



CONSULTATION PAPER NO. RC/01/2020
PROPOSED ENHANCEMENTS TO THE EQUITIES MARGIN METHODOLOGY AND CLEARING
GUARANTEE FUND

Date of Issue: 15 May 2020

Bursa Malaysia Berhad ("Bursa Malaysia") invites your written comments on the proposals set out in this Consultation Paper by **3 June 2020 (Wednesday)** via:

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Respondents to this Consultation Paper are requested to use the reply format as stipulated in the **Attachment**.

If you have any queries in relation to this Consultation Paper, kindly contact us at equitiesrisk@bursamalaysia.com.

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1. INTRODUCTION

1.1 This Consultation Paper seeks views and comments from the public on the proposed enhancements to of Equities Margin (“EM”) and Clearing Guarantee Fund (“CGF”) as part of Bursa Malaysia Securities Clearing’s (“BMSC”) continuous efforts to strengthen financial integrity of the capital market in Malaysia.

2. BACKGROUND

2.1 BMSC acts as the central counterparty (“CCP”) for the securities market to manage the CCP risks. Recognizing the importance BMSC’s role as CCP for the securities market, we constantly look at improving and strengthening the risk management framework of the CCP.

2.2 As CCP plays a crucial role in the financial system, it is imperative for a robust CCP to withstand any potential default by Clearing Participant and other stress events to a high probability. This is backed by a comprehensive financial risk management framework in place to safeguard the market and improves resilience.

2.3 Pursuant to Securities Commission’s (“SC”) approval for the implementation of EM framework in 2016, Bursa Malaysia is required to undertake a review on the EM framework which among others include, the appropriateness of existing statistical assumptions and the adequacy of margin level as market condition changes.

2.4 Since then, Bursa Malaysia has been conducting annual review on the EM methodology to ensure the required margin level is sufficient to safeguard the smooth functioning of the capital market in Malaysia and strive to achieve loss coverage level which is in line with the expectation in the Principle of Financial Market Infrastructures (“PFMI”).

2.5 In addition, CGF is also a critical element in the risk management of BMSC as a CCP. Apart from the other risk management techniques employed, CGF represents the amount of funds available by a CCP to deal in a situation which may threaten the financial integrity of the market. Bursa Malaysia has been conducting the review on the adequacy of CGF to ensure the available financial resources are sufficient to absorb any potential losses.

3. OBJECTIVE

3.1 The objective of this consultation paper is to seek BMSC’s Trading Clearing Participants’ (“TCPs”) feedbacks on these proposals:

- (a) Enhancement to the EM approach; and
- (b) Enhancement to the CGF

4. RULES AND REGULATION

4.1 As a CCP, BMSC is exposed to various types of financial risk. Taking the role as a CCP to every cleared transaction, credit risk is the most significant risk faced by BMSC. However, equally important to be managed by a CCP, BMSC is also exposed to liquidity risk, market risk, custody and investment risk. Bursa Malaysia, as a whole enterprise, is also exposed to general business risk of incapacity to continue the business as a going concern.

4.2 In this manner, BMSC must ensure that the financial risk management framework is aligned with all the 24 principles highlighted in the PFMI's requirement, which is also adopted by the SC in its Guidelines on Financial Market Infrastructures.¹ Credit risk is highlighted in Principle 4 of PFMI as shown below:

“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 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”.

4.3 BMSC must also ensure that the margin methodology adopted is in line with Principle 6 highlighted in the PFMI requirement:

“A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed”.

4.4 While BMSC is broadly aligned to the PFMI requirements, the EM and CGF methodology require further enhancements to ensure that the measures taken are adequate to cover its risk exposures.

¹ Principle 4 (Credit Risk) and Principle 6 (Margin) of PFMI are highlighted in Principle 4 (Credit Risk) and Principle 6 (Margin) of *Guidelines on Financial Market Infrastructures* by SC.

5. ENHANCEMENTS TO BMSC'S RISK MANAGEMENT

PART A ENHANCEMENT TO THE EQUITIES MARGIN APPROACH

5.1 A MOVE TOWARDS MORE RISK SENSITIVE METHODOLOGY

5.1.1 Pursuant to BMSC Rule 5.9, EM or margin is the amount required to be paid by the TCPs to the CCP to manage the risks arising from the TCP's obligations in relation to its Novated Contracts.

5.1.2 Margin computation is carried out twice per day or as many times as deemed necessary by the CCP based on TCP's trading exposures. To determine the margin rate, CCP may use risk-based algorithms, or such other method as stated in BMSC rule 5.9 (a) below:

"The Clearing House may determine a Trading Clearing Participant's Margin using a risk based algorithm or such other method as may be determined by the Clearing House".

5.1.3 The EM framework adopted by BMSC consists of advance/initial, variation and additional margin. Advance or initial margin is used to cover for potential losses arising from the liquidation of TCP's portfolio over the close-out period in the event of a default. Variation margin, on the other hand, captures the difference between the Contract Value and the Mark-to-Market ("MTM") Value of the gross buy and gross sell outstanding positions for two full trading days. As a holistic model, EM framework also takes into account the risk arising from excessive concentration on a single stock in the TCPs' portfolios and the risk arising from unsettled trades. Hence, additional margin will be collected taking into account the concentration risk or unsettled trade risk in the TCPs' portfolios.

5.1.4 TCPs will be required to make good the shortfall if the gross margin requirement is greater than existing collateral held by BMSC. Notwithstanding the calculated gross margin requirement, all TCPs, currently, are required to maintain a minimum collateral of RM250,000 in cash with BMSC.

5.1.5 Pursuant to SC's approval for the implementation of EM framework in 2016, BMSC is required to undertake a review on the EM framework which among others include, the appropriateness of existing statistical assumptions and the adequacy of margin level as market condition changes.

5.1.6 This is in line with the requirement under key consideration 6 of Principle 6 of PFMI, in which:

“A CCP should analyse and monitor its model performance and overall margin coverage by conducting rigorous daily backtesting – and at least monthly, and more-frequent where appropriate, sensitivity analysis. A CCP should regularly conduct an assessment of the theoretical and empirical properties of its margin model for all products it clears. In conducting sensitivity analysis of the model’s coverage, a CCP should take into account a wide range of parameters and assumptions that reflect possible market conditions, including the most-volatile periods that have been experienced by the markets it serves and extreme changes in the correlations between prices”.

- 5.1.7 In 2017, Bursa Malaysia conducted a post-implementation review on the EM framework. The review evaluated the effectiveness of EM framework in various aspects including system infrastructure, industry familiarization as well as margin model performance.
- 5.1.8 Based on the PFMI requirement, margin requirements should “continue to meet or exceed the single-tailed confidence level of at least 99% with respect to the estimated distribution of the future of the portfolio”.² Based on the backtesting’s result at the time, the margin rates could not achieve the targeted coverage ratio of 99% required by the PFMI standard. As a result, BMSC might be exposed to risk exposures arising from the TCPs’ obligations.
- 5.1.9 It is therefore the responsibility of both BMSC as the CCP and the TCPs to ensure the gaps above are addressed and do not impede the development and competitiveness of the Malaysian capital market in the future.
- 5.1.10 In addressing these challenges, over the past 3 years, Bursa Malaysia has been conducting research and considering several improvements needed in the EM methodology.
- 5.1.11 The EM rate changes from time to time, and charged upon all TCPs on all of their exposures, regardless of their portfolio compositions. As highlighted in point 1.1.5 under Chapter 3 of EM Operational Procedures, the rate is computed based on Parametric Value-at-Risk (“PVaR”) calculation for FTSE Bursa Malaysia EMAS Index (“EMAS”) and FTSE Bursa Malaysia ACE Index (“ACE”) using a 99% confidence level for the past 120 days period. The current EM rate is therefore computed using portfolio weighted average of index. Upon assessment, the current approach however may result in lagging response to market volatilities which may impede margining requirements to be as responsive to changing market conditions.

² Based on point 5.2.55 in Resilience of central counterparties (CCPs): Further guidance on the PFMI, retrieved from <https://www.bis.org/cpmi/publ/d163.pdf>.

- 5.1.12 Bursa Malaysia had also engaged external consultant to conduct validation on the EM methodology and the model robustness. Recommendation by external consultant includes for BMSC to consider adopting other VaR methodology (e.g. historical) to address inherent weaknesses in the parametric VaR.
- 5.1.13 From the statistical perspective, the assumption underlying the current margin rate derived from PVaR is that the returns of the stocks are normally distributed. Based on our assessments on the returns of the stocks over the past 3 years, such assumption may no longer applicable.
- 5.1.14 While PVaR is suitable at the start of the EM framework implementation (i.e. due to its simplicity and consistency), the market conditions have changed since then. In view of this, Bursa Malaysia intends to apply a more dynamic EM methodology moving forward.
- 5.1.15 As part of the enhancement, **EM rate will be determined using advance statistical tools that are more responsive to changes in the macroeconomic conditions.** These tools include Exponential Weighted Moving Average (“EWMA”), Generalised Autoregressive Conditional Heteroskedasticity (“GARCH” – which is also normally called as ‘the smoothed EWMA model’) and Historical Value-at-Risk (“HVaR”).
- 5.1.16 Based on the international benchmarking performed, there are many CCPs who have adopted more risk-sensitive margining approaches. These are some of the examples of CCPs that applied different statistical tools to determine margin rates in comparison to BMSC:

Item	Bursa Malaysia Securities Clearing (“BMSC”)	Hong Kong Securities Clearing Limited (“HKSCC”)	London Clearing House (“LCH”) Ltd	Australian Exchange (“ASX”) Clear	Singapore Exchange (“SGX”)
Statistical Tool	VaR	EWMA	Historical Simulation	HVaR or Flat Rate (based on the products)	Historical Volatility Based Margin Model
Confidence Level	99%	99.73%	99.7%	99% or 95% (based on liquidity)	99%

- 5.1.17 In determining which methodology to be used, Bursa Malaysia will be guided by a set of principles that takes into consideration, for example, the availability of historical data, the inherent risk of a product, the business cycle, the macroeconomic conditions, consistency with PFMI standard and development in other jurisdiction’s approaches.

- 5.1.18 The enhanced EM methodology will lead to more prudent risk management that is practiced by BMSC. Higher margin requirement may be charged during more volatile market, which reduces the probability of the need to tap into the financial resources of non-defaulting TCPs in the event of TCP's default.
- 5.1.19 The impact to each TCP will depend on the risk profile of each TCP (i.e. higher margin required to support risky portfolio while at the other hand, lower margin required if the portfolio consists of lesser risky stocks).

5.2 MOVING FROM INDEX-BASED MARGINING TO STOCK-BASED MARGINING

- 5.2.1 BMSC's credit exposure to the TCPs is primarily mitigated by collection of margins to address both current and potential future exposures.
- 5.2.2 Currently, the EM is derived from the volatility of the market at index level of EMAS and ACE. Specifically, the margin rate is computed based on the weighted average of the volatility of the indexes.
- 5.2.3 As the composition of each broker differs from one another, one issue identified with this approach is that the current flat rate may insufficiently reflect the risks for the different composition held by each broker. This leads to the issue on "one size fits all" in the margining requirement.
- 5.2.4 To further enhance existing margining requirement, BMSC intends to propose for the revised margin requirement to be computed at stocks level. This is line with the requirements under key consideration 7 in Principle 6 of PFMI which stipulates that:

"A CCP should regularly review and validate its margin system".
- 5.2.5 One clear benefit of such approach is to avoid the issue of "one size fits all" margin requirement, which unnecessarily penalize stocks that are less volatile while underestimate the margin required for stocks that are more volatile. Computing margin rate at the index level would not be able to incentivize more prudent risk taking and hamper effective risk monitoring by the TCPs.
- 5.2.6 The example below shows how margin computation at more granular level might over penalize less volatile stocks due to computation at index level:

(a) Consider hypothetical constituents of index is shown in the table below:

Stocks	Market Cap	Volatility
Stock A	10	3%
Stock B	10	2%

- (b) Based on the current approach, volatility at the index level is 2.5%. Assuming that there are two TCPs, and their portfolios are composed as below:

TCP	Portfolio Composition	Volatility based on Index Level	Volatility based on Stocks' Level
TCP A	2 Stock A	2.50%	2.20%
	8 Stock B		
TCP B	8 Stock A	2.50%	2.80%
	2 Stock B		

- (c) Based on the table above, it shows that both TCPs will be charged at the same margin rate which is 2.5%, despite different portfolio compositions and regardless of the volatility of the stocks and TCP's risk exposures.

- 5.2.7 When margin required is computed at stocks' level, both Bursa Malaysia and TCPs would be able to 'look through' the portfolios, measure and aggregate underlying exposures and roll them up to the portfolio level. A more granular assessment would support more informed investment decisions and more effective portfolio rebalancing strategy (both strategic and tactical allocation) to be considered by the TCPs. In addition, the ability to track the risk level at stocks' level will also support more effective concentration risk management by the TCPs.
- 5.2.8 Based on the international benchmarking, other stock exchanges such as Australian Securities Exchange (ASX) has been computing the margin rate at stocks' level.
- 5.2.9 Recognizing the benefits of margin computed at more granular level, **Bursa Malaysia would like to propose for BMSC to implement stock-based margin computation, replacing the current index-based margin approach in determining EM rate moving forward.**

PART B ENHANCEMENT TO THE CLEARING GUARANTEE FUND

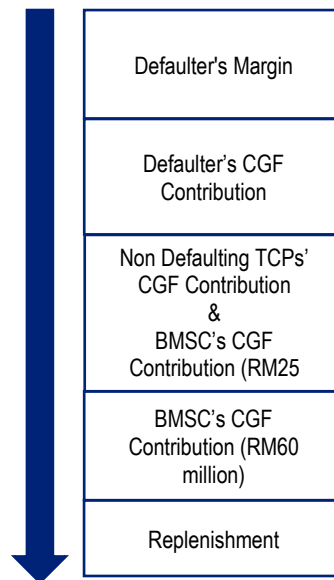
5.3 RESTRUCTURING THE DEFAULT WATERFALL LAYER

- 5.3.1 Pursuant to BMSC Rule 6.1, BMSC:

"...shall establish and maintain, in accordance with the Rules, a fund to be called the Clearing Guarantee Fund. The Clearing Guarantee Fund shall only be applied in accordance with the Rules and shall comprise of Contributions, appropriations from the resources of the Clearing House and such other resources as deemed appropriate by the Clearing House".

- 5.3.2 In accordance to BMSC Rule 6.2, each TCP must contribute to the Clearing Guarantee Fund in the forms of fixed contribution and variable contribution.

5.3.3 Clearing Guarantee Fund is part of the waterfall structure of BMSC, which will be utilized in the event that there is a participant default. The diagram below shows the current default waterfall structure for BMSC:



5.3.4 BMSC has established the sequence of default waterfall using the available resources including the Clearing Guarantee Fund for handling CP's defaults. In the event of default, any shortfall or losses will first be covered by margin and CGF contribution of the defaulting participant. Should these be insufficient, non-defaulting participants' CGF and BMSC contribution will be utilised. In the unlikely event that there are still residual losses, BMSC can resort to the remaining CGF contributions from the CCP.

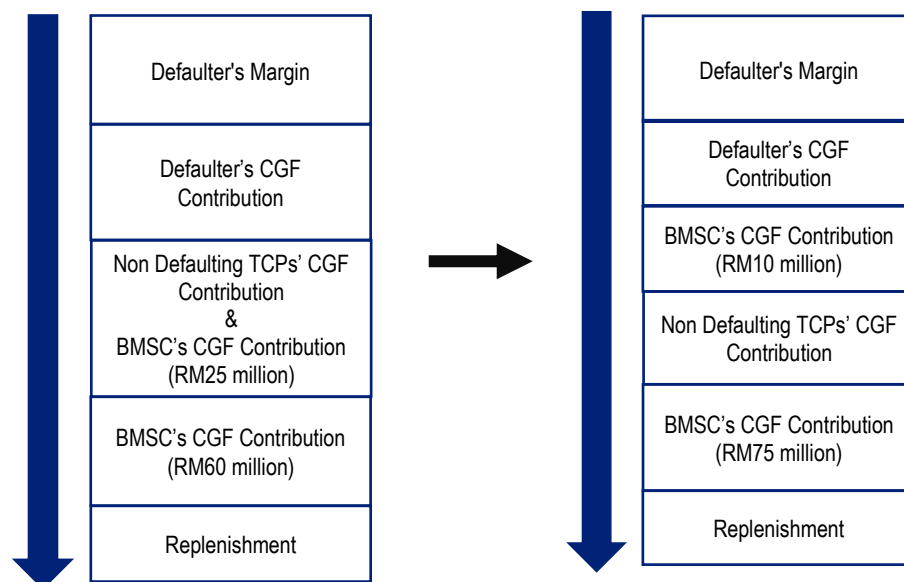
5.3.5 In general, the establishment of default waterfall is in line with Principle 4 of PFMI as BMSC should:

"...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 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".

5.3.6 CGF was first introduced on 1 July 2006 and there were no changes made to the default waterfall structure ever since (i.e. the hierarchy in the default waterfall and the

thickness of the layers) even though the market has changed significantly over the past 13 years. Based on the statistics of the total market capitalization of securities listed in Bursa Malaysia from 2006 until 2019, the market has grown double from RM849 billion in 2006 to RM 1.7 trillion in 2019.

- 5.3.7 Based on the international benchmarking exercise such as SGX, Eurex Clearing and HKSCC, the CCPs will provide the first-cut of layer to absorb the losses prior to tapping onto the financial resources of the non-defaulting TCPs after the depletion of defaulter's margin and CGF contribution (often known as junior tranche). Upon further assessment, most of the CCPs contribute from 10% to 25% of the total Default Fund size to avoid adverse incentives from TCPs.
- 5.3.8 Having two tranches would help to maintain the public confidence in the event of default. Junior tranche – CCP's skin-in-the-game at the top of default waterfall – could minimize risk of TCPs needing to replenish the fund and incentivize the TCPs to participate meaningfully in the auction of defaulters' positions³. Meanwhile, senior tranche – CCP's skin-in-the-game at the bottom of default waterfall – could assist in replenish the junior tranche immediately with the resources help the CCP to maintain the confidence of the market in handling the default.
- 5.3.9 Thus, BMSC would like to propose **for RM10 million (from the existing RM85 million contributed by Bursa Malaysia) in CGF to be allocated above the financial resources of the non-defaulting TCPs as shown in diagram below:**



³ The authors have also provided 3 different structures of default waterfall as seen in <https://www.chicagofed.org/publications/economic-perspectives/2017/1-mcpartland-lewis>.

5.4 RESIZING OF THE CLEARING GUARANTEE FUND

- 5.4.1 Pursuant to Principle 4 of PFMI, a daily stress test on the adequacy of the CGF is conducted, with the objective to ensure that there are sufficient financial resources for the CCP to cover default of two participants (i.e. the largest and fifth largest default exposure).
- 5.4.2 The parameters used for stress testing include:
- (a) Latest outstanding positions of participants;
 - (b) Latest financial resources of TCP held by CCP;
 - (c) Pre-defined stress scenarios, including both historical extreme and hypothetical/forward-looking scenarios; and
 - (d) Latest price movement in the market.
- 5.4.3 As mentioned earlier, the current contribution of the CGF by each TCP consists of:
- (a) Minimum Fixed Contribution of RM10,000; and
 - (b) A Variable Contribution
- 5.4.4 While the Fixed Contribution is set at RM10,000 for each TCP, Variable Contribution is calculated based on the following formula:

$$VC = \frac{MS}{MT} \times MCGF - FC$$

Where:

- VC* the Variable Contribution of a TCP's to the CGF, subject to a minimum of zero
- MS* the aggregate value of both buy and sell trades done on the Exchange(s) for each business day during the preceding three (3) months
- MT* the total sum of market turnover (both buy and sell trades) done on the Exchange(s) for each business day during the preceding three (3) months
- MCGF* amount of CGF to be contributed by all TCPs
- FC* the Fixed Contribution of that TCP's to the CGF

- 5.4.5 Under the current rule, the total CGF shall comprise of:

- (a) TCPs' Contribution consists of Fixed and Variable Contribution (i.e. 15% of the CGF); and
- (b) Clearing House Reserves (i.e. 25% of the CGF); and
- (c) Additional resources determined by Clearing House from time to time

5.4.6 The total size of CGF currently stands at RM100 million as of 30 March 2020, in which RM85 million is contributed by BMSC while RM15 million is contributed by TCPs.

5.4.7 The adequacy of the CGF is reviewed quarterly or as and when needed, and additional contribution can be called for by BMSC as stated in BMSC Rule 6.6 (1):

"The Clearing House will notify Trading Clearing Participants of any additional amount required from Trading Clearing Participants as contribution to the CGF as a result of a review described in Rule 6.5 and the Trading Clearing Participant shall pay such amount to the Clearing House immediately, in the form specified in Rule 6.4".

5.4.8 BMSC may determine the size of CGF from time to time based on the market conditions including the turnover levels and the TCPs are required to pay the amount due to the CCP if there is such a shortfall. As stipulated in BMSC Rule 6.10 (3) below, BMSC nevertheless, shall ask for approval from SC for any changes in CGF:

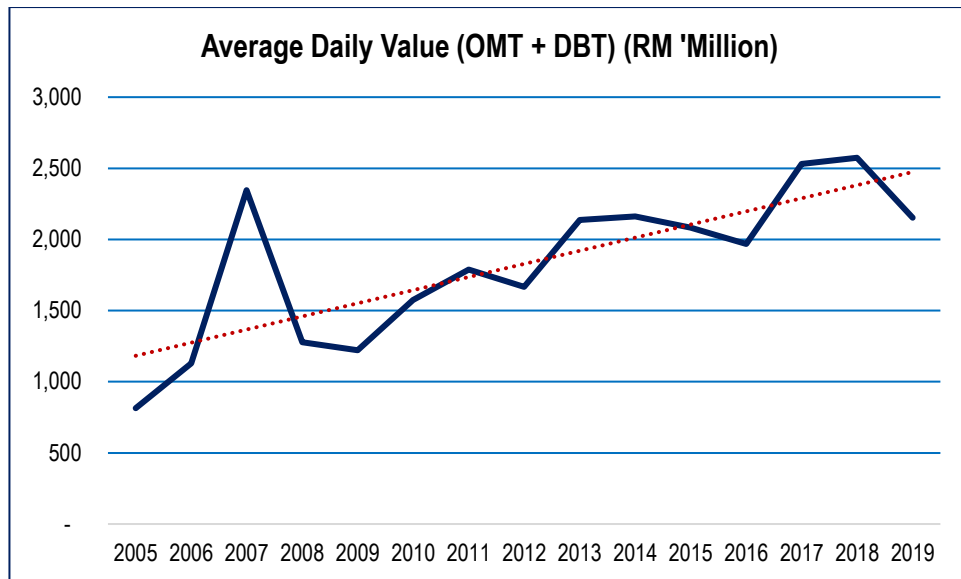
"If following such review under Rule 6.10.1 or Rule 6.10.2, as the case may be, the Clearing House alters the size of the Clearing Guarantee Fund, Rules 6.2 to 6.7 shall apply. The Clearing House shall obtain the approval of the Commission for such alteration to the Clearing Guarantee Fund".

5.4.9 The amendment however shall not be less than the minimum required amount of RM100 million and various factors are taken into consideration in determining the minimum size.

5.4.10 Furthermore, *Resilience of Central Counterparties (CCPs): Further guidance on the PFMI by CPMI-IOSCO*, under point 5.2.49, has stated that the increase in size of CGF will address the issue of procyclicality and limit the margin calls as below:

"...As mentioned in the PFMI, to limit the need for destabilising, procyclical changes, a CCP could consider increasing the size of its prefunded default arrangements to limit the need for and likelihood of large or unexpected margin calls in times of market stress".

5.4.11 In addition, the size of the CGF should correspond to the growth in the Average Daily Value ("ADV"). The trend shows that Bursa Malaysia's ADV has been increasing since 2005.



5.4.12 As mentioned earlier, the capital market has changed tremendously since 2005. Based on the statistics of the Malaysian equity market capitalization from 2006 until 2019, the market has grown double from RM848 billion in 2006 to RM 1.7 trillion in 2019.

5.4.13 BMSC has also performed benchmarking of other CCPs in comparison to BMSC in the size of CGF. Based on the PFMI disclosures of each CCP, the summary for comparison on the size of CGF can be observed as below:

	BMSC*	ASX Clear*	SGX*	Stock Exchange of Thailand (SET)*	HKSCC*
Total Default Fund	MYR 100 million	~\$550 million	~S\$100 million	THB6,894.18 million	HKD3.59 billion
CCP Contribution	MYR 85 million	\$250 million	SGD60 million (1 st layer: higher of SGD30 million or 15% of total CF size)	THB4,645.42 million	HKD441.24 million

Participant Contribution	MYR 15 million	No prefunded participant contribution + Recovery Assessment (Up to \$300 million from non-defaulting Clearing Participants)	SGD40 million (Min SGD40 million in aggregate or 0.6bp of past 12 months traded value)	THB2,248.76 million	HKD2.108 billion
Other	-	-	-	-	HKD184.48 million (HKSCC Margin Credit utilized)
Number of Clearing Members	29	33	25	40	649

**All data are as per disclosed in CCP's PFMI Disclosure for Q4 2019*

5.4.14 Based on the table above, the size of CGF depends on the respective CCP's market size. However, CCP should establish an appropriate amount of skin in the game ("SITG") that would reflect the level or risk in the CCP's system, such that it would not reduce TCPs' interests to partake an active interest in CCP's broader risk management.⁴

5.4.15 As such, **Bursa Malaysia would like to propose an increase in the contribution by the TCPs from RM15 million to RM30 million on staggered basis.**

5.5 INTRODUCTION OF REPLENISHMENT CAP

5.5.1 Aside from restructuring the BMSC's default waterfall layer, BMSC would like to introduce the replenishment call cap to the default waterfall.

5.5.2 Currently, there is no limit to the amount of calls that BMSC can ask from TCPs to put additional financial resources in the event of default.

⁴ Retrieved from Reserve Bank of Australia Quarterly Bulletin (2015) in *Skin in the Game – Central Counterparty Risk Controls and Incentives*.and Chicago Mercantile Exchange (2017) in *Balancing CCP and Member Contributions with Exposures*.

5.5.3 Further assessment shows that CCPs around the world have introduced the replenishment cap to avoid unlimited liability to fall upon TCPs in the event of default. Based on the international benchmarking that has been done, below are some examples in which some CCPs have implemented replenishment cap:

CCP	ASX Clear	Eurex Clearing	HKSCC
Replenishment Cap	Replenishment is capped in duration of recovery, ASX Clear may revise maximum recovery amount as and when needed.	Replenishment capped at 2 times DF Size per default event	Assessment is limited to an amount equals to the CP's Basic Contribution and Dynamic Contribution which is computed on the business day immediately prior to the beginning of the Capped Liability Period, plus one time such amount.

5.5.4 The introduction of the replenishment cap will provide an opportunity to relook into the act of balancing the risk-sharing between the CCP and the TCPs.

5.5.5 Hence, **Bursa Malaysia would like to propose for the maximum limit for the TCPs to be called to replenish the financial resources to be 3 times per default event after all the pre-funded financial resources have been exhausted.**

6. CONCLUSION

6.1 The proposals above aim to strengthen the risk management framework for both Bursa Malaysia and the industry as both EM and CGF are integral components for BMSC. All TCPs are invited to send your feedback to Risk and Compliance, Bursa Malaysia via e-mail at equitiesrisk@bursamalaysia.com by **3 June 2020 (Wednesday)**.

[End]

RESPONSE TO THE CONSULTATION PAPER

Trading Clearing Participants (“TCPs”) are invited to provide feedback to the proposed enhancements. BMSC requests all feedbacks to be reverted by **3 June 2020 (Wednesday)**.

PROPOSAL A

Enhancement to the Equities Margin Approach

- i. BMSC proposes for stock-based margin computation to replace the current index-based margin computation. Under the current approach, every TCP will be charged with the same margin rate regardless of the risk exposures. This means that margin required for stocks that are more volatile will be underestimated while the stocks that are less volatile will be penalized. To ensure more prudent risk management, do you agree for BMSC to adopt stock-based margin computation moving forward?

Agree

Disagree

- ii. Please provide any other comments you may have on this proposal.

PROPOSAL B

Enhancement to the Clearing Guarantee Fund (CGF)

- i. BMSC proposes to revise the sequence of drawdown of financial resources in the default waterfall by creating multiple layers of protection in the event of default. Do you agree with this proposed structure of default waterfall?

Agree Disagree

- ii. The market has been changing and the future market stresses could be larger than anticipated. However, the CGF size must be able to withstand any market condition to cover for default of two TCPs. It is therefore a shared responsibility between CCP and TCPs to ensure that there are adequate financial resources in place. To ensure effective risk management and for market to continue smoothly, BMSC recommends to rebalance the proportion of financial resources in the default waterfall through increment of TCPs contributed CGF from RM15 million to RM30 million in staggered basis based on the following options:

Option	Y1	Y2	Y3	Y4	Y5
A (1-Year Period)	RM15 million (in lump sum)	-	-	-	-
B (3-Year Period)	RM6 million	RM5 million	RM4 million	-	-
C (5-Year Period)	RM5 million	RM4 million	RM3 million	RM2 million	RM1 million

Please choose your preferred option on the proposed increment of TCPs contributed CGF based on the table above:

Option A Option B Option C

- iii. To balance the risk sharing responsibility between BMSC and TCPs in the event of default, BMSC proposes to introduce replenishment cap of 3 times per default event to limit the call of replenishment of financial resources from TCPs. Do you agree for BMSC to introduce such replenishment cap in the event of default?

Agree Disagree

- iv. If you do not agree with the proposed restructuring of CGF, please suggest us your feedbacks and suggestions for our alternative consideration.

- v. If you have any other additional risk monitoring or methodology that you think BMSC may be able to further adopt in the interest of our capital market. Please advise us for our future consideration.

The response to Consultation Paper is filled up by:

Name		
Designation		
Company Stamp		

Kindly email the completed responses to equitiesrisk@bursamalaysia.com by **3 June 2020 (Wednesday)**.

[End of Attachment]

APPENDIX BURSA MALAYSIA'S PERSONAL DATA NOTICE

In relation to the Personal Data Protection Act 2010 and in connection with your personal data provided to us in the course of this consultation, please be informed that Bursa Malaysia's personal data notice ("**Notice**") is available at www.bursamalaysia.com. Kindly ensure that you read and are aware of the Notice.

If you are submitting personal data of an individual other than yourself ("**data subject**"), please ensure that prior to such submission, you have provided the data subject with written notice of the Notice unless section 41 of the Personal Data Protection Act 2010 ("**PDPA**") applies or Bursa Malaysia otherwise specifies in connection with the PDPA.

Berhubung Akta Perlindungan Data Peribadi 2010 dan berkenaan semua data peribadi anda yang diberikan di dalam proses konsultasi ini, sila ambil maklum bahawa notis Bursa Malaysia mengenai data peribadi ("**Notis tersebut**") boleh didapati di www.bursamalaysia.com. Sila pastikan yang anda membaca dan memahami Notis tersebut.

Jika anda mengemukakan data peribadi individu pihak ketiga ("**Subjek Data**"), anda mesti memastikan bahawa Subjek Data telah diberi notis bertulis mengenai Notis tersebut terlebih dahulu kecuali seksyen 41 Akta Perlindungan Data Peribadi 2010 ("**APDP**") terpakai atau Bursa Malaysia sebaliknya menyatakan berkenaan dengan APDP.

[End of Appendix]