RESPONSE TO FEEDBACK RECEIVED

December 2020

Proposed Implementation of the Final Basel III Reforms in Singapore – Operational Risk Capital and Leverage Ratio Requirements

MAS Monetary Authority of Singapore

Contents

1 Preface

1.1 On 7 May 2019, MAS consulted on the proposed implementation of the final Basel III reforms in Singapore.

1.2 This document sets out MAS' response to feedback received on the consultation paper published on 7 May 2019 that pertains to the proposals on operational risk capital and leverage ratio requirements. MAS thanks all respondents for their feedback. The list of respondents is in Annex A. Full submissions are published in Annex B. MAS will be publishing our responses to the feedback received on the other areas of the Basel III reforms at a later date.

1.3 MAS has considered carefully the feedback received, and where appropriate, has incorporated them into the draft standards for operational risk capital and leverage ratio requirements for Singapore-incorporated banks [1] issued for consultation today. Comments that are of wider interest, together with MAS' responses are set out below.

2 Operational Risk Capital Requirement

2.1 MAS proposed not to implement the loss component in the calculation of the operational risk capital requirement for all banks, i.e. to require all banks to set the internal loss multiplier (ILM) to one.

2.2 The feedback on this proposal was mixed. Some respondents agreed with the proposal. On the other hand, some respondents highlighted that the proposal was not sufficiently risk-sensitive, and penalised banks with low historical operational losses which reflected good operational risk management. They proposed that banks be allowed to incorporate losses in the calculation of the operational risk capital requirement to incentivise banks to keep their operational losses low.

2.3 MAS also proposed to require all banks with a business indicator (BI) greater than S$1.5 billion to disclose their annual loss data and meet the minimum loss data standards. Most respondents were supportive of this proposal, although one respondent highlighted that it was incongruent for such banks to be required to meet minimum loss data

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[1] MAS' consultation paper on draft standards for operational risk capital and leverage ratio requirements for Singapore-incorporated banks can be found at https://www.mas.gov.sg/-/media/MAS/News-and-Publications/Consultation-Papers/Consultation-Paper-on-Draft-Standards-for-Operational-Risk-Capital-and-Leverage-Ratio-Requirements.pdf.

standards but be unable to incorporate losses in the calculation of their operational risk capital requirement.

MAS' Response

2.4 MAS had proposed to set the ILM to one for all banks as operational loss history may not be a good proxy for future operational losses and does not capture evolving risks. However, MAS notes the industry's concerns that setting ILM to one for all banks would result in an operational risk framework that is not sufficiently risk-sensitive, and would penalise banks that had low historical operational losses. MAS also recognises that incorporating losses into the calculation of the operational risk capital requirement would incentivise banks to manage their operational risks well.

2.5 In view of the above considerations, MAS will require banks with a BI greater than S$1.5 billion to incorporate losses into the calculation of the operational risk capital requirement and meet minimum loss data standards. Where a bank with a BI greater than S$1.5 billion has breached the requirement to meet minimum loss data standards, it will be required to set ILM equal to one, or if specified by MAS, greater than one. MAS will require all banks with a BI greater than S$1.5 billion to disclose their annual loss data under the Pillar 3 disclosure requirements.

2.6 Banks with a BI less than or equal to S$1.5 billion may choose to incorporate losses into the calculation of the operational risk capital requirement, subject to MAS' approval and provided the bank meets the minimum loss data standards and discloses its annual loss data. Banks with a BI less than or equal to S$1.5 billion which do not choose to incorporate losses into the calculation of the operational risk capital requirement will be required to set ILM equal to one and will not be required to meet minimum loss data standards nor disclose their annual loss data.

3 Leverage Ratio Requirement

Measurement of derivative exposures

3.1 MAS proposed to require banks to measure derivative exposures using a modified version of the standardised approach for measuring counterparty credit risk exposures (SA-CCR) which removes recognition of credit risk mitigation. This is referred to as the modified SA-CCR. MAS also proposed to allow banks the option to adopt the modified SA-CCR for the calculation of their leverage ratio earlier than the date of implementation of the Basel reforms, conditional on their simultaneous or prior adoption of the SA-CCR under the risk-based capital framework.

3.2 Respondents had no objections to the use of the modified SA-CCR, and the option to adopt the modified SA-CCR earlier than the date of the implementation of the Basel reforms, where the bank has adopted the SA-CCR under the risk-based capital framework. A few respondents commented that the modified SA-CCR did not allow the recognition of client initial margin for client clearing services provided by banks.

MAS' Response

3.3 Given the industry support, MAS will implement the proposal to require banks to measure derivatives exposures using the modified SA-CCR for the purposes of the leverage ratio. Banks will also have the option to adopt the modified SA-CCR for the calculation of their leverage ratio earlier than the date of the Basel III reforms in Singapore, i.e. 1 January 2023, conditional on their simultaneous or prior adoption of the SA-CCR under the risk-based capital framework. This will allow banks to avoid the operational cost of maintaining two parallel systems for measuring derivative exposures in the interim.

3.4 On the feedback regarding the recognition of client initial margin for client clearing services provided by banks, MAS will implement the treatment of client cleared derivatives published by the BCBS in "Leverage ratio treatment of client cleared derivatives" in June 2019, which provides for the recognition of segregated client initial margin.

Treatment of Cash Pooling Arrangements

3.5 MAS proposed that exposures to cash pooling transactions may be calculated on a net basis where the balances of the participating accounts are physically pooled into a single account at least daily, and if this is not the case, cash pooling transactions may nevertheless be calculated on a net basis where certain conditions are met. One of the conditions is that a bank is required to notify MAS of the frequency of physical pooling of individual balances of participating accounts and MAS does not deem the frequency as inadequate.

3.6 Some respondents sought to clarify what frequency of physical pooling of individual balances of participating accounts is adequate, and whether arrangements where the bank never physically pools the individual balances of participating account into a single account qualify to be calculated on a net basis.

MAS' Response

3.7 To clarify the condition, MAS will provide that cash pooling transactions will qualify for exposure measurement on a net basis where individual balances of participating accounts are physically pooled on at least a quarterly basis. Hence, arrangements where the bank never physically pools the individual balances of participating account into a single account, do not qualify.

MONETARY AUTHORITY OF SINGAPORE

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Annex A

LIST OF RESPONDENTS TO THE CONSULTATION PAPER ON PROPOSED IMPLEMENTATION OF THE FINAL BASEL III REFORMS IN SINGAPORE

1. CME Group Inc.
2. Global Foreign Exchange Division of the Global Financial Markets Association
3. International Swaps and Derivatives Association, Inc. and Asia Securities Industry and Financial Markets Association
4. Oversea-Chinese Banking Corporation Limited

6 other respondents requested confidentiality of identity.

Annex B

SUBMISSIONS FROM RESPONDENTS TO THE CONSULTATION PAPER ON PROPOSED IMPLEMENTATION OF THE FINAL BASEL III REFORMS IN SINGAPORE

Note: The table below only includes submissions for which respondents did not request confidentiality of their responses. The table below also only includes comments from the respondents relating to operational risk capital or leverage ratio requirements, and their responses to the following questions of the consultation paper published on 7 May 2019, which pertains to operational risk capital and leverage ratio requirements:

- ***Question 17.*** *MAS seeks comments on the proposal to exclude internal loss data in the capital calculation, and to set the operational risk capital requirement equal to the BIC.*

- ***Question 18.*** *MAS seeks comments on the proposal to require all banks with a BI greater than S$1.5 billion to disclose their annual loss data and meet the minimum loss data standards.*

- ***Question 20.*** *MAS seeks comments on:*
  (a) the proposed requirement for derivative exposures to be measured in the leverage ratio exposure measure using the modified SA-CCR from 1 January 2022; and
  (b) the proposed option for banks to adopt the modified SA-CCR earlier than 1 January 2022.

- ***Question 21.*** *MAS seeks comments on the proposed calculation of exposures to cash pooling transactions in the leverage ratio exposure measure.*

S/N	Respondent	Response from Respondent
1	CME Group Inc.	CME Group Inc. (“CME Group”)[2] is the parent of the Chicago Mercantile Exchange Inc. (“CME”). CME is registered with the Commodity Futures Trading Commission (“CFTC”) as a derivatives clearing organization (“DCO”) and is one of the largest central counterparty (“CCP”) clearing services in the world. CME’s clearing house division (“CME Clearing”) offers clearing and settlement services for exchange-traded futures and options on futures contracts, as well as over-the-counter (“OTC”) derivatives transactions, including interest rate swaps (“IRS”) products. On July 18, 2012, the Financial Stability Oversight Council designated CME as a systemically important financial market utility under Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act (“Dodd-Frank Act”). CME Group appreciates the opportunity to comment on the Monetary Authority of Singapore’s (“MAS”) Consultation Paper on the Proposed Implementation of the Final Basel III Reforms in Singapore (“the Proposal”), that proposes revisions to the risk-based capital and leverage ratio (“LR”) requirements for Singapore-incorporated banks. With respect to implementation of the Basel III capital reforms across various jurisdictions, CME Group’s focus historically has been, and continues to be, on the inappropriate formulation of the original Basel III LR framework where there is no provision for bank and bank-affiliated clearing members to offset their

[2] As a leading and most diverse derivatives marketplace, CME Group enables clients to trade futures, cash and OTC markets, optimize portfolios, and analyze data - empowering market participants worldwide to efficiently manage risk and capture opportunities. CME Group exchanges offer the widest range of global benchmark products across all major asset classes based on interest rates, equity indexes, foreign exchange, energy, agricultural products and metals. The company offers futures trading through the CME Globex platform, fixed income trading via BrokerTec and foreign exchange trading on the EBS platform. In addition, it operates one of the world’s leading central counterparty clearing providers, CME Clearing. With a range of pre- and post-trade products and services underpinning the entire lifecycle of a trade, CME Group also offers optimization services through TriOptima, and trade processing and reconciliation services through Traiana.

		LR exposure for client cleared derivatives with segregated client initial margin (i.e., segregated client initial margin offsets). We are strongly supportive of the recent decision by the Basel Committee on Banking Supervision ("BCBS"), published on June 26, 2019 ("June 2019 BCBS Guidance"), to revise the LR to allow segregated margin received from a client to offset the exposure amounts of client-cleared derivatives.[3] We believe that allowing for segregated client initial margin offsets in the LR is consistent with the goals of the G20[4] Leader's policy objectives to reduce systemic risk by promoting the use of central clearing by recognizing the exposure reducing nature of segregated client initial margin. Since the introduction of the original Basel III LR framework, which did not allow for segregated client initial margin offsets, centrally cleared derivatives markets have observed an increased concentration in client clearing. This concentration coupled with the implications of the original LR framework for managing a market stress event served to unnecessarily increase systemic risk, in part by threatening the likelihood of a successful porting of the clients of a defaulted clearing member. Allowing for segregated client initial margin offsets in the LR will mitigate these systemic risk challenges, and we encourage authorities across all jurisdictions, including MAS, to adopt the June 2019 BCBS Guidance with respect to their LR framework. **Question 20. MAS seeks comments on:** **(a) the proposed requirement for derivative exposures to be measured in the leverage ratio exposure measure using the modified SA-CCR from 1 January 2022**

[3] *See* Basel Committee on Banking Supervision, *Leverage ratio treatment of client cleared derivatives* (June 2019) (noting, the amount of initial margin received by the bank from its client that may be used to offset exposure amounts should be limited to the amount that is subject to appropriate segregation by the bank as defined in the relevant jurisdiction.), *available at* https://www.bis.org/bcbs/publ/d467.pdf.

[4] G20 Leaders Statement: The Pittsburgh Summit (September 24-25 2009), *available at* http://www.g20.utoronto.ca/2009/2009communique0925.html.

		MAS' proposed requirement for derivatives exposures to be measured in the LR exposure measure using a modified version of the SA-CCR would not permit segregated client initial margin offsets for client cleared derivatives, which is inconsistent with the June 2019 BCBS Guidance. CME Group believes that the failure to recognize the role and use of segregated client margin for centrally cleared derivatives could lead to greater concentration in client clearing, challenge the ability of CCPs to port clients in a clearing member default scenario, and ultimately increase systemic risk in the financial system. The reduced availability of client clearing services under the original Basel III LR framework has been widely publicized within the derivatives industry and consistently affirmed by market participants[5] and

[5] *See* Justin Baer & Juliet Chung, Goldman Sachs Cuts Roster of Hedge-Fund Clients, Wall Street Journal, Aug. 4, 2014, *available at* https://www.wsj.com/articles/goldman-rethinks-services-it-provides-hedge-funds-1407194493; Kelly Bit & Michael Moore, BofA Said to Oust 150 Hedge Fund Clients Under New Rules, Bloomberg, Jan. 13, 2015, *available at* https://www.bloomberg.com/news/articles/2015-01-13/bofa-said-to-oust-150-hedge-fund-clients-under-new-rules; Aaron Woolner, Credit Suisse Slashes Asia Commodity Futures Clearing Business, June 3, 2015, *available at* http://www.risk.net/asia-risk/news/2411383/credit-suisse-slashes-asia-commodity-futures-clearing-business; Luke Clancy, Are regulators listening at last on the leverage ratio?, Risk.net, Aug. 25, 2015, *available at* http://www.risk.net/risk-magazine/special/2423199/are-regulators-listening-at-last-on-the-leverage-ratio; Hayley McDowell, Self-clearing gains traction as banks continue to downsize clearing units, Trade News, Jan. 31, 2017, *available at* http://www.thetradenews.com/Post-trade/Self-clearing-gains-traction-as-banks-continue-to-downsize-clearing-units/; Laura Noonan & Joe Rennison, Deutsche Bank walks away from US swaps clearing, Financial Times, Feb. 9, 2017, *available at* https://www.ft.com/content/2392bc42-ee47-11e6-930f-061b01e23655?ftcamp=engage%2Femail%2Fnewsletters%2Fsmart_brief%2Fsmartbriefnewsletterscontrafcf%2Fauddev&segid=0800933; James Rundle, Clearing portability under threat as FCM pool shrinks, Risk.net, Feb. 23, 2017, *available at* http://www.risk.net/risk-management/3912341/clearing-portability-under-threat-as-fcm-pool-shrinks.

		policy-makers.[6] Due to the punitive capital constraints imposed by the LR on bank and bank-affiliated clearing members under the original LR framework, many clearing members have discontinued offering client clearing services since the implementation of the post-crisis financial regulatory reforms. The concentration of the availability of client clearing has imposed unnecessary challenges on end-users in managing their risk using centrally cleared derivatives. For example, clients, including end-users, have been subject to higher costs and limitations on the amount of activity they can clear or, have all together been pushed to try and find a new clearing member to clear their activity. This can result in significant real economy impacts as end-users rely on clearing services to hedge their business risks, ultimately impacting the costs of consumer staples and asset management services relied upon by retirees, among other effects. Further, the concentration of client clearing among clearing members presents systemic risk challenges. CME Group is concerned that the ongoing capital pressures resulting from the inappropriate formulation of the original LR may exacerbate market stress events by making it more challenging to port a large client portfolio in the event of a clearing member default. It is particularly unfortunate that additional systemic risk concerns have been created by the post-crisis reforms that were designed with the intention of promoting the resilience of the global

[6] *See* Stafford Philip, BoE backs derivatives leverage ratio rethink, Financial Times, July 5, 2016, *available at* https://www.ft.com/content/320829d8-42b7-11e6-b22f-79eb4891c97d; J. Christopher Giancarlo, Chairman Commodity Futures Trading Commission, Changing Swaps Trading Liquidity, Market Fragmentation and Regulatory Comity in Post-Reform Global Swaps Markets (May 10, 2017), *available* at https://www.cftc.gov/PressRoom/SpeechesTestimony/opagiancarlo-22; Basel Committee on Banking Supervision, Committee on Payments and Market Infrastructures, Financial Stability Board, and International Organization of Securities Commission, final report, *Incentives to centrally clear over-the-counter (OTC) derivatives: A post-implementation evaluation of the effects of the G20 financial regulatory reforms* (Nov. 2018); FIA SmartBrief, Quarles: Put derivatives-clearing offset in capital rules, MLex, Nov. 16, 2018, *available at* https://www2.smartbrief.com/servlet/encodeServlet?issueid=6E84EBB7-E36E-4ABE-8656-8FE70FB711ED&sid=af5dae03-0b0a-449d-a2fc-f7f0eaaff89a; Brian Quintenz, Commodity Futures Trading Commission Commissioner, Statement before Market Risk Advisory Committee (Dec. 4, 2018), *available at* https://www.cftc.gov/PressRoom/SpeechesTestimony/quintenzstatement120418.

		financial system. Historically, CME Clearing and other U.S. DCOs have successfully ported the exchange-traded derivatives customers of a distressed clearing member, including during the financial crisis. The adoption of a modified version of SA-CCR for the purposes of calculating derivatives exposures, without allowing for segregated client initial margin offsets, challenges these past successes. **Conclusion** Consistent with the June 2019 BCBS Guidance, CME Group urges the MAS to consider the adoption of the Basel III LR framework with the provision to permit segregated client initial margin offsets. The adoption of offsets for segregated client initial margin reduces systemic risk in three fundamental ways. It increases the ability of clients to utilize the exposure mitigation benefits of clearing, increases the likelihood of successful porting in a clearing member default, and reduces the likelihood that banks will allocate their capital to higher risk activities that may have a lower capital cost. CME Group strongly advocates for the global adoption of the June 2019 BCBS Guidance that revises the Basel III LR framework to recognize the market structure for centrally cleared derivatives by allowing segregated client initial margin to offset leverage exposure.
2	Global Foreign Exchange Division of the Global Financial Markets Association	**Question 20. MAS seeks comments on:** **(a) the proposed requirement for derivative exposures to be measured in the leverage ratio exposure measure using the modified SA-CCR from 1 January 2022; and** **(b) the proposed option for banks to adopt the modified SA-CCR earlier than 1 January 2022.** The GFXD would like to highlight that the leverage ratio exposure measure under the modified SA-CCR framework does not recognise the exposure-reducing effect of initial margin. This treatment of initial margin can be a disincentive for client clearing service

		providers to offer or expand client clearing, with the leverage ratio effectively acting as a limiting factor on the provision of overall client clearing capacity. On 26 June 2019, the Basel Committee on Banking Supervision ("BCBS") published its revised "Leverage ratio treatment of client cleared derivatives"[7] which permits both cash and non-cash forms of segregated initial margin and cash and non-cash variation margin received from a client to offset the replacement cost and potential future exposure for client cleared derivatives only ("Revised Treatment"). The GFXD supports this revision[8] as it provides the appropriate incentives for clearing, while also addressing the wider systemic capacity concerns as well as those evidenced in the way the markets currently function. In light of this, rather than requiring the leverage ratio exposure for derivatives to be calculated under the modified SA-CCR framework, the MAS should adopt the Revised Treatment in order to ensure that the leverage ratio exposure measure accurately reflects the purpose of margin and that the provision of client clearing services is encouraged rather than penalized.
3	International Swaps and Derivatives Association, Inc. and Asia Securities Industry and Financial Markets Association	**Extract from "General comments and policy considerations"** c. *Leverage ratio treatment of client cleared derivatives* The BCBS consulted on the leverage ratio treatment of client cleared derivatives in October 2018[9], to which the Associations responded in January 2019[10]. The Associations strongly support the initiative of the BCBS in

[7] https://www.bis.org/bcbs/publ/d467.pdf

[8] The GFXD had originally supported this revised treatment (also known as "Option 3") in its response to the BCBS' October 2018 consultation on "Leverage ratio treatment of client cleared derivatives" (https://www.bis.org/bcbs/publ/d451.pdf)

[9] https://www.bis.org/bcbs/publ/d451.pdf, BCBS, Leverage ratio treatment of client cleared derivatives.

[10] https://www.isda.org/a/nDiME/Leverage-ratio-treatment-of-client-cleared-derivatives.pdf, Joint Trade Associations, Response to BCBS Consultation on Leverage Ratio Treatment of Client Cleared Derivatives.

		considering options for recognizing the benefits of the IM within the leverage ratio exposure calculation, and we advocate in support of the use of risk based SA-CCR (option 3 in the consultative document) as the most effective and simple approach. Any improvements to the SA-CCR framework (please refer to point a. above) should also be incorporated into the leverage ratio framework. We would like to highlight that in a press release published on 20 June, 2019, BCBS has indicated an agreement on a targeted and limited revision of the leverage ratio to allow margin received from a client to offset the exposure amounts of client-cleared derivatives[11]. Further to this, BCBS published the revised text for the leverage ratio standard[12] on 26 June 2019, which sets out a targeted revision of the leverage ratio measurement of client cleared derivatives to align it with SA-CCR. The revised treatment will permit both cash and non-cash forms of segregated IM and cash and non-cash variation margin (“VM”) received from a client to offset the replacement cost and potential future exposure for client cleared derivatives only. The Associations request that the MAS align local rules with the revised BCBS text, and also clarify the process for how these changes will be incorporated in MAS Notice 637 once finalised. **Question 17. MAS seeks comments on the proposal to exclude internal loss data in the capital**

[11] https://www.bis.org/press/p190620.htm, BCBS, Basel Committee discusses policy and supervisory initiatives and approves implementation reports.

[12] https://www.bis.org/bcbs/publ/d467.pdf, BCBS, Leverage ratio treatment of client cleared derivatives

		calculation, and to set the operational risk capital requirement equal to the BIC. The Associations support the MAS proposal to set operational risk capital requirement equal to the BIC. **Question 18. MAS seeks comments on the proposal to require all banks with a BI greater than S$1.5 billion to disclose their annual loss data and meet the minimum loss data standards.** The Associations are supportive of the loss data standards to be applied as proposed. This allows forward-looking and predictive simulation in Pillar 2 by applying an exposure-driven approach to operational risk management. However, we would like to seek clarification on the level of reporting requirements and how these requirements would be align with the Pillar 3 disclosure. **Question 20. MAS seeks comments on:** **(a) the proposed requirement for derivative exposures to be measured in the leverage ratio exposure measure using the modified SA-CCR from 1 January 2022; and** **(b) the proposed option for banks to adopt the modified SA-CCR earlier than 1 January 2022.** The Associations are supportive of both proposals by MAS. The modified SA-CCR will allow calculation of derivatives exposures that will appropriately take into account model risks and further impact to regulatory capital calculations. This will have a positive impact across all asset classes and end-users of derivative transactions, and allow corporates to hedge their risks economically against volatility. However, as discussed in the *General comments and policy considerations* section of this response to the Consultation *(section B, point C. iii)*, we urge the MAS to consider ISDA's proposal on a number of measures that will improve the risk-sensitivity of SA-CCR. Any improvements to the SA-CCR framework should also be incorporated into the leverage ratio framework. We also encourage MAS to take the changes that

		result from the final analysis back to the BCBS, and obtain the necessary revisions to the relevant BCBS standards. Changes at the Basel level are necessary to facilitate consistent implementation on a global basis. **Question 21. MAS seeks comments on the proposed calculation of exposures to cash pooling transactions in the leverage ratio exposure measure.** The Associations have no comments on this proposal.
4	Oversea-Chinese Banking Corporation Limited	**Question 17. MAS seeks comments on the proposal to exclude internal loss data in the capital calculation, and to set the operational risk capital requirement equal to the BIC.** Under Basel-II, the Basic Indicator Approach (BIA) and The Standardised Approach (TSA) have no connection between the effectiveness of a bank's operational risk management and its operational risk capital. The more complex Advanced Measurement Approach (AMA) which allows the usage of the Bank's internally developed models and risk management framework to compute operational risk capital, also does not enable meaningful comparability across banks and jurisdictions because each bank uses a different internal model to compute its capital. The revised Standardised Approach under Basel-III is intended to achieve greater comparability of operational risk capital across banks and regulatory jurisdictions by implementing a single approach that is more risk-sensitive than the current BIA/TSA approaches. Thus, by decoupling the Internal Loss component from the Business Indicator Component (BIC) , the existing BIA/TSA approaches and the new revised Standardised Approach largely remains unchanged from a risk-sensitivity perspective. The operational risk capital will be proportional only to the size of the bank based on the BIC, without taking into consideration how well operational risk has been managed.

		Therefore, we would like to propose that MAS consider including internal loss data in the capital calculation, given that this would maintain risk-sensitivity of the framework. Furthermore, we opine that including internal loss data would also encourage and incentivise Banks to manage their operational risk effectively. **Question 18. MAS seeks comments on the proposal to require all banks with a BI greater than S$1.5 billion to disclose their annual loss data and meet the minimum loss data standards.** We agree with MAS on this proposal, which is aligned with the Basel-III requirement for banks with a BI greater than Euro 1 billion to disclose their annual loss data and meet the minimum loss data standards. **Question 20. MAS seeks comments on:** **(a) the proposed requirement for derivative exposures to be measured in the leverage ratio exposure measure using the modified SA-CCR from 1 January 2022; and** **(b) the proposed option for banks to adopt the modified SA-CCR earlier than 1 January 2022.** We have no comments on applying the modified SA-CCR as the basis for the leverage ratio exposure measure. **Question 21. MAS seeks comments on the proposed calculation of exposures to cash pooling transactions in the leverage ratio exposure measure.** We interpret that cash pooling arrangements only refer to arrangements where the balances of the participating accounts are physically pooled into a single account as paragraph 6.7 part (a) and part (b) state that the balances are physically pooled or the bank has a legal enforceable right to physically pool the balances. The cash pooling arrangements will not include arrangements where there is notional aggregation of

		debit and credit balances for purpose of interest computation on the net balance, but there is no physical cash movements for these balances of the participating accounts. We would like to seek comments, if any, from the Authority on the above interpretation.

Monetary Authority of Singapore