Annexure 1

BURSA MALAYSIA DERIVATIVES CLEARING BERHAD

PRINCIPLES FOR FINANCIAL MARKET INFRASTRUCTURES

DISCLOSURE FRAMEWORK

Responding Institution:

Bursa Malaysia Derivatives Clearing Berhad

Jurisdiction(s) in which the FMI operates:

Malaysia

Authority regulating, supervising, or overseeing the FMI:

Securities Commission Malaysia

The date of this disclosure is 30 June 2022

This disclosure can also be found at:
https://www.bursamalaysia.com/trade/risk_and_compliance/pfmi_disclosure

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Abbreviations:

AC	Audit Committee
APC	Appeals Committee
AUD	Australian Dollar
BCM	Business Continuity Management
BCP	Business Continuity Plan
BMD	Bursa Malaysia Derivatives Berhad (the derivatives exchange)
BMDC	Bursa Malaysia Derivatives Clearing Berhad (the derivatives clearing house)
BM Depo	Bursa Malaysia Depository Sdn Bhd (the central depository)
BMS	Bursa Malaysia Securities Berhad
BMSC	Bursa Malaysia Securities Clearing Sdn Bhd (the securities clearing house)
BNM	Bank Negara Malaysia (the central bank of Malaysia)
Board	Bursa Malaysia Board of Directors
Bursa Malaysia	Bursa Malaysia Berhad (the exchange holding company)
CCP	Central Counterparty
CEO	Chief Executive Officer
CF	Clearing Fund
CME	Chicago Mercantile Exchange
CMEGSI	CME Group Strategic Investments LLC
CMSA	Capital Market and Services Act 2007
CMT	Crisis Management Team
CP	Clearing Participant of BMDC
CPSS-IOSCO	Committee on Payment and Settlement Systems and the Technical Committee of the IOSCO
CPU	Central Processing Unit
CSD	Central Securities Depository
DCP	Direct Clearing Participant
DCS	Derivatives Clearing & Settlement System
DMC	Default Management Committee
DR	Disaster Recovery
EHC	Exchange Holding Company
EOD	End-of-day
ERM	Enterprise Risk Management
ERMF	Enterprise Risk Management Framework
EUR	Euro
eRapid	Means eRapid system, which is a web-based system established by Bursa Depository for the electronic transmission of circulars containing operational procedures as well as other notices addressed to the CPs
FCPO	Crude Palm Oil Futures
FEPO	East Malaysia Crude Palm Oil Futures
FIs	Financial Institutions
FMG3	3-Year MGS Futures Contract
FMG5	5-Year MGS Futures Contract

FMGA	10 Year Malaysian Government Securities Futures Contract
GBP	British Pound Sterling
GCP	General Clearing Participant
Globex	Globex electronic trading platform
Group	Bursa Malaysia and its subsidiaries and/or associated companies
GST	Goods and Services Tax
HKD	Hong Kong Dollar
IOSCO	International Organization of Securities Commissions
ISO	International Organization for Standardization
IT	Information & Technology
JPY	Japanese Yen
KPI	Key Performance Indicator
LC	Listing Committee
MARC	Malaysian Rating Corporation Berhad
MGS	Malaysian Government Securities
MMLR	Main Market Listing Requirements
MOF	Ministry of Finance
MPC	Market Participants Committee
MYR	Malaysian Ringgit
NRC	Nomination and Remuneration Committee
PayNet	Payments Network Malaysia Sdn Bhd
PFMI	Principles for Financial Market Infrastructures
PID	Public Interest Director
PLC	Public Listed Company
PO	Participating Organization
PSD	Participants Supervision Department
RACC	Regulatory and Conflicts Committee
RAM	Rating Agency Malaysia
RENTAS	Real Time Electronic Transfer of Funds and Securities
RMB	Renminbi
RMC	Risk Management Committee
RP	Recovery Plan
RTO	Recovery Time Objective
Rules of BMD	Rules of Bursa Malaysia Derivatives Bhd
Rules of BMDC	Rules of Bursa Malaysia Derivatives Clearing Bhd
S&P	Standard & Poor
SBLC	Standby Letter of Credit
SC	Securities Commission Malaysia
SCMA	Securities Commission Malaysia Act 1993
SDC	Sustainability & Development Committee
SGD	Singapore Dollar
SICDA	Securities Industry (Central Depositories) Act 1991
SPAN	Standard Portfolio Analysis of Risk
STEL	Stress Test Exposure Limit

Stock Exchange	Securities Stock Exchange operated by BMS
TCC	Technology & Cybersecurity Committee
TP	Trading Participant of BMD
T+1 Night Trading	After-hours (T+1) Trading Session
USD	United States Dollar
VaR	Value at risk

Table of Contents

I. Executive Summary

BMDC is a wholly-owned subsidiary of BMD and is an approved derivatives clearing house under the Section 38(4) of the CMSA. It was incorporated on 9 September 1995 and is subject to regulatory oversight by the SC. As a clearing house, it provides clearing and settlements functions for the derivative exchange namely BMD.

BMDC as counterparty to all open contracts, undertakes responsibility towards its CPs who are the party to those contracts that it will perform its obligations under the contract. The undertaking is backed by BMDC's risk management framework as well as the funds held for such purpose. Hence, the following policies are in place to address and manage various risks:-

- Margining and performance bond requirement;
- Daily mark-to-market and settlement;
- Intra-day real time monitoring;
- Segregation of client funds;
- Security deposit and CF requirement, and;
- CPs' exposure monitoring.

BMDC currently adopts a stringent risk management and financial safeguard standards for the market to minimise the possibility of a default by its CPs. The default waterfall for BMDC includes performance bond, Security Deposit and/or DCP Deposit as well as Clearing Fund. However, in the event of disciplinary and default situations, BMDC is authorised to take actions pursuant to the Rules of BMDC. Please refer to Principle 13 for more information on the participant-default rules and procedures.

This document aims to provide an overview of the relevant disclosures and explains how BMDC is aligned with and observes the PFMI developed by the CPMI-IOSCO as well as the SC's Guidelines on Financial Market Infrastructures.

II. Summary of Major Changes Since the Last Update of the Disclosure

This document is an update to the version dated June 2021, published as recommended by the PFMI and to continuously assist understanding of BMDC's profiles as well as risk management practices. Changes to BMDC's organisation, services, design, rules, markets served and regulatory environment since the last disclosure are summarised as follows:-

- Amendments to CP's Directive No. 6-001 in relation to East Malaysia Crude Palm Oil Futures ("FEPO") Contract with effect from 4 October 2021;
- Amendments to the Rules and Directives of BMDC in relation to the Review of the Guidelines for Compliance Function and Compliance Reporting for Clearing Participants with effect from 30 November 2021;

- Amendments to the Rules and Directives of BMDC in Relation to the After-Hours (T+1) Trading Session with effect from 6 December 2021;
- Amendments to CP's Directive No. 6-001 in relation to Revitalisation of the FMG3 and FMGA Contracts with effect from 27 December 2021; and
- Apart from the amendments above, the Rules and Directives of BMDC were made available in Bahasa Malaysia, to promote greater inclusivity and accessibility among market participants and investors. The Bahasa Malaysia translation of the Rules and Directives of BMDC were made available on the Bursa Malaysia website from 30 November 2021.

III. BMDC Background Information

General Description of the FMI and the Market it Serves

BMDC was established on 9 September 1995, wholly-owned by BMD. BMDC is an approved clearing house for the Malaysian derivatives market under supervision of the SC and is governed by the CMSA. It acts as a CCP for all derivatives trades executed in BMD. BMD offers 3 categories of derivatives contracts include commodity derivatives, equity derivatives and financial derivatives. The main product is the FCPO which is the global price benchmark for the palm oil industry. For the list of derivatives contracts, see:-
https://www.bursamalaysia.com/trade/our_products_services/derivatives/company_profile.

There are 2 types of CPs registered with BMDC. They are known as GCPs which are derivatives clearing participants who are clearing for clients and itself; and DCP which is clearing trades for itself only. The CCP clears and settles derivatives contracts through the DCS. The DCS is a system that is used for the sole purpose of supporting derivatives clearing & settlement and risk management functions. These activities include transmitting clearing information to the CPs, BMD and the SC. On top of that, the CPs also transmit clearing instructions to the CCP through the DCS.

Please refer to the monthly market statistic for the basic data and performance statistic on BMD at:-
https://www.bursamalaysia.com/market_information/market_statistic/derivatives

General Organisation of the FMI

As a wholly-owned subsidiary of Bursa Malaysia, BMDC adopts the governance model of Bursa Malaysia and the Group's corporate authority manuals. BMDC has a nominal Board where its Board size has been reduced to the minimum size of 2 directors comprising members of the management, since all major decisions are to be made at the holding company level. Information regarding the governance, ownership and board and management structure of Bursa Malaysia, including that of BMDC is publicly available at the website of Bursa Malaysia: www.bursamalaysia.com.

The governance model sets out the clear and direct lines of responsibility and accountability of the Board of Bursa Malaysia, Bursa Malaysia CEO and Board governance committees for the Group (i.e. AC, RMC and NRC); the Board regulatory committees for the Group (i.e. RACC, LC, MPC and APC); and the Board Development Committees for the Group (i.e. SDC and TCC).The terms of reference of the Board committees are available at Bursa Malaysia website at https://www.bursamalaysia.com/sites/5d809dcf39fba22790cad230/assets/61fc83d95b711a6d70c482e1/GMD-Bursa_Malaysia_Berhad-1_January_2022.pdf.

Legal and Regulatory Framework

The law and relevant rules governing the clearing and settlement activities in the derivatives markets are the CMSA, the Rules of BMDC, the Rules of BMD and the contractual agreement between BMDC and its CPs. BMDC, as an approved clearing house under the CMSA, is subject to regulatory oversight of the SC. BMDC's operations as a CCP is governed by the Rules of BMDC and the contract it has with its participants. All CPs enter into the derivatives contracts as principal regardless of whether they are acting on behalf of a client or not. The Rules of BMDC are approved by the SC except for rule changes that have been specifically exempted from the SC's approval, for example amendments that are consequential to law changes. BMDC also has a process to seek external legal opinions where necessary, to ensure the enforceability of the relevant rule or contract. These processes ensure that the Rules of BMDC are clear, understandable, enforceable and consistent with the Malaysian legal framework.

Please refer to Principle 1 for the legal basis for each material aspect of BMDC's activities.

System Design and Operations

BMDC clears and settles derivatives contracts through the DCS. The description of the clearing and settlement process are mentioned below.

Clearing & Settlement Process

The following information/data are provided to the CPs through the DCS:
- Matched trades and open positions (real time).
- Financial information: cash and collateral (available real time).
- Risk related information: performance bond requirement for each client's account and risk arrays for margining (end-of-day and intra-day).
- Financial requirement: CF contribution, security deposit and additional deposit (available real time).
- Physical delivery: allocation of delivery receipts and payable amount (available real time).

- Settlement parameter: daily settlement price and theoretical variable (available real time).

BMDC's clearing and settlement procedure is an on-going process where it receives online trade data on real time basis from the exchange and conducts all post-trade transactions on the DCS. Fees such as the exchange levy and clearing fee are posted daily to the CP.

During EOD processing, BMDC will determine the settlement prices, the performance bond requirements on open positions, the value of the collateral lodged, the cash position of each CP and the settlement variation. The clearing and settlement cycle shall be completed when BMDC collects funds from its CPs with cash shortages and make payment to CPs with surplus on request. The settlements of funds are conducted through the RENTAS system. The RENTAS system is operated by PayNet which is a subsidiary of BNM.

IV. Disclosure of 24 Principles for BMDC

<table>
<tr><td colspan="2">Principle-by-principle summary narrative disclosure</td></tr>
<tr><td colspan="2">Principle 1: Legal basis
An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.</td></tr>
<tr><td>Summary narrative</td><td>The high degree of certainty in the legal framework for the relevant material aspects of the BMDC's activities stems from the clear and unambiguous law, rules and contractual arrangements between BMDC and its CPs.

The legal framework governing BMDC's activities consists of the CMSA, Rules of BMDC, Rules of BMD as well as the contractual agreement between BMDC and its participants.

In addition, certain aspects relating to the activities of BMDC are governed by the provisions of the Evidence Act 1950, the Digital Signature Act 1997, the Contracts Act 1950 and the SCMA.

The legal basis (and consequently, the legal certainty) for each of the key aspects of BMDC's activities is properly provided in the following manner:-

(a) Finality: The Rules of BMDC bind the CPs to the open contracts in the system and all settlements are deemed final and irrevocable. In addition, the CMSA provides protection from insolvency proceedings impacting BMDC's default procedures. The Rules of BMDC specify insolvency of a CP as a circumstance upon which a default would be triggered.

(b) Netting: Pursuant to the Rules of BMDC, BMDC may set off any amount due from a CP to BMDC against any amount due from BMDC to the CP.

(c) Novation: The Rules of BMDC describes the novation process and the point of novation as the moment when the market contract is accepted for registration by BMDC.

(d) Rights and interests in financial instruments: Under the Rules of BMDC, BMDC determines and collects margin from the CPs and the Rules of BMDC also provide for the manner in which collateral for margin is to be pledged with BMDC. In the event of a default by a CP, the Rules of BMDC provide that BMDC may liquidate the collateral and set-off the amounts realized against any loss incurred by BMDC or novating the rights and obligations under the open contracts of the participant in default.</td></tr>
</table>

	(e) Default handling procedures: The Rules of BMDC specify the default handling procedures - the events that constitute default and the rights of BMDC in the event of a default by a CP, including the handling of open contracts and any pending settlements. The CMSA provides that the default procedures of a clearing house shall not be regarded as invalid on the ground of inconsistency with the provisions relating to the distribution of the assets of a person under the laws of insolvency. (f) Applicability of the Rules of BMDC: The Rules of BMDC are binding on the CPs by virtue of the CMSA and the contractual relationship between the parties. (g) Regulation and oversight of BMDC: BMDC is an approved derivatives clearing house under Section 38(4) of the CMSA and is subject to regulatory oversight by the SC. The SC's role to supervise and monitor the activities of any clearing house is stipulated in section 15(1)(f) of the SCMA and the SC's Guidelines on Financial Market Infrastructures. (h) Other aspects: Aspects relating to the collection of margins, the settlement process, the establishment of clearing fund, the delivery procedures and the financial requirements for participants as described in the Rules of BMDC. (i) Relevant jurisdiction: BMDC is incorporated in Malaysia and is a 100% subsidiary of BMD and the participants of BMDC, including foreign institutions are subject to Malaysian laws. Consequently, the relevant jurisdiction is only Malaysia. BMDC also has a process to seek external legal opinions where necessary, to ensure the enforceability of the relevant rule or contract. These processes ensure that the Rules of BMDC are clear, understandable, enforceable and consistent with the Malaysian legal framework. The rule-making process is a robust one, involving benchmarking, analysis, review and consultation to ensure that BMDC arrives at balanced and proportionate rules. Specifically, the rules are formulated based on a multi-tiered internal process which includes:- (a) consideration of the regulatory objectives to be achieved, concerns to be addressed and the implications of the proposed rule amendments; (b) benchmarking the proposed rule amendments to those of other more developed markets and which has a similar framework so that the rules are on par with international standards, where applicable;

	(c) consultation with the relevant stakeholders, including market participants and at times the public to ensure that the rules are clear, practical and are aligned with stakeholders' expectations; (d) review of the proposed rule amendments by qualified staff, senior management and the management regulatory committee prior to the approval of the chief regulatory officer; (e) for major rule amendments, it would require the review and approval of a Board regulatory and conflicts committee, comprising 4 members who are external independent individuals and 3 members who are PIDs of Bursa Malaysia, all of whom are professionals and market experts from the various related fields of the capital market; and (f) approval of the SC for all rule changes except for those that are specifically exempted from the SC's approval, for example amendments that are editorial or consequential in nature pursuant to changes made to other relevant rules approved by the SC. The Rules of BMDC are also made available in Bahasa Malaysia on the Bursa Malaysia website from 30 November 2021 to enhance the clarity and transparency of the Rules of BMDC for market participants and investors. The Rules of BMDC are publicly available at the Bursa Malaysia website: www.bursamalaysia.com. In addition, all CPs are notified of any amendments to the Rules of BMDC via circulars. The operational procedures are readily accessible by the participants of BMDC via eRapid. These operational procedures are not publicly available.
Principle 2: Governance ***An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.***	
Summary narrative	BMDC is a wholly owned subsidiary of BMD, which in turn is one of the subsidiaries of Bursa Malaysia which is an approved EHC under section 15 of the CMSA. Bursa Malaysia is also a PLC on Stock Exchange and as a PLC, it is required to comply with the corporate governance practices as stipulated under the MMLR of the Stock Exchange.

	BMDC provides, operates and maintains a clearing house. BMD became a wholly-owned subsidiary of Bursa Malaysia following the acquisition of the remaining 25% equity interest in BMD from CMEGSI, a wholly-owned subsidiary of CME group on 6 December 2019. As an EHC, Bursa Malaysia's objectives are reflective of its duties and responsibilities under the CMSA amongst others, to ensure there are orderly, clear and efficient clearing and settlement arrangements for any transaction in derivatives cleared or settled through the facilities of its subsidiary that is an approved clearing house (i.e., the BMDC). The CMSA also requires Bursa Malaysia as an EHC to ensure prudent risk management of its business and operations, and it shall prioritise public interest over its commercial business interests. The objectives of BMDC, as documented in the constitution also follow directly from the CMSA which requires approved clearing houses like BMDC to ensure that there are orderly, clear and efficient clearing and settlement arrangements for transactions in derivatives. The CMSA also requires clearing houses like BMDC to prioritize public interest over its commercial business interests. BMDC has specific responsibilities under the CMSA to have at all times, sufficient financial, human and other resources in carrying out its business, to ensure it has adequately and properly equipped premises, competent personnel and automated system with adequate capacity, security arrangements and facilities to meet emergencies, so as to enable efficient protection of investors as well as to act for the public interest. The Governance Model of Bursa Malaysia sets out the clear and direct lines of responsibility and accountability of the Board of Bursa Malaysia, Bursa Malaysia CEO, the Board Governance Committees for the Group (i.e. AC, RMC and NRC); the Board Regulatory Committees for the Group (i.e. RACC, LC, MPC and APC); and the Board Development Committees for the Group (i.e. SDC and TCC). Section 21 of the CMSA provides that in performing its duties, the EHC shall act in the public interest, having particular regard to the need for the protection of investors. Further, the EHC shall ensure that where its own interest conflicts with the public interest, the latter shall prevail. Bursa is also a company listed on the Main Board of the Stock Exchange since 2005 and hence, it has dual objectives i.e. commercial and regulatory. To further strengthen Bursa's governance structure and the framework for handling conflicts of interest (COI) and to address the potential or perceived COI arising from Bursa's dual roles as a business entity and as a frontline regulator, the Regulatory and Conflicts Committee (RACC) was established on 1 August 2013. The RACC is given the mandate to oversee the regulatory function of Bursa Group, and in the performance of its regulatory duties, it shall exercise its judgement independently of Bursa's business functions.

	The RACC comprises 4 members who are external independent individuals and 3 members who are Public Interest Directors of Bursa. The independent individuals were appointed by Bursa Board in consultation with the Securities Commission, and one of them is designated as the RACC Chairman. Bursa Chief Regulatory Officer reports directly to the RACC in relation to the performance of the regulatory function of Bursa Group. This direct line of reporting further strengthens the independence of the RACC. As the wholly owned subsidiary of Bursa Malaysia, BMDC adopted the Group Governance Model. The administration and operations of BMDC are carried out at the Group level. In this respect, BMDC functionally falls under the purview of the Market Operations Division of Bursa Malaysia. All heads of divisions in Bursa Malaysia including the Director of Market Operations of Bursa Malaysia participate in monthly meetings with the Bursa Malaysia CEO. This meeting is used for discussion on all business, strategic and operational issues. BMDC has a nominal Board (Board with minimum number of directors i.e. two (2) only) as most of the functions of BMDC are discharged / carried out at holding company level. The Board of Bursa Malaysia has primary responsibility for the governance and management of this wholly owned subsidiary. In addition, the Board of Bursa Malaysia oversees the functioning of the Board Governance and Regulatory Committees of the Group. Information regarding the governance, ownership and board and management structure of Bursa Malaysia, including that of BMDC is publicly available at the website of Bursa Malaysia: www.bursamalaysia.com. Currently, the Board of Bursa Malaysia consists of nine (9) directors, of which four (4) directors are PIDs and also INEDs, four (4) Directors are INEDs and there is one (1) executive director, who is also the CEO. The four (4) PIDs are appointed by the MOF in line with the requirements under the CMSA for Bursa Malaysia to act in the public interest, having particular regard to the need for the protection of investors in performing its duties as EHC. The Chairman of the Board is also a PID. In addition, section 10(1)(b) of the CMSA states that no person other than a PID shall accept appointment, re-appointment, election and re-election as a director of Bursa Malaysia unless the concurrence of the SC is obtained. The composition of the Board is governed by the provisions in the CMSA, the constitution of Bursa Malaysia and the MMLR. Except for the PIDs, all the remaining directors of Bursa

	Malaysia are appointed by the Board (or the shareholders of the Company at general meeting) with the SC's concurrence. The nomination process is undertaken by the NRC. The Board through the NRC ensures that its composition is refreshed from time to time with new directors having the right mix of skills/ experience and diversity. The Board has in place the Board Charter and the "Protocol for Appointment of directors and Committee members" which sets out a clear and transparent process for Directors' recruitment. The NRC has been tasked with the responsibility to ensure the incoming INEDs have the requisite expertise, knowledge, integrity and professionalism. Based on the annual Board composition review, the NRC would determine any possible gaps having regard to the objectives and strategic direction of the company. These gaps would be reviewed and may be translated into possible "selection criteria" for new directors in a Board refreshment exercise. The ongoing training needs of the Board members are assessed as part of the annual review of the Board performance. In general, the programmes are focused on relevant areas for example, corporate governance, risk and compliance, the trends in global exchanges and capital markets development, cyber threats. The directors' continued independence is assessed as part of the annual Board performance evaluation, which includes a peer review by other Board members. The recruitment process for all senior positions includes interviews with the senior management, the CEO and HOGAN & Virtual assessment. In addition, detailed reference checks are conducted. The CMSA requires Bursa Malaysia to ensure that the staff has the requisite knowledge. Bursa Malaysia has incorporated this into its human resources policies and ensures that all the senior management staff has all the requisite skills. Bursa Malaysia also attempts to maintain a pool of internal successors in the ratio of 1:2 for all senior and critical positions. There is a well-established performance evaluation process against KPI for all employees. The performance of the CEO is assessed by the Board and that of the senior management by the NRC in consultation with the CEO. The performance evaluation process is used to guide the career growth and if need be, any termination. A clear and documented ERMF at the Group level is used to identify and monitor the specific business risk for each business entity. The Risk & Compliance division ensures that Bursa Malaysia has an effective framework and ability to manage all risks as a fully integrated part of the organization including its subsidiaries. Risk & Compliance reports to the RMC. Internal Audit division is independent from all other functions within the Group and reports directly to the AC.

	A default management framework is in place to manage the default of the Clearing Participants (CP) of BMSC and BMDC. It serves as a comprehensive guide when reviewing and updating the Default Management Procedures (DMP) of both BMSC and BMDC in order to effectively operationalize the DMPs and manage the CP's defaults. In addition, DMP articulates the roles and responsibilities of various stakeholders and the procedures to handle CP's default and the setting up of DMC. In the event of default, DMC will carry out the following:- (a) to declare a default; (b) to deliberate the appropriate actions to be taken by BMDC; and (c) to manage communication with other stakeholders. Bursa Malaysia adopts a consultative and inclusive approach to take into account the interest of its participants and other relevant stakeholders in its decision making in relation to its design, rules, overall strategy and major decisions. Prior to initiating changes to its system, services, operations and rules, Bursa Malaysia conducts consultation with its participants and other related users of the system and services. Further, any proposed amendments to rules are subject to the SC's approval. In practice, all major rules amendment submission to the SC for approval requires Bursa Malaysia to obtain feedback from the industry and other relevant users via a consultation process. All rules and amendments are publicly available at Bursa Malaysia website. Operational procedures for clearing participants are disseminated to all clearing participants via circulars.
Principle 3: Framework for the comprehensive management of risks ***An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.***	
Summary narrative	The types of risk that can arise in BMDC are:- (a) credit and liquidity risks arising from its role as the CCP for the derivatives market; (b) operational reliability risks that could prevent it from discharging its responsibility as a CCP; and (c) the general business risks for BMDC are to a large extent subsumed in the overall business risk for the Group. Each business owner is responsible for identifying the risks of their business processes are exposed to, measuring and monitoring the risk indicators and identifying risk management measures and implementing them.

	The Group has put in place an established risk management framework for managing risks affecting its business and operations which are aligned with the ISO 31000:2018 Risk Management – Guidelines and the PFMI. The Group's risk management framework is embedded in ERMF document which is applicable to all the business entities within the Group such as BMDC. With the establishment of the ERMF, the accountability, authority and responsibilities of the relevant parties in the Group for managing risk, including implementing and maintaining the risk management process as well as ensuring the adequacy, effectiveness and efficiency of any controls have been clearly outlined. Within the framework, there is an established and structured process for the identification, assessment, communication, monitoring as well as continual review of risks and effectiveness of risk mitigation strategies and controls at the divisional and enterprise levels. The analysis and evaluation of Bursa Malaysia's risks are guided by the approved risk criteria. At the Group level, the Risk & Compliance division comprises of three (3) key departments namely ERM, Business Continuity Management and Compliance Management. The objective of the set up was to consolidate the risk management and compliance functions across the Group to provide a holistic and integrated view of risk management and compliance at the enterprise wide level. The ERM department covers four risk management units namely Operational Risk, Financial Risk (including credit and liquidity risk), Strategic Risk and Legal & Regulatory Risk. The RMC reviews the risk management aspects every quarter and tables all important developments and plans to the Board. In addition, the Internal Audit team reviews the adequacy of the risk management measures periodically. The Risk & Compliance division also conducts continual review of the risk management framework and process for improvement and ensure that they remain relevant to the Group. The Rules of BMD and BMDC clearly explain the requirements and responsibilities of the participants, and the responsibilities of Bursa Malaysia subsidiaries. Bursa Malaysia has established a group approach to supervise the ongoing compliance of the participants to the requirements of the BMDC. The PSD of Bursa Malaysia is entrusted with the responsibility for managing this. The supervision approach combines a combination of off-site supervision and onsite inspections. As part of the off-site supervision - weekly, monthly and annual submission of various financial indicators and data is required.

	BMDC has identified the following entities that could pose material risks to it, i.e., participants, BM Depo, settlement banks, liquidity provider, SBLC's issuance banks and banks where the BMDC maintains its funds. BMDC leverages the PSD as explained in above paragraph to manage the risks arising from the participants to ensure ongoing compliance to relevant requirements including capital adequacy, risk management capabilities and reporting The Group has established a methodology for selecting its banking partners, settlement banks and the banks whose SBLC it accepts. A combination of financial indicators like capital adequacy ratios, credit rating and operational services provided is used as part of this methodology. In addition, it has established bank-wise concentration limits for the various services it uses. Bursa Malaysia has a BCM Framework in place, that has identified four broad components within BCM, i.e. governance, policy and process, tools and methodology and effective practices. There are various recovery strategies in place to minimise business disruption during crisis or disaster and are periodically tested through regular Business Continuity Plan ("BCP") tests. The BCM Guidelines and BCP are reviewed regularly based on new developments and BCP test findings. BMDC has established a CF which is intended to cover the default of two (2) participants with the largest and next largest exposures. In the unlikely event of 2 participant defaults, BMDC is equipped with an established set of rules and procedures to manage such defaults. To further strengthen such safeguards, Bursa Malaysia has already initiated the development of a RP to recover from uncovered losses and liquidity shortfall which aligns with the global standard of the "Recovery of financial market infrastructures" as set out by the IOSCO. The RP covers the exposures of BMDC and complements with the existing PFMI standards issued by IOSCO which are observed by BMDC. This will only serve to increase the resiliency and robustness of BMDC's existing risk management standards to withstand any eventuality of disorderly failure which can lead to severe systemic market disruptions. In addition, the RP provides a foundation for the establishment of a resolution plan to be initiated by the regulator to provide a comprehensive resolution in the unlikely event of a failed recovery process to ensure that critical services can continue to be offered to the market participants.

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Principle 4: Credit risk

An FMI should effectively measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two (2) participants and their affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions.

</td></tr>
<tr><td>Summary narrative</td><td>

BMDC functions as the CCP for the derivatives market. In its role as the CCP, it is exposed to credit risk stemming from the potential inability of one or more CPs to honour their settlement obligations. Hence, BMDC effectively measures, monitors, and manages its credit exposure to participants and those arising from its payment, clearing, and settlement processes by using a combination of initial margin, settlement variation (variation margin) and establishing position limits. With the extension of trading sessions (i.e. effective 6 December 2021), BMDC does not only measure its exposure to the CPs at the end of each business day but also during the intraday, using the latest information snapshot from real-time trading activities and prices, to measure the exposure and collect the shortfall, if any, from the CPs. BMDC retains the option to perform ad-hoc intraday margin call at times of volatile market.

In addition, BMDC has instituted a framework for managing its credit risk that comprises of the margin collateral collection, powers to call for intraday margin, security deposit and CF collection from each CP, stringent financial requirements to become a CP, and finally, clear and enforceable default rules. On top of that, BMDC has a robust mechanism for monitoring the liquidity and credit positions of the CPs.

CPs are required to submit cash deposit information with FIs (both segregated and un-segregated accounts) and the available credit facilities on a weekly basis to BMDC via DCS. BMDC runs a simulation of potential intraday cash shortage for each CP and assesses the impact against the CPs' available cash in the bank and their credit facilities. This assessment is to analyse the CPs liquidity position and their ability to meet the margin call by BMDC when it is due. Furthermore, BMDC monitors the CPs' positions on an

</td></tr>
</table>

	ongoing basis. It has the power and operational ability to establish position limits and inform any breaches to the SC. A daily and intraday monitoring and hourly stress test on the adequacy of the CF is conducted. The objective of the stress test is to ensure that there are sufficient financial resources in the clearing house to cover default of two participants with the largest default exposure. The contribution of the CPs to the CF comprised of a fixed contribution by each CP (up to RM 1.75 million) and a variable contribution. BMDC currently contributes RM 10 million to the CF. The fund size as well as contributions to the CF are reviewed on a monthly basis and BMDC will inform SC if there is a need to increase the CF size. As at end of June 2022, the CF size stands at RM39.825 million. The stress test model is reviewed annually, and in addition validated annually by an independent party. The daily stress test process is currently running at hourly interval by BMDC's Risk Management team starting at 7:30 a.m., which includes the following parameters: - (a) latest open positions of the CP; (b) latest financial resources of CP held by the CCP; (c) latest price movement in the market; and (d) pre-defined stress scenarios – both historical extreme scenarios and hypothetical/forward-looking scenarios are used to evaluate the stressed outcome. In addition, the reverse stress test is also performed to identify sensible market conditions in which the entire waterfall resources available to BMDC may be insufficient to cover the potential exposure. It is a separate but complementary analysis to the regular stress test performed. Additionally, BMDC has imposed Stress Test Exposure Limit ("STEL"), which is taking effect from 2 October 2020, whereby CPs with significant simulated tail risk exposures are required to deposit additional resources with the BMDC. STEL refers to the maximum stress loss that could arise from an individual CP's portfolio before additional Performance Bond is required by BMDC. The results of the stress tests are analysed by the risk management team on daily basis and the CPs contributing to any excessive risk are required to place additional margin, if the STEL is breached. This is communicated through a margin call placed through DCS. The stress-test result is reported to the senior management, RMC on periodic basis. The result is also shared with the SC on periodic basis which will be followed by a discussion, if required.

<table>
<tr><td></td><td>Besides that, BMDC has established the sequence of using the available resources for handling CP's defaults – "Water fall":
(a) Default participants' margin collateral;

(b) Default participants' security deposit/direct clearing participant deposit (applicable only to DCP);

(c) Default participant's contribution to the CF;

(d) BMDC's contribution to the CF; and

(e) CF contributions of the non-defaulting CP

In the event the CF stress test shows increase in uncovered exposure even after collection of stress margin for at least five (5) consecutive days, an ad-hoc resizing may be considered with additional variable contributions from CPs. Besides resizing of CF, if there is a need to increase or vary the default waterfall resources, the proposal will need to be deliberated by the RMC and approved Board.</td></tr>
<tr><td colspan="2">Principle 5: Collateral
An FMI that requires collateral to manage its or its participants' credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.</td></tr>
<tr><td>Summary narrative</td><td>BMDC has a well-defined collateral management process and policy to manage the CPs' credit exposure and ensure the collateral accepted has low credit, liquidity and market risks. BMDC accepts cross border collateral restricted to only cash denominated in selected foreign currencies. The followings are types of collateral from CPs accepted by BMDC to cover for margin requirements: -

(a) cash (MYR, USD, GBP, EUR, SGD, AUD, HKD, RMB & JPY);

(b) standby Letter of Credit ("SBLC"); and

(c) selected Malaysian equities - Currently top 100 stocks by market-cap listed in the Stock Exchange are accepted, starting from 26 June 2019 and with a 30% valuation haircut.</td></tr>
</table>

	A feasibility study will be conducted for acceptance of new collaterals based on requests from the CPs. The criteria used by BMDC in accepting the collaterals are: - (a) ability to determine the price accurately and in a timely manner; (b) low volatility of collateral value; and (c) the marketability of the collateral e.g. availability of liquid secondary market. BMDC's collateral management system is designed to compute collateral value for margin coverage taking into consideration the appropriate haircut and latest mark to market prices. The system also computes collateral concentration ratio for risk monitoring purpose. The Rules of BMDC empower BMDC to decide the valuation process and specify that any interest or gain on the collateral would be passed on to the CP at the discretion of BMDC. The haircut rate is determined using the 240-day lookback with a multiplier of 1.25, against the floor using historical data from 1997 till date, which also covers the stressed period experienced by the currency pairs. This is to ensure that the model outcome is stable and conservative to address the procyclicality. BMDC performs a daily mark-to-market of the collateral posted and a daily review of the haircut rates' adequacy for foreign currency collateral as well as monthly backtesting. The review result is reported to the senior management, RMC on periodic basis. The result is also shared with the SC on periodic basis which will be followed by a discussion, if required. The haircut setting model and procedures are validated annually by an independent party. As a prudential measure, the haircut rate for the equity collateral is set at the daily price limit which will adequately cover the maximum possible movement for the share value. The DCS allows user to set concentration limits for each type of collateral to avoid concentration risk. BMDC has therefore instituted Collateral Concentration Limit ("CCL") whereby CPs must maintain minimum 30% of the daily performance bond requirement in cash with BMDC starting from 6 April 2020. At collateral type level, the acceptable shares are limited to 1% of the public float. This is reviewed/refreshed half yearly in conjunction with the FTSE review on the Index. For SBLC, there are two levels of limit - first is on the overall limit for each issuer, secondly is the limit by each participant to issuer. The first level limit is reviewed annually in conjunction with the overall exposure limits to financial institutions, while the participant-specific limit is refreshed quarterly. As explained under Principle 3, the Group have established a methodology for selecting its banking partners including issuers of SBLC to ensure robust credit standing of the issuers. All the collateral

	records are kept within BMDC's DCS and are managed by BMDC staff, in accordance with a set of standard operating procedures.
Principle 6: Margin ***A CCP should cover its exposure to its participants for all products through an effective margin system that is risk-based and regularly reviewed.***	
Summary narrative	BMDC collects two (2) types of margins to provide protection from the current exposures as well as from the potential future price increase exposures, i.e. settlement variation (variation margin) and initial margin (performance bond). The SPAN methodology is used to determine the appropriate performance bond level for a portfolio of positions. The SPAN risk analysis model simulates potential market movement and calculates the potential profit or loss on a portfolio of combined commodity. The model organises all futures and options relating to the same underlying assets into one combined commodity group for analysis. SPAN methodology calculates performance bond requirement for a portfolio, based on margin rates determined at product level using Filtered Historical Value-at-Risk ("FHVaR") model at confidence interval of 99%. Historical returns within the look-back period of 240-day are scaled with estimated volatilities to prevailing market conditions under this approach. In order to reduce the need for procyclical adjustments, buffers are added to maintain a stable and conservative margin rate. BMDC also performs intraday mark-to-market process. CPs are required to honour margin call within one (1) hour upon being notified. Failure to honour margin call is treated as a default. The daily settlement prices are used as the main input for margin model. For new products with insufficient historical dataset, BMDC simulates the potential margin rates using data from the underlying assets or other highly correlated products. Alternatively, BMDC may also adopt theoretical model to derive reference prices for margining purpose. Higher margins are also required during long holiday periods to cover for more than one trading day period. The 1-day close-out period is reasonable for products with a liquid market while 2-day close out period is used for illiquid products. The additional buffer used for assessing margin for products with illiquid markets mitigates the need for prompt liquidation, thereby minimising the potential for adverse price effects. BMDC adopts a gross margining concept, the performance bond amount is calculated for each client separately and the client margin requirement is aggregated to the CP's level. The total performance bond requirement for a CP is the sum of the margin requirement for

	all the individual clients' accounts of the CPs. The proprietary position of a CP is margined on a net position. BMDC monitors the liquidity positions of the CPs closely. CPs are required to update their liquidity positions to BMDC on weekly basis via the DCS. BMDC uses this to ascertain the ability of CPs to honour settlement obligation to Clearing House. Daily back-testing of margin rates is performed to ensure margins are adequate and efficient. The margin model is reviewed monthly and back-testing is performed to ensure the relevance of the parameter used. However, if there is any major event and change that warrant a change in the model, the risk manager will perform ad-hoc review. In addition, sensitivity analysis is done on monthly basis by applying different sets of inputs as parameters to the margin and using different outputs to guide in determining optimal margin level. The back-testing result is reported to the senior management, RMC on periodic basis. The result is also shared with the SC on periodic basis which will be followed by a discussion, if required. The BMDC margin system is also validated annually by an independent party. In the event that changes are required for any of the margin parameter pursuant to the approved methodology, the risk management department will make recommendation for approval by Director of Risk & Compliance. BMDC will communicate the same to the CPs via issuance of a CP circular, whereby the circular is publicly available at Bursa Malaysia website. The SPAN margining methodology adopted for BMDC margining procedure is available on Bursa Malaysia website.
Principle 7: Liquidity risk ***An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.***	
Summary narrative	BMDC has a liquidity management methodology that takes into account of its potential settlement obligations and its available financial resources. It aims to ensure availability of sufficient liquid resources to cover any calls for withdrawal of excess margin and the default of two CPs with the largest exposure. The liquidity management framework effectively assists BMDC to measure, monitor, and manage its liquidity risk. BMDC maintains its balances and takes intra-day credit facilities only from banks that provide online banking facility and are rated at the minimum A3 or equivalent by RAM or MARC. Eligible collateral accepted by BMDC includes cash, SBLC and selected Malaysian equities. Interests are calculated daily and paid to CPs monthly.

	BMDC conducts daily liquidity needs assessment at the beginning of the day after the first stress results are available. The liquidity needs assessment takes into account of the following considerations: - (a) potential settlement failure of two (2) CPs with the largest exposure; (b) the ability to handle two-day's worth of daily average cash-out of excess margin placed by the CPs; (c) 50% unavailability of placement maturing today; and (d) its liquid resources. Apart from this, BMDC has instituted daily liquidity stress test that includes the simulation of the unavailability of the largest credit line and withdrawal of 80% of the excess margin held in BMDC by CPs. Other scenarios that are being stress tested include wrong way risk whereby the failure of liquidity provider is simulated simultaneously with the failure of its affiliate companies. In addition, reverse stress test is performed to identify stress scenarios in which the entire liquid resources available to BMDC may be insufficient to meet its settlement needs. Results of the test are shared with senior management, RMC and SC on a periodic basis. BMDC routinely monitors the concentration of exposure and financial condition of the banks with which it places its resources for and avails intraday credit facilities to ensure they have the capacity to meet their commitment on an on-going basis. The procedure to access intraday facilities is frequently tested by BMDC through periodic utilisation of the facility to mitigate timing gap between settlement and investment maturity. BMDC has no access to liquidity facility from BNM. The liquidity risk management methodology is reviewed once a year and the cash-out ratio for liquidity test is reviewed on a quarterly basis. It is also validated annually by an independent party.

	Principle 8: Settlement finality ***An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.***
Summary narrative	The Rules of BMDC clearly state transfer of funds between the CP and BMDC is final and irrevocable upon the crediting of BMDC's or the CP's bank account, whichever applicable. The CMSA protects the settlements processed by BMDC as an approved clearing house from the proceedings related to insolvency or bankruptcy. The daily settlements are completed at 10:30 a.m. and are deemed final once the funds are credited. Scheduled daily intra-day margin call was implemented following the introduction of the after-hours (T+1) trading session on a daily basis at 11:30 a.m. The intra-day margin call involves the revaluation of all contracts which are cleared by BMDC, which includes positions that are created during after-hours (T+1) trading session. CPs must make the necessary payments to BMDC no later than one (1) hour after receiving advice on the amount payable. Intra-day margin calls are also processed with immediate finality. Furthermore, the Rules of BMDC clearly states that contracts that have been accepted cannot be reversed. The Rules of BMDC clearly defines the point at which settlement is final and this has the backing of the CMSA and hence is protected at the level of law. Final settlement is achieved in real-time.
	Principle 9: Money settlements ***An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and liquidity risks arising from the use of commercial bank money.***
Summary narrative	BMDC minimizes and controls credit and liquidity risks by using RENTAS system for funds settlement between BMDC and the CPs since July 2017 for all MYR currency settlement. The RENTAS system is operated by PayNet which is a subsidiary of BNM. Settlement risk is mitigated in settlement process between BMDC and the CPs as RENTAS system facilitates payments between BMDC and the CPs on a real-time basis with finality and vice-versa for receipts. For the USD settlement, BMDC has appointed six (6) licenced banks as its settlement banks. BMDC has well-defined criteria for choosing the settlement banks as specified in the following:- • licensed commercial banks approved by BNM;

	• provide real time online banking system; • provide intraday credit facility; • must be able to comply with BMDC's payment cut-off time; and • must have good credit standing - minimum of A3 or equivalent by RAM or MARC. BMDC manages concentration risk of settlement banks by imposing exposure limit on each bank.
Principle 10: Physical deliveries ***An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries.***	
Summary narrative	BMDC has a robust delivery and collection process for Crude Palm Oil, Palm Kernel Oil and RBD Palm Olein futures contracts. BMDC has clear procedures describing the details of the physical delivery process includes the obligations of the buyer and seller; delivery procedures; payment procedures; and, exceptional procedures related to non-delivery/non-payment or non-acceptance of delivery. The risks associated with physical deliveries are well identified, monitored and managed by the system for delivery and collection. Deliveries are to be made to one of the approved Port Tank Installations ("PTI") in one of three (3) approved sea ports namely, Port Klang, Butterworth and Pasir Gudang, in West Malaysia. With the launch of FEPO ("East Malaysia Crude Palm Oil Futures") on 4 October 2021, deliveries can now be made to PTIs located in East Malaysia, namely Lahad Datu, Sandakan and Bintulu. The deliveries to these six (6) PTIs are to be made between the first and 20th of the delivery month. The PTIs verify the quality and quantity of the delivery and issues a reference number to the seller and creates an Electronic Negotiable Storage Receipt (e-NSR) in the system of BMDC. The details captured are: reference number, PTI location, delivery date, quality related information and validity date. The seller's broker provides this reference number to BMDC to discharge its delivery obligation. BMDC accepts this by matching the reference number with the details entered by the PTI. BMDC allocates the deliveries to the buyers on a pro-rata basis and then random allocations to the clients of the buyer. The buyers are notified of their allocations and are required to pay on T+1 day to their broker and the broker in turn pay to BMDC on T+2 day. The buyer is provided another reference number and BMDC records this reference number in the systems of the PTI. The margins of the buyers and sellers are collected until the seller and buyer performs their delivery and settlement obligation respectively. The margin of the seller is released after

<table>
<tr><td></td><td>the seller make delivery (T day) and for the buyer only upon delivery settlement (T+2). All participants involved in the delivery process requires Government certification.

On 24 May 2018, BMDC has implemented a new delivery procedure for US Dollar denominated RBD Palm Olein Futures (“FPOL”) contract from Ex-Tank delivery to Free on Board (“FOB”) delivery. FOB is an International Commercial term (Incoterms) that specify seller’s obligation, costs and risk in a delivery process up to the loading of goods on to the ship. As such, buyer’s obligation is to charter the ship, insurance and other logistic cost to the destination.

On 18 September 2020, the FMG5 was relaunched with a revised settlement methodology from cash settled to physical delivery based on a delivery-versus-payment (“DVP”) model. The DVP model refers to the exchange of securities and funds between the seller and the buyer in real-time that is facilitated through the RENTAS. In the revised settlement methodology, BMDC acts as the central counterparty to facilitate the exchange of MGS and cash payment.
On 27 December 2021, the settlement methodology for the FMG3 and FMGA was revised from cash settled to physical delivery in alignment with the FMG5 contract. The physical delivery is based on a delivery-versus-payment (“DVP”) model.</td></tr>
<tr><td colspan="2">Principle 11: Central securities depositories
A Central Securities Depository (“CSD”) should have appropriate rules and procedures to help ensure the integrity of securities issues and minimise and manage the risks associated with the safekeeping and transfer of securities. A CSD should maintain securities in an immobilised or dematerialised form for their transfer by book entry.</td></tr>
<tr><td>Summary narrative</td><td>Not Applicable</td></tr>
<tr><td colspan="2">Principle 12: Exchange-of-value settlement systems
If an FMI settles transactions that involve the settlement of two linked obligations (for example securities or foreign exchange transactions) it should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other.</td></tr>
<tr><td>Summary narrative</td><td>Currently, there is no transaction involving the settlement of two (2) linked obligations. Products are settled by way of physical delivery for Palm Oil, RBD Palm Olein, Palm Kernel Oil, FMG3, FMG5 and FMGA. As for non-delivery products, settlement is by way of cash.</td></tr>
</table>

Principle 13: Participant-default rules and procedures

An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.

BMDC has default management rules and procedures in place to cope with a CP's default which identifies the roles and responsibilities of various stakeholders. The Rules of BMDC state clearly the grounds for default and the actions that can be taken by BMDC. Section 43 of the CMSA provides that the default proceedings of the clearing house to take precedence over the law of insolvency.

Chapter 10 of the Rules of BMDC specifies the occurrence of scenarios in relation to a CP as grounds to invoke default procedures. The scenarios are:-

(a) cease to hold a valid and effective Capital Market Services Licence for carrying on the business of clearing;
(b) suspension, expulsion or termination of the CP as a participant of the clearing house, exchange or any Malaysian or overseas derivatives, securities, commodity or stock exchange or market or clearing or settlement facility;
(c) any sanction imposed by the clearing house, exchange or any Malaysian or overseas derivatives, securities, commodity or stock exchange or market or clearing or settlement facility;
(d) ceasing or suspending or threatening to cease or suspend substantially all of its business, or threatening to dispose of substantially all of its assets;
(e) no longer satisfying the qualification criteria or failing to comply with any condition of admission as a CP;
(f) failure to comply with any reasonable direction, decision or requirement of the clearing house;
(g) failure to comply with or settle any of its obligations in relation to an open contract under the Rules of BMDC or the Rules of BMD including such terms relating to delivery and the acceptance of any delivery;
(h) failure to meet in full any contribution or deposit required to be paid under the Rules of BMDC;
(i) failure to comply with any of the financial requirements set out in Chapter 3 of the Rules of BMDC;
(j) failure to comply with or settle any of its financial obligations in relation to the Rules of BMDC or the rules and regulations of any exchange or clearing house in which the CP is a participant or member;
(k) failure to pay when due, any sum due and payable, or is otherwise in default under the terms of any loan or other agreement relating to the CP's indebtedness, or threatening

	or proposing to suspend, stop, defer or reschedule payment or to default under the terms of such loan or agreement; (l) insolvent, or unable to pay its debts as and when they fall due, or a winding-up petition is presented, or a notice of a proposal for a resolution for the CP's winding-up is given, or a voluntary arrangement is approved by the court of law for the benefit of its creditors, or an assignment or composition is made by the CP for the benefit of its creditors or any of them, or the clearing house considers in its absolute discretion that the occurrence of any such events or their equivalent is imminent or likely in any jurisdiction; (m) a liquidator, receiver, manager, trustee, an administrative receiver or similar officer is appointed over the CP or a composition or scheme of arrangement approved by a court of law is made against the CP; (n) a resolution to wind-up the CP (save for the purpose of amalgamation or reconstruction) is passed or a winding-up order is made; (o) any distress, execution or other process is levied or enforced or served upon or against any property or assets of a CP; or (p) any other event or series of events, whether related or not, occurring (or appearing likely to occur) which in the opinion of the clearing house has (or appearing likely to have) a material effect on the capacity of the CP to meet its obligations to the clearing house. Rule 4.03 (1) of the Rules of BMDC requires a CP to keep proper records to sufficiently explain the CP's clearing activities and to evidence compliance with the requirements in the Rules of BMDC, and wherever expressly required under any provisions of the Rules of BMDC. Default drills are conducted yearly by BMDC with its CPs to ensure the effectiveness of the default management procedures as well as to assess the CP's readiness. In addition, the default management procedures are also reviewed as and when there are significant local or international developments. There is a defined default waterfall structure that stipulates the sequence of financial resources that BMDC can draw in the event of CP's default. The rules empower BMDC to draw promptly on the available financial resources in its default management actions. The rules allow BMDC to liquidate open positions of the defaulting CP at any time. Based on the waterfall structure, BMDC will liquidate the defaulting CP's margin and collateral, security deposit and contribution to CF to set off the losses (defaulted amount), followed by BMDC's contribution to CF and lastly, remaining CF contributed by non-defaulting participants. If non-defaulting CPs' contribution to the CF has been utilised, BMDC will issue a statement to inform the non-defaulting CPs of their shares of losses and the non-

<table>
<tr><td></td><td>defaulting CPs are required to replenish the CF within one business day upon being notified.

In addition, BMDC has developed a default management procedure which clearly articulates the roles and responsibilities of various stakeholders and the procedures to handle CP's default and the setting up of DMC. In the event of default, DMC will carry out the following:-

(a) to declare a default;
(b) to deliberate the appropriate actions to be taken by BMDC; and
(c) to manage communication with other stakeholders.

The default procedures are disclosed in the Rules of BMDC at the Bursa Malaysia website and are also available to CPs through eRapid. Any changes to the Rules of BMDC and the default procedures are distributed by way of circulars through eRapid.</td></tr>
<tr><td colspan="2">Principle 14: Segregation and portability
A CCP should have rules and procedures that enable the segregation and portability of positions of a participant's customers and the collateral provided to the CCP with respect to those positions.</td></tr>
<tr><td>Summary narrative</td><td>The Rules of BMDC require all clients' assets to be segregated from the CP's own assets and require the CP to have prior customer instructions to use the clients' accounts. CPs are required to manage their clients' fund, collateral and margin. BMDC does not manage the clients' collaterals and funds directly as it relies on the CPs' internal records. BMDC only calculates the margin for each client's account separately and sums it up as a requirement for the CP. The exception is where BMDC accepts a SBLC (pass through) directly from the CP's client.

BMDC does not have direct access to the CPs' books, however, in the event of invoking the default procedures; it has the powers to require the CP to help BMDC in segregating the clients' funds, positions and collaterals. BMDC computes collateral on a gross basis at the client level, hence it does not have the required information to assist it in segregating client level collaterals.

The arrangement to facilitate porting of client position from defaulting CP to non-defaulting CP is provided for under Rule 10.02(1)(g)(ii) of Rules of BMDC, where BMDC may transfer or procure the transfer of Open Contracts to one or more CPs who have agreed to accept such transfer. BMDC has tested its ability to port the positions of a defaulting CP to another</td></tr>
</table>

	CP during one of its annual default event drills. In addition, the CPs are audited by the PSD team periodically. The Rules of BMDC are available at the Bursa Malaysia's website. Besides that, clearing participantship standard and financial requirements are mentioned in the financial safeguards and risk management section at the Bursa Malaysia website.
Principle 15: General business risk ***An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialise. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.***	
Summary narrative	Bursa Malaysia is guided by the ERMF and risk related guidelines to identify, assess, control, monitor and report key risks under the ERMF which also cover General Business Risks. The oversight, responsibilities and accountability of the risk management process are defined by Bursa Malaysia's risk governance structure where key risks are managed by the three lines of defence comprising the line managers, risk management and internal audit. These risks are regularly reported to the senior management of Bursa Malaysia, the RMC and the Board. Amongst others, the review of the annual business plan which include strategic planning and annual budgeting plays a significant role in the management of both internal and external general business risks of Bursa Malaysia. The risk areas relating to general business risks under the ERMF include:- (a) the administration and operation of the Group as a business enterprise which could impair the business of Bursa Malaysia; (b) potential risks which can cause the decline in Bursa Malaysia's revenue, growth in expenses or loss charges against capital; (c) business impairment resulting in adverse reputational effects; (d) poor execution of business strategy; (e) fluctuations in macroeconomic and market activities; (f) ineffective talent management; (g) lack of technology and product innovation; and (h) legal and regulatory changes to the business landscape. In addition, Bursa Malaysia monitors the general business risk on its financial position for its subsidiaries including BMDC to ensure quality and sufficient liquid net assets are

	maintained to meet its obligations. On a stand-alone basis, BMDC maintains liquid net assets to cover at least 6 months of operating expenses. These funds are held in fixed deposits and money market placements with approved financial institutions and liquid money market or fixed income securities which are rated 'AA3' and above by RAM or equivalent rating by MARC. The adequacies of the liquid funds are reviewed on a quarterly basis. BMDC's investment policy and practices are further explained in Principle 16 below. To further strengthen defences against general business risk, the Group has already initiated the development of a RP to recover from non-default related events which aligns with the global standard of the "Recovery of financial market infrastructures" as set out by the IOSCO. Given that BMDC is wholly owned by the holding company of BMD, the holding company is readily available to inject equity capital into BMDC if required. In addition, the holding company, being a listed entity, may raise additional funds via the capital market for injection of equity capital to BMDC. As a wholly owned subsidiary of Bursa Malaysia, BMDC is required by the CMSA to ensure orderly arrangements for the clearing and settlement of derivatives products transacted on BMD. In the event BMDC cannot continue as a viable entity, then Bursa Malaysia, as the parent company, is ultimately responsible for ensuring alternative arrangements are implemented and BMDC is smoothly wound down
Principle 16: Custody and investment risks ***An FMI should safeguard its own and its participants' assets and minimise the risk of loss on and delay in access to these assets. An FMI's investments should be in instruments with minimal credit, market, and liquidity risks.***	
Summary narrative	The Group is guided by the principal objective to invest its CCP members' funds and CF in highly liquid, short term investments with high credit standing and low market risk. This is to ensure timely access to funds at all times. Under Group's investment policy, BMDC is only allowed to invest in deposits or placements with pre-approved financial institutions that meet strict credit requirements (and within the counterparty limits), money market and fixed income instruments that meet Bursa Malaysia's stringent credit parameters, and securities issued by or guaranteed by Malaysian government or BNM. BMDC is only permitted to invest in MYR-denominated fixed income securities with a minimum local rating of 'AA3' as rated by RAM (or the equivalent rating by MARC) or minimum foreign rating of 'A-' as rated by Standard & Poor's (or the equivalent rating by Moody's and Fitch). There is no exposure in Fixed Income Securities for BMDC Participants Funds.

	Nevertheless, BMDC remains conservative by investing participants' assets and its own assets only in highly liquid and short-term deposits with pre-approved FIs. For BMDC's own assets, 100% are invested in money market and fixed deposits with pre-approved FIs. The investment policy also restricts the investments in foreign-currency denominated assets, whereby for the Clearing Fund and participants' assets, BMDC is only permitted to invest in the same foreign currency in which funds were received to minimise foreign exchange exposure risk as well as quicker turnaround time for availability of funds when required. As of end of June 2022, majority of investments were MYR-denominated, with the FIs being incorporated in Malaysia and supervised by BNM. BMDC has prompt access to these assets with low credit, liquidity and market risks. The investment policy sets out stringent credit parameters for approved FIs (such as capital adequacy and credit rating), and the single counterparty exposure limit in each FI. There is no significant exposure to a single FI, as BMDC adheres to the exposure limits which aim to spread out exposures to multiple counterparties. In addition, the list of approved banks and exposure limits are reviewed at least, on an annual basis or as and when required (e.g. in adverse financial condition). The investment policy is consistent with the Rules of BMDC. Besides cash deposits, BMDC holds its equity collateral in BM Depo, the central depository managed by Bursa Malaysia. The collateral is only used by BMDC as part of executing its default procedures. The Rules of BMDC state that all interests and other benefit accruing from the underlying asset provided for margin purposes would accrue to the CP. In addition, the Rules of BMDC allow the CP to replace collaterals placed for margin.
Principle 17: Operational risk ***An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.***	
Summary narrative	The Risk & Compliance division has established an ERMF, designed based on ISO 31000:2018, Risk Management – Principle and Guidelines. One of the risk categories classified in the ERMF is Operational Risk which is defined as risks arising from deficiencies in information systems or internal processes, human errors, management failures, or disruptions from external events that could result in the reduction, deterioration, or breakdown of services provided by the Group. The ERMF is supported by the risk related guidelines. The risk related guidelines serves to guide the Group in identifying, monitoring and managing the risks it faces in the course of achieving its operations, strategic and

	business objectives. In the contexts of operational risk, the risk assessment process involves identifying major processes, measuring risk events in terms of likelihood of occurrence and impact and management of current mitigation controls that are in place and action plans if needed. The ERMF which was approved by the Board defines the roles and responsibilities of the relevant parties including the Board, the RMC and the Management, respectively for managing risks and implementing risk management processes, and ensuring the adequacy and effectiveness of risk mitigation controls. The Board have tasked the RMC with the responsibility of ensuring that the risk management framework of the Group operates effectively. Periodically, the Board will receive updates from the RMC on the progress and assessment of risk management of the Group. The operational risk of Bursa Malaysia is now governed under ERMF which covers the scopes below:- i. a common definition and risk categories to enable a uniform understanding and consistent approach of managing operational risk across the Group; ii. a governance and oversight structure for operational risk; iii. roles and responsibilities including reporting lines; iv. a sound operational risk management approach and process by introducing methodologies/tools and techniques to perform risks assessment/ analysis/ treatment/ monitoring and reporting in a structured, systematic and consistent manner; and v. effective communication to cultivate operational risk awareness building. Operational risk of Bursa Malaysia is further strengthened by the following frameworks and guidelines, amongst others:- (a) Technology and Cyber Security Risk Guideline: i. To create a common approach for addressing technology and cyber security within Bursa Malaysia; and ii. To ensure technology and cyber security risks are properly managed throughout Bursa Malaysia. (b) Framework for Risk Management on Outsourcing Arrangements: i. To define the required environment and organizational components for managing outsourcing risk in a structured, systematic and consistent manner within Bursa Malaysia; and

	ii. The framework describes risk management practices of risk assessment; due diligence assessment; performance assessment; contract considerations; business continuity requirements; and cyber security requirements. (c) Bursa Anti-Fraud, Bribery & Corruption Policy and Guidelines: i. To set the policy stand of Bursa Malaysia in areas relevant to fraud, bribery and corruption and how Bursa Malaysia staff are expected to conduct themselves in adhering to the highest level of integrity and ethics; and ii. To assist Bursa Malaysia to adopt a pragmatic approach to assess, detect, prevent and respond to fraud, bribery and corruption within the organisation e.g. risk control self-assessment questionnaires explicitly probes for potential risk of fraud, bribery and corruption in Bursa Malaysia's staff operational activities within and with external parties. BMDC clears and settles derivatives contracts through the DCS. The DCS is a system that is used for the sole purpose of supporting derivatives clearing and settlement and risk management functions. Henceforth, the operational reliability objectives of BMDC are dependable on the performance of the DCS. The DCS is adequately equipped to support the derivatives clearing and settlement process. The DCS is being maintained regularly to ensure a high degree of security, performance, operational reliability and scalable capacity. This is achieved through information technology ("IT") initiatives undertaken by Bursa Malaysia's Group Technology division together with the ongoing support and maintenance arrangements with IT vendors. For instance, the performance of the DCS is measured and monitored at its average and peak CPU utilization level, whereas its capacity is observed via its average and maximum daily trade transactions processing. Based on the total derivatives contracts done by BMD over the last few years, the DCS is able to sufficiently meet the scalable capacity adequacy to handle increasing volumes and its service-level objectives. There was no breach on the capacity limits of the DCS for the period of reporting from July 2021 to June 2022. To ensure the reliability and availability of the DCS system, the following controls are in place:- (a) Incident management and problem management procedures are available and in compliance with Information Technology Infrastructure Library ("ITIL"). All incidents are centrally logged into the Enterprise Service Management system and categorised by priority. Incidents are escalated to relevant IT support teams, and respective

	vendors with support service for resolution from 8 a.m to 9.30 p.m or until such time the EOD batch processes completed, whichever is later, during the business day. (b) As one of the Bursa Malaysia's critical systems, all major components of the system are in cluster mode at the main site and it has redundant servers at the Bursa Malaysia DR Site. This is to cater for high availability and reliability of the system. (c) Performance of the system is monitored using specific monitoring tools which have alert capabilities to trigger alarms in the event that thresholds are being breached. (d) Quality assurance of the changes to the system undergoes testing by vendors and internal users. For critical and major changes, an industry wide mock testing is conducted with the market participants. (e) Change, Incident and Problem management process is in place where all changes to the system are centrally logged to the Enterprise Service Management system, managed and assessed in respect of impact and risk of the change to the system. Audit engagements and independent reviews are carried out by Internal Audit on operational systems, processes, policies and procedures based on an annual audit plan approved by the AC. All key operational areas and processes are audited within an approved cycle with higher frequency of coverage depending its criticality and Internal Audit risk assessment. Using a risk based audit approach, Internal Audit assesses the selected areas under the audit scope in relation to effective mitigation of risk exposures, compliance towards the approved policies and procedures and relevant laws and regulations as well as improvement to the overall internal control system. As part of the risk-based audit plan, Internal Audit also conducts post implementation reviews after a predefined period to assess the realised benefits of the implemented significant systems and projects. In relation to physical and information security control and policies in addressing the confidentiality, integrity, availability and potential vulnerabilities and threats of BMDC and DCS, several policies and controls have been implemented by Group Technology division. These policies and controls encompass the following:- Bursa Malaysia Information Security Policy and Standards • Bursa Malaysia Information Security Policy ("BMISP") • Bursa Malaysia Information Security Standards ("BMISS")

	Bursa Malaysia has implemented appropriate protective and detective controls to minimize the impact of a cyber-attack on critical business functions and information assets. The controls for physical and logical access are the following:- (a) entry into data centres and sensitive areas are controlled using combination of access cards and security identification codes and restricted only to authorised personnel; (b) Super IDs or privilege-IDs are centrally controlled and managed by Privilege Access management system.; (c) system and data owners identified and access matrix defined; access to confidential and restricted information on need basis and upon approval. Bursa Malaysia is certified with ISMS - ISO 27001:2013 for Derivatives Clearing Services. The ISMS re-certification assessment was completed successfully in November 2020. The certification is valid until 1 December 2023. Bursa Malaysia's Cyber Security Strategy Roadmap is a 3-year (2020-2023) roadmap with actions designed to continuously improve the cyber security preparedness and resilience of Bursa Malaysia's infrastructure and services. This is in line and to support the overall business strategy and business plans of the Group. Bursa Malaysia has invested and implemented tools, process and mechanisms to enhance the cyber resilience capabilities to anticipate, withstand, contain and rapidly recover from a cyber incident with the objective of limiting the escalating risks that cyber threats pose to Bursa Malaysia and its stakeholders. Amongst the controls that have been put in place are:- (a) Vulnerability assessment and penetration test conducted regularly to proactively identify security vulnerabilities in systems and the appropriate remedial actions taken to address any weaknesses. (b) Security monitoring of Bursa's network and infrastructure is in in place to continuously monitor, detect and mitigate malicious activity or suspicious traffic on the network. Technology refresh on security devices and technologies was carried out to to ensure adequate threat mitigation is in place to ensure the security of Bursa's network. (c) Re-designed staff Internet access to use a separate network firewall and broadband line to minimise Internet bandwidth contention during peak utilisation for business application / traffic and to prevent cyber-attack.

	(d) Anti-virus software implemented for all desktops, servers, email exchange and gateway. (e) Information leakage control to avoid unauthorised access and data leakage. (f) Independent consultant to conduct social engineering test to evaluate staff awareness in identifying scam (e.g. email phishing and physical tailgating test), granting access permission to restricted areas and sharing of sensitive information. (g) External professional to conduct source code review for in-house developed software to provide comprehensive assurance that Bursa Malaysia's application is secured in terms of application flaw. (h) Established Bursa Malaysia Computer Emergency Response Team ("BMCERT"). The BMCERT is aimed to elevate the operational improvement and instil a culture of cyber risk awareness on incident response to cyber threats. (i) Participated in Capital Market Cyber Drill Simulation ("CMCDS") organised by the SC on 16 November 2021. Bursa Malaysia was identified as a key participant to participate in the CMCDS with the aim to strengthen the market preparedness in responding and recovering from potential cyber incidents. It is crucial for Bursa Malaysia to remain vigilant and maintain visibility on cyber preparedness and resilience. The objective of the Drill is to identify potential gaps in technology capabilities and incident response processes. Overall cyber simulation result for capital market has improved in 2021. Bursa Malaysia will be participating in CMCDS for 2022 scheduled on 10 November 2022. The cyber security core functions and controls are reviewed and assessed to observe with the Guidance on Cyber Resilience for Financial Market Infrastructures issued by IOSCO as well as to comply with the Guidelines on Management of Cyber Risk issued by the SC. In relation to BMDC having a BCP, the following are put in place:- **(a) BCP** The overall approach is geared towards ensuring adequate back-up arrangements for all critical office facilities and system components; online data replication from the main site to the DR site and data back-ups to ensure no data loss; and developing business continuity procedures and testing them periodically. The failure of the critical system

components is mitigated with clustering and redundant systems/infrastructure facilities at Bursa Malaysia's main site, hence minimising the needs to failover to Bursa Malaysia's DR site/systems. The systems at Bursa Malaysia's DR site are capable of running all functionalities that are currently available at the main site.

(b) Alternate Site and Backup Systems and Office Facilities

The Group's back-up systems and office facilities are housed in its own DR site which is away from the main site. These two (2) different sites are provisioned from different power sub-stations and different telecom exchanges for electricity supply and telecommunication services respectively, to mitigate the risk of concurrent impact to both sites. The DR site is having adequate capacity and as part of the annual BCP testing has been found to be capable of handling the operations for a sustained period of time.

(c) BCP and Testing

The Group has a comprehensive group wide BCP plan. The BCP is tested annually with the participation of all stakeholders with target RTOs of 2 to 4 hours. The BCP test includes participation of the BMDC participants, they are required to connect to Bursa Malaysia's DR site and verify their ability to conduct their usual services and the integrity of their data. Appropriate recalibration of the BCP are made and if required these are re-tested. Procedures in the BCP for mitigating business interruption risks are tested at least once a year. These procedures are also subjected to external audits by the SC and the appointed external auditor of Bursa Malaysia.

(d) BMDC's Workflow and Recovery Time Window

BMDC's derivatives (post trade functions) settlement is on T+1 market day and the business (production) hours are from 7:00 a.m. to 8:30 p.m. Monday to Friday. The EOD batch processes for the DCS are from 8:30 p.m. to 9:30 p.m. After the EOD processes, the settlement details files are generated and sent via the DCS and e-mail to the participants and BMDC's internal team whereas the settlement instructions will be sent via RENTAS for MYR currency settlement and fax/e-mail for USD currency settlement (by 8:00 a.m.) to the settlement banks for execution by 8:45 a.m. on the settlement day. In the event of DCS disruption before or during the EOD processes and after DCS recovery, BMDC could extend the production hours and delay the EOD processes accordingly so long as the EOD processes can be completed by 8:00 a.m. on the settlement day. This gives BMDC a window of 10.5 hours or more for recovery, resumption and execution of EOD processes where applicable. For DCS disruption

	after the EOD processes, the settlement process on the settlement day is not affected as DCS automatically sends the settlement details files to the participants and BMDC via email during the EOD process. **(e) RTO and BCP Test Results** Both the derivatives trading and clearing & settlement systems are classified as critical systems with RTO of four (4) hours and two (2) hours respectively. The recovery time achieved for a start of day failure scenario during the Industry Wide Testing for Derivatives Market for the derivatives trading and clearing & settlement systems for year 2021 was within the recovery timeframe. **(f) Market Participant's DR Site, BCP and Testing** In addressing the risks of key participants may pose to its operations, Bursa Malaysia requires all market participants to maintain robust BCP and this is ascertained as part of the ongoing supervision activities which includes onsite audits of the DR sites of the participants. The participants are also required to participate in the BCP tests of Bursa Malaysia. As part of the BCP testing Bursa Malaysia's treasury processing and cash settlement unit which deals with the settlement bank is also ensured of its ability to function from the DR site. The ability to provide online banking facilities is one of the criteria used to select settlement banks and banks that provide liquidity support.
Principle 18: Access and participation requirements ***An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.***	
Summary narrative	Criteria and requirements for participation, which are objective and risk-based, are set out in the Rules of BMDC available at Bursa Malaysia website. BMDC has two (2) types of membership: (a) GCP is a corporation that can clear its own trades and the trades of third parties; and (b) DCP which is a corporation trading for itself or its related corporations and registered as an Associate Participant ("AP") of BMD. A DCP may clear only its own open contracts and the open contracts of its related corporations entered into on a proprietary basis. General eligibility criteria for GCP include the following: (a) requisite financial and business standing and repute;

	(b) minimum shareholders' funds of at least MYR 10 million or higher requirements if the GCP is also a PO of BMS or an investment bank; (c) sufficient resources and adequate systems for the proper performance of the business of clearing, including maintaining adequate staff and facilities and in particular: (i) ensuring orderly and expeditious accounting of its business of clearing and timely reporting and reconciliation of all transactions; (ii) preserving a sound liquidity and financial position at all times; (iii) maintaining sufficient liquidity for its day to day operations; and (iv) ensuring an adequate risk management framework; (d) meets the minimum financial requirements; (e) holds a valid Capital Markets Services Licence for carrying on the business of clearing. General eligibility criteria for DCP include the following:- (a) requisite financial and business standing and repute; (b) shareholders' funds of at least MYR 2 million; (c) sufficient resources and adequate systems for the proper performance of the business of clearing including maintaining adequate staff and facilities and in particular: (i) ensuring orderly and expeditious accounting of its business of clearing and timely reporting and reconciliation of all transactions (ii) preserving a sound liquidity and financial position at all times; (iii) maintaining sufficient liquidity for its day to day operations; and (iv) ensuring an adequate risk management framework (d) meets the minimum financial requirements. Kindly refer to Rules 3.04 and 3.05 of the Rules of BMDC for the eligibility criteria of GCP and DCP. In addition, the clearing house may take into the following considerations in determining the suitability of the applicant for admission:- (a) financial integrity; (b) competence; (c) good reputation and character; and (d) efficiency and honesty. The minimum financial requirements of GCP and DCP are stipulated under Rules 3.18 and 3.19 of the Rules of BMDC. The Rules of BMDC require GCP to maintain at all times an adjusted net capital of MYR 500,000 or 10% of aggregate margins required; whichever is the higher. This financial requirement is not applicable to GCP who is also a PO of BMS or an investment bank as it will already be subjected to a higher financial requirement under

	BMS or the rules imposed by BNM. A DCP is required to maintain at all times a net tangible asset of not less than MYR 5 million or a corporate guarantee of not less than MYR 5 million. BMDC has the powers to establish a higher minimum financial requirements for clearing participants on the basis of volume, open positions carried, nature of business conducted or to be conducted or such other criteria as it determines relevant Applicant for GCP of BMDC is required to undergo a readiness audit before being allowed admission. Applicant for DCP is not required to undergo a readiness audit as it is clearing for its own trades only. Bursa Malaysia monitors ongoing compliance of its participants. The participants of the exchanges and the clearing houses are all subject to the same process. Bursa Malaysia uses a combination of off-site supervision based on periodic submissions and on-site inspections in order to ensure that its participants comply with the rules. On-site inspection frequency is guided by a risk-based profile of each participant. Participants with a higher risk profile are audited more frequently and thematic/limited scope inspections are carried out when the need arises. The scope of the on-site and off-site supervision activities include, among others, verifying participants' ability to meet payment obligations and ensuring that appropriate policies and procedures are in place for the areas of risk management, governance, compliance, human resources, internal audit and security of IT systems. DCPs are not subjected to these supervision as they are clearing their own trades only. The compliance officer of a GCP is required to report any violation of the Rules of BMDC to the clearing house. If the GCP is also a PO, the PO will be required to report its capital adequacy ratio on a periodic basis; liquidity position on a weekly basis; statement about their compliance to the segregation requirement and, profit and loss statement. These reporting requirements are stipulated in the directives for the POs / TPs which are publicly available at Bursa Malaysia website. The exit of a participant could arise from either a resignation or actions taken under a disciplinary proceeding where the participant is deregistered due to breaches of the rules or failure to meet the minimum financial requirement. We have clearly defined procedures to handle the orderly exit of a participant which will ensure that clients' assets are returned or transferred to another participant and all obligations between the participant and the clearing house are settled.

	BMDC has adequate powers to ensure it is able to smoothly handle the exit of a participant. Rules 3.31(1) & (2) of the Rules of BMDC require a participant to provide at least 30 days' notice and gives discretionary powers to BMDC to reject the request if it could pose concerns to the orderly functioning of the clearing house. In addition, these rules provide BMDC the powers to place specific restrictions on the participant in the intervening period to ensure BMDC can smoothly process the request for termination. The overview of the enforcement/ disciplinary proceedings and processes are set out in Bursa Malaysia's Intermediaries Communication on Enforcement/Disciplinary Proceedings and Processes ("ICON-DP") (PCN 2/2017) which is published on Bursa's website. The ICON-DP covers all enforcement/disciplinary proceedings of Bursa's Business Rules, which fulfills the public disclosure procedures as mentioned in the principle 18. In addition, a copy of the Explanatory Notes on Enforcement Proceedings willl be enclosed with the Requisite Notice ("RN") upon issuance of the RN to the errant participant.
Principle 19: Tiered participation arrangements ***An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.***	
Summary narrative	Not Applicable.
Principle 20: FMI links ***An FMI that establishes a link with one or more FMIs should identify, monitor, and manage link related risks.***	
Summary narrative	The only link BMDC has with other FMIs is with BM Depo for depositing equity collaterals collected from the CPs. The operational risks arising from this linkage are included in the overall operational reliability planning of the Group. The overall plan addresses operational risks that are associated with failure in software, infrastructure, network, or processes. Periodic industry wide business continuity plan exercise is conducted among BMDC and the market participants. Incident report is raised for any significant technical or operational incidents with coverage of assessment, mitigating actions to prevent the recurrence of the incident BMDC and BM Depo are institutions that have been created in accordance with the provisions in the CMSA and SICDA respectively. These entities are supervised and overseen by the SC. In addition, BMDC and BM Depo are part of the Group Institution and are subject to the Group governance model.

<table>
<tr><td colspan="2">Principle 21: Efficiency and effectiveness
An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.</td></tr>
<tr><td>Summary narrative</td><td>BMDC assesses the effectiveness in meeting the requirements of its participants through various engagements. Industry and/or public consultation is conducted prior to introduction of any changes to Rules of BMDC and/or product offering and launching.

The objectives of BMDC are aligned with Bursa Malaysia's overall vision:-
(a) to process, execute and complete all clearing and settlement activities in a timely manner, in accordance with the prescribed procedures, rules, guidelines and directives;
(b) to provide an efficient, reliable and stable clearing and settlement infrastructure; and
(c) to ensure adequate risk management measures, including monitoring participant's ability to meet their settlement obligations, effective handling of default and adequacy of financial resources.

BMDC reviews its efficiency and effectiveness by conducting periodic benchmarking. In addition, BMDC has identified and established the following targets for key operational indicators to ensure BMDC continue to observe and achieve an efficient and effective level in discharging its duties:-
(a) time taken to complete trade processing;
(b) adherence to cut-off times; and
(c) system availability.

On top of that, BMDC obtains feedback from the participants through consultation. BMDC also performs a post implementation review for any new initiatives, which involves consultation with the participants that is the requirement imposed by the SC for any new approved initiatives/projects.</td></tr>
<tr><td colspan="2">Principle 22: Communication procedures and standards
An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.</td></tr>
<tr><td>Summary narrative</td><td>BMDC has interfaces with the Globex for receiving the contracts that are to be novated, the participants for sending their respective settlement positions and screen-based interface for communicating margin calls and other such information. All the interfaces are built on industry standard protocol like Transmission Control Protocol / Internet Protocol (TCP/IP), however the message formats are proprietary.</td></tr>
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<table>
<tr><td colspan="2">Principle 23: Disclosure of rules, key procedures, and market data
An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks and fees and other material costs they incur by participant in the FMI. All relevant rules and key procedures should be publicly disclosed.</td></tr>
<tr><td>Summary narrative</td><td>All new participants are provided with requisite training to ensure they have the requisite knowledge of the systems, processes and rules. The ongoing supervision activities are used to identify if there are any gaps in the knowledge relating to process and rules. Based on discussions with the participant a suitable course of action is determined, which could include additional training. If need be, training will be provided to participants on areas that the participants feel they require refresher.

The operational procedures are readily accessible by the participants of BMDC via eRapid, a web-based solution to facilitate electronic transmission of circulars containing these operational procedures as well as other notices addressed to the participants. These operational procedures are not publicly available.

The participants are also provided with network connectivity file specifications and message specifications for system connectivity and interface requirements. Technical documents on the system processes and designs are sent to participants through circulars.

BMDC provides the details of the fees to the participants. The participants interviewed expressed no concerns with respect to transparency related to the fees.

BMDC has clear and comprehensive rules to govern its participants, complemented by operational procedures. The rule-making process is a robust one, involving benchmarking, analysis, review and consultation to ensure that BMDC arrives at appropriate rules. Specifically, the rules are clearly formulated and in compliance with the relevant laws and regulations based on a multi-tiered internal process which includes:

(a) consideration of the regulatory objectives to be achieved, concerns to be addressed and the implications of the proposed rule amendments;

(b) benchmarking the proposed rule amendments to those of other more developed markets and which has a similar framework so that the rules are on par with international standards, where applicable;</td></tr>
</table>

	(c) review of the proposed rule amendments by qualified staff, senior management and the management regulatory committee prior to the approval of the chief regulatory officer; (d) consultation with the relevant stakeholders including market participants and at times the public to ensure that the rules are clear, practical and are aligned with stakeholders' expectations; (e) for major rule amendments, it would require the review and approval of a Board regulatory and conflicts committee, comprising 4 members who are external independent individuals and 3 members who are PIDs of Bursa Malaysia, all of whom are professionals and market experts from the various related fields of the capital market; and (f) approval of the SC for all rule amendments except for those that are specifically exempted from the SC's approval, for example amendments that are editorial or consequential in nature pursuant to changes made to other relevant rules approved by the SC. . Where required, BMDC also has a process to seek external legal opinions where necessary, to ensure the enforceability of the relevant rule or contract. The Rules of BMDC are publicly available at Bursa Malaysia website: www.bursamalaysia.com. As at 30 November 2021, the Rules of BMDC are also available in Bahasa Malaysia as part of Bursa Malaysia's effort to promote greater inclusivity and accessibility among market participants and investors. In addition, all CPs are notified of any amendments to the rules via circulars through eRapid. The operational procedures are readily accessible by the participants of BMDC via eRapid. These operational procedures are not publicly available. Bursa Malaysia currently discloses quantitative data on performance of BMDC, financial condition and resources to the SC on a quarterly basis.
Principle 24: Disclosure of market data by trade repositories ***A trade repository should provide timely and accurate data to relevant authorities and the public in line with their respective needs.***	
Summary narrative	Not Applicable.

V. List of Publicly Available Resources

Relevant Information Pertaining to BMDC can be found at:
https://www.bursamalaysia.com/trade/our_products_services/derivatives/company_profile

Links to documents referenced within this Disclosure Framework are below:

Capital Markets and Services Act 2007
https://www.sc.com.my/regulation/acts/capital-markets-and-services-act-2007

Circulars
https://www.bursamalaysia.com/trade/trading_resources/derivatives/circulars/

Corporate governance model
https://www.bursamalaysia.com/about_bursa/about_us/corporate_governance/governance_model

Derivatives Clearing & Settlement System
https://www.bursamalaysia.com/trade/post_trade/derivatives_clearing_and_settlement/overview

Derivatives: Rules of BMD
https://www.bursamalaysia.com/regulation/derivatives/rules_of_bursa_malaysia_derivatives

Derivatives: Rules of BMDC
https://www.bursamalaysia.com/regulation/derivatives/rules_of_bursa_malaysia_derivatives_clearing

Exchange and clearing fees
https://www.bursamalaysia.com/trade/post_trade/derivatives_clearing_and_settlement/exchange_and_clearing_fees

FCPO physical delivery
https://www.bursamalaysia.com/trade/post_trade/derivatives_clearing_and_settlement/fcpo_physical_delivery

Financial safeguards and risk management
https://www.bursamalaysia.com/about_bursa/risk_compliance/financial_safeguards_and_risk_management

Information on membership application
https://www.bursamalaysia.com/trade/trading_resources/brokers_for_derivatives/becoming_a_participant_corporate

Market statistics
https://www.bursamalaysia.com/market_information/market_statistic/derivatives

Products information
https://www.bursamalaysia.com/trade/our_products_services/derivatives/commodity_derivatives/

After-Hours Trading
https://www.bursamalaysia.com/trade/our_products_services/derivatives/after-hours_trading