 2020 of RM803.9 million is goodwill relating to the Petroleum & Product Shipping segment. We focused on the impairment review of the goodwill relating to this segment as it represents more than 99% of the Group's goodwill as at 31 December 2020 and significant judgements were involved in the terminal value and growth rate of the expected cash flows as well as the determination of an appropriate discount rate, which may cause possible variations in the recoverable amount of the CGU to which the goodwill has been allocated.	Our audit procedures included, among others evaluating the assumptions and methodologies used by the Group, in particular the assumptions to which the recoverable amount of the CGUs are most sensitive such as the terminal value of the expected cash flows, the growth rate as well as the discount rate used. We have assessed and tested the key assumptions used by management to estimate the projected cash flows for the CGUs as follows: (a) obtained an understanding of the relevant internal controls over estimating the recoverable amount of the CGUs or groups of CGUs; (b) evaluated, with the involvement of our internal valuation specialist the appropriateness of methodology and approach applied and the discount rate used to determine the present value of the cash flows and whether the rate used reflects the current market assessments of the time value of money and the risks specific to the asset; (c) evaluated the terminal value and growth rate of the expected cash flows; and

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Independent auditors' report to the members of
MISC Berhad (cont'd.)
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Key audit matters (cont'd.)

Key audit matters	How we addressed the key audit matters
Impairment of goodwill - *(Refer to Note 16 - Intangible assets, to the financial statements) (cont'd.)*	(d) assessed the sensitivity of the goodwill balance to changes in the discount rate, terminal value and growth rate of cash flows. In addition, we also evaluated the adequacy of the disclosures of each key assumption on which the Group has based its cash flow projections and to which the recoverable amount is most sensitive, as disclosed in Note 16 to the financial statements.
Impairment of non-current assets – *(Refer to Note 14 - Ships, offshore floating assets and other property, plant and equipment, to the financial statements)* The Group is required to perform impairment test of CGU whenever there is an indication that the CGU may be impaired by comparing the carrying amount with its recoverable amount. (i) Other property, plant and equipment Malaysia Marine and Heavy Engineering Holdings Berhad ("MHB") Group is in a loss-making position and the carrying amount of MHB Group's net assets exceeds its market capitalisation, thereby indicating potential impairment of MHB Group's non-current assets.	Our audit procedures included, among others evaluating the assumptions and methodologies used by the Group, in particular those relating to the discount rate and projected cash flows for the CGU. The areas that involved significant audit effort and judgement were the assessment of the probability of securing the future revenue contracts, possible variations in the amount and timing of cash flows and the determination of an appropriate discount rate. Our procedures to assess management's impairment testing included the following: (a) obtained an understanding of the relevant internal controls over estimating the recoverable amount of the CGUs;

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Independent auditors' report to the members of MISC Berhad (cont'd.)
(Incorporated in Malaysia)

Key audit matters (cont'd.)

Key audit matters	How we addressed the key audit matters
Impairment of non-current assets – *(Refer to Note 14 - Ships, offshore floating assets and other property, plant and equipment, to the financial statements) (cont'd.)* (i) Other property, plant and equipment (cont'd.) Accordingly, the Group estimated the recoverable amount of the property, plant and equipment and right-of-use assets of MHB Group using VIU based on cash flow projections derived from budgets approved by management covering a five year period including terminal value. Estimating the VIU involves estimating the future cash inflows and outflows and discounting them at an appropriate discount rate. MHB Group recorded a total impairment loss of RM300 million during the current financial year. This impairment review was significant to our audit because the assessment process is complex and is based on assumptions that are highly judgemental.	(b) enquired with business development teams to obtain an understanding of the status of negotiations and the likelihood of securing the revenue contracts for contracts above our testing threshold, including timing of commencement and expected value of revenue contracts; (c) evaluated the reasonableness of the estimated profits to be derived from those revenue contracts above our testing threshold by comparing the estimated margins with the actual margins achieved by MHB Group in previous years; and (d) assessed, with the involvement of our internal valuation specialist the appropriateness of the methodology and approach applied and the discount rate used to determine the present value of the cash flows and whether the rate used reflects the current market assessments of the time value of money and the risks specific to the asset.

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Independent auditors' report to the members of
MISC Berhad (cont'd.)
(Incorporated in Malaysia)

Key audit matters (cont'd.)

<table>
<tr><th>Key audit matters</th><th>How we addressed the key audit matters</th></tr>
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Impairment of non-current assets –
(Refer to Note 14 - Ships, offshore floating assets and other property, plant and equipment, to the financial statements) (cont'd.)

ii) Ships and right-of-use assets of in-chartered ships

In addition, continued volatility of charter hire rates and certain ships' contracts which have expired or are approaching expiry were also identified by management as indicators that the carrying amount of certain ships and right of use assets may be impaired.

Accordingly, the Group and the Corporation estimated the recoverable amount of the ships using the higher of fair value less costs of disposal ("FVLCS") and VIU. For recoverable amount that is based on FVLCS, the Group engaged independent valuers to assess the fair value of the ships.

The Group and the Corporation recorded a total impairment loss of RM21.2 million and RM10.4 million respectively during the current financial year.

This impairment review was significant to our audit because the assessment process is based on assumptions that are highly judgemental.

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Our audit procedures to assess management's impairment testing based on VIU included the following:

(a) obtained an understanding of the relevant internal controls over estimating the VIU of the CGUs or groups of CGUs;

(b) assessed the assumptions of future charter hire rates by comparing to the terms and conditions stipulated in the time charter party agreements entered into with the lessee, in particular the daily charter hire rates;

(c) assessed whether the assumptions on the operating costs are supportable when compared to the past trends; and

(d) evaluated, with the involvement of our internal valuation specialist the appropriateness of the methodology and approach applied and the discount rate used to determine the present value of the cash flows and whether the rate used reflects the current market assessments of the time value of money and the risks specific to the asset.

Our audit procedures to assess management's impairment testing based on FVLCS are as follows:

(a) considered the independence, competence, capabilities and objectivity of the external valuers; and

obtained an understanding of the methodology adopted by the independent valuers in estimating the fair value of the ships and assessed whether such methodology is consistent with those used in the industry.

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Independent auditors' report to the members of
MISC Berhad (cont'd.)
(Incorporated in Malaysia)

Key audit matters (cont'd.)

Key audit matters	How we addressed the key audit matters
Impairment of non-current assets – *(Refer to Note 14 - Ships, offshore floating assets and other property, plant and equipment, to the financial statements) (cont'd.)*	In addition, we also evaluated the adequacy of the Group's disclosures of each key assumption on which the Group has based its cash flow projections and to which the CGU's recoverable amount is most sensitive, as disclosed in Note 14 to the financial statements.
Recognition of revenue and cost of construction and marine projects – *(Refer to Note 3 - Revenue and Note 23 - Due from/(to) customers on contracts, to the financial statements)* A significant proportion of the Group's revenues and profits are derived from long-term construction and marine projects which span more than one accounting period. The Group uses the percentage-of-completion ("POC") method in accounting for the revenue of these long-term contracts. The stage of completion is measured by reference to the physical completion of the contracts. Cost is recognised based on actual costs incurred to date. We focused on this area because management applies significant judgement and estimates in determining the stage of physical completion in respect of heavy engineering and marine projects and in estimating total estimated project costs.	In addressing this area of audit focus, we obtained an understanding of the relevant internal controls over the accuracy and timing of revenue and cost recognised in the financial statements, including controls performed by the management in estimating total project costs, profit margin and POC of projects. In addition, we also performed the following: (a) obtained an understanding of the relevant internal controls over the accuracy and timing of revenue recognised in the financial statements, including controls performed by the management in estimating budgeted project costs, estimated project margins and stage of physical completion; (b) read all key contracts to obtain an understanding of the specific terms and conditions; (c) agreed contract sum to the original signed customer contracts and/or approved variation orders;

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Independent auditors' report to the members of MISC Berhad (cont'd.)
(Incorporated in Malaysia)

Key audit matters (cont'd.)

Key audit matters	How we addressed the key audit matters
Recognition of revenue and cost of construction and marine projects – *(Refer to Note 3 - Revenue and Note 23 - Due from/(to) customers on contracts, to the financial statements) (cont'd.)*	(d) reviewed management meeting minutes to obtain an understanding of the performance and status of the projects above our testing threshold; (e) reviewed management's budgeted project costs to ensure adequacy of costs to complete; (f) assessed the reasonableness of inputs used in the determination of POC in light of supporting evidence such as engineers' reports in relation to marine projects and signed progress reports by third party for heavy engineering projects; (g) considered the historical accuracy of management's budgeted project margins in assessing the reasonableness of estimated margins of similar projects; (h) assessed and ensured that actual project costs are appropriately accrued and supported by documentary evidences, such as work completion reports and material acceptance certificates, which represent activities performed to date; (i) reperformed the calculations of the revenue based on the POC method and where applicable, considered the implications of any changes in estimates; and (j) evaluated the presentation and disclosures of construction contracts in the financial statements, including significant accounting policies.

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Independent auditors' report to the members of MISC Berhad (cont'd.) (Incorporated in Malaysia)

Key audit matters (cont'd.)

Key audit matters	How we addressed the key audit matters
Contingent liability – *(Refer to Note 43(a)(i) – Significant Events - Material litigation - Gumusut-Kakap Semi-Floating Production System (L) Limited ("GKL") and Sabah Shell Petroleum Limited ("SSPC"), to the financial statements)* We focused on this area as the eventual outcome of claims is uncertain and the positions taken by the Directors are based on the application of material judgement and estimation. Accordingly, unexpected adverse outcomes could significantly impact the Group's reported profit and statement of financial position.	In addressing this area of audit focus, we considered whether an obligation exists, the appropriateness of provisioning and/or disclosure based on the facts and circumstances available. We have performed the following: (a) Obtained and reviewed the relevant correspondences in relation to Arbitration and Litigation cases; (b) Compared the opinion provided by the Group's external legal counsel against management's assessment on the measurement and/or disclosures for the contingent liability; (c) Considered the independence, reputation and capabilities of the external legal counsel; (d) Obtained legal confirmations from the Group's external legal counsel; and (e) Considered whether the Group's disclosures of the application of judgement in estimating provisions and contingent liabilities adequately reflected the uncertainties associated with legal and regulatory matters.

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Independent auditors' report to the members of
MISC Berhad (cont'd.)
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Information other than the financial statements and auditors' report thereon

The directors of the Corporation are responsible for the other information. The other information comprises the information included in the Group's 2020 Annual Report, but does not include the financial statements of the Group and of the Corporation and our auditors' report thereon. The Group's 2020 Annual Report is expected to be made available to us after the date of this auditors' report.

Our opinion on the financial statements of the Group and of the Corporation does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements of the Group and of the Corporation, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the financial statements of the Group and of the Corporation or our knowledge obtained in the audit or otherwise appears to be materially misstated.

Responsibilities of the directors for the financial statements

The directors of the Corporation are responsible for the preparation of financial statements of the Group and of the Corporation that give a true and fair view in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the requirements of the Companies Act 2016 in Malaysia. The directors are also responsible for such internal control as the directors determine is necessary to enable the preparation of financial statements of the Group and of the Corporation that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements of the Group and of the Corporation, the directors are responsible for assessing the Group's and the Corporation's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or the Corporation or to cease operations, or have no realistic alternative but to do so.

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Independent auditors' report to the members of MISC Berhad (cont'd.)
(Incorporated in Malaysia)

Auditors' responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements of the Group and of the Corporation as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with approved standards on auditing in Malaysia and International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with approved standards on auditing in Malaysia and International Standards on Auditing, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements of the Group and of the Corporation, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Corporation's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's or the Corporation's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements of the Group and of the Corporation or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group or the Corporation to cease to continue as a going concern.

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**Independent auditors' report to the members of
MISC Berhad (cont'd.)
(Incorporated in Malaysia)**

Auditors' responsibilities for the audit of the financial statements (cont'd.)

- Evaluate the overall presentation, structure and content of the financial statements of the Group and of the Corporation, including the disclosures, and whether the financial statements of the Group and of the Corporation represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the financial statements of the Group. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the directors, we determine those matters that were of most significance in the audit of the financial statements of the Group and of the Corporation for the current year and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on other legal and regulatory requirements

In accordance with the requirements of the Companies Act 2016 in Malaysia, we report that the subsidiaries of which we have not acted as auditors, are disclosed in Note 40 to the financial statements.

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Independent auditors' report to the members of MISC Berhad (cont'd.)
(Incorporated in Malaysia)

Other matters

This report is made solely to the members of the Company, as a body, in accordance with Section 266 of the Companies Act 2016 in Malaysia and for no other purpose. We do not assume responsibility to any other person for the content of this report.

Ernst & Young PLT 202006000003 (LLP0022760-LCA) & AF 0039 Chartered Accountants	Ismed Darwis Bin Bahatiar 02921/04/2022 J Chartered Accountant

Kuala Lumpur, Malaysia
23 February 2021

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Drewry

Oil and Gas Shipping and Shiprepair Industry: Independent Market Report for Bond Offering

February 2022

Prepared for:

MISC Berhad

Prepared By:

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Abbreviations

Abbreviations	Expanded form
AER	Average Efficiency Ratio
AG	Arabian Gulf
BBL	Barrel Of Crude Oil
BHP	Brake Horsepower
BN	Billion
BP	British Petroleum
BWM	Ballast Water Management
CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditure
CBM	Cubic Meters
CCS	Carbon Capture System
CGT	Compensated Gross Tonnage
CII	Carbon Intensity Indicator
CNOOC	China National Offshore Oil Corporation
COA	Contract of Affreightment
CPP	Clean Petroleum Products
CSIC	China Shipbuilding Industry Company
CSSC	China State Shipbuilding Corporation
DFDE	Dual Fuel Diesel Electric Propulsion System
DPP	Dirty Petroleum Products
DWT	Deadweight Tonnage
E&P	Exploration And Production
ECA	Emission Control Areas
EEXI	Energy Efficiency Existing Ship Index
EPA	Environmental Protection Agency
EPCIC	Engineering, Procurement, Construction, Installation & Commissioning
EU	European Union
EV	Electric Vehicle
FID	Final Investment Decision
FLNG	Floating Liquefied Natural Gas
FPSO	Floating Production Storage and Offloading
FSO	Floating Storage and Offloading
FSRU	Floating Storage and Regasification Unit
FSU	Former Soviet Union
GDP	Gross Domestic Product
GHG	Greenhouse Gases
HSFO	High Sulfur Fuel Oil
IEA	International Energy Agency
IMF	International Monetary Fund
IMO	International Maritime Organization
JMU	Japan Marine United
KBPD	Thousand Barrel Per Day
KPI	Key Performance Indicator
KPMI	Keppel Philippines Marine, Inc
LDT	Light Displacement Tonnage
LNG	Liquefied Natural Gas
LNGBV	LNG Bunkering Vessel
LNGC	Liquefied Natural Gas Carriers
LPG	Liquefied Petroleum Gas
LR	Long Range
LSFO	Low Sulfur Fuel Oil
LTO	Light Tight Oil
MARPOL	International Convention for the Prevention of Pollution from Ships
MBPD	Million Barrel Per Day
MEPC	Marine Environment Protection Committee
MEGI	M-type, Electronically Controlled Gas Injection
MHB	Malaysia Marine and Heavy Engineering Holdings Berhad
MMBTU	One Thousand British Thermal Units
MMHE	Malaysia Marine and Heavy Engineering Sdn Bhd
MR	Medium Range
MTPA	Million Ton Per Annum
NFE	North Field Expansion
NITC	National Iranian Tanker Company
NOx	Nitrogen Oxides

Abbreviations	Expanded form
O&G	Oil And Gas
OECD	Organisation For Economic Co-Operation and Development
OPEC	Organization of the Petroleum Exporting Countries
OPEX	Operating Expense
PD	Per Day
PM	Particulate Matter
SCR	Selective Catalytic Reduction
SE Asia	South East Asia
SEEMP	Ship Energy Efficiency Management Plan
sLNG	Small-scale LNG
SOx	Sulfur Oxides
SPR	Strategic Petroleum Reserves
SW Asia	South West Asia
TCE	Time Charter Equivalent
ULCC	Ultra Large Crude Carriers
ULEC	Ultra Large Ethane Carrier
US	United States
USAC	United States Atlantic Coast
USD	United States Dollar
VLCC	Very Large Crude Carrier
VLEC	Very Large Ethane Carrier
VLOC	Very Large Ore Carrier
VLSFO	Very Low Sulphur Fuel Oil
YOY	Year Over Year

Independent Market Report: Oil and Gas Shipping, Offshore and Shiprepair

The information and data presented in this section, including the analysis of international shipping industry, has been provided by Drewry. Drewry has advised us that the statistical and graphical information contained herein is drawn from its database and other sources. In connection therewith, Drewry has advised that: (a) majority of the data is available as of 2020; (b) certain information in Drewry's database is derived from estimates or subjective judgments; (c) the information in the databases of other maritime data collection agencies may differ from the information in Drewry's database; and (d) while Drewry has taken reasonable care in the compilation of the statistical and graphical information and believes it to be accurate and correct, data compilation is subject to limited audit and validation procedures.

1. Introduction to shipping

1.1 Introduction

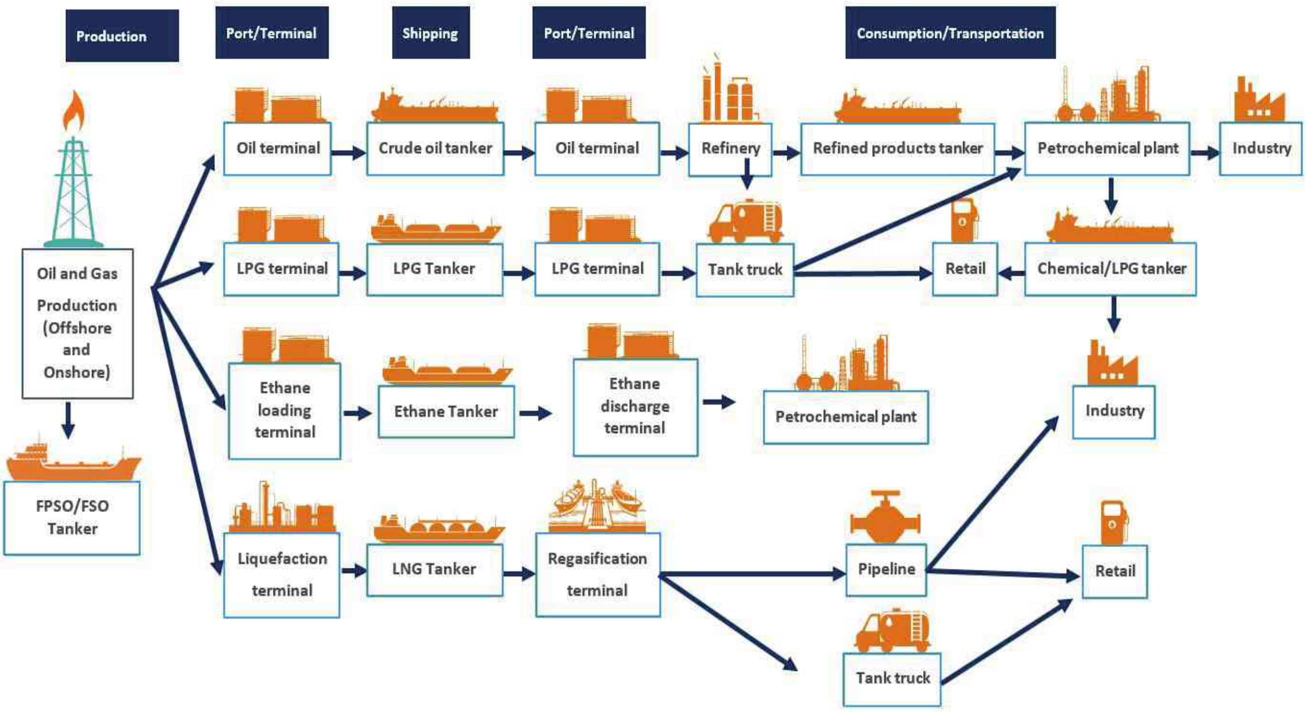
The maritime transport industry plays a major role in international trade as it is the only practicable and economic way of transporting large volumes of many essential commodities and finished goods around the world. In seaborne terms, international trade can be broadly classified as either dry or liquid cargo. Dry cargo refers to general cargoes and dry bulk cargoes. General cargoes comprise of a wide variety of cargo ranging from containerized cargoes to unitized cargoes in pallets and boxes to lumbers, steel and vehicles. Containerized cargoes are shipped in 20-foot or 40-foot containers and include a wide variety of finished and semi-finished products. Dry bulk cargoes are cargoes shipped in large quantities and can easily be stowed in a single hold with little risk of cargo damage. The balance of seaborne trade involves the transport of bulk liquids and includes products such as crude oil, refined petroleum products, liquid chemicals and liquefied gases such as liquefied natural gas (LNG), liquefied petroleum gas (LPG), petrochemical gases, ammonia and ethane. The ship types associated with each cargo type are shown in **Table 1-1** and the schematic diagram of liquid bulk logistics value chain has been presented in **Figure 1-1**.

Table 1-1 Major trade categories and ship types

Category	Sub-category	Commodities Included	Ship Types
Liquid cargo	Crude oil	Crude oil	ULCC, VLCC, Suezmax, Aframax, Panamax
	Refined products	Diesel/gasoil, gasoline, jet fuel/Kerosene, naphtha, fuel oil.	LR and MR product tankers
	Chemicals	Organic and inorganic chemicals and vegetable oils.	Chemical tankers
	Gases	LNG, Ethane, LPG, Ammonia and petrochemical gases (e.g., ethylene, propylene, butadiene)	Gas carriers
Dry cargo	Major bulk	Iron ore, coking coal, thermal coal	VLOC, Capesize, Panamax
	Minor bulk	Grains, cement and clinker, bauxite, and over 40 other commodities	Panamax, Handymax, Handysize, general cargo ships
	General cargo	Mainly manufactured commodities and general cargo	General cargo ships
	Container	Mainly manufactured commodities and general cargo	Containerships
	Reefer	Meat, vegetables, fruit and dairy products	Reefer vessels

Source: Drewry

Figure 1-1 Liquid bulk logistics value chain: schematic diagram

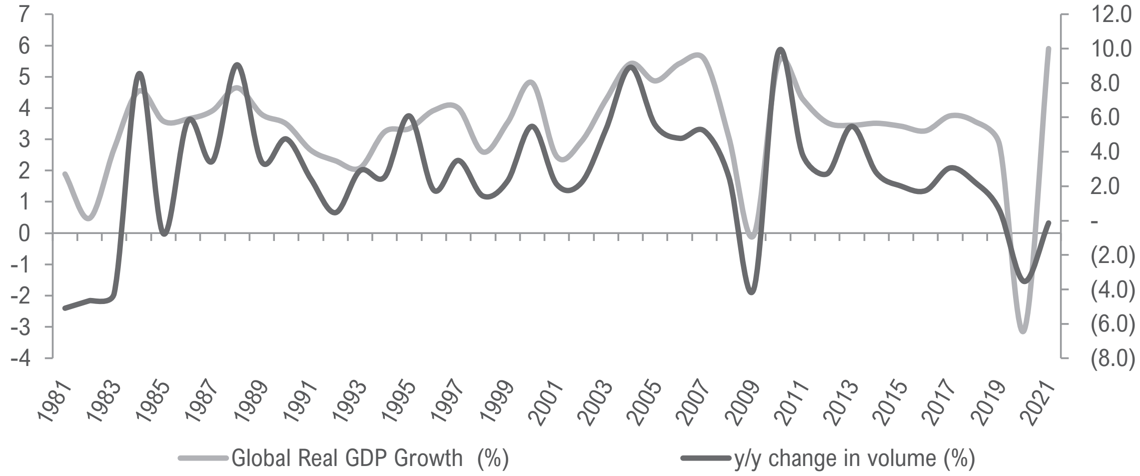


Source: Drewry

Seaborne oil trade is the result of geographical imbalances between areas of production and consumption. Some other factors, such as change in the sources and levels of oil supply and refinery capacity, as well as movement in oil prices, can also affect inter-regional trade patterns and volumes.

The overall supply is expressed by the size of the existing fleet capacity, measured in terms of deadweight tons (dwt). Changes in supply are influenced by a variety of factors, including the size of the existing fleet (in term of number and deadweight of ships); the rate of removals from the existing fleet through scrapping, loss, conversion or regulatory obsolescence, and the rate of deliveries of newbuildings from the vessel orderbook. Other factors, such as port congestion and vessel speeds, also affect supply. There is a clear link between economic activity and world trade and, as such, business cycles have had a pronounced impact on world trade volumes. A high correlation between the two is evident from the chart below.

Figure 1-2 Global real GDP growth vs trade growth



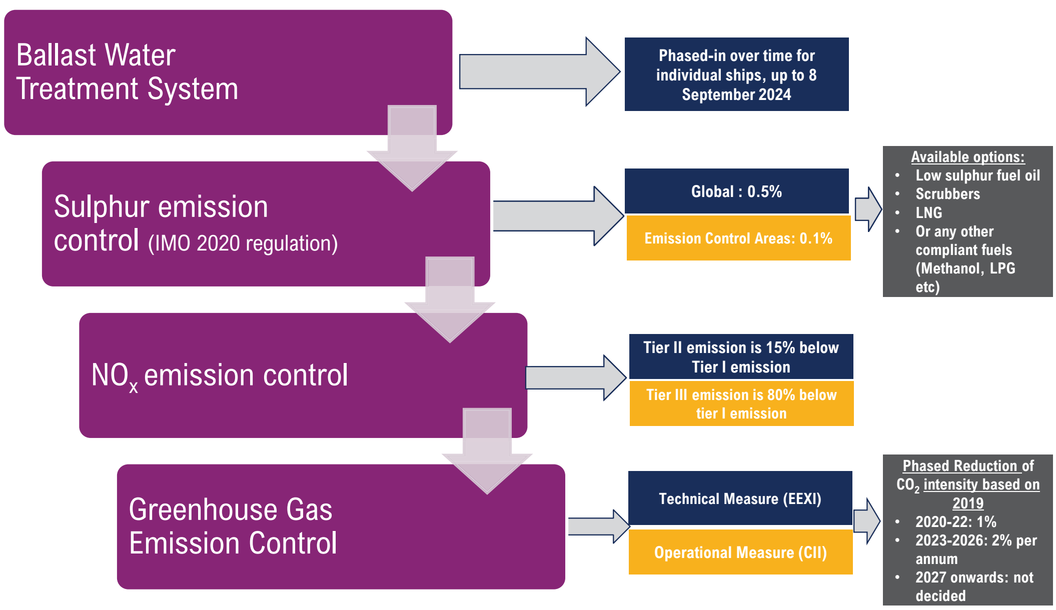
Note: 2021 data is based on initial estimates

Source: Drewry, International Monetary Fund, October 2021

1.1.1 Environmental Regulations

Shipping is a highly regulated industry. Some of the latest regulations have been listed below:

Figure 1-3 Regulations in the shipping industry



Source: IMO, Drewry

Ballast Water Management Convention:

All deep-sea vessels engaged in international trade are required to have ballast water treatment system before 8 September 2024. For a VLCC tanker, the retrofit cost could be as much as USD 2.0 million per vessel, including labor. Expenditure of this kind has become another factor impacting the decision to scrap older vessels after the BWM Convention came into force in 2019.

IMO GHG Strategy

The IMO has been devising strategies to reduce greenhouse gases (GHG) and carbon emissions from ships. According to the announcement in 2018, the IMO plans to initiate measures to reduce CO_2 emissions intensity by at least 40% by 2030 and 70% by 2050 from the levels in 2008. It also plans to introduce measures to reduce total GHG emissions by 50% by 2050 from the 2008 levels. These are likely to be achieved by setting energy efficiency requirements and encouraging shipowners to use alternative fuels such as biofuels, and electro-/synthetic fuels such as hydrogen or ammonia. It may include limiting the speed of the ships. Currently, there is uncertainty regarding the exact measures that the IMO will undertake to achieve these targets. Although the current macroeconomic environment is the main deterrent, IMO-related uncertainty is also a key factor preventing ship owners from placing new orders, as the vessels with conventional propulsion system may have a high environmental compliance cost and possible faster depreciation in asset values in the future. Some shipowners are ahead of the curve by having ordered LNG-fuelled/methanol ships in order to comply with stricter regulations that may be announced in future. In tanker segment some of the shipping companies have been trailblazers namely Sovcomflot, AET, ADNOC, etc

In June 2021, the IMO adopted amendments to the International Convention for the Prevention of Pollution from ships that will require vessels to reduce their greenhouse gas emissions. These amendments are a combination of technical and operational measures and are expected to come into force on 1 November 2022, with the requirements for Energy Efficiency Existing Ship Index (EEXI) and Carbon Intensity Indicator (CII) certification, effective 1 January 2023. These will be monitored by the flag administration and corrective actions will be required in the event of constant non-compliance. A review clause requires the IMO to review the effectiveness of the implementation of the CII and EEXI requirements, by 1 January 2026 at the latest. EEXI is a technical measure and would apply to ships above 400 GT. It indicates the energy efficiency of the ship compared to a baseline and is based on a required reduction factor (expressed as a percentage relative to the Energy Efficiency Design Index baseline).

On the other hand, CII is an operational measure which specifies carbon intensity reduction requirements for vessels with 5,000 GT and above. The CII determines the annual reduction factor needed to ensure continuous improvement of the ship's operational carbon intensity within a specific rating level. The operational carbon intensity rating would be given on a scale of A, B, C, D or E indicating a major superior, minor superior, moderate, minor inferior, or inferior performance level, respectively. The performance level would be recorded in the ship's Ship Energy Efficiency Management Plan (SEEMP). A ship rated D for three consecutive years, or E, would have to submit a corrective action plan, to show how the required index (C or above) would be achieved. To reduce carbon intensity, shipowners can switch from oil to alternative fuels such as LNG or methanol. Some marine fuels such as ammonia and hydrogen have zero-carbon content. In the long term, ammonia can emerge as a cost-effective alternative fuel but in the short term, it seems unviable. Other options include propeller upgrading/polishing, hull cleaning/coating and retrofitting vessels with the wind-assisted propulsion system. Reducing ship speeds also helps in complying with the regulations as it lowers fuel consumption and it is easy to implement.

In addition to the IMO regulation, the EU has proposed a set of proposals including EU Emissions Trading System and FuelEU Maritime Initiative. It lays down rules regarding GHG intensity of energy used on-board all ships arriving in the EU. It aims to reduce GHG emission by 26% by 2040 and 75% by 2050 compared to 2020 level. It also makes obligatory for ships to use on-shore power supply or zero-emission technology in ports in the EU. These initiatives are applicable to 50% of the emission from voyages arriving at or departing from an EU port. All shipowners trading in European waters will need to comply with these regulations.

The emission control regulations are likely to slow the speed of vessels in next few years. Consequently, it will lead to a reduction in the supply of ships and therefore, it will benefit shipowners with younger fleet in short to medium term as charter rates should potentially increase with lower supply of ships. In the long term, ships may switch to alternative low/zero carbon fuels to comply with emission regulations.

Besides the IMO regulations, the decarbonization of shipping is being propelled by various state and non-state stakeholders of the shipping industry. In recent years, there have been several developments towards it such as Sea Cargo Charter, Poseidon Principles (for ship finance banks) and Poseidon Principles for Marine Insurance. In addition, there has been several industry led initiatives to facilitate movement towards low/zero-carbon shipping such as Getting to Zero Coalition, The Castor Initiative for Ammonia, Global Centre for Maritime Decarbonisation and the Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping. Some of the shipping companies from South East Asia have also joined such initiatives such as MISC, and Precious Shipping.

Given the strong momentum in decarbonization initiatives in shipping from the multilateral agencies, state and non-state stakeholders, the shipping industry is slowly moving in the right direction to reduce greenhouse gas and carbon emissions. These initiatives are likely to have following impacts in coming years

1. The development of low/zero carbon vessels by 2025. However, it will be at a significantly higher CAPEX than conventional fuel oil propelled vessels.
2. Older inefficient tonnage with higher CO_2 intensity is less likely to be chartered.
3. Inability to decrease carbon intensity of the fleet will constrain access to ship finance.
4. Though the decarbonization initiatives are steps in the right direction, it is likely to constrain ship finance availability for small shipowners with small balance sheet.

Table 1-2 State and industry led initiatives towards decarbonization

Initiatives	Year of commencement	Description
Poseidon Principles	2019	World's first sector-specific, self-governing climate alignment agreement amongst 27 financial institutions (with equivalent to more than 50% of global shipping loan portfolio) to integrate the IMO's policies on climate change into ship finance decision making processes.
Sea Cargo Charter	2020	A group of 29 bulk ship charterers. It is a global framework that allows for the integration of climate considerations into chartering decisions to favor climate-aligned maritime transport.
Poseidon Principles for Marine Insurance	2021	Group of six insurers. The aim is to enable insurers to assess and disclose their portfolios with responsible environmental impacts and incentivize international shipping's decarbonization
The Global Environment Facility Trust Fund	2020	IFC-GEF Green Shipping Investment Platform was approved in 2020. The Green Shipping Platform aims to create a first-of-its-kind global investment vehicle solely focused on decarbonizing the shipping industry.
Sustainability-linked bond/loan		Sustainability linked loans/bonds aim to facilitate and support environmentally and socially sustainable economic activities and growth. These principles are voluntary recommended guidelines for loans/bonds to be recognized as sustainable. The sustainability linked loans/bonds enable lenders/investors to incentivize the sustainability performance of the borrower/issuer and align the cost of financing with a borrower's performance measured against prescribed sustainability performance targets. Sustainable linked finances have clearly defined sustainability targets. Improvements in CO2 intensity are measured using Average Efficiency Ratio (AER). Across all shipping sectors, 15 sustainability-linked deals worth USD3 billion were concluded from Jan-Aug 2021.
The Castor Initiative	2021	A group formed to develop an ammonia-fuelled tanker, with representation from all areas of the maritime ecosystem.
Clyde Bank Declaration	2021	It is a coalition of 22 governments to support the establishment of green shipping corridors – zero-emission maritime routes between 2 (or more) ports. It aims to establish at least 6 corridors by 2025.

Source: Drewry

2 Crude tanker industry

2.1 Crude tanker industry fundamentals

2.1.1 Crude tanker industry fundamentals

The oil tanker shipping industry is divided between crude tankers that carry either crude oil or residual fuel oil and product tankers that carry refined petroleum products. The crude tanker industry is fundamental to the energy security of almost every economy of the world as crude oil is an essential commodity that accounts for nearly one third of the global energy supply, and nearly 90% of total trade of crude oil is transported on seaborne trade routes.

Crude tanker fleet overview

The world crude tanker fleet is generally classified into three major types (VLCC, Suezmax and Aframax) of vessel categories, based on carrying capacity. As of 30 September 2021, the crude tanker fleet consisted of 2,175 vessels with a combined capacity of 425.5 million dwt.

Table 2-1 Crude oil tanker fleet – 30 September 2021

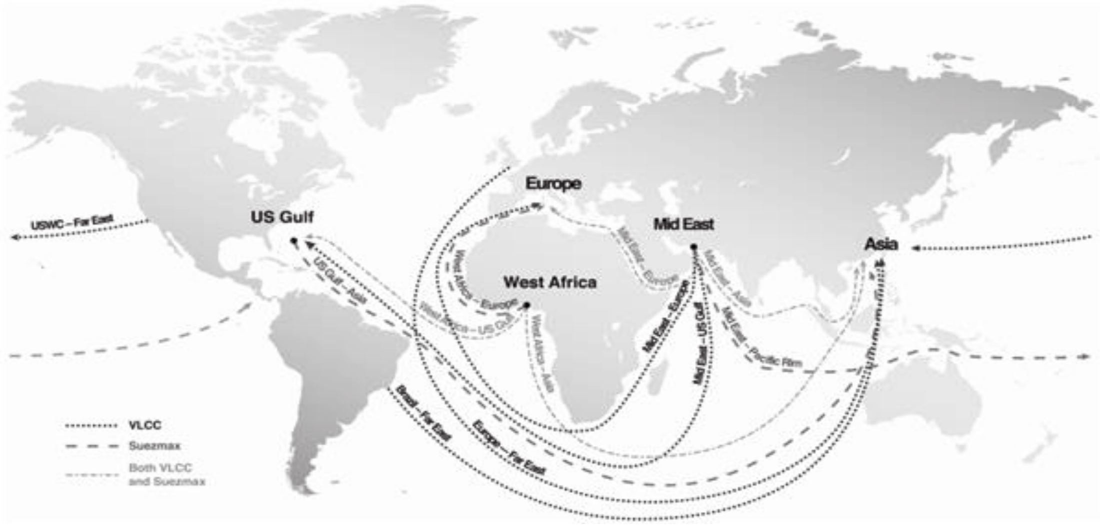
Vessel type	Brief description	Deadweight tons (Dwt)	Number of vessels	% of fleet	Capacity (Million dwt)	% of fleet
VLCC	VLCCs generally trade on long-haul routes (Middle East and West Africa to Asia, Europe and the US Gulf or the Caribbean). Tankers in excess of 320,000 dwt are known as Ultra Large Crude Carriers (ULCCs), although for the purposes of this report, they are included within the VLCC category.	200,000 +	845	38.9	260.6	61.3
Suezmax	Suezmax tankers are engaged in a range of crude oil trades across a number of major loading zones. Within the Suezmax sector, there are a number of product and shuttle tankers	120-199,999	560	25.7	87.9	20.7
Aframax	Aframax tankers are employed in shorter regional trades, mainly in Northwest Europe, the Caribbean, the Mediterranean and Asia. There are Aframax-sized shuttle tankers as well.	80-119,999	647	29.7	70.9	16.7
Panamax	Many operate in cabotage (coastal) type trades, and therefore, do not form part of the open market.	60-79,999	73	3.4	5.1	1.2
Handy	Mainly operates in cabotage (coastal) type trade.	10-59,999	50	2.3	1.0	0.2
Total			**2,175**	**100.0**	**425.5**	**100.0**

Source: Drewry

The table below shows principal routes for crude oil tankers and where these vessels are deployed.

While traditional VLCC and Suezmax trading routes have typically originated in the Middle East and the Atlantic Basin, increased Asian demand for crude oil has opened up new trading routes for both classes of vessels. The map below shows the main VLCC and Suezmax tanker seaborne trade routes.

Figure 2-1 Principal VLCC and Suezmax seaborne crude oil trades



Source: Drewry

The crude tanker freight market

Types of charter

Revenue for an oil tanker shipping company is dependent on the way oil tankers are deployed. Oil tankers are employed in the market through a number of different chartering options, which typically include bareboat charter, time charter, a single or spot voyage charter and a contract of affreightment, or COA.

2.1.2 Shuttle tankers

Shuttle tankers are specialized ships built to transport crude oil and condensates from offshore oil field installations to onshore terminals and refineries and are often referred to as floating pipeline. They are mainly deployed in offshore production areas like in Brazil, the US, North Sea/ Barents Sea, Russia and Canada with Brazil being the largest market. These vessels have operational flexibility as they can service multiple oil fields and typically operate on fixed rate contracts.

2.1.3 Oil price and its impact on tanker shipping

Data over the past decade indicates that a sharp decline in crude oil prices results in a surge in demand for crude oil tankers that drive the vessel earnings and lift the asset prices of crude carriers. A sudden plunge in crude prices supports the consumption of refined petroleum products as well as increased stockpiling by major economies to build strategic petroleum reserves (SPR) at lower oil prices. Additionally, traders also lock in large crude carriers to store crude oil to cash in on contango opportunities in the oil market due to sharp fall in oil prices. On the other hand, a rally in crude oil prices curtails retail demand for petroleum products and increases the inventory drawdown, which results in a weak crude tanker market and a decline in vessel earnings and asset prices.

2.2 Demand

2.2.1 Crude oil production by region

Global trends in oil production have naturally followed the growth in oil consumption, allowing for the fact that changes in the level of oil inventories also play an integral role in determining production levels and tie in with the seasonal peaks in demand. Changes in world crude oil production by region from 2011 to 2020 are shown in the table below.

Table 2-2 World oil production: 2011 to 2020 (mbpd)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	CAGR 11-20 %
North America	14.6	15.8	17.1	19.1	20.0	19.5	20.3	23.0	24.8	23.8	5.6%
FSU#	13.6	13.7	13.9	13.9	14.0	14.2	14.4	14.6	14.6	13.5	-0.1%
OPEC	35.6	37.6	36.7	37.5	38.2	39.6	39.5	36.8	35.0	30.9	-1.6%
Asia	7.8	7.8	7.7	7.6	7.9	7.6	7.3	7.2	7.2	7.0	-1.2%
Other	16.8	16.0	16.0	15.8	16.5	16.1	15.9	18.9	19.0	18.7	1.2%
World total	**88.4**	**90.9**	**91.4**	**93.8**	**96.6**	**97.0**	**97.5**	**100.4**	**100.6**	**93.9**	**0.7%**

 # Former Soviet Union
Source: IEA

2.2.2 Region-wise refining capacity, throughputs and future planned refinery capacity additions

A vital factor, which is affecting both the volume and pattern of world oil trades, is the shift in global refinery capacity from the developed to the developing world, which is increasing the distances from oil production sources to refineries. The capacity increases are especially evident in Asia. Global refining capacity has remained almost flat during 2011-2020. During the same period, the refining capacity in Europe declined at a CAGR of 1.1%, while it grew by 2.5% for the Middle East and 2.8% for China.

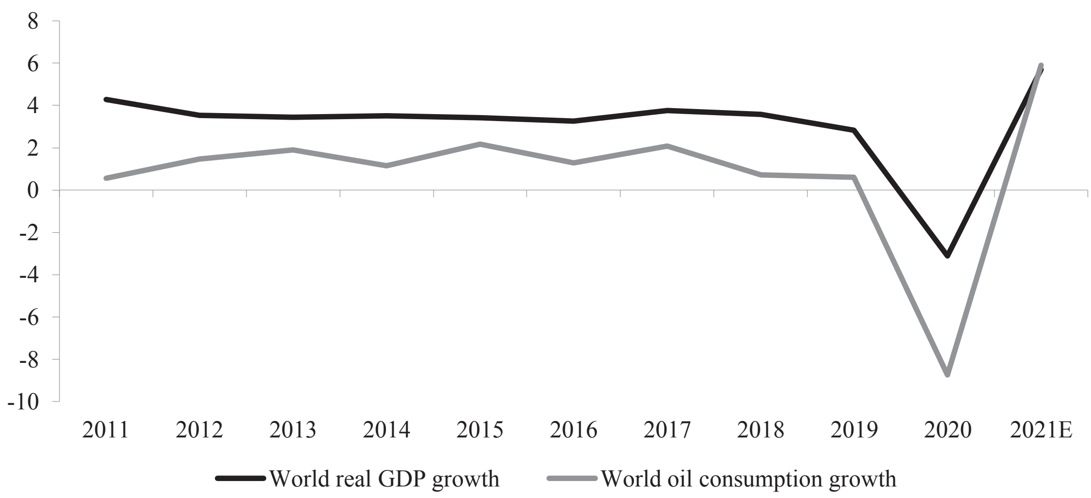
Nearly 230 kbpd of new refining capacity in the Middle East and another 25 kbpd in Asia are scheduled to come online in 2021 with nearly 445 kbpd of existing refinery capacity in North America and Europe expected to be phased out during the same year. As a result of these developments, countries such as India and Saudi Arabia have consolidated their positions as major exporters of products. The shift in refinery capacity is likely to continue as refinery development plans are heavily focused on areas such as Asia and the Middle East.

Asian refinery throughput grew at a CAGR of 2% during 2011-2020 compared to a 1.1% decline in refining throughput of the rest of the world. Chinese refinery throughput has grown at a faster rate than that of any other global region in the last decade, with refinery throughput in India, the Middle East and other emerging economies following a similar pattern.

2.2.3 Crude oil demand by region

In 2020, oil accounted for 31.2% of global energy consumption. With the exception of 2008, 2009 and 2020, world oil consumption has increased steadily over the past two decades, as a result of increasing global economic activity and industrial production. In recent years, the growth in oil demand has been largely driven by developing countries in Asia and growing Chinese consumption. In 2019, global oil demand increased to 99.5 mbpd, which represents a 0.6% rise from 2018. Global oil demand plunged 8.7% to 90.8 mbpd in 2020 on account of demand destruction due to Covid. However, the easing of mobility restrictions and resumption of economic activities coupled with the launch of several Covid vaccines have supported the global oil demand in 2021. The global oil demand increased from 94 mbpd in 4Q20 to 97.8 mbpd in 3Q21 and is expected to rise further to 100.5 mbpd by 3Q22 on the back of economic recovery. However, reports of new variants of the virus could curtail the pace of growth in global oil consumption. According to the IMF, global economy is projected to grow at 5.7% in 2021 after shrinking by 3.1% in 2020. On the other hand, China, the key growth driver of tankers, is expected to grow by 8.0% in 2021 after registering growth of 2.3% in 2020.

Figure 2-2 Global real GDP growth vs world oil consumption growth: 2011 to 2021E



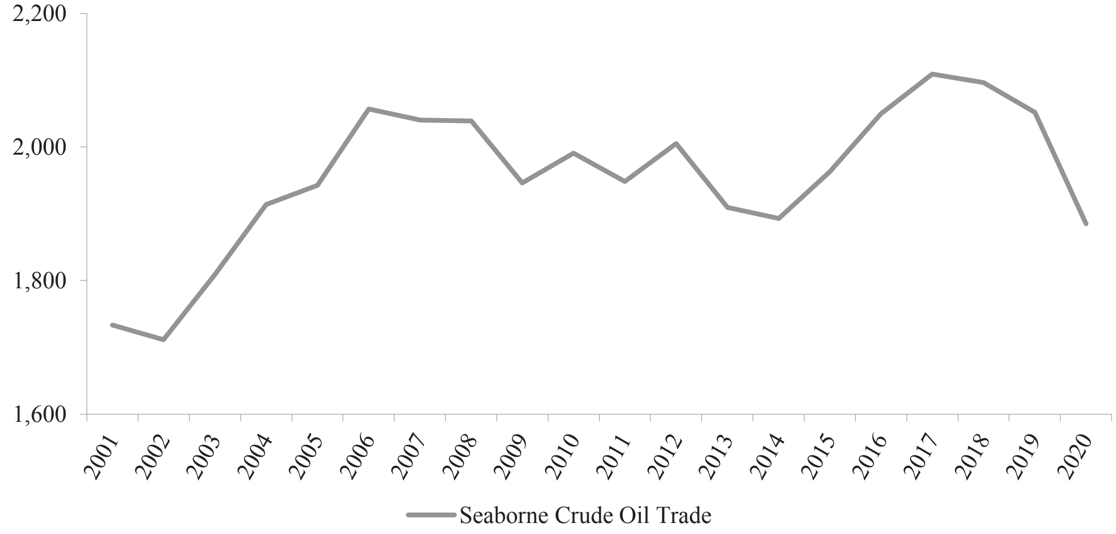
Source: IMF and IEA

Historically, certain developed economies have acted as the primary drivers of these seaborne oil trade patterns. The developing world is driving recent trends in oil demand and trade. Crude oil consumption of OECD economies declined at annual rate of 1.1% between 2011 and 2020, whereas the consumption of non-OECD economies grew at 1.5% per annum over the same period. Furthermore, consumption on a per capita basis remains low in many parts of the developing world, and as many of these regions have insufficient domestic supplies, the rising demand for oil will have to be satisfied by increased imports.

2.2.4 World seaborne tanker trade

Overall, the volume of crude oil moved by sea each year reflects the underlying changes in world oil consumption and production. Driven by increased world oil demand and production, especially in developing countries, seaborne trade in crude oil increased from 1,948 million tons in 2011 to 2,052 million tons in 2019, however, it declined 8.1% to 1,885 million tons in 2020 on account of demand destruction due to the Covid pandemic.

Figure 2-3 Seaborne crude oil trade development: 2001 to 2020 (million tons)



Source: GTIS, Drewry

As a result of changes in trade patterns, as well as shifts in refinery locations, average voyage length in the crude sector increased from 4,501 miles in 2011 to 4,942 miles in 2020. Ton-mile demand for crude tankers sector grew from 8,768 to 9,318 billion ton-miles over the same period. The table below shows changes in tanker demand expressed in ton-miles, which is measured as the product of the volume of oil carried (measured in metric tons) multiplied by the distance over which it is carried (measured in miles).

Table 2-3 Crude oil tanker demand: 2011 to 2020

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	CAGR % 11-20
Seaborne crude trade - Million tons	1,948	2,005	1,910	1,893	1,963	2,050	2,109	2,097	2,052	1,885	-0.4%
Ton-mile demand - Billion ton-miles	8,768	9,190	8,714	8,717	8,914	9,480	9,944	10,042	9,892	9,318	0.7%
Average voyage length - Miles	4,501	4,584	4,563	4,604	4,541	4,625	4,714	4,789	4,820	4,942	1.0%

Source: Drewry

Another aspect which has impacted crude tanker demand in recent years has been the use of tankers for floating storage. In 2019, demand for floating storage increased as owners stored LSFO and HSFO to avoid uncertainty of availability of these fuels and hedge them from price increase. In early 2020, the oil supply shock as a result of the price war between Russia and Saudi Arabia coupled with demand destruction due to the outbreak of Covid led to a sharp decline in crude oil prices and a contango in oil futures. The demand for VLCCs for floating storage surged with arbitrage opportunities in the oil market and operational limitations of several oil producers. As of September 2021, nearly 64 VLCCs were employed in floating storage, which accounts for ~7.6% of the VLCC fleet.

2.2.5 Main trade routes for crude tankers and historical trends for trade by key routes

The increase in global oil consumption is being driven by non-OECD economies, particularly Asia Pacific (China, India and other major Asian economies). The region is supporting the growth in global crude oil trade over the past two decades as almost all major consumers in the region have limited domestic supply and a substantial part of their demand is fulfilled by imports. Additionally, the Middle East-Asia Pacific route would remain the major driver of the seaborne crude oil trade over the next five years.

Since the US Congress lifted a 40-year-old ban on crude oil exports in 2015, US crude exports have continued to grow on the back of rising domestic crude oil production and nearly flat domestic demand. While the US crude oil export is well below the exports of major players such as Saudi Arabia, Russia and other Middle Eastern exporters, the US Gulf to Asia-Pacific could be a key trading route for VLCC with growing US exports.

In the meantime, much of the oil from West Africa and the Caribbean, which was historically imported by the US, is now shipped in VLCC to China and other major Asian economies. It had a positive impact on tanker demand due to increased ton-miles, given the longer distances the oil needs to be transported. Production and exports from the Middle East (largely from OPEC suppliers) and West Africa have historically had a significant impact on the demand for tanker capacity, and consequently, on tanker charter hire rates due to the long distances between these supply sources and demand centres. Oil exports from short-haul regions, such as the North Sea, are significantly closer to ports used by the primary consumers of such exports, which results in shorter average voyages.

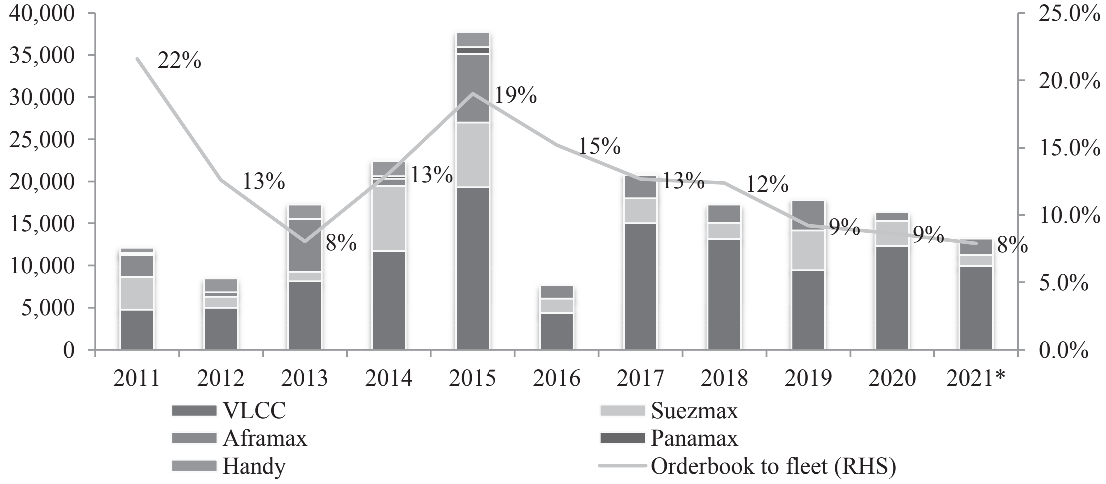
2.3 Supply

2.3.1 Historical crude tanker fleet

After growing at a record 6.4% year over year (YoY) in 2019, crude tanker fleet growth moderated to 2.9% YoY in 2020 to 418.6 million dwt. Deliveries declined by 45.1% YoY as orderbook was small. Whereas demolitions remained flat at around 2 million dwt as sharp decline in bunker prices made life easy for old vessels. An unprecedented surge in freight rates in 1H20 also kept scrapping activity muted. Moreover, activity in ship-breaking yards in South Asia was also hampered by the lockdowns and corresponding volatility in steel prices.

Uncertainty over the price and availability of new bunker fuel resulted in lower orders in 2019. New orders remained subdued in 2020 and upcoming IMO regulations on decarbonisation are holding back newbuilding activity as the new regulations will affect the choice of propulsion systems and fuels in the future. The recent surge in newbuilding prices has worsened the situation as it has increased the payback period for the investment. The chart below indicates the volume of new orders placed in crude tanker sectors from 2011 to September 2021.

Figure 2-4 Crude tanker new orders: 2011 to 2021* ('000 Dwt)

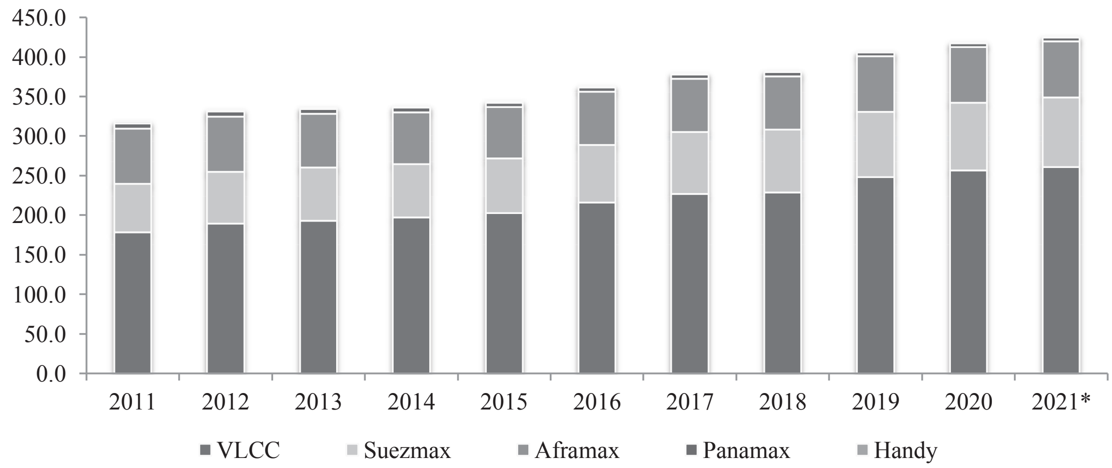


** as of 30 September 2021*
Source: Drewry

In the last few years, delays in new vessel deliveries, often referred to as 'slippage', have become a regular feature of the market. Slippage is the result of a combination of several factors, including cancellations of orders, issues in obtaining vessel financing, owners seeking to defer delivery during weak markets, and in some cases, shipyards experiencing financial difficulty. Since slippage has occurred in recent years, it is not unreasonable to expect that some of the crude tankers currently on order will not be delivered on time.

In 2020, crude tanker deliveries slumped 45.1% to 15.5 million dwt compared with deliveries of 28.1 million dwt in 2019 as a result of smaller orderbook and delays in deliveries due to the Covid pandemic in 2020. As a result of reduced deliveries, the global crude tanker fleet moved up 2.9% in 2020 compared to 6.4% in 2019. The chart below indicates the global crude tanker fleet development from 2011 to September 2021.

Figure 2-5 Crude tanker fleet: 2011 to 2021* (million dwt)



** as of 30 September 2021*
Source: Drewry

2.3.2 Orderbook and delivery schedule

At its peak in 2008, the crude tanker orderbook was equivalent to 50% of the existing fleets, which led to high levels of new deliveries between 2009 and 2012. The orderbook as a percentage of the existing fleet declined during 2010-13 due to low levels of new ordering. However, with the upturn in new ordering activity in 2014 and 2015, the crude tanker orderbook to fleet ratios rose to 19% in 2015 from 8% in 2013. As a result of lower levels of new ordering and elevated deliveries during 2016-19, the orderbook to fleet ratio for crude tankers declined steadily over the past five years and as of 30 September 2021 the crude tanker orderbook stood at 7.9% of the existing fleets - the lowest level since 2008.

As of 30 September 2021, the total crude tanker orderbook consisted of 156 vessels with an aggregate capacity of 33.6 million dwt. The orderbook for VLCCs stood at 76 vessels, representing 23.1 million dwt which accounts for 68.6% of orderbook, followed by 37 Suezmax tankers aggregating 5.8 million dwt (excluding shuttle tankers) and 41 Aframax vessels aggregating 4.7 million dwt, accounting 17.3% and 13.9% of the orderbook respectively. The delivery schedule of newbuilding crude carriers in the existing orderbook is shown in the following table.

Table 2-4 Crude oil tanker [(1)] orderbook – 30 September 2021

Vessel type	Size dwt	Existing fleet		Scheduled deliveries								Total orderbook		% existing fleet	
				2021		2022		2023		2024					
		No.	*m dwt*	*No.*	*m dwt*	*No.*	*m dwt*	*No.*	*m dwt*	*No.*	*m dwt*	*No.*	*m dwt*	*No*	*Dwt*
VLCC	200,000 +	845	260.6	5	1.6	44	13.3	27	8.2	0	0.0	76	23.1	9.0%	8.8%
Suezmax	120-199,999	560	87.9	2	0.3	27	4.3	7	1.1	1	0.2	37	5.8	6.6%	6.6%
Aframax	80-119,999	647	70.9	5	0.6	26	3.0	10	1.1	0	0.0	41	4.7	6.3%	6.6%
Panamax	60-79,999	73	5.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0%	0.0%
Handy	10-59,999	50	1.0	1	0.0	1	0.0	0	0.0	0	0.0	2	0.0	4.0%	4.9%
Total		**2,175**	**425.5**	**13**	**2.5**	**98**	**20.5**	**44**	**10.4**	**1**	**0.2**	**156**	**33.6**	**7.2%**	**7.9%**

(1) Excludes shuttle tankers
Source: Drewry

2.3.3 Expected deliveries

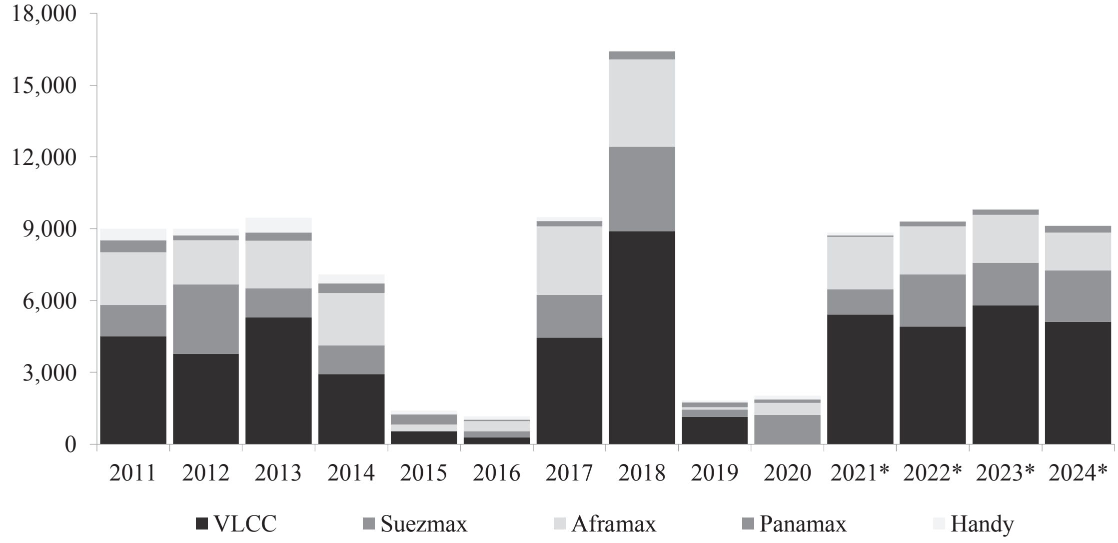
As of September 2021, 68 vessels with an aggregate capacity of 14.3 million dwt were delivered during the year to date and we expect the newbuild deliveries to inch up marginally by 0.2% YoY in 2021 before improving further by 8.9% in 2022 to 16.9 million dwt. However tonnage deliveries are projected to decline over the next five years, especially after 2022, because of weak ordering. Drewry expects the average annual deliveries to decline to about 15.8 million dwt during 2021-24, down significantly from 22.3 million dwt over the last five years. The VLCC segment will continue to dominate deliveries between 2021 and 2024 as it will account for nearly 67% of the aggregate capacity expected to be delivered over forecast period.

2.3.4 Expected level of scrapping

Tanker supply is also affected by vessel scrapping. As an oil tanker ages, vessel owners often conclude that it is more economical to scrap a vessel that has exhausted its useful life than to upgrade it to maintain its 'in-class' status. Often, particularly when tankers reach about 25 years of age, the costs of conducting the class survey and performing required repairs become economically inefficient. In recent years, most oil tankers that have been demolished were between 25 and 30 years of age. Average demolition age of VLCC has been around 21 years.

In addition to vessel age, scrapping activity is influenced by freight markets. A weak demand outlook, higher bunker prices coupled with upcoming IMO regulation is expected to keep scrapping activity relatively high during 2021-2024.

Figure 2-6 Crude tanker scrapping: 2011 to 2024 ('000 Dwt)



** Drewry estimate*

Source: Drewry

2.3.5 Crude tanker market performance since 2020

Demand for crude tankers and spot freight rates plunged substantially in 2H20 primarily due to low oil consumption and weak trade, coupled with ample tonnage availability. The easing of mobility restrictions, opening up of economic activity, supported by the rollout of several Covid vaccines drove the consumption of oil demand and trade. However, demand for crude oil tankers and vessel earnings remained under pressure in the first nine months of 2021 despite the rapid recovery in oil consumption. The curtailed oil supply from OPEC+ citing demand concerns due to more contagious variants of Covid forced inventory drawdown and several major consumers announced the release of Strategic Petroleum Reserves (SPRs) to curb the soaring oil prices. The limited supply of crude available for trade/shipment have led to high inactivity in the crude tanker market. The data since December 2021 indicates that nearly 14% of the global crude tanker fleet remains inactive and this is expected continue until 1H22 as inventory drawdown will keep the demand for tankers under pressure. However, we expect the inactivity to decline gradually in 2H22 with an increase in crude oil consumption and supply.

2.3.6 Tanker fleet supply

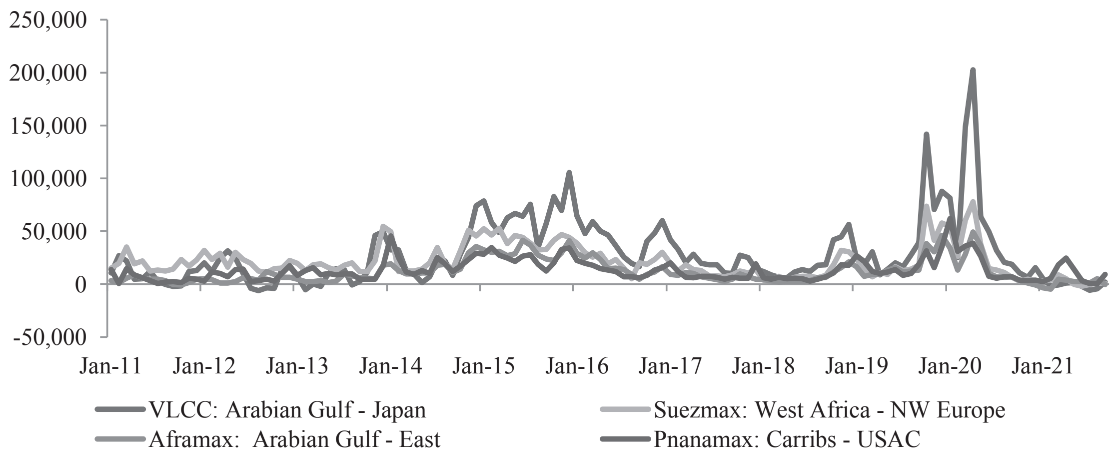
Drewry expects crude tanker fleet growth to decelerate during 2021-2024 because of a slowdown in deliveries and an uptick in scrapping activity. The crude tanker fleet is expected to expand at a modest 1.1% per annum during 2020-24, after increasing at an average CAGR of 4.0% between 2015 and 2020. Apart from the sluggish growth in the fleet, the expected slowdown in vessel speed in the wake of the upcoming IMO regulation on decarbonization would further squeeze tonnage supply in the crude tanker market. To meet the IMO's emission targets (measured by the Carbon Intensity Indicator), shipowners will adopt slow steaming that lowers fuel consumption and emissions.

2.4 Freight rates and earnings

2.4.1 Crude tanker spot market rates in key routes

The supply and demand for tanker capacity influences tanker charter hire rates and vessel values. In general, time charter rates are less volatile than spot rates as they reflect the fact that the vessel is fixed for a longer period of time. In the spot market, rates will reflect the immediate underlying conditions in vessel supply and demand, and are thus more prone to volatility. Small changes in tanker utilization have historically led to relatively large fluctuations in tanker charter rates for VLCCs, with more moderate volatility in the Suezmax, Aframax and Panamax markets and less volatility in the Handysize market, as compared with the tanker market as a whole.

Figure 2-7 Crude tanker time charter equivalent (TCE) rates: 2011 to 2021* (USD per day)



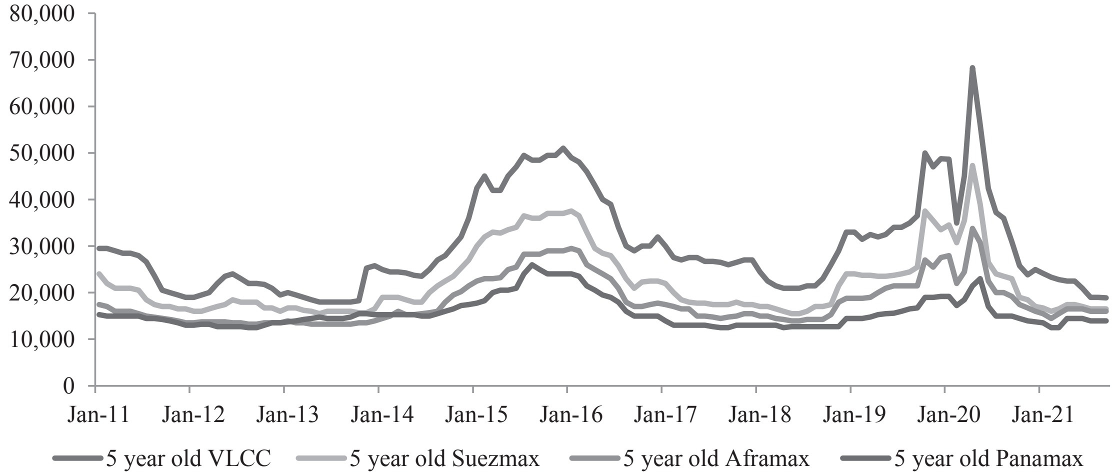
** up to September 2021*

Source: Drewry

2.4.2 Crude tanker one year time charter rates

The data for past 10 years indicate that the one year time charter rate of crude tankers followed a trend very similar to the trend in spot market. One year time charter rates of crude tankers surged in the beginning of 2020 and peaked in April-May 2020 before following a declining trend in later half of 2020. Recent data indicate that time charter rates of crude tankers remained rangebound in first nine months of 2021 and expected to improve gradually with recovery in tanker market in 2022. One year time charter rate for VLCC stood at USD 18,900pd in September 2021. The chart below illustrates changes in the monthly average time charter rates for four different class of crude carriers from January 2011 to September 2021.

Figure 2-8 Crude tankers one year time charter rates: 2010 to 2021* (USD per day)



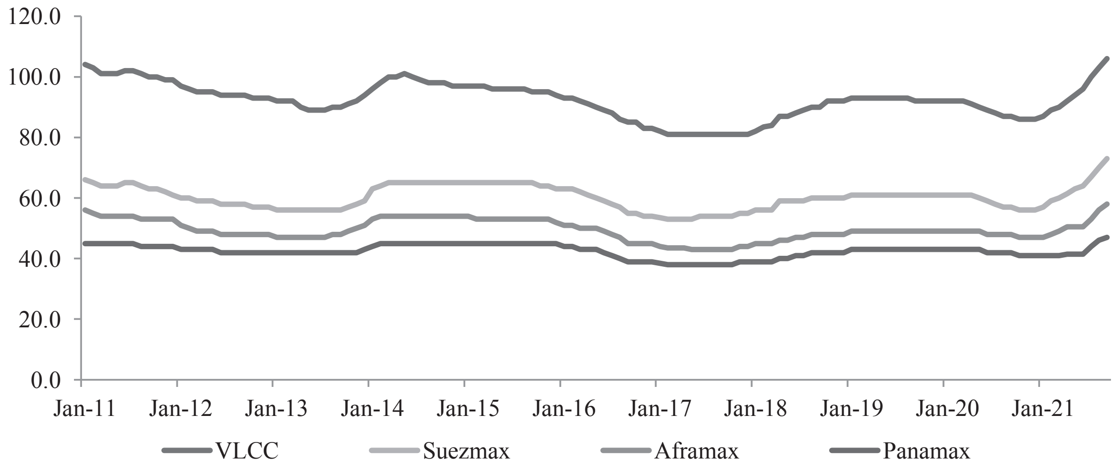
** up to September 2021*
Source: Drewry

2.5 Asset prices

2.5.1 Newbuild crude tanker historic price trend

Newbuild prices increased steadily in 2018 primarily due to optimism about a recovery in the tanker market and largely remained stable in 2019. In 2020 newbuilding prices for crude carriers declined 5.9% on average on account of lower new orders and weak freight market in 2H20. However, with recovery in oil demand and prospects of a potential recovery in the crude tanker market, newbuild prices on average increased 22.9% in the first nine months of 2021.

Figure 2-9 Crude tanker newbuilding prices: 2011 to 2021* (USD million)

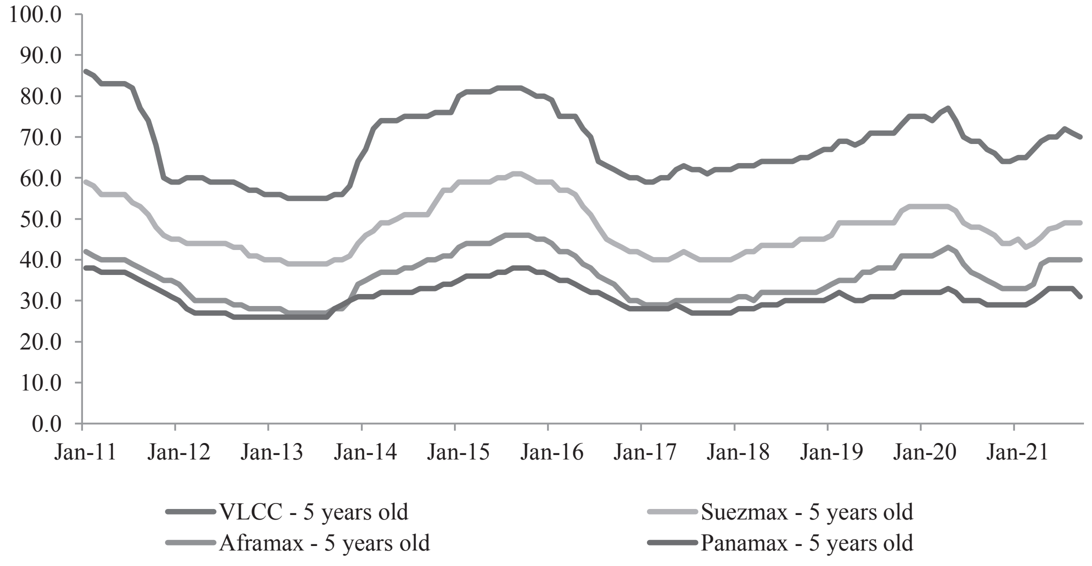


** up to September 2021*
Source: Drewry

2.5.2 Second-hand crude tanker historic price trend

Second-hand prices are generally influenced by potential vessel earnings, which in turn are influenced by trends in the supply of and demand for shipping capacity. The second-hand vessel prices follow the prevailing freight rates and they provide a better assessment of the existing supply-demand dynamics in the market. Vessel values are also dependent on other factors, including the age of the vessel, shipyard etc. Prices for young vessels, those around five-years old or under are also influenced by newbuilding prices. Prices for old vessels, those that are in excess of 20 years of age, and near the end of their useful economic lives, are swayed by the value of scrap steel. In addition, the values for younger vessels tend to fluctuate less on a percentage basis than the values for older vessels. This is attributed to the finite useful economic life of older vessels that makes the price of younger vessels less sensitive to freight rates in the short term. The chart below illustrates the movements of prices for second-hand (5-year old) oil tankers between 2010 and September 2021.

Figure 2-10 Crude tanker second-hand prices – 5-year old vessels: 2011 to 2021* (USD million)



** up to September 2021*

Source: Drewry

2.6 Outlook

2.6.1 Overall industry fundaments

On the demand side, global oil demand is expected to return to pre-pandemic levels in 2H22 as a widespread rollout of vaccines will further boost economic activity and mobility. Although oil demand has recovered significantly in 2021, a major chunk of the demand growth has been met by the inventory drawdown, keeping the crude oil trade stagnant during the year. However, there is a limit to inventory drawdown and release of oil from SPRs. We expect the OPEC+ to resume crude output at pre-pandemic levels by September 2022 and non-OPEC producers will also accelerate output, and as a result the oil market will be slightly oversupplied in 2022. Accordingly, crude oil trade is expected to surge by 8.1% YoY on the back of strong growth in demand and an increase in stocking activity. As oil inventories have gone below five-year average levels, we expect some restocking in 2022 once supply improves. However, growth in crude oil trade will decline in later years with slow growth in oil demand. Additionally, the expected rise in refinery runs in oil-producing regions such as the Middle East and Africa will also curb the overall growth in crude oil trade over the forecast period. In the medium-term, outlook is positive on the back of increased oil demand and positive supply fundamental given low orderbook to fleet ratio and likely reduction in fleet speed due to upcoming environmental regulation.

2.6.2 Views on asset prices and earnings

Crude oil demand, seaborne trade and vessels freight rates came under pressure in 2H20, and the oil demand recovered at a fast pace in first nine months of 2021. However, crude tanker demand and freight rates remained under pressure during the period because of the limited availability of crude to be transported and inventory drawdown by major economies due to soaring oil prices. We believe that the crude tanker market has bottomed out and tonnage utilisation is expected to increase from 2022 with the recovery in demand and slowdown in tonnage supply growth. This will support crude tanker freight rates as well as asset prices over the next three years. However, we do not expect the crude tanker earnings to see the highs seen in late 2019 and early 2020. Moreover, the Covid still remains a factor which could curtail the pace of recovery in demand and seaborne trade of crude oil. Rapid spread of new variant of the virus such as Delta and Omicron could be a potential threat to global economic recovery as well as demand of crude tankers.

The upcoming decarbonisation rules such as Energy Efficiency Existing Ship Index (EEXI) and Carbon Intensity Indicator (CII) will also help ease the burden of oversupply to some extent. It will lead to a slowdown in vessel speed and an increase in tonnage scrapping after 2022. Nonetheless, the race to zero carbon does not bode well for the long-term prospects of conventional and less eco-friendly tankers. Although global oil demand is expected to strengthen over the next five years, the pace of growth after 2023 will be hampered by efficiency improvements of combustion engines (gasoline, diesel, marine and jet engines), an increase in the electric vehicle fleet, and a gradual shift towards clean energy.

Second-hand asset prices of crude tankers moved up on average 12% in 9M21 as high newbuilding prices have underpinned the replacement cost. Additionally, speculative and counter-cyclical buying coupled with a surge in newbuilding prices and scrap values have aided the second-hand values. Although crude tanker rates are expected to improve from 2022, tonnage ordering is likely to remain weak until 2023 as slot availability with shipbuilding yards is limited. A small orderbook of about 8% of the fleet coupled with the expected weakness in orders over the next two years is expected to support second-hand asset prices.

3 Refined petroleum product tanker industry

3.1 Product tanker industry fundamentals

Refined petroleum products tanker fleet overview

The refined petroleum products consist of a number of different grades of dirty products (e.g., fuel oil) and different grades of clean products (e.g., gasoline, diesel/gasoil, naphtha or jet fuel/kerosene). The product capable fleet consists of product tankers and product/chemical tankers, and as such, pure chemical tankers are excluded from the analysis. The main types of product tanker together with indicative vessel sizes are shown in the table below.

Table 3-1 Types of product tanker

Product tanker type	Products		Product/chemical		Deployment
Sub Types/Size (Dwt)	Long Range 2 (LR2)	80,000+	Long Range 1 (LRI)	60-79,999	Short- to medium-haul crude oil and refined petroleum product transportation from the North Sea or West Africa to Europe, or the East Coast of the United States from the Middle East Gulf to the Pacific Rim.
	Long Range 1 (LRI)	60-79,999	Medium Range 2 (MR2)	45-59,999	Short- to medium-haul crude oil and refined petroleum product transportation worldwide, mostly on regional trade routes.
	Medium Range 2 (MR2)	45-59,999	Medium Range 1 (MR1)	27-44,999	Flexible vessels involved in medium-haul petroleum product trades both in the Atlantic Basin and the growing intra-Asian/Middle East/ISC trades.
	Medium Range 1 (MR1)	27-44,999	Handy	10-26,999	
	Handy	10-26,999			Short-haul of mostly refined petroleum products worldwide, usually on local or regional trade routes.
Average Tank Size (1)	>3,000 cbm		>3,000 cbm		
Tanks (2)	Coated/Uncoated		Coated		
IMO Certification (3)	Non-IMO		IMO 2/3 & IMO 3		
Cargoes Carried (4)	Clean Products		Clean Products		
	Dirty Products		Vegetable Oils		
			Certain Chemicals		

(1) Product capable tankers with an average tank size above 3,000 cubic meters (cbm) are deemed to be Product or Product/Chemical tankers. Tankers with an average tank size below 3,000 cbm are deemed to be chemical tankers.

(2) Type of tank coating. Coated ships include epoxy, zinc etc., while some chemical tankers have all/part stainless steel tanks.

(3) International Maritime Organization (IMO) Certificate of Fitness for the Carriage of Chemicals in Bulk.

(4) The main cargoes carried by each ship type.

Source: Drewry

As of September 30, 2021, the product tanker fleet comprised 2,935 vessels with a combined capacity of 144.8 million dwt. The product tanker fleet by vessel type and size as on September 30, 2021, is shown in the table given below.

Table 3-2 The product tanker fleet

Total Product Fleet	Deadweight tons (Dwt)	Number of vessels	% of fleet	Capacity m dwt	% of fleet
Long Range 2 (LR2)	80,000+	298	10.2	33.2	22.9
Long Range 1 (LR1)	60-79,999	333	11.3	24.6	17.0
Medium Range 2 (MR2)	45-59,999	1,163	39.6	56.9	39.3
Medium Range 1 (MR1)	27-44,999	555	18.9	21.1	14.6
Handy	10-26,999	586	20.0	9.0	6.2
Total		**2,935**	**100.0**	**144.8**	**100.0**

Source: Drewry

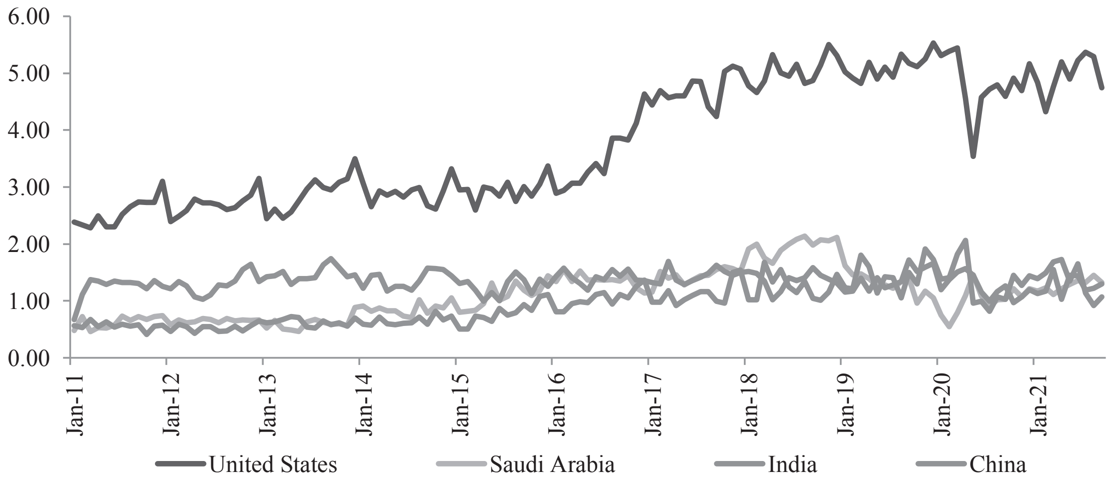
3.2 Product tanker demand

Demand for tanker shipping, as with other shipping sectors, is a product of the physical quantity of the cargo (measured in tons) together with the distance the cargo is transported (measured in nautical miles). Generally, demand cycles move in line with developments in the global economy although other factors such as changes in sources of oil production and refinery capacity, plus movements in oil prices play a key role.

3.2.1 Principal product importers and exporters

As the US, Saudi Arabia, India and China are key exporters of refined petroleum products, we expect these countries to drive their exports during 2022-26 as well. In the products market, there has been growth in US domestic oil production, which ensured greater availability of crude feedstock, rising refinery throughput and the expansion of pipeline infrastructure to make large-scale product exports feasible, particularly of middle distillates from the US Gulf. Average US exports of products have grown from 2.5 mbpd in 2011 to 5.1 mbpd in 2019 at a CAGR of 9.1%. Changes in the US, Saudi Arabian, Indian and Chinese product exports from January 2011 to September 2021 are shown in the following chart.

Figure 3-1 Oil product exports – major exporters: Jan 2011-Sep 2021 (mbpd)



Source: JODI, Drewry

Refinery capacity and throughput are moving from the developed to the developing world. In developed economies, such as Europe, refinery capacity is on the decline. This trend is likely to continue as refinery development plans are concentrated in areas such as Asia and the Middle East or close to oil producing centers and the majority of the planned refining capacities are export-orientated. These new refineries are more competitive as they can process sour (higher sulfur) crude oil and are technically more advanced, as well as more environment friendly compared with existing European refineries. By contrast, Chinese and Indian refinery capacity has grown at faster pace than any other region in the last decade, owing to strong domestic oil consumption and the construction of export-orientated refineries. Europe, Central & South America and Singapore are key importers of refined petroleum products.

3.2.2 Seaborne product trade and ton-mile demand

In 2020, 1,226 million tons of products, and vegetable oils/chemicals were moved by sea. Of this, products had a share of over 75% accounting for 931 million tons, with remaining contributed by other bulk liquids, including vegetable oils, chemicals, and associated products. During 2014-2019, the seaborne trade of products and vegetable oils/chemicals increased at an average CAGR of 2.8% – 1.1% higher than the growth in seaborne trade of crude oil during the same period. However, the outbreak of Covid led to a sharp decline in oil consumption and global oil demand fell 8.7% to 90.8 mbpd in 2020. During 2011-2019, seaborne transportation of products and vegetable oils/chemicals increased at an average CAGR of 2.9%, which is strongly correlated to average global GDP growth of 3.3% per year during the same period. A sharp decline in seaborne trade in 2020 seems to be an outlier. Seaborne trade is expected to bounce back in 2021 with the rise in demand for refined products as well as depleting inventories.

Table 3-3 World seaborne tanker trade: 2011-2020

Year	Oil products		Chemicals		Total		Global GDP
	Million tons	% y-o-y	Million tons	% y-o-y	Million tons	% y-o-y	% y-o-y
2011	860	6.3%	207	4.7%	1,067	6.0%	4.3%
2012	859	-0.2%	241	16.8%	1,100	3.1%	3.5%
2013	904	5.3%	254	5.0%	1,158	5.2%	3.4%
2014	914	1.1%	254	0.0%	1,168	0.9%	3.5%
2015	963	5.3%	268	5.6%	1,230	5.3%	3.4%
2016	999	3.8%	270	0.7%	1,269	3.1%	3.3%
2017	1,043	4.3%	286	6.0%	1,329	4.7%	3.8%
2018	1,062	1.9%	296	3.6%	1,359	2.3%	3.6%
2019	1,039	-2.2%	300	1.1%	1,339	-1.4%	2.8%
2020	931	-10.4%	295	-1.7%	1,226	-8.5%	-3.1%
CAGR (2014-2019)	2.6%		3.4%		2.8%		3.3%
CAGR (2011-2019)	2.1%		4.2%		2.9%		3.3%

Source: IMF, GTIS, Drewry, Note – Chemicals includes vegetable oils

The development of trade in these cargoes between 2011 and 2020 is shown in the table below.

Table 3-4 Seaborne trade in products: 2011-2020 *(Million tons)*

Sector	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2011-19 CAGR %	2019-20 %
Products												
Fuel Oil	259.0	241.3	256.6	255.3	254.1	253.8	253.5	249.7	232.1	189.4	**-1.4%**	**-18.4%**
Gasoil/Diesel	230.0	237.6	252.2	259.0	273.4	294.0	310.4	314.4	315.2	297.9	**4.0%**	**-5.5%**
Gasoline	147.7	146.2	148.3	149.3	165.2	179.4	186.1	195.4	198.8	168.2	**3.8%**	**-15.4%**
Kerosene/Jet Fuel	82.1	79.6	88.3	90.2	95.6	97.1	99.3	103.7	106.6	71.4	**3.3%**	**-33.0%**
Lubricating Oil	21.4	22.9	23.1	23.5	27.7	27.4	29.4	30.4	28.5	27.4	**3.6%**	**-3.9%**
Naphtha	49.8	49.6	54.2	94.2	96.5	96.2	96.5	94.2	87.3	85.4	**7.3%**	**-2.3%**
Other/Unknown	70.4	81.4	81.5	42.8	50.0	51.5	67.6	74.6	70.9	91.4	**0.1%**	**28.8%**
Total Products	**860.3**	**858.7**	**904.2**	**914.3**	**962.5**	**999.4**	**1,042.8**	**1,062.4**	**1,039.4**	**931.1**	**2.4%**	**-10.4%**

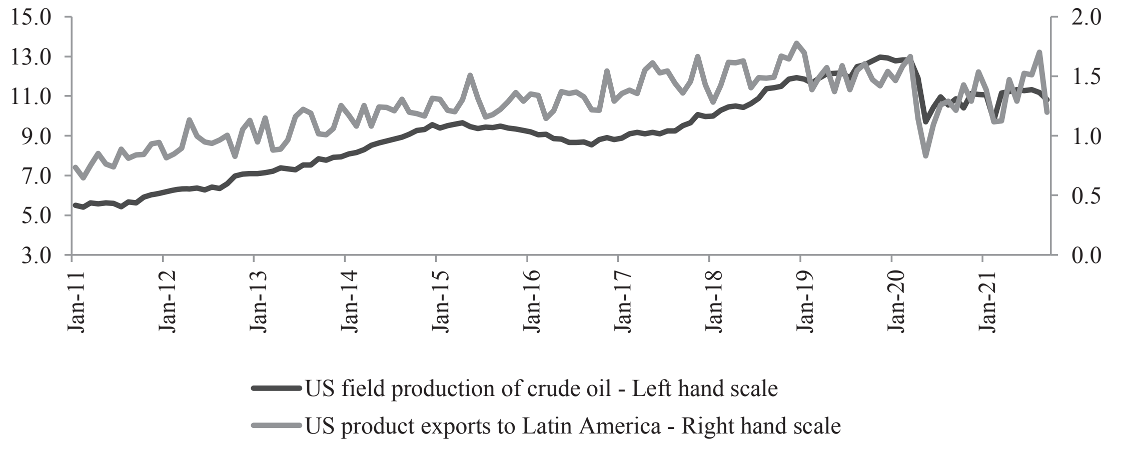
Source: GTIS, Drewry

Changing energy market in the US and its impact on product trade

A prime factor driving products trades in the last ten years has been developments in exploration and production (E&P) activity in the US energy sector. Horizontal drilling and hydraulic fracturing have enabled shale oil deposits in the US to be developed and this has led to a steep rise in US domestic oil production. Between 2011 and 2020, US crude oil production rose from 5.6 mbpd to 11.3 mbpd. Increased crude oil production also ensured the availability of cheaper feedstocks to local refineries, and as a result, the US became a major net exporter of refined products.

Figure 3-2 US crude oil production and refined petroleum product exports to Latin America: Jan 2011-Sep 2021

(Million barrels per day)

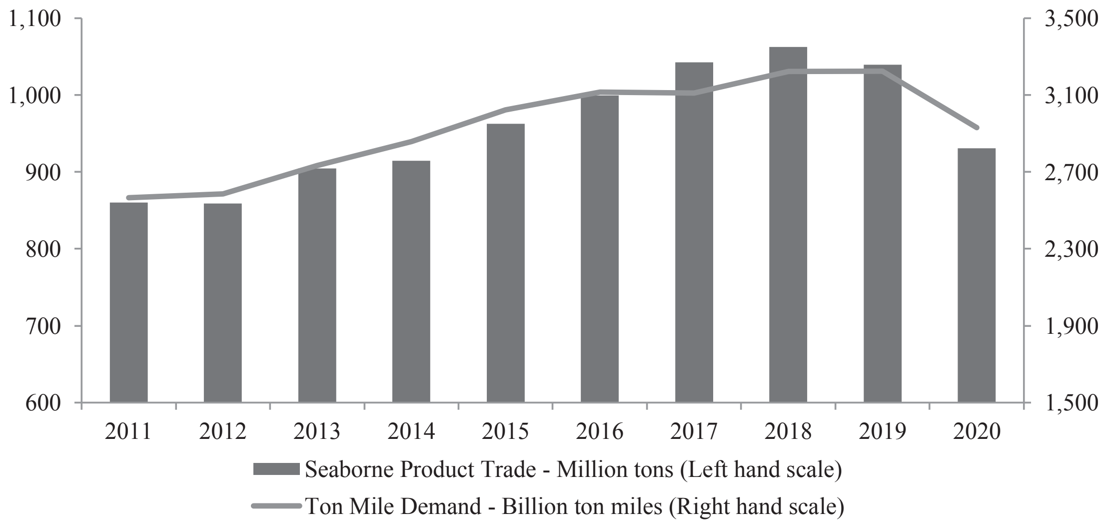


Source: JODI, Drewry

In a relatively short span of time, the US has become the largest exporter of refined products in the world, with supplies from the US Gulf Coast terminals heading to most parts of the globe. By way of illustration, the US products exports to Latin America increased at a CAGR of 8.0% during 2011-2019 from 0.8 mbpd in 2011 to 1.5 mbpd in 2019. Exports dropped 12.6% to 1.3 mbpd in 2020 primarily on account of restrictions imposed to contain the spread of the virus, but started recovering gradually toward the end of the year with the US exporting 1.5 mbpd of products to Latin America in December 2020. Strong import demand from Latin America and increased availability of products in the US have facilitated the growth in trade in the past decade. Most of these products were carried by MR product tankers, which constitute about 53.9% of the global product tanker fleet in terms of capacity and have been the mainstay of seaborne trade in refined petroleum products. The exports averaged at 1.4 mbpd in the first nine months of 2021 and we expect the exports to rise in tandem with increasing refinery throughput in the US and recovery in the demand of refined products in Latin America.

Based on ton-mile, demand in the product sector increased at a CAGR of 2.9% to 3,224 billion-ton-miles between 2011 and 2019 whereas it dropped 9.1% to 2,931 billion-ton-miles in 2020 primarily on account of lower trade due to the pandemic. In effect, changes in the geographical patterns of product movement have led to changes in average voyage lengths. Growth in intra-Asia products trades in 2016-17 saw average voyage length dropping to 2,984 miles in 2017. Since then, It has been on the rise with growing weightage of long-haul trade in the past three years. The changes that have taken place in total product tanker trade and ton-mile demand between 2011 and 2020 are illustrated in the chart below.

Figure 3-3 Product tanker – seaborne trade and vessel demand: 2011-2020



Source: GTIS, Drewry

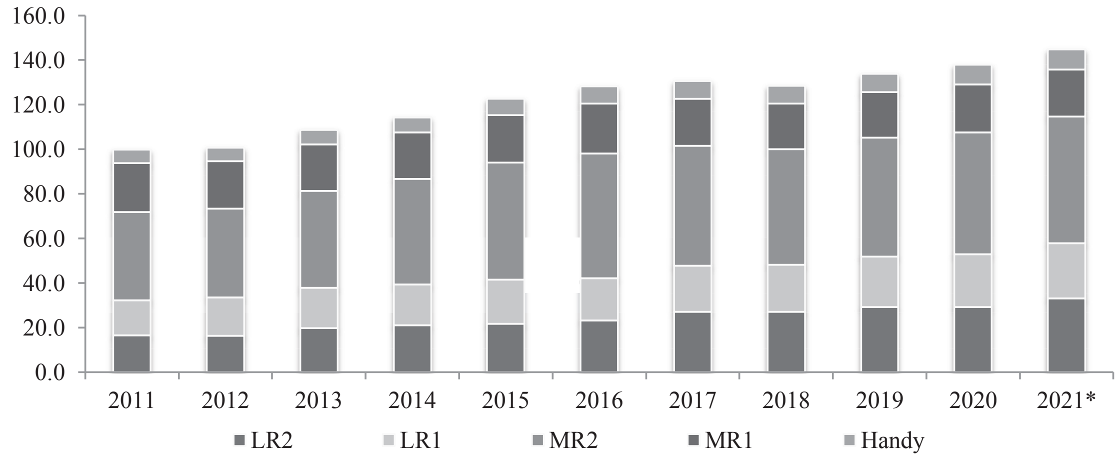
3.3 Product tanker supply

Clean products are carried in coated tankers ranging in size from 10,000 dwt to 80,000 dwt plus (more than 80,000 dwt) and by product/chemical tankers which have the ability to carry both products and certain chemicals because they have an IMO Certificate of Fitness to Carry Bulk Liquid Chemicals. This latter category represents ‘swing’ ships, with the ability to move between the product and chemical sectors depending on market conditions. Finally, there is a specialist chemical fleet which is all IMO rated, and which is employed primarily in transporting chemicals and vegetable oils and fats. The pure chemical fleet represents nearly 26.7% (as of 30 September 2021) of all tankers (based on capacity) that can carry products, but because the majority of it is trading in chemicals, it is excluded from the analysis of the fleets and orderbook.

3.3.1 Historical product tanker fleet

The fleet contracted by 1.6% to 128.6 million dwt in 2018 as demolitions outpaced newbuilding deliveries during the year. Lower scrapping due to relatively heathier vessel earnings and increased newbuilding deliveries in 2019-20 expanded the product tanker fleet at a CAGR of 3.6% to 138.1 million dwt in 2020. Recent data indicate that the product tanker fleet grew further by 4.9% in the first nine months of 2021 to 144.8 million dwt.

Figure 3-4 Product tanker fleet: 2011 to 2021 (million dwt)



**as of 30th September 2021*

Source: Drewry

3.3.2 Orderbook and delivery schedule

Future supply will be affected by the size of the newbuilding orderbook. As of September 30, 2021, there were 232 product and product/chemical tankers on order, equivalent to 7.9% of the existing fleet by units and 8.8% of the existing fleet by dwt. The LR2 orderbook was equivalent to 12.1% of the existing LR2 fleet by units and 12.3% by dwt. The existing orderbook-to-fleet ratio for product tankers is substantially lower than ~25% in 2009 and ~15% in 2016.

Table 3-5 Product tanker orderbook and scheduled year of delivery

Size dwt		Total orderbook		Scheduled deliveries								% Existing Fleet	
				2021		2022		2023		2024			
		No.	*m dwt*	*No.*	*m dwt*	*No.*	*m dwt*	*No.*	*m dwt*	*No.*	*m dwt*	*No*	*Dwt*
Long Range 2 (LR2)	80,000+	36	4.1	12	1.3	9	1.1	12	1.4	3	0.3	12.1%	12.3%
Long Range 1 (LR1)	60-79,999	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0%	0.0%
Medium Range 2 (MR2)	45-59,999	151	7.6	20	1.0	83	4.2	34	1.7	14	0.7	13.0%	13.3%
Medium Range 1 (MR1)	27-44,999	21	0.7	8	0.3	13	0.4	0	0.0	0	0.0	3.8%	3.5%
Handy	10-26,999	24	0.4	16	0.3	7	0.1	1	0.0	0	0.0	4.1%	4.7%
Total		**232**	**12.8**	**56**	**2.9**	**112**	**5.8**	**47**	**3.1**	**17**	**1.0**	**7.9%**	**8.8%**

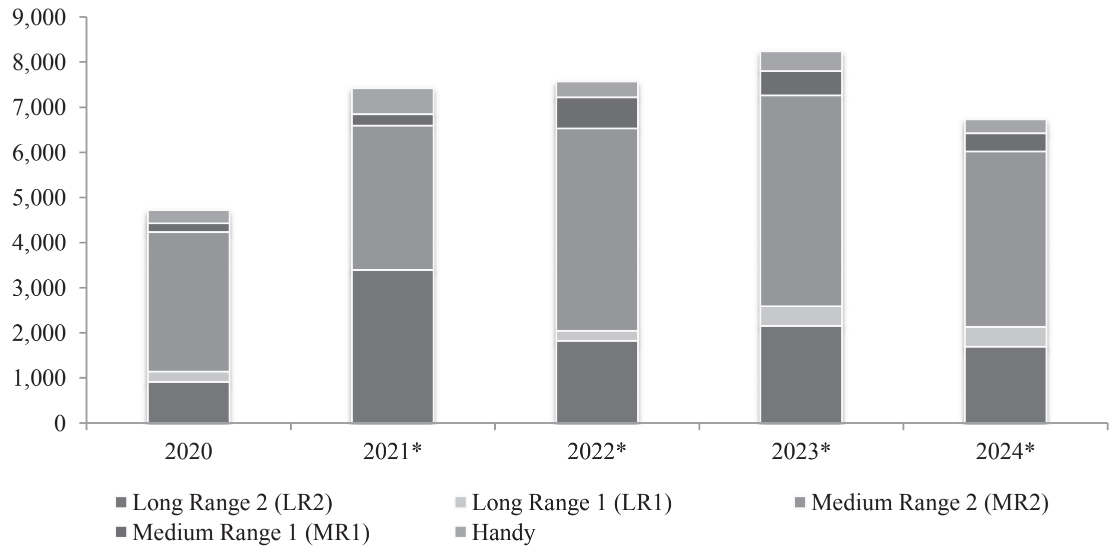
Source: Drewry

In recent years, the orderbook has been affected by slippage, which in certain years has been as high as 35% of the scheduled deliveries. Slippage is likely to remain an issue going forward and, as such, it will have a moderating effect on product tanker fleet growth over the next two years.

3.3.3 Expected deliveries

Newbuilding deliveries will directly impact future tanker supply. After declining sharply in 2020 on account of the pandemic, deliveries have picked up in 2021. We expect newbuild deliveries to continue to increase in 2022 and 2023 before reducing in 2024. Altogether, we expect 22.5 million dwt of product tankers to be delivered between 2022 and 2024.

Figure 3-5 Product tanker deliveries: 2020 to 2024 ('000 dwt)



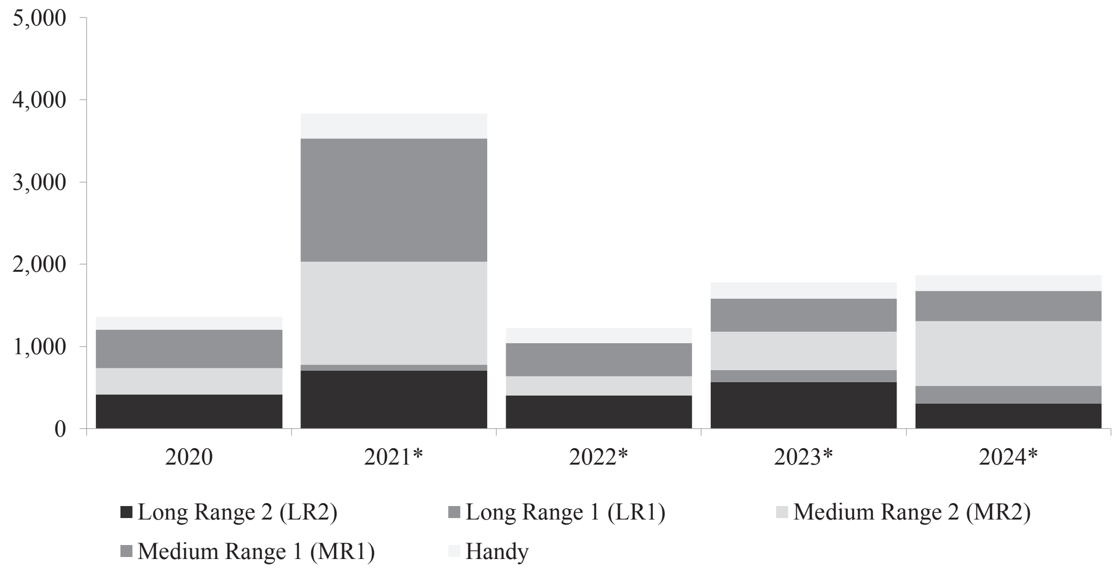
** Drewry estimate*

Source: Drewry

3.3.4 Expected level of scrapping

During periods of high freight rates, scrapping activity will decline and the opposite will occur when freight rates are low. This is evident from the chart below, which shows that scrapping in 2020 was substantially lower than that in 2021 as owners preferred to cash in on the opportunities offered by a strong market. Nearly 32 product tankers with an aggregate capacity of 1.4 million dwt were scrapped in 2020, whereas weak vessel earnings encouraged the scrapping activity in 2021 and 85 product tankers with combined capacity of 3.5 million dwt were scrapped in the first nine months of the year. However, the scrapping of product tankers is expected to decline substantially in 2022 primarily because of expected recovery in the product tanker market. Scrapping activity is likely to increase further in 2023 and 2024.

Figure 3-6 Product tanker scrapping: 2020 to 2024 ('000 dwt)



** Drewry estimate*

Source: Drewry

3.4 Product tanker freight rates and earnings

The major charterers of product tanker tonnage are oil companies, both private and state-controlled, oil traders and refiners, and in some cases independent ship owners. The oil companies, in particular, have their own predefined set of procedures for vetting and approving tonnage suitable for charter. Oil companies' vetting procedures are generally more stringent than dry bulk, especially when vessels are being taken on time charter. Typically, the vetting procedures will include periodic assessments of the vessel owner's office set-up and management, the setting of key performance indicators (KPIs), and examination of crew retention rates and appraisal of the financial accounts of the company providing the ship for charter.

3.4.1 Spot market rates in key routes

During the period January 2011 to December 2020, the average TCE spot and one year time charter rates for LR2 and LR1 vessels were USD 14,589pd and USD 10,487pd respectively. On the other hand, it was USD 10,316pd and USD 11,046pd for MR2 and MR1 respectively. The chart and table below illustrate changes in the monthly average TCE rates for product tankers from January 2011 to September 2021 for selected representative routes.

Table 3-6 Time charter equivalent (TCE): 2011-September 2021 (1)

(USD per day – period averages)

Year period average	MR1 Med-Med	MR2 Caribs-USAC	LR1 AG-Japan	LR2 AG-Japan
2011	6,750	8,442	2,408	7,515
2012	8,117	7,875	4,800	8,246
2013	9,375	9,142	5,417	8,490
2014	12,125	6,875	8,858	14,283
2015	21,050	20,133	21,742	28,673
2016	11,633	13,200	12,142	14,858
2017	8,966	7,442	7,225	7,936
2018	8,367	6,196	8,082	9,411
2019	11,390	10,739	14,252	18,698
2020	12,690	13,117	19,949	27,777
Sep-21	3,274	1,518	7,585	10,222
2011-2020				
Averages	11,046	10,316	10,487	14,589
Low	2,000	1,100	-3,800	-1,252
High	36,409	38,367	70,352	102,333

(1) TCE (USD per day) is converted from spot rates (Worldscale)

(2) TCE rates are based on normal sailing speeds/consumption. In weak freight markets this can theoretically lead to negative rates, but in most cases, this is avoided by reducing sailing speeds and fuel consumption.

Source: Drewry

The market remained weak through the first nine months of 2018 before reflecting signs of improvement in vessel earnings in the latter months of the year. The steep increase in product tanker charter rates in 2019 was driven by a spike in diesel trade before IMO 2020 regulations came into effect on January 1, 2020. The trickle-down effect of the tight crude tanker market after US sanctions on Cosco Shipping Tanker (Dalian) Co. pushed product tanker freight rates to multi-year highs towards the end of 2019 and also caused a number of LR2 to trade dirty cargos, thus reducing overall clean product capacity in the short term. The oil price war between Russia and Saudi Arabia as well as the sharp fall in demand for oil led to a surge in earnings of crude tankers in March and April 2020. This resulted in several LRs switching to trade in crude shipments, limiting the supply of vessels deployed for product shipments. In the same period, weak demand for refined products led to an increase in both onshore and offshore stocking activity in spring 2020. Increasing use of product tankers as storage facilities coupled with global port congestions resulted in a surge in product tanker rates. Nearly 6 million dwt or about 6.6% of the product tanker fleet was deployed for floating storage at the peak of the contango opportunities in the oil market in April 2020. This led to substantial improvement in product tanker day rates as well. TCE rates for LR2 tankers averaged a record USD 102,333pd in April 2020 before undergoing a rapid correction in following months on seasonal weakness, inventory de-stocking and return of vessel supply. TCE rates of other product tankers followed a similar trend.

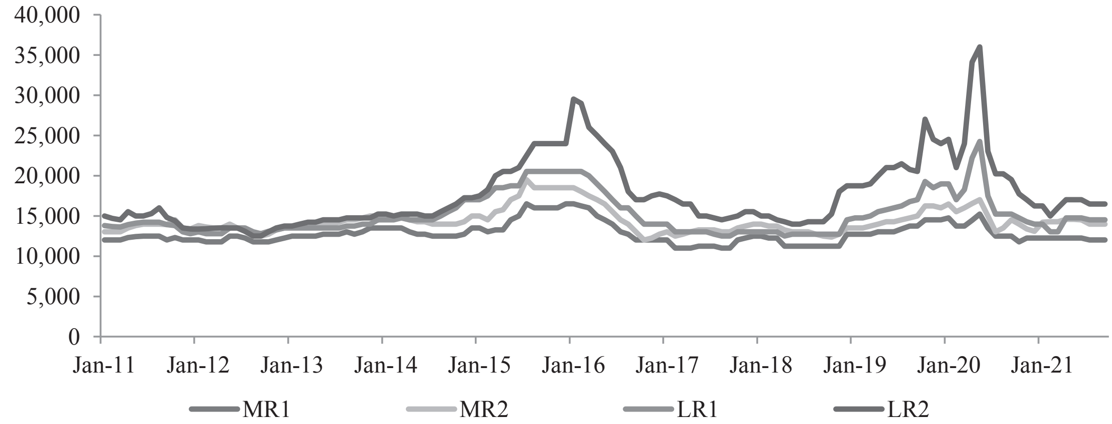
Product tankers coming out from floating storage increased vessel supply and had an adverse impact of spot rates in latter half of 2020. However, TCE rates for LR2 vessels have been rising in recent months with slow recovery in demand and optimism infused by vaccine rollouts for Covid. TCE rate for LR2 tanker reflected a similar trend and the rate for these vessels stood at USD10,222pd in September 2021.

3.4.2 One year time charter rate

The data for the past 10 years indicate that one-year time charter rate of product tankers follows a trend very similar to the trend followed by the spot market. Time charter rates remained weak between 2011 and 2014 followed by an uptrend in 2015 and a decline in 2016. These rates remained weak between 2017 and 2018 before improving in 2019. Time charter rates of product tanker also peaked in April-May 2020 before declining in the latter half of 2020. Recent data indicate that time charter rates of product tankers have largely been flat in the first nine months of 2021 and are expected to improve gradually with recovery in the tanker market in 2022.

Figure 3-7 Product tanker one-year time charter rates: Jan 2011-Sep 2021

(USD per day – period averages)



Source: Drewry

3.5 Product tanker asset market

3.5.1 Historical trends in newbuilding prices

Similar to trends seen in the crude tanker asset market, product tanker newbuild prices increased in 2018 with the expectation of a recovery in the product tanker market. Newbuilding prices of LR tankers largely remained flat between August 2018 and April 2020 before registering a decline of ~4% in the latter half of 2020 due to lower orders and weak market prospects. Excess shipbuilding capacity has also kept newbuilding prices in check. The newbuilding prices of product tankers on average surged ~16% in the first nine month of 2021 as ordering activity strengthened after a dip in 2020 on the back of the expected recovery in product tanker market in 2022-23. The table which follows illustrate the trend in newbuilding (NB) construction prices for product and product/chemical tanker.

Table 3-7 Newbuilding price of product tankers: 2011-September 2021

(USD Million)

End year	LR2	LR1	MR2	MR1
2011	56.0	47.0	36.0	31.5
2012	51.0	45.0	33.0	30.0
2013	54.0	46.0	35.0	31.0
2014	56.0	47.0	37.0	33.0
2015	54.0	47.0	36.0	32.0
2016	47.0	41.0	32.0	30.0
2017	46.0	41.0	33.0	31.0
2018	50.0	44.0	36.0	32.0
2019	51.0	45.0	36.0	32.0
2020	49.0	43.0	34.0	31.0
Sep-21	60.0	49.0	40.0	35.0
Average (10-yr)	51.6	44.7	34.8	31.3

Note: Newbuilding prices prior to 2016 and second-hand prices are for Tier II vessels, Newbuilding prices from 2016 are for Tier III vessels. Additionally, scrubber installation on an MR2 vessel will be in the range of USD 1.0 to 2.0. million depending on whether installation occurs on NB or an SH retrofit tankers

Source: Drewry

3.5.2 Historical trends in second-hand prices

Second-hand prices started recovery in 2017-18 despite weakness in freight rates as historically low asset prices underpinned demand for modern second-hand vessels ahead of IMO2020. Prices increased in 2019 in tandem with recovery in freight rates and continued firmness in demand for modern fuel-efficient tonnage. For example, the second-hand price of a five-year old LR2 increased by 22.9% in 2019. The vessel values continued their uptrend in the initial four months of 2020 due to a spike in vessel earnings; however, the sharp correction in freight rates in the latter half of the year led to a 14.6% decline in second-hand prices of a five-year old LR2 vessel. Gradual recovery in demand and optimism as a result of the roll out of Covid vaccines supported the second-hand prices in recent months, and a five-year old LR2 was valued at USD 42.0 million in September 2021 compared with USD 35.0 million in December 2020.

Table 3-8 Second-hand price of product tankers: 2011-September 2021

(USD Million)

End year	LR2 - 5 yrs old	LR1 - 5 yrs old	MR2 - 5 yrs old	MR1 - 5 yrs old
2011	37.0	33.0	26.0	24.0
2012	30.0	28.0	23.0	21.0
2013	36.0	33.0	29.0	25.0
2014	43.0	36.0	25.0	23.0
2015	47.0	39.0	29.0	26.0
2016	32.0	30.0	22.0	20.0
2017	32.0	29.0	24.0	21.0
2018	35.0	32.0	27.0	23.0
2019	43.0	34.0	30.0	25.0
2020	35.0	31.0	26.0	23.0
Sep-21	42.0	33.0	28.0	25.0
Average (10-yr)	37.4	32.9	26.4	23.2

Note: Newbuilding prices prior to 2016 and second-hand prices are for Tier II vessels, Newbuilding prices from 2016 are for Tier III vessels. Additionally, scrubber installation on an MR2 vessel will be in the range of USD 1.0 to 2.0 million depending on whether installation occurs on NB or an SH retrofit tanker

Source: Drewry

3.6 Outlook

3.6.1 Overall industry fundamentals

After a sharp decline in 2020, the demand for refined petroleum products and product tankers has been on the rise from the beginning of 2021 following higher rates of vaccination and abating Covid cases which supported the recovery in oil demand. The recent energy crisis, which started in October 2021, has provided the much-needed boost to oil demand which is now expected to return to the pre-pandemic level by end 2022, earlier than 2023 as had been forecast in the IEA's previous report. However, as the world is gearing up for decarbonization and switching away from fossil fuels, oil demand is expected to grow at an average 1.2 mbpd between 2023 and 2026. Most of this growth will be attributed to non-OECD countries as the use of electric vehicles (EVs) and other alternative fuels will hamper oil demand growth in OECD nations. Additionally, Covid still remains a factor which could curtail the pace of recovery in demand and seaborne trade of refined products in general and transportation fuel in particular.

The petrochemical industry will drive the growth in oil demand over the next five years. The rise in refinery integration combined with the availability of cheaper naphtha (compared to gas prices) will favor the use of naphtha as feedstock, in turn, supporting the demand for naphtha both in the OECD and non-OECD countries. Moreover, non-OECD countries are expected to drive the demand for other refined petroleum products over the next five years. We expect the closure of refineries in Europe, Australia and other developed economies coupled with the upcoming export-oriented refineries in Asia and the Middle East to support long haul seaborne trade of refined petroleum products that will drive a steady growth in product tanker demand over the next five years.

4 Offshore

4.1 Introduction to offshore oil and gas segments

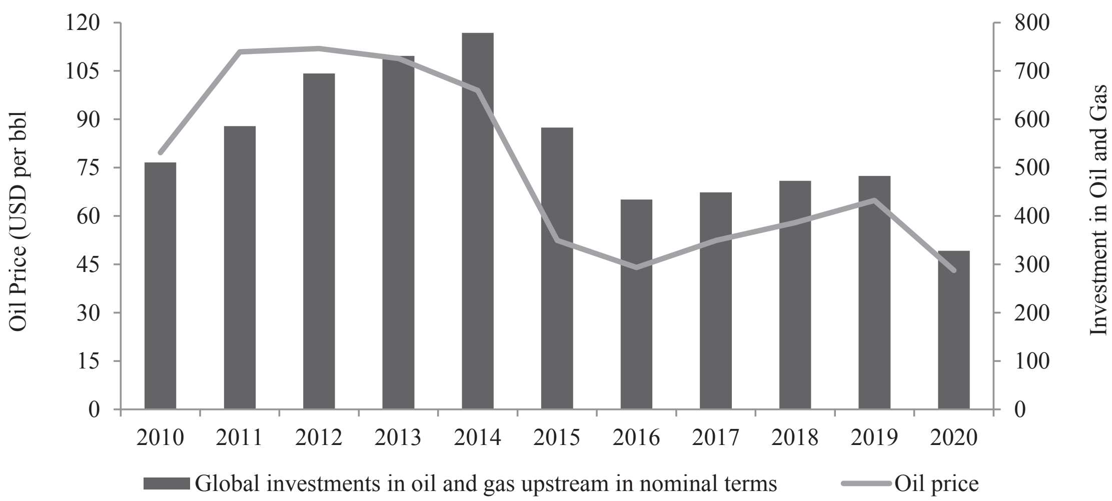
Oil and gas (O&G) remain the world's primary energy sources, collectively accounting for some 57% of global energy demand. The first offshore oil well was drilled in the Gulf of Mexico in 1947, but it was not until the 1960s that production from offshore oil fields began to have an impact, firstly in the Arabian Gulf and Gulf of Mexico, and then in the North Sea and other regions of the world. As a result, production from offshore oil and gas fields has increased rapidly, to the extent that the oil and gas produced offshore now accounts for approximately one-third of global oil and gas production.

One important consequence of the geographical spread in offshore oil and gas production has been the move into deeper and harsher waters, which in turn has demanded new technology and new equipment. Deepwater oil and gas production are important, because with the possible exception of the Middle East and Russia, it probably represents the only real option for large scale additions to oil and gas reserves. However, given the high cost of production due to a harsh environment, offshore oil production is economically viable only at a high oil price.

The offshore oil and gas market is driven by the demand of energy companies for the equipment to explore, develop and produce from the oil/gas fields located in the marine environment. In recent years, many types of vessels and equipment traditionally used in the oil and gas segment of the global energy mix has been deployed in the development of offshore renewable energy sector, foremost offshore wind.

Activity in the development of O&G fields is directly linked to global energy demand and the commodity prices that translates in the amount of investment available for the sector and particularly for the upstream Exploration and Production (E&P). High correlation between oil price and E&P spend can be seen in the **Figure 4-1.** In addition, energy companies are facing constant need to replace the depleting reserves and develop new proven fields that are often located in ever more challenging locations.

Figure 4-1 Oil price and offshore exploration and production spend



Source: IEA, Drewry

The focus of discussion of this section is mainly on offshore production. The discussion on offshore drilling has been excluded from this market report.

4.1.1 Asset types for offshore production development

The marine assets, or systems used in offshore O&G production are commonly grouped into two types: fixed systems and floating systems. A fixed system is typically a platform that is fixed to the seabed and deployed in shallow waters. On the other hand, floating systems are employed in deep-sea and moored in a way so that it can operate in remote and challenging conditions. Floating production systems (FPS) comprise semi-submersible or ship-based system used to exploit the oil and gas fields. The system has three main components: the Floating Production Vessel (FPV); Mooring System and Subsea System, which include the risers and well system. Typically FPS processes and offloads hydrocarbons. The examples of FPS are FPSO, Semi-FPS (Semi-Submersible FPS), SPAR, Tension Leg Platform (TLP). Floating Storage and Offloading (FSO) vessels act as a storage of oil and discharge it to the vessels for further distribution. FSO is mainly meant for storage of oil and does not have the production system unit in it.

FPSO (Floating Production Storage and Offloading) receives fluids (crude oil, water and other things) from a subsea reservoir and then separates these fluids into crude oil, natural gas, water and impurities using the topside production facilities onboard. Semi-FPS performs similar function as FPSO.

FPSO’s have become the primary system for many offshore oil and gas field developments, accounting for nearly 70% of the offshore production floater market. The main advantage that FPSO’s have compared to the other systems is their material storage capability that allows for economical production in locations where a subsea pipeline is not feasible. Importantly, FPSO’s provide lower project abandonment costs compared to other structures – both from financial perspective as well as in terms of the environmental impact. The main disadvantage is that on average, FPSO’s have higher maintenance costs than the alternative systems.

The oil market has started recovering after the Covid pandemic spurred by an increase in demand, as well as increase in the oil price and increase in upstream investment. It has led energy majors to increasingly prefer FPSO’s and Semi-FPS as a system for offshore field development.

4.2 FPSO fleet development

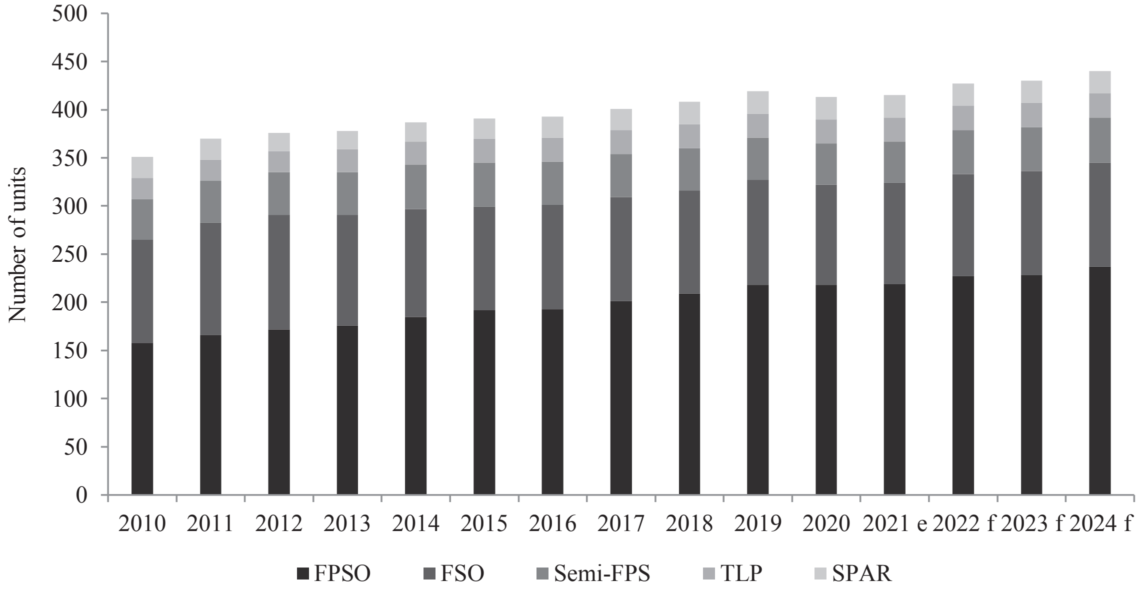
4.2.1 Fleet development

Addressing the need for field development in ever more challenging conditions while employing solutions that can be quickly deployed after being built in a controlled shipyard environment, the demand for FPSO units has been expanding rapidly in recent years. However, as the industry deployed fewer alternative floating production facilities (such as TLP and SPAR), demand for pure FSOs has declined:

FPSO market is set to reach 219 units by the end of 2021, growing at a CAGR of 2.8% from 2011 to 2021 (in terms of number of units) and at 3.5% if counting fleet capacity growth. At the end of 2021, there were 17 FPSOs on order. Of 219 FPSOs, 173 are in service and operating in their designated fields, 30 are in layup or being repaired and are available for deployment.

- FSO market, however, has contracted from around 119 units at its peak in 2012 to around 105 units by the end of 2021. The average CAGR over the past decade from 2011 to 2021 has been -1.1% by several units and -2.3% if accounting for total fleet capacity.
- Semi-FPS: In last five years five ageing units have been decommissioned. On the hand, an equal number of Semi-FPS are likely to be commissioned. In 2021, Beacon Offshore ordered one unit of Semi-FPS for the deployment in Shenandoah field in Gulf of Mexico in the US.
- SPAR and TLP: One unit each of TLP and SPAR has been added in past five years whereas one unit of TLP has been decommissioned.

Figure 4-2 FPS fleet development



Source: Drewry, Note – 2021 data is as of 30 September 2021. Above data includes on order vessels.

Overall, all the floating production systems put together are expected to grow at a CAGR of 6% between 2021 and 2025 as per the current delivery schedule.

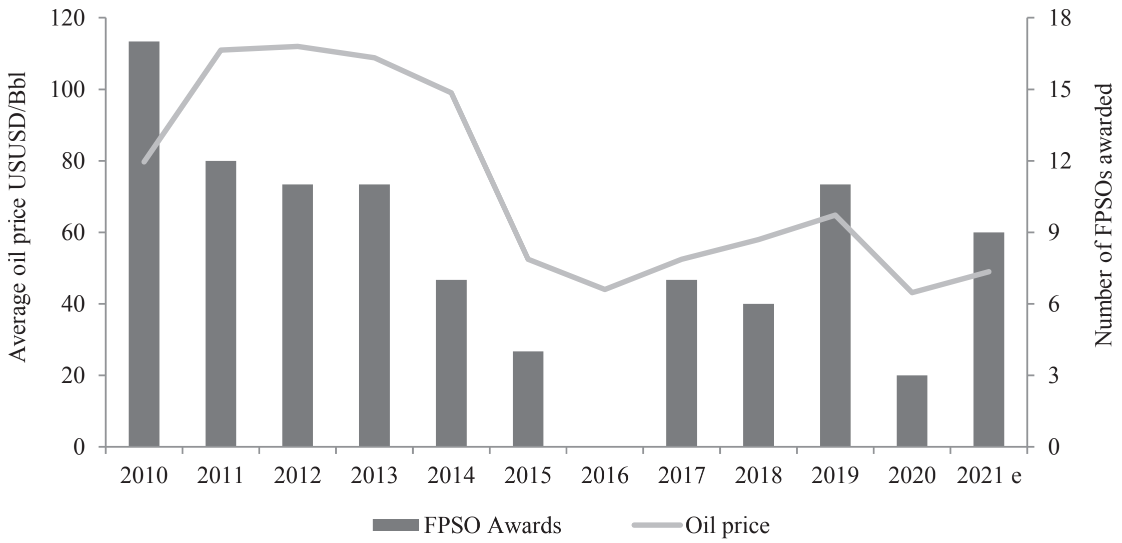
Current FSO fleet (as of end 2021) consisted of 105 units, of which 92 are in service, 10 are laid up or being repaired and 3 new units are being converted into a floating storage. Currently there are no purpose built FSO's on order.

4.2.2 Oil price and FPSO awards relationship

Oil and gas prices have remained volatile in the past. The 2008 financial crisis, the emergence of the US shale, and the increase in the output from non-OPEC players have all added more complexity and uncertainty to the market. Thus, as the control over the prices has become less significant, it has been the fundamental demand for oil that has defined the price levels, which have fluctuated from the highs of around USD110/bbl to as low as USD26/bbl in the past five years alone.

The volatility in the oil markets has been reflected in the FPSO market development. In 2016, when oil prices collapsed, turning the economics upside down, many upstream development projects stalled, and the offshore oil sector was hampered. Many contracts, including the newbuilds, were cancelled or postponed, and as a result, no FPSO awards took place that year.

Figure 4-3 Oil price and FPSO awards



Source: Drewry

The decline in the global economic activity as well as the drop in the oil price that was caused by Covid pandemic has been the most recent factor shaping FPSO market development. In 2020 this new uncertainty prompted many stakeholders to postpone or revise their decisions which has stalled the otherwise recovering FPSO market. Whilst around 11 new FPSO's were awarded in 2019, it was only four in 2020. Yet, as the economies and societies have been adapting to the reality of the global pandemic, the activity in the FPSO markets has increased with around 9 FPSO projects awarded in 2021 and at least six new vessels ordered.

It should also be noted that the demand for FPSOs is increasingly driven by demand and price of LNG and LPG products – new segments that will generate additional support to the market in coming years.

4.2.3 FPSO costs

The cost of an FPSO ranges substantially from USD300 million to USD3 billion. Such material difference occurs as the specifications are often tailored for a specific oil or gas field with its particular specification and depth, as well as due to more basic technical factors such as production plant and storage capacity and design life. In instances when FPSO's are ordered for national energy companies, there could be a local content requirement which impacts the costs as well as duration of the construction.

As the market is fairly concentrated in terms of the field operators, respective stakeholders aim to reduce the costs by standardizing the designs and specs of the fleet as much as permitted by the location and the field.

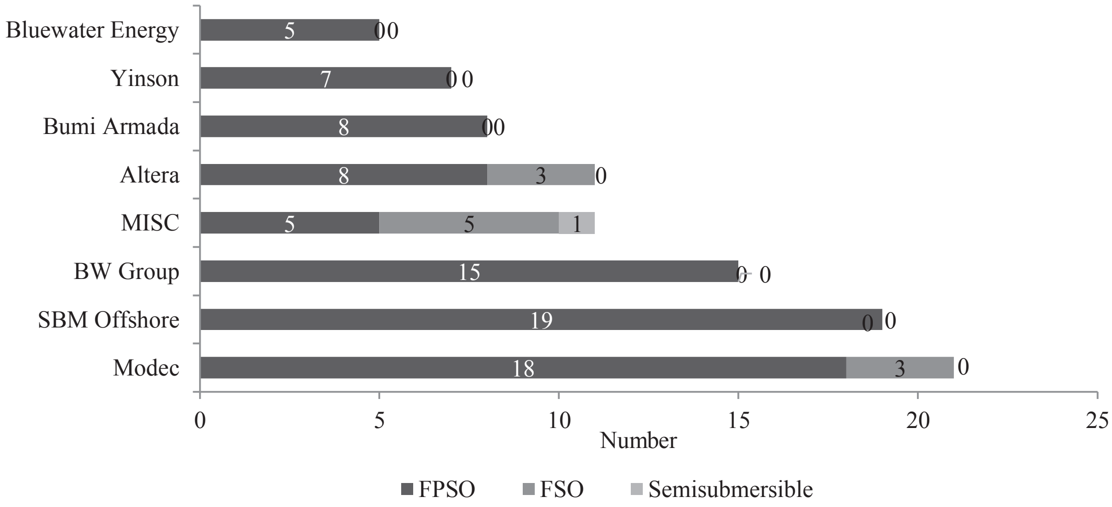
4.3 Market players in FPSO sector

The ownership of FPSOs is split between energy majors, who act as offshore field operators and independent owners of the FPSO units, alike to traditional shipowners. These are often called contractors in the offshore space. As of 2021, the split between the two is roughly equal, with operators owning 53% of the total FPSO fleet, whilst contractors the remaining 47%.

The decision for the field operator whether to own an FPSO unit directly or lease/charter one depends on the financing and capital costs, taxation, expected field life and other considerations. The current trend is that the field operators tend to own directly more complex and thus more expensive FPSO units, which have specific requirements for respective offshore fields and conditions.

With the development of fields offshore Brazil, its national company Petrobras has evolved into a leading FPSO operator: controlling around 22% of the total fleet, or 49 units, including 25 units owned directly. It is followed by CNOOC, TotalEnergies, ExxonMobil and Equinor. Modec is the largest independent FPS owner followed by SBM Offshore, BW offshore, MISC and Altera.

Figure 4-4 Top 10 independent FPS owners



Note: FPS is defined to include FPSO, FSO, and Semisubmersible units. The figures include in service, on order, under conversion as well as units under repair and laid up.

The ownership of an asset has been defined to mean equity holding of 50% or more and/or control over the assets.

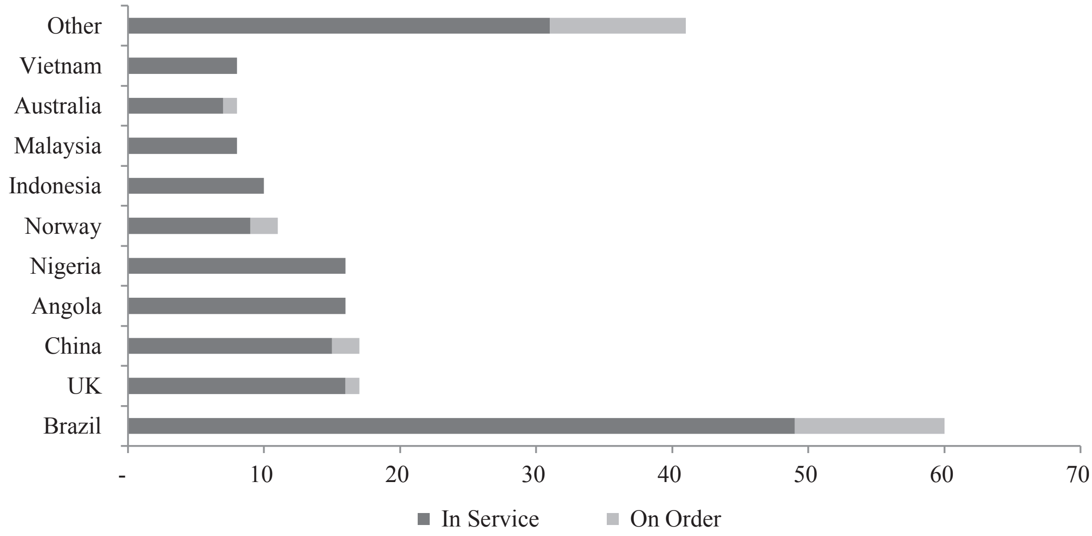
Source: Drewry

With high CAPEX and significant technical expertise required, FPSOs have substantial entry barriers and as a result from the perspective of independent ownership it is a fairly concentrated market with top three players accounting for 22% of the total independent fleet.

4.4 FPSO deployment and demand by region

As of December 2021 over 90% of FPSOs are located in the six regions. The largest number of FPSOs are located offshore Brazil with 29% followed by West Africa 24%, SE Asia 15%, North Europe 13%, China 7%, and Australia 5%. The remaining 7% of units are located in the Gulf of Mexico, Eastern Canada, the Mediterranean and SW Asia.

Figure 4-5 Top 10 countries by FPSO deployment



Source: Drewry

4.5 Outlook

The global financial crisis and the oil shocks negatively impact the investment into the O&G development and FPSO market is not an exception. As the key players in the offshore industry have to revise their budgeting, balance costs in the conditions of the price decline or overall uncertainty such as that caused by the global Covid pandemic, delay or cancellation in new project developments.

However, whilst the development of alternative non-fossil energy projects and the overall energy transition is gathering pace, the demand for oil and gas, as the primary energy source for the global economy is expected to remain strong in the medium-term prompting investment into further developments. The decline in capital expenditure after 2014, caused by the global pandemic and drops in oil prices have caused a lag in the supply development. To balance the energy markets and fuel the energy transition, more O&G projects are set to be sanctioned in 2022-2023 period, in turn generating more demand for floating offshore production. Some of the planned FPSO tender have been mentioned in the table below. Brazil has been one of the key drivers of FPSO Demand in recent years. Seven of 10 contract awards in 2021 were for Brazilian projects. Brazil is expected to continue driving global FPSO awards in 2022.

Table 4-1 Upcoming FPSO tenders

Name of the project	Field	Country	Operator	Oil production (bpd)
Project Gallery	Agogo oil field, Offshore Angola, block 15/06	Angola	Eni, Sonangol, SSI Fifteen	20,000
Cameia and Golfinho	Kwanza Basin	Angola	TotalEnergies, BP, Sonangol	100,000
Dorado	Bedout Sub-basin	Australia	Santos and Carnarvon Petroleum	75-100,000
Atlanta	Santos Basin	Brazil	Enauta	13,300
Gato do Mato	Block S-M-518 and Sul Do Gato Do Mato	Brazil	Shell, Ecopetro, TotalEnergies	87,117
Maromba	Campos Basin, Brazilian coast	Brazil	BW Energy	29,852
P-80 (possibly P-81/P82)	Buzios	Brazil	Petrobras	225,000
Parque das Baleias (Whale park)	Jubarte Field (one of a cluster of seven deep water oil and gas fields in North Campos Basin, offshore Brazil)	Brazil	Petrobras	100,000
Jupiter	Santos basin block BM_S_24	Brazil		NA
Liuhua 11-1 / 4-1	South China Sea (Pearl River Mouth basin)	China	CNOOC	NA
Buffalo	Buffalo	East Timor	Carnarvon Petroleum	50,000
PY-3	PY-3	India	Hardy Exploration & Production India	60,000
Natuna	Natuna Sea Block B	Indonesia	Medco Energi	
Limbayong	120KM offshore Sabah	Malaysia	Petronas	40,000
Bonga Southwest	Bonga Southwest/Aparo	Nigeria	Shell Nigeria	146,765
Johan Castberg	Northwest of Hammerfest	Norway	Equinor, Vaar Energi, Petoro	192,905
Wisting field	Wisting field	Norway	Equinor, OMV, Petoro, Idemitsu, and Lundin Energy	NA
Cambo	125km west of Shetland	UK	Siccar Point Energy	50-60,000

Source: Drewry

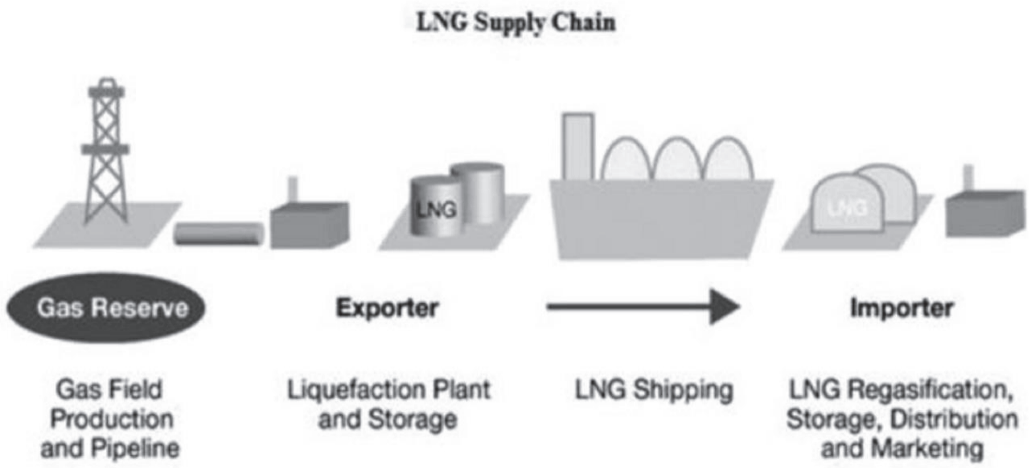
The undersupply caused by lag in investment is likely to exacerbate in coming years, as a number of offshore fields are expected to be depleted and closed, whilst the respective aged FPSO's are likely be scrapped. Now, with the impact of Covid appearing to come under control around the world, the FPSO market is expected to drive the recovery of the offshore O&G market.

5 LNG Shipping

5.1 The LNG Market

Natural gas is super cooled to a temperature of approximately minus 162 degrees Centigrade to turn it into the liquefied form. This process reduces the gas to approximately 1/600th of its original volume in the gaseous state. Reducing the volume enables economical storage and transportation by ship over long distances. LNG is transported through sea in specially built tanks on double-hulled ships to a receiving terminal, where it is unloaded and stored in heavily insulated tanks. The LNG is then returned to its gaseous state, or regasified, in regasification facilities at the receiving terminal. Finally, the regasified LNG is moved through pipeline for distribution to natural gas customers.

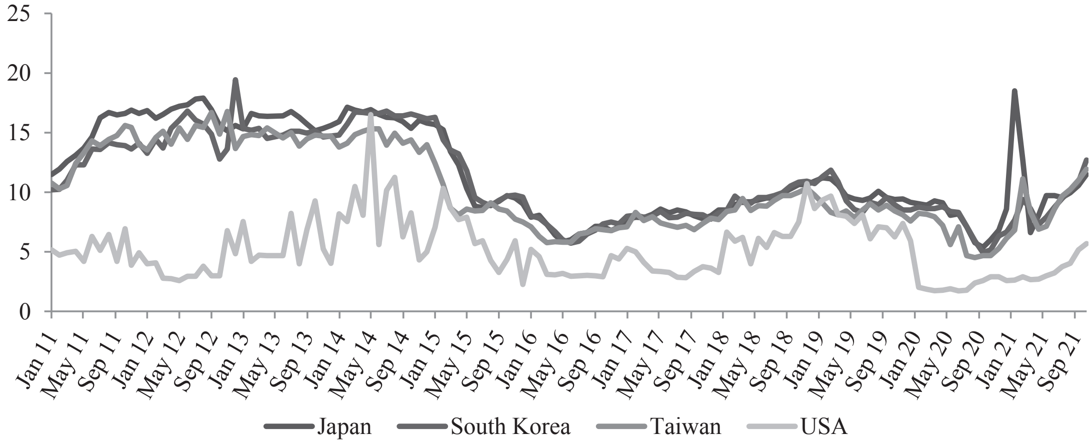
Figure 5-1 LNG value chain



Source: Drewry

The North American gas market is moving in a different cycle from that of the rest of the world, and there is a price differential with other markets as indicated in the chart below. Regional price differentials create the opportunity for arbitrage and also act as a catalyst for the construction of new production capacity.

Figure 5-2 Natural gas prices: 2011-2021* (USD per MMBtu)



*Source: GTIS, Drewry, * 2021 data is updated till October 2021*

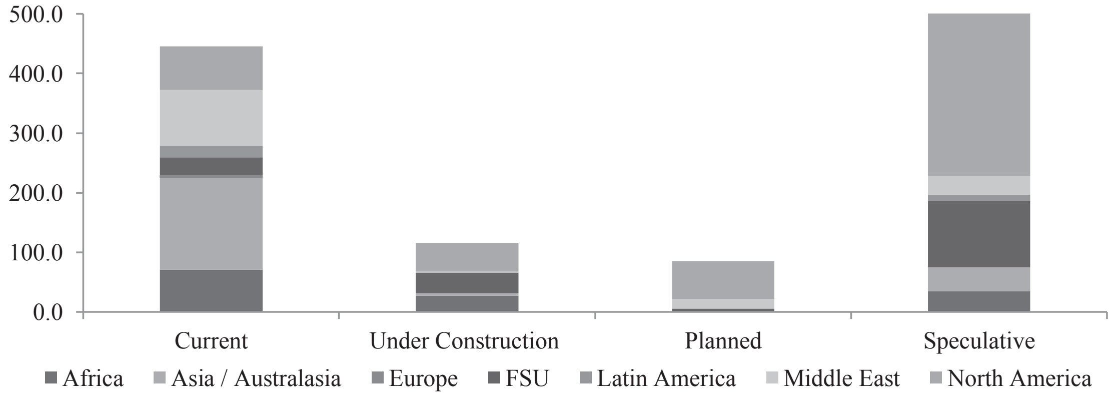
5.2 LNG demand

International trade in natural gas has grown more than 21.3% between 2011 and 2020, with the volume of LNG trade currently being 1.5 times greater than 2011 levels and accounting for nearly one-third of total natural gas trade. As a result, LNG has captured a growing share of international gas trade, primarily due to the diversification of consumers, flexibility among producers, cost-efficient transport and competitive gas prices.

5.2.1 LNG export

Globally, as of 30 September 2021, LNG production capacity is 445.1 million tons, 115.8 million tons of new LNG production capacity is under construction, 85.4 million tons of new LNG production capacity (liquefaction plants) are planned, and 600.4 million tons of speculative LNG production capacity is under consideration, for which no confirmed plans exist.

Figure 5-3 World LNG production capacity – September 2021 (Million tons per annum)



Source: Drewry, Note - The planned projects have completed FID or environmental studies. Speculative projects are those which are announced or have their development disrupted

As such, LNG production capacity will expand significantly as several new production facilities are now under construction and due on stream in the next few years.

In the last decade, more countries entered the LNG export market. In December 2020, there were 20 producers and exporters of LNG compared with just 17 in 2009. As a result, world trade in LNG has risen from 241.5 million tons in 2011 to an estimated 357.3 million tons in 2020.

Table 5-1 LNG exports: 2011-2020 (Million tons)

Exporters	ALG	USA#	LIB	BRU	UAE	INO	MAL	AUS	QAT	TNT	NIG	OMA	EGY	EQG	NOR	RUS	YMN	PER	FRA	BEL#	ESP#	Papua	Others##	Total
2011	12.5	1.5	0.1	6.9	5.8	21.3	24.3	18.9	74.9	13.8	18.9	8.0	6.3	3.8	2.9	10.5	6.5	3.7		0.4	0.5	-	-	241.5
2012	10.5	0.5	-	6.6	5.5	17.5	23.2	20.5	76.7	13.7	19.9	8.2	4.9	3.5	3.3	10.8	5.2	3.9		0.3	1.2	-	0.7	236.9
2013	10.9	0.1	-	6.9	5.4	16.4	24.7	22.1	77.0	14.4	16.3	8.4	2.7	3.7	2.8	10.4	7.0	4.1		1.1	2.1	-	0.9	237.5
2014	12.6	0.3	-	6.0	5.8	15.8	24.8	23.1	75.5	14.1	18.5	7.8	0.3	3.7	3.9	10.6	6.5	4.2		1.1	3.8	3.4	1.5	243.3
2015	11.8	0.6	-	6.4	5.6	16.0	24.9	29.0	77.6	12.4	20.1	7.4	-	3.6	4.4	10.6	1.4	3.6		0.9	2.3	7.1	1.4	247.4
2016	11.6	3.2	-	6.0	5.4	15.5	23.4	41.5	76.2	10.4	17.3	7.8	0.5	3.2	4.6	10.2	-	4.0	1.1	-	0.1	7.6	3.2	253.0
2017	12.3	12.2	-	6.9	5.6	18.7	26.9	55.6	77.5	10.2	20.3	8.2	0.8	3.9	3.9	11.5	-	3.7	1.1	0.0	0.0	8.1	3.2	290.7
2018	12.0	18.5		6.8	5.8	18.0	24.3	67.8	78.0	10.1	20.0	8.0	0.8	3.8	3.9	16.2		3.8	1.0	0.0	0.0	8.0	6.2	313.0
2019	12.2	33.8	0.0	6.4	5.8	15.5	26.2	75.4	77.8	12.5	20.8	10.3	3.5	2.8	4.7	29.3	0.0	3.8	0.0	0.0	0.0	8.2	5.7	354.7
2020	10.6	47.9	0.0	6.2	5.2	13.7	23.0	77.9	76.9	11.9	18.9	9.0	1.3	2.6	3.2	30.8	0.0	3.8	0.0	0.0	0.0	8.4	4.9	356.1
% Change 19-20	-13.5%	41.9%	n.a.	-3.0%	-10.3%	-11.4%	-12.2%	3.3%	-1.2%	-4.8%	-9.5%	-12.6%	-61.2%	-6.8%	-33.3%	5.0%	n.a.	0.0%	n.a.	n.a.	n.a.	2.6%	-14.5%	0.4%

 # Include re-exports

Includes re-exports from Brazil, France, Portugal, South Korea, Japan and Greece

Source: BP statistical review, Drewry

Major LNG exporting regions have undergone significant transition in the last ten years with market share of Indonesia and Malaysia having sharply declined. Australia surpassed Qatar as the largest LNG producer and exporter in 2019. Australia's LNG exports constituted 21.8% of the global LNG exports in 2020. Qatar is now the world's second largest producer and exporter of LNG, accounting for close to 21.5% of the global LNG export in 2020. Qatar took FID on its mega North Field Expansion (NFE) Phase 1 (32 mtpa) project, which is expected to start operations by 4Q25. The FID on Phase 2 of the project, adding 16 mtpa is also anticipated to be accelerated to 2022-23. With these two projects, the country aims to add 49 mtpa of liquefaction capacity, taking its total to 126 mtpa from 77 mtpa at the end of 2020. It also plans to boost its carbon capture capacity from the current 2mtpa, making headways into the carbon-neutral LNG market.

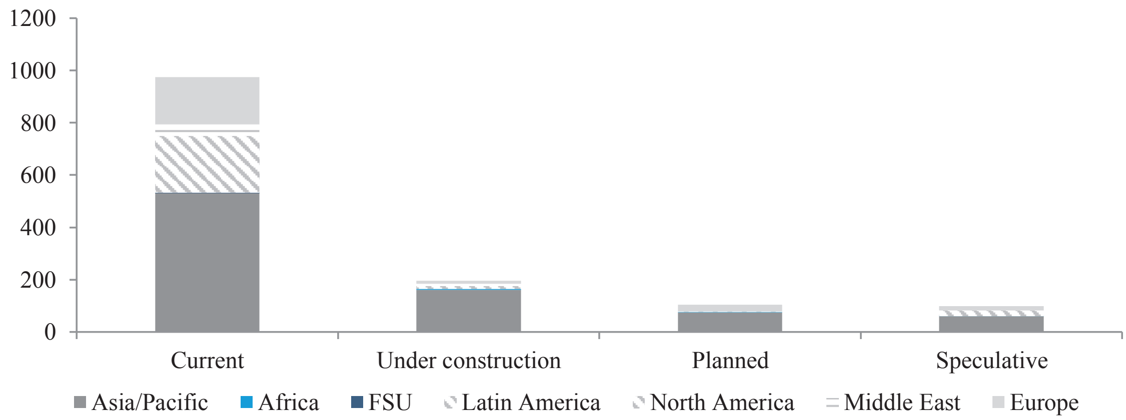
U.S. LNG exports have ramped up significantly in the last five years, increasing from 3.2 million tons in 2016 to 50.8 million tons in 2020. The country's LNG exports have mainly benefited from the new liquefaction terminals coming on stream. Major LNG terminals coming on stream in the last few years include Sabine Pass, Dominion Energy Cove Point, Cameron LNG, Freeport LNG, Cheniere's Corpus Christi terminal second train, and five of 10 small trains of Kinder Morgan Inc.'s Elba Island facility. In 2020, a total of 32.5 million tons of LNG liquefaction capacity were added in the U.S. (Cameroon LNG, Elba Island, and Freeport LNG), leading to a surge in U.S. LNG exports in 9M21 compared to 9M20. As of September 2021, LNG export terminals with an aggregate capacity of 31.2 million tons per annum are under construction in the US.

Sakhalin 2, the first LNG project in Russia which started in 2009 (11 mtpa), is the main export contributor apart from the recent Yamal project In the fourth quarter of 2017, Russia started the first phase of the Yamal LNG project and commenced its first phase of production with a nameplate capacity of 5.5 million tons. The second and third train of the project came online in July 2018 and November 2018 respectively. The third train of the project commenced operations a year ahead of schedule and the project has added an aggregate capacity of 16.5 million tons to the global LNG production. In 2019, Russia added 0.7 mtpa of capacity and the country's LNG exports surged 32.1 percent to 21.4 million tons with Yamal LNG project ramping up to full capacity.

5.2.2 LNG import

Globally, as of 30 September 2021, regasification capacity is 973.9 million tons, 195.1 million tons of new LNG regasification capacity is under construction, 103.7 million tons of new LNG regasification capacity is planned, and 98 million tons of speculative LNG regasification capacity is under consideration, for which no confirmed plans exist.

Figure 5-4 World LNG regasification capacity – September 2021 (Million tons per annum)



Source: Drewry Note - The planned projects have completed FID or environmental studies while speculative projects are just announced

In tandem with the growth in the number of LNG suppliers, there has been a corresponding increase in the number of importers. In 2009, there were 22 countries importing LNG and by September 2021, the number increased to 43.

Despite an increase in the number of importing countries during the last decade, Japan, South Korea, and China provide the backbone of LNG trade, collectively accounting for 51% of the total LNG imports as of the end of 2020. China's LNG imports surged in 2017 and surpassed South Korea's to become the second biggest LNG importing nation. China's LNG imports commenced in 2006 and have since grown exponentially from 0.7 million tons in 2006 to 67.9 million tons in 2020, mainly driven by the country's coal to gas switch. There has also been strong growth of LNG imports by India, Taiwan and Spain due to increasing demand from the power sector in those countries and their respective government's focus on the use of natural gas as a source of energy to reduce air pollution caused by conventional sources of energy.

Further expansion of regasification and terminal import infrastructure will support the continued growth in Chinese LNG imports. China is not different from the U.S. in that China also has large deposits of shale gas, but geological structures in China are far more complicated. Additionally, China lacks the infrastructure to support the rapid development of domestic gas supplies, creating demand for imported LNG.

5.2.3 LNG Shipping Routes

Although the number of LNG shipping routes has increased in recent years due to growth in the number of LNG suppliers and consumers, demand for shipping services remains heavily focused on a number of key trade routes. In 2020, the principal trade routes for LNG shipping included Qatar to Europe (the United

Kingdom, Italy and Spain), Qatar to Asia (India, Japan and South Korea), Australia to Asia (China, Japan and South Korea), Malaysia to Japan, US to Europe, US to Asia (South Korea and Japan), Russia to Asia (Japan, South Korea, Taiwan and China) and Russia to Europe (France, Netherland, United Kingdom and Spain). Additionally, with the increase in liquefaction projects in the U.S., more cargo will be exported from the U.S. to Europe and Asia.

One important result of the geographical shifts in LNG production and consumption is that demand for shipping services (expressed in terms of ton-miles) has grown at a much faster rate than the underlying increases in LNG trade. Ton-miles are derived by multiplying the volume of cargo by the distance between the load and the discharge ports on each voyage. During 2013-2020, demand for LNG shipping services, expressed in terms of ton-miles, has increased at a compound average growth rate (CAGR) of 7.3%, compared with a 6% increase in the volume of cargo carried.

5.3 LNG tanker supply

5.3.1 The LNG Fleet

LNG carriers are specialist vessels designed to transport LNG between liquefaction facilities and import terminals. They are double-hulled vessels with sophisticated containment systems that hold and insulate LNG to maintain it in liquid form. Any LNG that evaporates during the voyage and converts to a natural gas (normally referred to as boil-off) can be used as fuel to help propel the ship.

Among the existing fleet, there are several different types of containment systems used on LNG carriers, but the two most popular systems are:

- The Moss Rosenberg spherical system, which was designed in the 1970s and is used by a large portion of the existing LNG fleet. In this system, multiple self-supporting, spherical tanks are built independent of the carrier and arranged inside its hull.
- The GTT membrane system, which is built inside the carrier and consists of insulation between the thin primary and secondary barriers. The membrane is designed to accommodate thermal expansion and contraction without overstressing the membrane.

LNG Fleet

The cargo capacity of an LNG carrier is measured in cbm. As of September 30, 2021, the worldwide LNG fleet totaled 688 ships with a combined capacity of 103.0 million cbm. The breakdown of the fleet by vessel size is shown below.

Table 5-2 The LNG fleet by vessel size: September 30, 2021

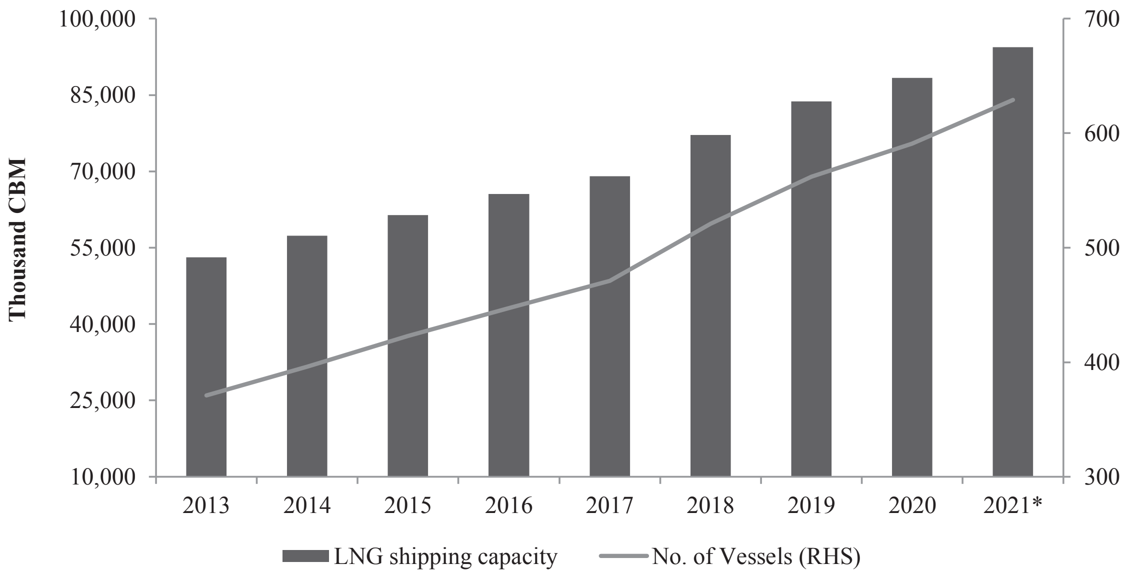
Size in (kcbm)	0-50k		50-100k		100-150k		150-200k		200-250k		250k+		Total	
Fleet	*No.*	*kcbm*	*No.*	*kcbm*	*No.*	*kcbm*	*No.*	*kcbm*	*No.*	*kcbm*	*No.*	*kcbm*	*No.*	*kcbm*
LNG carriers	42	679	7	534	186	26,161	336	56,619	31	6,608	14	3,727	616	94,328
LNGBV	13	72	0	0	0	0	0	0	0	0	0	0	13	72
FSRU	4	79	0	0	13	1,763	29	4,855	0	0	1	263	47	6,960
FSU	0	0	0	0	6	779	1	173	0	0	0	0	7	953
FLNG	1	16	0	0	1	126	2	354	1	230	0	0	5	726
Global LNG fleet	**60**	**847**	**7**	**534**	**206**	**28,829**	**368**	**62,002**	**32**	**6,838**	**15**	**3,990**	**688**	**103,039**

Note: FSU: Floating Storage Unit

Source: Drewry

The changes in LNG fleet supply are a function of deliveries of new ships from the orderbook and the removal of existing vessels through scrapping. The increases in seaborne LNG trade and ship demand over the last three years have resulted in rapid growth in the overall fleet size. LNG fleet capacity has expanded at a CAGR of 7.5% per annum between 2013 and 2020. High deliveries in the last three years have led to a sharp increase in LNG fleet in these years.

Figure 5-5 LNG fleet: 2014-September 2021



Source: Drewry Note - LNG fleet includes LNG carriers, LNGBV and sLNG (Small scale LNG). 2021 data is as of 30 September 2021*

Table 5-3 LNG fleet orderbook and delivery schedule

	Scheduled deliveries								Total orderbook		% Existing fleet	
	2021		2022		2023		2024+					
Size	*No.*	*kcbm*	*No.*	*kcbm*	*No.*	*kcbm*	*No.*	*kcbm*	*No.*	*kcbm*	No	Dwt
0-50 kcbm	9	106	4	54	8	139	0	0	21	298	38%	40%
50-100 kcbm	1	80	1	80	2	160	0	0	4	320	57%	60%
100-150 kcbm	0	0	0	0	0	0	0	0	0	0	0%	0%
150-200 kcbm	10	1,746	30	5,220	38	6,603	54	9,412	132	22,981	39%	41%
200-250 kcbm	0	0	2	400	2	400	2	400	6	1,200	19%	18%
250+ kcbm	0	0	0	0	0	0	0	0	0	0	0%	0%
Grand Total	**20**	**1,932**	**37**	**5,753**	**50**	**7,301**	**56**	**9,812**	**163**	**24,799**	**26%**	**26%**

Source: Drewry Note - Note - LNG fleet includes LNG carriers, LNGBV and sLNG.

The age profile of the existing fleet as of September 30, 2021, is shown below. The average age of all LNG carriers in service is 10.2 years, with lower fleet ages for comparatively bigger vessels and smaller vessels. Whereas, mid-sized vessels are relatively older.

Table 5-4 LNG fleet age profile: September 30, 2021

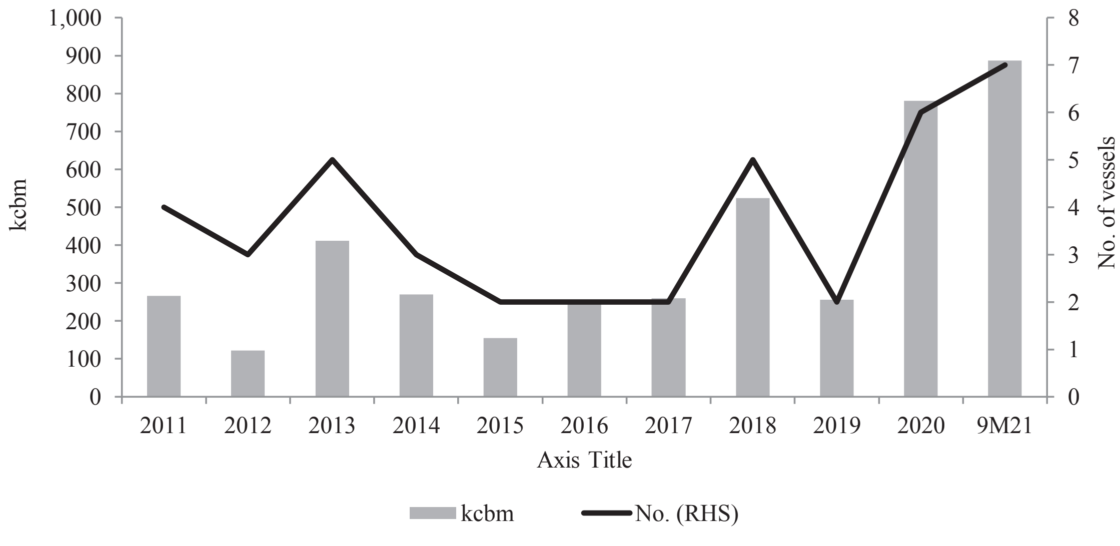
Size Range in CBM	Average Age (Years)
0-50,000 cbm	**9.4**
50-100,000 cbm	**20.8**
100-150,000 cbm	**18.9**
150-200,000 cbm	**5.0**
200-250.000 cbm	**12.9**
250,000 cbm +	**12.2**
Average Age -Total Fleet	**10.2**

Source: Drewry Note - LNG fleet age profile is for LNG carriers, LNGBV and sLNG.

5.3.2 Demolition

As vessels approach about thirty years many owners evaluate the options of demolishing the vessel or selling it for FSRU/FSU conversion. Historical demolition numbers for LNG vessels are shown below. Through the first nine months of 2021, a record seven LNG carriers were demolished with another three vessels reported to be looking for scrap buyers. Scrapping rates have also strengthened in 2021 along with the surge in steel prices, providing an incentive for owners to dispose of their older tonnage. For instance, Sinokor's South Energy was sold to a Bangladesh scrapyard for USD 720/LDT. The demolition price was higher than the current average of USD 630/LDT as the vessel had 3,500 tons of aluminum and 1,200 tons of bunker aboard. Average demolition age has declined from 44.8 years in 2014 to 38.8 years in 2021 (average is for 9M2021).

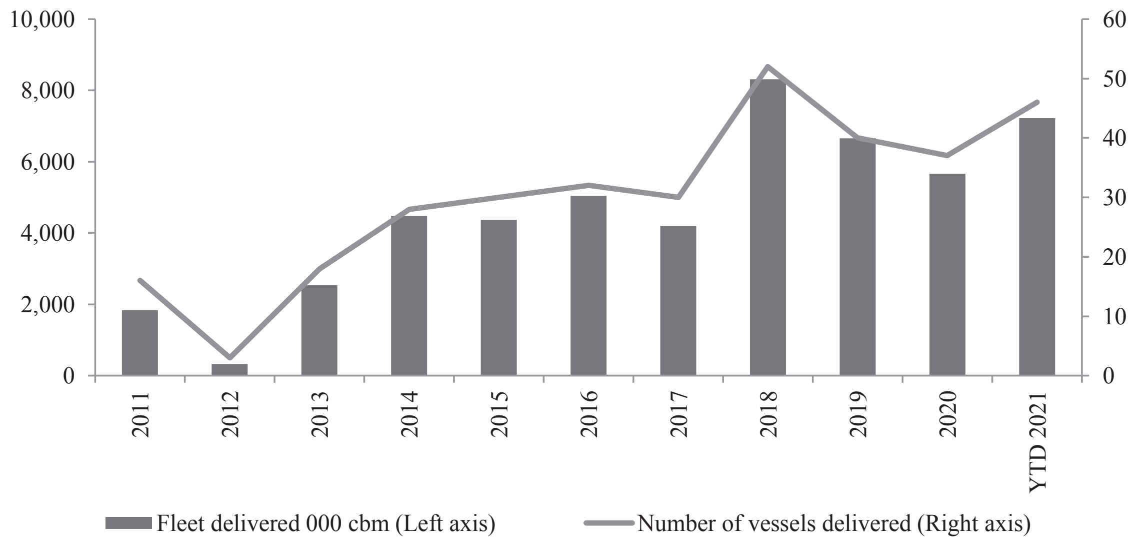
Figure 5-6 LNG carriers demolition



*Source: Drewry, * 2021 average is for 9M2021*

Due to high-quality construction and in most cases, high-quality maintenance, LNG carriers tend to have longer trading lives than oil tankers. It is not unusual to see ships older than 35 years still in service. However, older ships may find it harder to find employment. Most of the older steam-turbine vessels in the fleet will be removed from the LNG trade due to the relative fuel inefficiency and upcoming EEXI and CII regulations, which are certain to enforce power limitations on the vessels, thereby reducing their speed and increasing boil-off rates. While displacing around 240 steam turbine vessels from the 600+ LNG fleet will not be an overnight development, we believe the phasing out process for these vessels has already begun. Post 2023, we will see a rise in steam turbine vessels being laid-up, put up for conversion into FSRU/ FSU or getting scrapped. However, some of these ships can continue to trade on shorter, fixed routes with sporadic demand increase during the peak seasons. Many of the vessels above 20 years of age have started hitting the second-hand market in search of buyers in smaller, emerging LNG importing countries as well as for FSRU and FSU conversions. LNG fleet deliveries since 2011 are shown below.

Figure 5-7 LNG fleet delivery: 2011-September 2021



Source: Drewry Note: LNG fleet delivery includes LNG carriers, LNGBV and sLNG. YTD 2021 deliveries include deliveries between January and September 2021

5.4 LNG tanker earnings

5.4.1 LNG Shipping Arrangements

LNG carriers are usually chartered for a fixed period of time. Shipping arrangements are normally based on charters of five years or more because:

- LNG projects are expensive and typically involve an integrated chain of dedicated facilities. Accordingly, the overall success of an LNG project depends heavily on long-term planning and coordination of project activities, including marine transportation; and
- LNG carriers are expensive to build, and vessel financing is supported by the corresponding cash-flow from long-term fixed-rate charters.

Most end users of LNG are utility companies, power stations or industries with operations that depend on reliable and uninterrupted deliveries of LNG. Although most shipping requirements for new LNG projects continue to be provided on a long-term basis, spot voyages and time charters of four years or less have become a feature of the market in recent years. In the LNG market, the term "spot trade" refers to the transport of one or more cargoes, sometimes within a specified time period between one and six months, with a set-up time of possibly several months. With changing global LNG market in the last ten years, shipowners spot exposure has increased from 26% in 2011 to 40% in 2020.

5.4.2 Factors affecting freight rates – historical and current

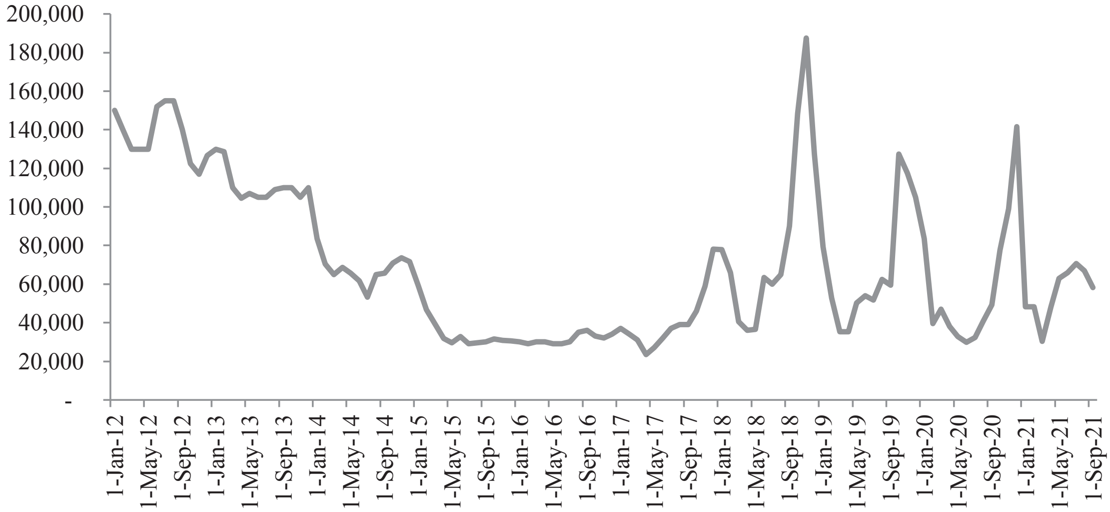
Long-term charter rates depend on newbuilding prices, operating expenses, financing costs, type of LNG ship, and supply demand factors. By long-term, we refer to five years and above. Short-term charter rates are mainly a factor of supply and demand. Trade growth and seasonal factors do affect them with spot rates being highest in winter due to winter led demand.

5.4.3 Spot earnings for LNG ships

Spot rates for LNG vessels were at their peak in 2012 following the Fukushima nuclear disaster of March 2011 in Japan. The disaster compelled Japan to adopt LNG more actively in lieu of nuclear power. The spot rates reached their lowest in 2016 as demand decreased. In 2018, the spot rates increased steadily despite strong newbuild deliveries. The strengthening in spot earnings of LNG ships was facilitated by a demand driven market in which demand for LNG vessels has outpaced the supply growth in world LNG fleet. Spot rates softened in 2019 on account of lower LNG imports in China, higher LNG inventory levels in Europe and Asia, and mild winter.

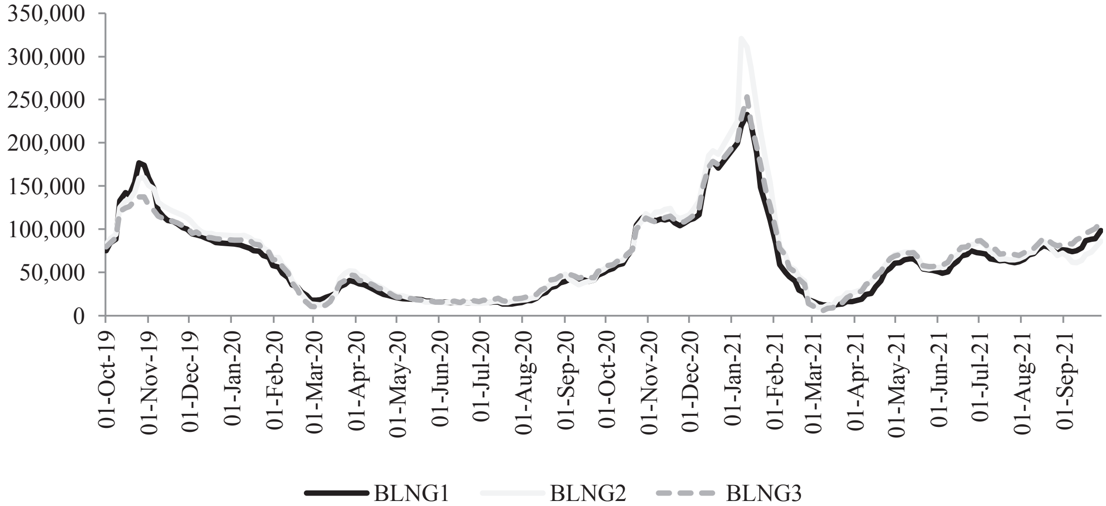
Spot LNG shipping rates plummeted in the first quarter of 2020 as the coronavirus (Covid) outbreak had an adverse impact on LNG trade and LNG spot prices. The outbreak forced several countries to go into lockdown, leading to decline in the world GDP and consequently weak LNG demand. Many LNG cargos were cancelled due to weak Asian LNG demand and high European gas inventories. However, LNG demand recovered in the latter half of 2020 as countries started easing the lockdown. LNG spot shipping freight rates started increasing from November 2020 on account of the cold snap in Asia, congestion in the Panama Canal, and availability of fewer LNG ships in the spot market. Increased LNG spot buying by Japan, China, and South Korea following severe winter led to higher demand for LNG vessels. In 9M21, spot LNG shipping rates surged on account of strong economic recovery in Asian countries, higher US-Arbitrage and strong heating demand from Asia and Europe.

Figure 5-8 Spot rate for LNG ships January 2012 – September 2021 (USD per day)



Source: Drewry Maritime Research, Note – Spot rates are for DFDE/ TFDE (170,000) cbm LNG vessels

Figure 5-9 Spot rate for LNG ships October 2019 – September 2021 on routes tracked by Baltic (USD per day)

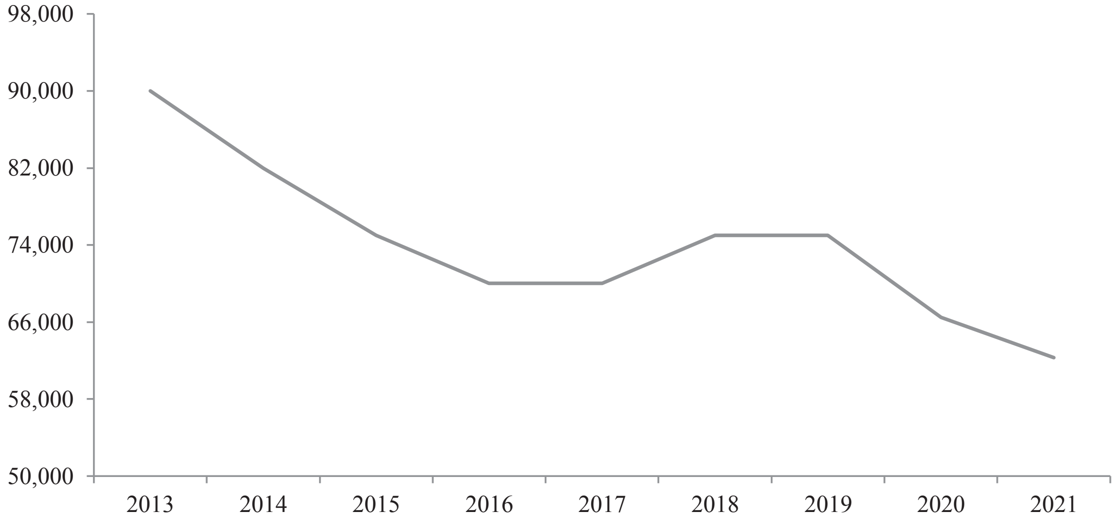


Source: Baltic exchange, Drewry Maritime Research

5.4.4 Term charter earnings for LNG ships

After being firm in the range of USD 70,000-75,000 per day during 2015-2019, LNG charter rates declined in 2020 due to the Covid pandemic. However, LNG charter rates have recovered from June 2021 on account of strengthening of the LNG shipping prospects.

Figure 5-10 Time charter rate for LNG ships 2013 – 9M21 (USD per day)



Source: Drewry, Note, 2021 charter rate is average for the period January-September 2021

5.5 LNG tanker asset market

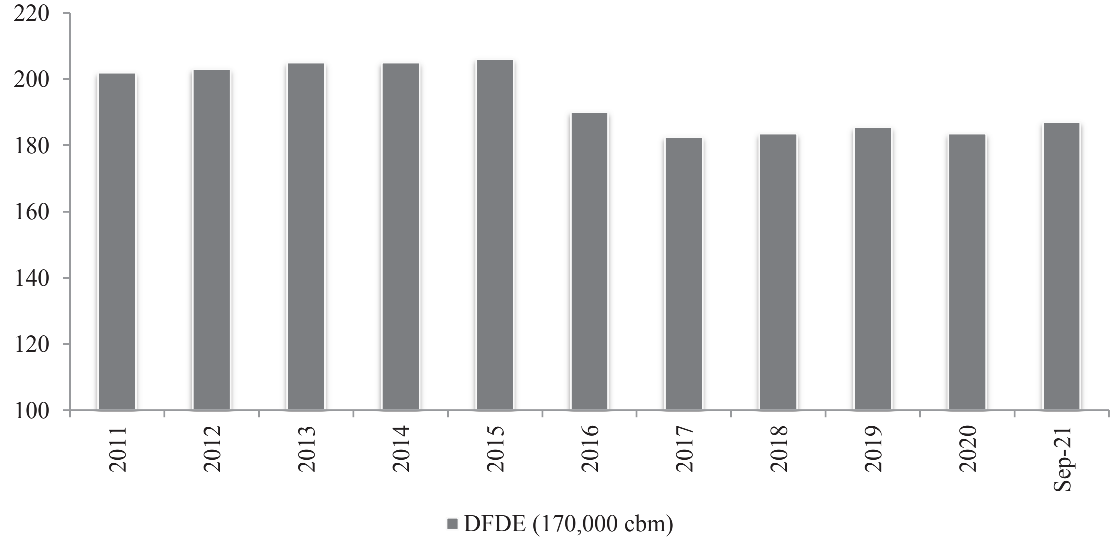
LNG newbuild prices depend on availability of slots in the shipyards, freight market and long-term outlook for the sector. Second-hand prices are influenced by freight rates, supply and demand and liquidity.

5.5.1 Newbuilding Prices

Newbuilding prices are driven mainly by availability of finance, steel prices, shipbuilding capacity and dollar exchange rates. The newbuilding price for an LNG carrier increased marginally by 2% from USD202 million in 2011 to USD206 million in 2015, but dropped by 7.7% in 2016 due to weak freight rates and the resulting oversupply in the market. These prices continued to drop in 2017 before increasing marginally by a marginal 1.4% on account of increased ordering activity in 2018 and thereafter 2.9% YoY to USD 189.3 million in 2019 with a demand for better technology LNG vessels and higher competition for slots at shipyard. Newbuilding orders surged in 2018 and 2019 due to positive outlook of high liquefaction capacity to be added in in coming years, which would have created demand for additional LNG vessels. Newbuilding prices declined in 2020 due to weak LNG prospects and lower new orders. Increase in newbuilding prices in 2021 is on account of lower availability of LNG shipbuilding slots and inclusion of energy efficiency equipments.

Vessel owners have started to add methane slip and emission criteria in the array of requirements to be considered when going for a newbuild vessel. For instance, shipowners such as Celsius Shipping, Dynagas and MOL have chosen to invest in vessels equipped with the new ME-GA engines. Due to the low pressure, ME-GA engines have a higher methane slip, which is negated by clubbing an exhaust gas recirculation system. Through the first nine months of 2021, 14 LNG carriers with ME-GA engines were ordered. A boost in the uptake of energy-saving technologies such as air lubrication, rudder bulbs, exhaust gas economisers and use of shaft generators has also been seen in the LNG carrier orders placed through the first nine months of 2021.

Figure 5-11 LNG carrier newbuilding prices: 2007-September 2021 (USD Million)

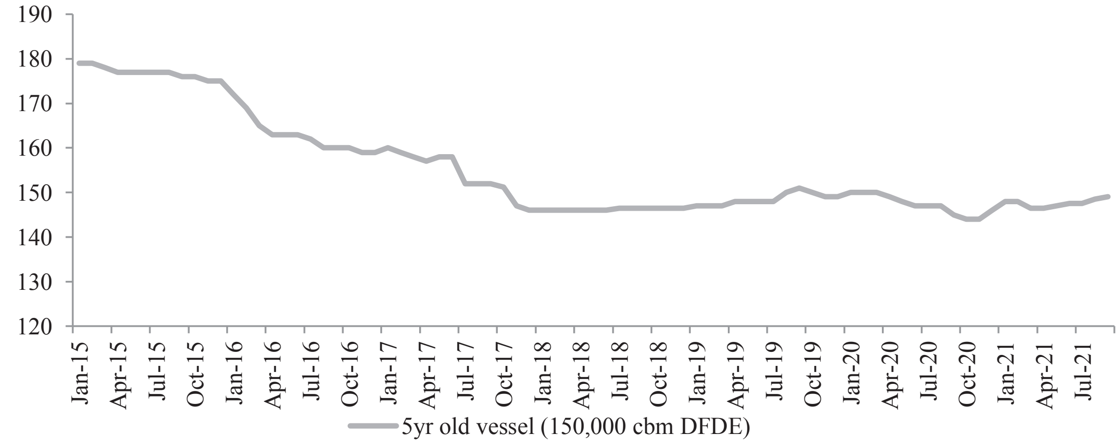


Source: Drewry Maritime Research

5.5.2 Secondhand Prices

Sale and purchase transactions of LNG vessels are limited in number. The secondhand price of a five-year old 150,000cbm LNG vessel declined by 7.9% in 2016, 5.4% in 2017, and 5.1% in 2018. After falling between 2016 and 2018, secondhand vessel prices rose 1.5% YoY in 2019 on account of increase in newbuilding prices, rise in demand for ME-GI (M-type, Electronically Controlled Gas Injection) and DFDE vessels with increase in spot trading and expectation of significant liquefaction capacity to be added in 2019. Secondhand LNG prices declined in 2020 in line with softer LNG spot rates for the majority of the year. Increase in secondhand vessel prices in 2021 is mainly driven by strong prospects of LNG vessels and increase in newbuild prices.

Figure 5-12 LNG carrier secondhand prices: January 2016 - September 2021 (USD million)



Source: Drewry Maritime Research

5.6 Outlook

5.6.1 Overall industry fundamentals

LNG trade is expected to continue growing in the next five years on the back of rising demand, driven by the use of the 'cleanest fossil fuel' by countries, progressing towards their decarbonization goals and preserving energy security. The uptick in the LNG trade will continue amid robust demand for power generation and industrial and marine bunkering consumption.

Global LNG liquefaction capacity will continue to expand. The prospects for planned LNG projects brightened in 2021, with higher spot prices expected to attract LNG buyers to sign long-term supply deals, boosting the development of new projects. A higher LNG price outlook will push the pre-FID projects and improve their ability to use carbon capture system (CCS) and other technologies to reduce carbon emissions from the LNG value chain.

In the medium to long term, natural gas looks likely to play an important role as a 'bridging fuel' in the ongoing 'Energy Transition'. Asian LNG demand will be supported by rising consumption in China, India and a host of emerging LNG importers such as the Philippines, Thailand, Bangladesh and Vietnam. While high LNG prices will impact its adoption in Asia, increasing focus on decarbonization is expected to raise the coal to gas switch in the region. Europe is also projected to be an attractive market for LNG suppliers due to the replenishment demand. LNG shipping will also benefit from the positive trade outlook as it should translate into a higher shipping demand.

LNG shipping rates are likely to have an upward trend until 2026 due to increasing LNG demand and the upcoming EEXI and CII regulations from 2023, limiting steam turbine vessel supply. LNG shipping newbuild prices are expected to remain relatively high compared to the previous years on account of new technologies and limited slots in the shipyards. Second-hand prices should continue to inch up slightly as demand is expected to be firm.

While LNG is being preferred by many countries because greening measures, LNG is ultimately a fossil fuel. About one-third of LNG is used for power production and many multilateral financial institutions look reluctant to finance new LNG based power projects, especially in Europe. Globally, about 80% of the new investments in power sector is taking place in renewables. Furthermore, decarbonization goals would increase the cost of delivering cleaner LNG and may impact the investments in the sector. Considering all these developments and stated policies of different countries of the world, International Energy Agency (2021 World Energy Outlook) has forecast 15% increase in natural gas demand by 2030 compared to 2020 levels under Stated Policy Scenario. In reference to shipping fuel, whilst LNG is not a zero-carbon fuel, it is the most readily available and one of the optimal solutions for shipping industry due to widespread availability and nearly 20% reduction in carbon emission (given that alternative fuels like hydrogen or ammonia will require sometime to be technically and commercially viable).

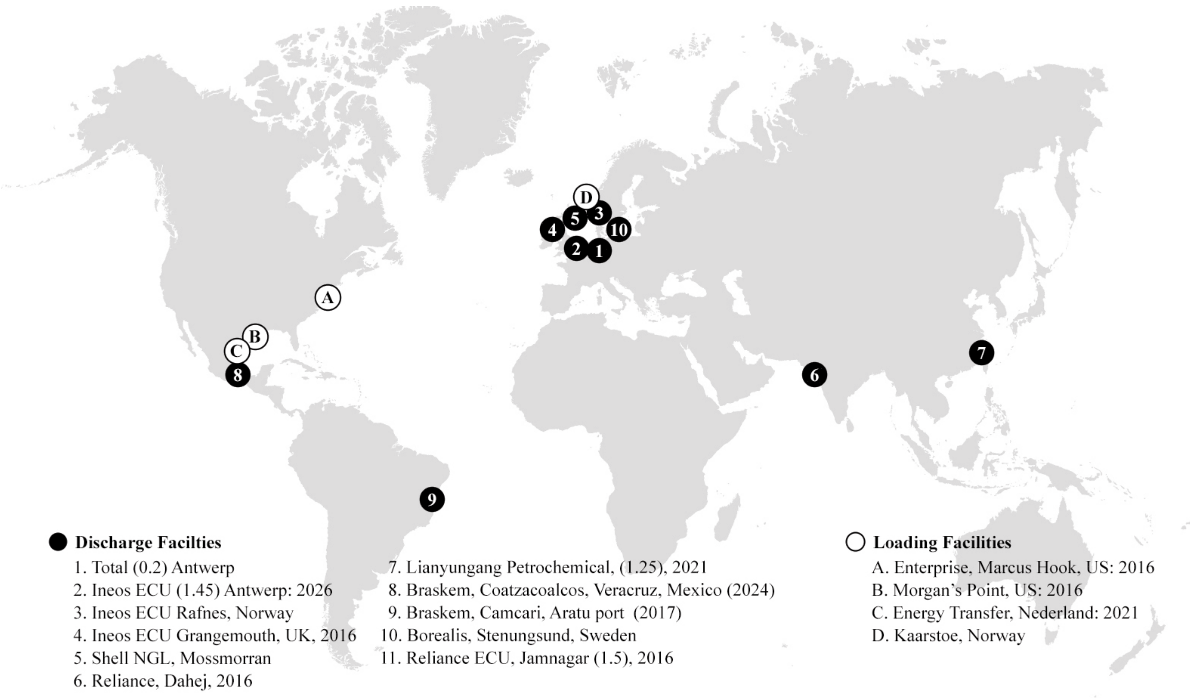
6 Ethane tanker Industry

Ethane is a hydrocarbon that is removed during natural gas processing or petroleum refining. A typical Natural Gas Liquid (NGL) barrel consists of 40-45% ethane, 25-30% propane, 5-10% normal butane, 10% isobutene, and 10-15% pentanes. Each derived product has its own market and is shipped overseas in specialized tankers. Ethane is primarily used as a feedstock for ethylene production that subsequently has multiple uses in the chemical industry. It is most used in producing polyethylene which is further used in the packaging and plastics segment.

Historically, ethane has not been traded in global markets. It is challenging to have ethane quantities large enough to transport it in the liquid state over longer distances in volumes or parcels that are economically viable.

Intercontinental trade of ethane really accelerated in recent years with the expansion of US shale production and the construction of purpose-built Very Large Ethane Carriers (VLEC). These much larger tankers have provided competitive economics and scale to ship ethane from the US to international buyers, foremost India and China. Major ethane loading and discharging ports have been presented below:

Figure 6-1 Major ethane loading or discharging ports (mtpa)



Note: The number in the bracket represents capacity whereas the year represents actual commencement year or expected commencement year.
ECU: Ethane Cracker Unit *NGL: Natural Gas Liquid*
Source: Drewry

This section provides an overview of the ethane tanker demand-supply development as well as commercial landscape and earnings from 2016 to 2021.

6.1 Ethane tanker demand

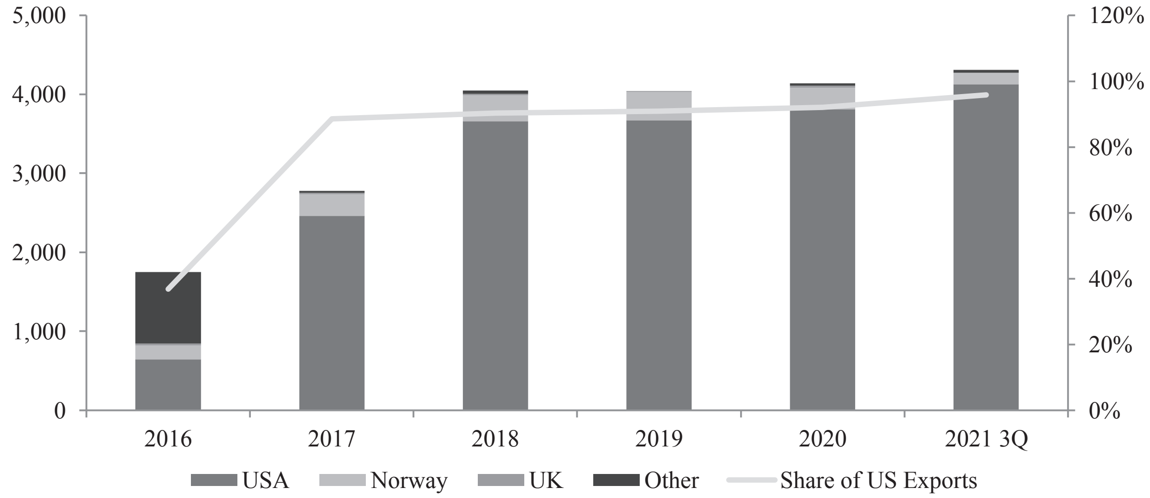
6.1.1 Main exporting countries (2016-2021)

Maritime trade of ethane remains niche despite the substantial growth in recent years. Only around 300 cargoes are discharged annually aggregating just over 4 million tons.

The US dominates the market, consistently accounting for over 90% of the trade. Historically, Norway and the UK have also been notable exporters, but this trade remained regional and in terms of volumes has been dwarfed with the start of US exports.

Over the period 2016-2020 the trade of ethane has expanded four-fold from around 0.9 million tons in 2016 to 4.1 million tons in 2020. US ethane exports are still ramping up and trade has expanded by around 40% in the three quarters of 2021 compared to the same period in 2020. The accelerated rate of exports is expected to continue as more US capacity is projected to be commissioned by 2025.

Figure 6-2 Ethane exporters 2016-3Q21 ('000 tons)



Source: Drewry

6.1.2 Main importing countries (2016-2021)

With growth in trade, the ethane import market has been expanding in recent years. More and more countries are trading ethane as the new dedicated tonnage allowed shipments over longer distances and in economic quantities.

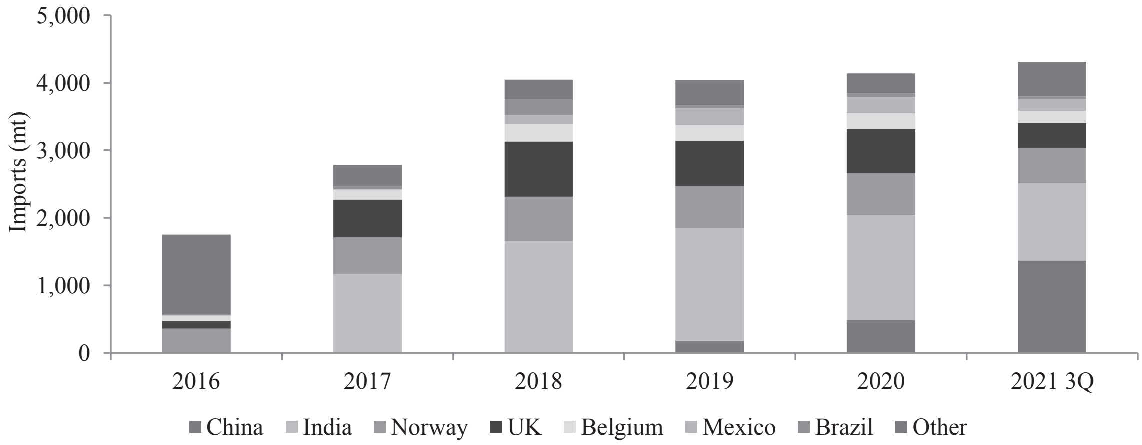
With the deployment of the first VLEC in 2016, India emerged as the world's largest ethane importer in 2016-2020. The country imported around 1.6 million tons since 2017 and accounted for around 40% market share in 2017-2020.

However, in 2021 China is set to surpass India in becoming the largest importer as its import capacity has expanded after it took delivery of a dedicated VLEC fleet. In the first three quarters of 2021 China imported 1.4 million tons accounting for around 32% of global imports, whilst India accounted for a 26% share. Large Chinese industrial users have signed more supply contracts with US producers underpinning capacity expansion there. China is set to remain the largest international buyer of ethane in the foreseeable future.

Ethane has also been traditionally imported by industrial users in Europe, such as Norway, the UK and Belgium. Latin American users – Mexico and Brazil – are also important outlets for ethane production.

As ethane is the main feedstock for ethylene production, the key parameter for the demand of ethane is its price relative to naphtha. For many users, especially smaller buyers opting for short-term supply contracts, demand depends on the fluctuation of oil and gas prices prompting them to opt for different types of feedstock depending on the prices. That is causing volatility in the volumes imported by more price-sensitive buyers.

Figure 6-3 Ethane Importers 2016 – 3Q21



Source: Drewry

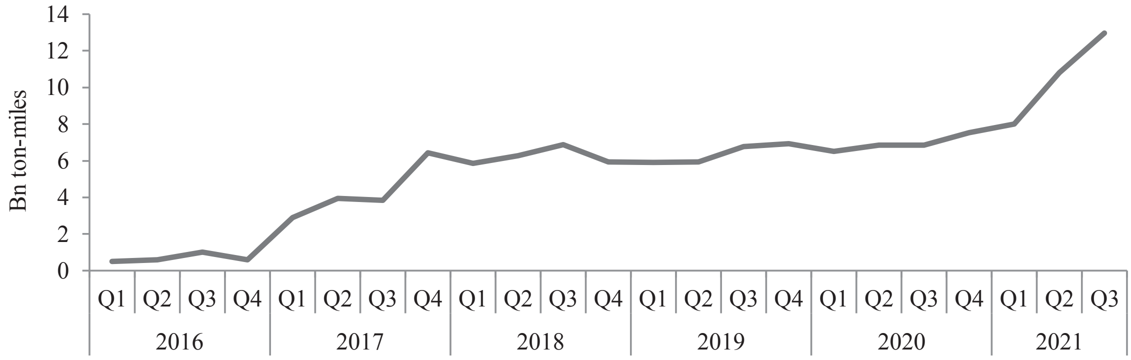
6.1.3 Ton-mile development (2016-2021)

Prior to 2016, when the first purpose built 87,000+ cbm capacity Very Large Ethane Carriers (VLEC) were delivered, ethane was shipped on smaller LPG / ethylene carriers on short haul voyages. In recent years trade has been expanding rapidly as larger parcels onboard VLECs warrant long haul trade to India and China.

As trade quadrupled since 2016, ton-mile demand for ethane carriage increased even more substantially – over 24 times from around 0.6 billion to around 13 billion ton-miles per quarter in 3Q2021. Whilst some volumes are still carried on smaller multi-gas ethylene / LPG carriers, these are small parcels shipped on regional trades and contribute minimally to the ton-mile demand.

With the ramp-up of US-China ethane trade since the start of 2021, ton-mile growth has accelerated.

Figure 6-4 Ethane trade ton-mile development 2016-3Q21



Source: Drewry

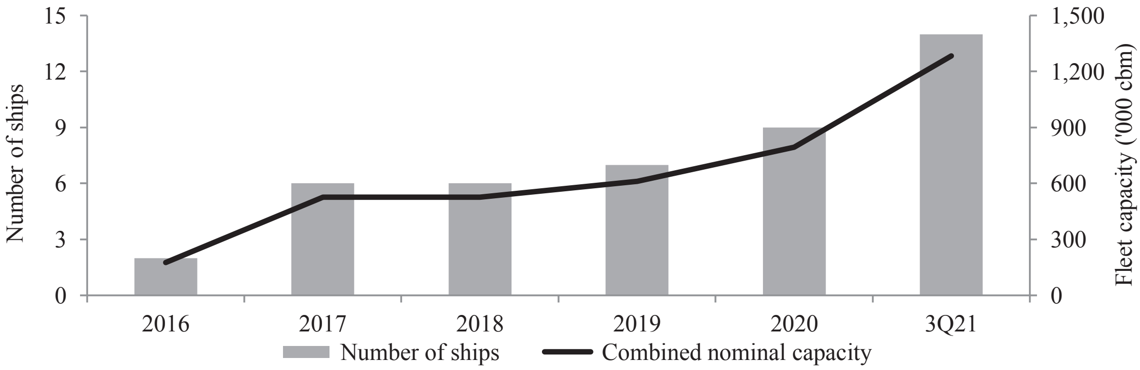
6.2 Ethane tanker supply

In order to be shipped, ethane has to be cooled down to about -90ºC. It can be carried by two types of tankers – purpose-built ethane carriers, which are some of the largest Liquid Petroleum Gas carriers with 80,000+ cbm capacity. It is also shipped on small-to-medium multi-gas semi-pressurized ethylene tankers. This section provides an overview of purpose-built ethane carriers, excluding multi-gas ethylene tonnage. The purpose-built ethane carriers are capable of transporting ethane as well liquid petroleum gas (LPG).

6.2.1 Ethane tanker fleet and orderbook (as of September 2021)

The first purpose-built ethane carriers were delivered in 2016 for the US trades to India. As of end 3Q21, the ethane tanker fleet consisted of 14 ships in service and 15 on order for delivery in 2021-2026.

Figure 6-5 VLEC fleet development



Source: Drewry

The ethane fleet has been expanding rapidly, as well as the ship technology around it. The latest ships feature larger capacities of around 99,000 cbm and have dual-fuel engines ready to operate on ethane as marine fuel that complies with the latest environmental regulations on emissions and efficiency. There are designs for VLEC tankers of around 150,000 cbm capacity that could be built for specific trades.

Drewry expects investments in VLECs to rise further with petrochemical companies looking to increase the use of ethane as a petrochemical feedstock.

6.3 Ethane tanker earnings

The orders for ethane tankers have been underpinned by long-term charters and all vessels currently in service were ordered for specific trades or commercial projects. Thus, there is no liquid spot market as the fleet is performing for its industrial charterers on pre-determined trades with limited scope for tramp sailings and sub-chartering.

The multi-year charters for VLECs in service vary, depending on the ships' size, specifications and newbuild price. The bareboat charter revenue ranges from around USD 0.9 million to around USD1.2 million per month or around USD31,000 - USD35,000/day. The OPEX for a VLEC is around USD8-9,000/day and the total freight is in the range of USD41,000-USD45,000/day.

The future development of VLEC hire rates depends foremost on the newbuild prices for the ships and the escalation of operational costs. As indicated above, the demand for the tonnage is predetermined by ordering ships against multi-year charters. It gives shipowners visibility on stable cashflow. VLECs are unaffected by the supply / demand volatility in Very Large Gas Carrier (VLGC) or LNG carrier sectors as these perform in different commodity markets with separate drivers. Therefore, VLECs are likely to remain niche asset class with handful of owners and charters in coming years. Therefore, earnings of VLEC will largely be a function of newbuild price, operating cost and capital cost.

6.4 Outlook for ethane tanker market

6.4.1 Overall industry fundaments

Large-scale ethane trade is vertically integrated, with infrastructure in all parts of the value chain - from gas processing plants and loading terminals upstream to ethylene crackers that use ethane as feedstock downstream all being built in conjunction. Construction of VLEC tankers is part of such vertically integrated value chains.

Produced from lean US shale gas, ethane is abundant and competitively priced. However, despite the growth in US shale production, over the coming years US ethane will not suffice to meet growing global demand. It appears unlikely that other major gas producers will have ethane available for international markets in the quantities similar to those in the US. The reasons are both in the properties of gas as well as in the domestic demand for ethane in major petrochemical producing countries such as Saudi Arabia, Russia and Qatar.

Thus, from the perspective of ethane tradability as a global commodity as well as ethane tanker market – both are likely to have very limited liquidity in the future, despite substantial growth in volumes.

6.4.2 Views on earnings

The petrochemical industry's demand for ethane is expected to remain robust in coming years both in Asia as well as Europe and South America. This will preserve the high utilization of the VLEC fleet and the expected stable earnings for owners and operators active in the segment.

Ethane carrier fleet has been growing in size since the first orders delivered in 2016. The current "conventional" VLEC fleet ranges from 87,000 cbm to 98,000 cbm. However, the designs of tankers with 150,000 cbm capacity, called Ultra Large Ethane Carriers (ULEC) have been developed and are being approved by regulators and class societies.

Ethane shipping is evolving very rapidly, but is expected to peak and plateau in the midterm. However, as ethane trade has little liquidity, Drewry expects the segment to continue operating on the basis of long-term charters with limited sub-chartering activity in ethane trade. On the other hand, VLECs can be deployed in LPG trade should there be any decline in ethane trade, though earnings may be at a discount.

7 Shiprepair Industry

7.1 Introduction

Every sea-going vessel is subject to a repair and maintenance (R&M) regime. The nature and scope of this regime is a matter for individual owners. Many ships pass through the hands of different owners throughout their operational lives that could alter their R&M regime. Ships suffer wear and tear as they age. There is always a risk of damage from collisions, groundings, cargo handling, port operations or sea conditions. There is also a risk of mechanical breakdowns.

The shiprepair yards offer maintenance services to ship owners, which are essential for keeping ships seaworthy as per International Maritime Organization (IMO) regulations, their flag states requirements and the minimum standards of classification societies.

Shipping does not have an overall authority that can declare a vessel not fit for purpose and prevent it from sailing. Port State Control and port authorities can detain a ship and class could be withdrawn – leaving the ship and anything aboard unable to get insurance coverage. However, classification society standards and reputations vary. Furthermore, classification societies are appointed by the owner. The classification society regime revolves around survey cycles.

7.2 Demand

The demand for shiprepair is global in nature and characterized by demand for repairs on various types and sizes of ships as well as various work scope descriptions. All ships require planned and unplanned repairs of an emergency nature, ranging from small fishing craft to VLCCs and VLOCs. These repairs can be accomplished afloat at anchor; alongside a lay berth or quay; or out of the water on blocks in a dry-dock, depending on the amount of work required. Generally, the ship is attended by the ship owner personnel, classification society inspectors and shiprepair yard personnel during the repair process, depending on the scope of work.

The repair and maintenance regime for a ship is determined by regulatory requirements (e.g. class rules or recommendations, or flag state dictates, nationally-set edicts or measures given their mandate via the IMO), the owner's or manager's policy, the degree of 'wear and tear' and voyage repair needs and the repercussions arising from any damage caused by accident, collision or grounding, among others.

The classification society regime revolves around the survey cycles. All ships are subject to periodical surveys to ascertain the condition of their structure, machinery installations, equipment and appliances. The periodic surveys include annual surveys, intermediate surveys, renewal surveys and other complete periodical surveys. The most important of these is the special survey, which is normally due at five-year intervals. Special surveys normally demand a dry-docking. This provides the fundamental core of shiprepair demand.

7.3 Supply

Defining and evaluating the supply side of the shiprepair equation is not straightforward. In part, it is about physical measures and constraints. The size of a dock limits the size of the ship it can take in. However, larger ships might be worked afloat at a repair berth. Afloat repairs do not always take place in a ship repair yard.

Each repair contract is individual. Consequently, vessel occupancy needs at a dock or a berth are also a variable. This is before the efficiency of the facility and the skills of its workforce are taken into account. External subcontractors sometimes need to be brought in.

Furthermore, all of this presumes that the facility is focused solely on repairing commercial vessels. Some yards may switch a repair facility to newbuilding work. This can be a permanent or a temporary measure. Some yards will secure conversion contracts. Others might have obligations to naval or defense industries. Finally, some facilities are also involved in other manufacturing or fabrication industries catering to offshore renewables sector.

The choice of shiprepair yard by the shipowner is a function of quality of repairs, reputation, cost of repairs, dominant trading area and the sailing distance from last discharge port to the shiprepair yard. Most of the ships trading predominantly in South East Asia (SEA) will prefer repair yards in the region as the cost of deviation to for example China may become significant part of the total cost of repair. For example for MR tankers to ballast to China and return to SEA will entail a lost revenue of about USD250,000. It is about 50% of the cost of intermediate survey. However, for major repairs and conversion, the shipowners would tend to choose reputed repair yards.

Conclusion and outlook

China is the major shiprepair country, taking a substantial market share. However, in South East Asia as well there is competitive shiprepair industry spreading over Singapore, Malaysia, Indonesia, Vietnam and the Philippines. These shiprepair yards are well-positioned to take advantage of shipping growth in SEA. In addition, increasing momentum towards green transition is likely to induce shipowners to seek energy efficiency improvement measures and retrofitting in the vessels. This will likely increase demand for shiprepair yard. In addition, growing offshore wind industry due to ongoing energy transition is also likely to provide significant impetus to shipbuilding and shiprepair industry.

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