RESPONSE TO CONSULTATION PAPER

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Consultation topic:	***Policy Consultation on Margin Requirements for Non-Centrally Cleared OTC Derivatives***
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Confidentiality	
I wish to keep the following confidential:	*(Please indicate any parts of your submission you would like to be kept confidential, or if you would like your identity to be kept confidential. Your contact information will not be published.)*

General comments:

Markit[1] is a leading global diversified provider of financial information services.[2] Founded in 2003, we employ over 4,000 people in 11 countries and our shares are listed on Nasdaq (ticker: MRKT). Markit has been actively and constructively engaged in the debate about regulatory reform in financial markets, including topics such as the implementation of the G20 commitments for OTC derivatives and the design of a regulatory regime for benchmarks. Over the past years, we have submitted more than 120 comment letters to regulatory authorities around the world and have participated in numerous roundtables.

Markit provides participants in global financial markets with state-of-the-art analytical services[3] across asset classes, often in conjunction with our pricing and valuation services. These services support, for example, banks (including those that have received or are expecting to receive IMM approval) with the calculation of their regulatory capital requirements, including measures such as PFE, IMM EAD, IRC, CRM, and the CVA Capital VaR charge.[4] Based on our expertise in these areas, we have been approached by both buy-side and sell-side institutions to help them address upcoming challenges related to the calculation of initial margin ("***IM***") and variation margin ("***VM***") for their portfolios of cleared and uncleared derivatives transactions.

We welcome the publication of the Policy Consultation by MAS and appreciate the opportunity to provide you with our comments. Specifically,

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[1] Please see www.markit.com for further details.

[2] We provide products and services that enhance transparency, reduce risk and improve operational efficiency of financial market activities. Our customers include banks, hedge funds, asset managers, central banks, regulators, auditors, fund administrators and insurance companies. By setting common standards and facilitating market participants' compliance with various regulatory requirements, many of Markit's services help level the playing field between small and large firms and herewith foster a competitive marketplace. For example, Markit's KYC Services provide a standardised end-to-end managed service that centralizes "Know Your Client" (KYC) data and process management.

[3] See https://www.markit.com/product/analytics

[4] CVA = Counterparty Value Adjustment, PFE = Potential Future Exposure, IMM EAD = Internal Model Method Exposure At Default, IRC = Incremental Risk Charge, and CRM = Comprehensive Risk Measure

our views and recommendations are as follows: (a) we welcome MAS' proposal to exempt certain, less active financial institutions from the margin requirements; (b) recalculation of IM should also occur in case of a major change in market conditions; (c) counterparties should be permitted to agree on inputs, methodologies, or the actual IM amounts to be provided by a third party; (d) counterparties should be encouraged to agree also on methods and inputs used to calculate sensitivities, or to receive those from a third party; (e) MAS should employ a simplified approval process of Quantitative Portfolio Margin Models (QPMM) to allow for their broader use; (f) counterparties should be allowed to rely on third parties for the provision of methodologies and inputs into or the actual valuations; (g) liquidity assessment of collateral should be performed for individual assets or cohorts of those; and (h) flexibility should be built into the 6 month implementation phase-in period.

Question 1. MAS seeks comments on the proposed product scope, whether any other products should be exempted from margin requirements and the basis for such exemptions.

No Comment.

Question 2.MAS seeks comments on the proposed entity scope, and whether there are any other types of entities that should be subject to margin requirements, and the basis for such inclusions.

No Comment.

Question 3. MAS seeks comments on the thresholds and exemptions in paragraphs 3.4 and 3.5, and the way these thresholds and exemptions should be determined.

We welcome MAS' stated objective to design its margin rules in a manner to not discourage the use of derivatives.[5] We believe that an overly wide catchment would result in numerous licensed financial institutions facing significant direct and indirect costs. Imposing margin requirements on small institutions could dis-incentivise them from using OTC derivatives for hedging and risk management purposes.

We therefore welcome MAS' proposal to provide "a limited exemption for licensed financial institutions". We believe that MAS has rightly recognised the need to exempt institutions "including financial end-users who do not transact widely in uncleared derivatives" from the margin requirements. In this regard, MAS has pursued a practical approach in calibrating its requirements "to ensure that significant counterparty credit risks arising from uncleared derivatives remain subject to the risk mitigation measures set forth under the margin requirements" and that all entities "continue managing their risk exposure in uncleared derivatives prudently".

Question 4.MAS seeks views on whether investment funds domiciled in Singapore should be subject to margin requirements, and the factors that should be taken into consideration in formulating the margin requirements for such investment funds.

No Comment.

Question 5.MAS seeks comments on the proposed margin obligations (including operational requirements) on MAS Covered Entities, specifically on the options of (i) a post-and-collect requirement; and (ii) a collect-only requirement, and the pros and cons for the suggested option.

MAS proposed[6] that the entities that are in scope of the regulation should calculate their VM obligations "at least on a daily basis". We believe that

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[5] CP Par. 3.4

[6] Par. 4.4

such approach represents sound risk management practice to protect market participants from the risk of a counterparty default in stressed market scenarios. Further, the use of a zero threshold for VM posting and margin collection/posting from counterparties within two business days following the execution of a new uncleared derivative contract will limit the risk that counterparties would be exposed to from any uncovered amounts.

Similarly, we agree that, to protect market participants, IM should be recalculated on "a sufficiently regular basis to reflect changes in risk positions and market conditions" as stipulated by MAS in paragraph 4.5.

Question 6.MAS seeks comments on the proposed thresholds set out in Section 4.

No Comment.

Question 7.MAS seeks comments on the proposed IM calculations and requirements, particularly, but not limited to, the recalculation frequency and requirements of IM, data history for IM calculation and the recalibration and back-testing requirements of the IM model.

IM Recalculation

MAS proposed several conditions under which IM should be "recalculated and exchanged or collected".[7]

We generally agree with the proposed conditions under which IM recalculation would take place and believe that MAS' approach is broadly aligned with the requirements proposed in other jurisdictions.[8] However,

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[7] Par. 5.2

[8] See European Supervisory Authorities' *Second Joint Consultation on draft RTS on risk-mitigation techniques for OTC-derivative contracts not cleared by a CCP (EBA/JC/CP/2015/002):*

we recommend that a recalculation of IM is also required in the event of a major change in market conditions. This is because major market moves are likely to affect the risk considerations as well as historical models, and can consequently result in a significant change in IM amounts which can only be reflected through a recalculation. MAS should therefore encourage firms to determine, as part of their internal risk management policies, the threshold and materiality of changes in market levels/conditions that would trigger an IM recalculation, in addition to the conditions proposed by MAS.

Agreement between counterparties

We agree with MAS' proposal to require counterparties to a transaction to "agree in writing or other equivalent permanent electronic means on the specific margin calculation method and the quantitative model to be used" as well as on "the calibration data and parameters for calculating IM". [9]

We believe that requiring counterparties to agree on such variables ex ante will significantly reduce the potential for disputes about IM amounts, and herewith avoid systemic risk in the marketplace. However, to provide more clarity and reflect market practice, we encourage MAS to explicitly state that such agreement could also refer to the models, methods, calibration data parameters, or the actual IM amounts that are provided by an independent third party.

Based on our experience, entities reference third party inputs as an effective approach to reaching such an agreement. MAS should note that the potential for disputes about IM amounts could be further reduced if counterparties were to agree also on the methods and inputs used to calculate relevant "sensitivities". Risk sensitivities can also be provided by independent third party providers, consistent with the ISDA SIMM

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https://www.eba.europa.eu/documents/10180/1106136/JC-CP-2015-002+JC+CP+on+Risk+Management+Techniques+for+OTC+derivatives+.pdf

[9] Par. 5.4

methodology and in an operationally efficient manner.[10] MAS should therefore allow for counterparties to agree on sensitivities being provided by such third parties.

Quantitative Portfolio Margining Models (QPMMs)

MAS proposed that any Quantitative Portfolio Margin Model (QPMM) "must capture all material risk drivers for the derivative contracts included in the netting set" in an "appropriately risk sensitive manner".[11] We believe that such requirements for QPMMs will be essential to ensure an effective and accurate margining process.

We welcome MAS' statement that QPMM models may be internally developed or can be "provided by a third-party".[12] We believe that a significant number of entities that are in scope of the margin requirements rules are planning to rely on third party vendors that provide solutions to calculate margins in a robust, risk sensitive and timely manner.[13]

However, we believe that MAS' proposal that "third party-provided models must be approved for use by each MAS Covered Entity seeking to use the model"[14] may lead to implementation challenges. This is because requiring each MAS covered entity to individually seek approval for its use of a third-party model would require significant resources, both by covered entities and by MAS. It is hence likely to lead to delays in QPMM approvals and negatively impact the competitiveness of individual firms. This would result in an unlevel playing field between firms that have already received approvals and others that have not. Market participants would also be encouraged to invest heavily in constructing their own QPMMs, which may

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[10] Built on Markit's market leading hosted valuation service, and with direct trade data integration to MarkitSERV, our service is designed to provide an operationally efficient way to compute validated sensitivities for use in IM calculations, or during dispute resolution, for a comprehensive set of derivatives across asset classes.

[11] Par. 5.5

[12] Par. 5.5

[13] Markit's Analytics business helps clients compute margin for OTC derivatives transactions, both cleared and uncleared.

[14] Par. 5.5

be disproportionate to the commercial viability and create unnecessary cost and delays. It would also inevitably result in a wider dispersion of margin numbers and resulting disputes.

To avoid these unintended effects we recommend that MAS approve third party models for broader use by all interested parties. However, if MAS chose to require a QPMM approval on the level of each individual covered entity, establishing a simplified approval process for QPMMs will be helpful. An elegant way of achieving this would be to approve a third party model provided by a specific vendor for use by a specific category of market participants.[15]

Question 8.MAS seeks comments on the proposed VM calculations and requirements.

MAS recognises that the "valuation of the current exposure of a derivative contract can be complex and, at times, subject to question or dispute by one or both parties". It hence requires that "similar to the requirement for IM, MAS Covered Entities must have rigorous and robust dispute resolution procedures in place with their counterparties before the onset of a transaction".

We generally agree with this approach. However, we suggest that participants should be encouraged to agree on the calculation methodology and inputs used for mark-to-market calculations to further reduce the potential for disputes. We further encourage MAS to provide guidance that counterparties can agree between them to rely on inputs and methodologies, or valuations that are provided by a qualified independent third party. We believe that such approach will allow for a smooth and effective implementation whilst minimizing the potential for disputes.

Question 9.MAS seeks comments on the proposed range of eligible collateral and corresponding schedule-based haircuts.

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[15] The "Entity Scope" defined within "Scope of Proposed Margin requirements" identifies 3 categories of market participants. MAS could endeavour to approve the third party model for each individual category of market participants when it is first requested to do so by a single participant from the category in question.

MAS states that "it is important that assets used to meet IM and VM requirements should be highly liquid, and should be able to hold their value in times of financial stress".[16]

We believe that market participants should be able to effectively assess the liquidity of assets to ascertain their eligibility for collateral posting under IM and VM requirements.[17] This is especially relevant for assets which are traded over-the-counter as their liquidity is challenging to quantify.

Our experience has shown that the assessment of liquidity of financial instruments is complex. The liquidity of collateral can vary significantly between instruments within the same asset class and its estimation is best based on a multitude of relevant inputs. A detailed instrument by instrument or a narrow cohort analysis will therefore be essential for any assessment of liquidity of collateral.[18]

Question 10.MAS seeks comments on the proposed application of the 8% schedule-based standardised FX mismatch haircut when cash is used to meet the VM requirements in the case of an FX mismatch (i.e. where the collateral is denominated in a different currency from the settlement currency of the underlying derivative transaction).

Specifically, MAS seeks comments on whether cash collateral denominated in certain liquid currencies (please specify currencies) should be subject to a lower FX mismatch haircut (please specify). If so, what criteria should be used in assessing the liquidity of these currencies?

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[16] Par. 6.1

[17] Markit has, for many years, examined liquidity factors for financial instruments across various asset classes. Since 2010, we have provided our clients with transparent, observable liquidity metrics and unique asset-specific liquidity scores that are derived from these metrics for 12 asset classes including bonds, Credit Default Swaps, Syndicated Loans, as well as Asset Backed Securities.

[18] Markit Liquidity Services provide independent measures of market liquidity for credit default swaps, fixed income securities, loans and structured products, through the provision of individual market metrics, such as bid/ask spreads, and calculated liquidity scores. Our proprietary methodology assesses liquidity on an instrument by instrument basis by analysing trading activity, bid-ask spreads, executability of a quote etc. For more details see:

http://www.markit.com/Product/Pricing-Data-CDS-Liquidity

MAS also seeks comments on whether there are cases where a higher than 8% FX mismatch haircut may be warranted.

MAS proposed a "standardised schedule based FX mismatch haircut to be set at 8% of all eligible collateral as set out in the WGMR framework".

We encourage MAS to recognize that, although an 8% haircut was initially proposed by the WGMR, other jurisdictions have either eliminated this requirement[19] or are proposing to do so.[20] We therefore recommend that MAS also eliminate this requirement.

Question 11.MAS seeks comments on the proposed safe-keeping of IM collateral.

No Comment.

Question 12.MAS seeks comments on examples of the types of legally-enforceable safe-keeping arrangements that may be put in place under paragraph 7.2 (b).

No Comment.

Question 13.MAS seeks comments on the proposal that all collateral arrangements need to be reviewed periodically with updated legal opinions to ensure that the arrangements continue to be legally enforceable.

No Comment.

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[19] EU uncleared margin rules have removed the requirement for 8% FX mismatch haircut. See: http://www.risk.net/risk-magazine/news/2412384/eu-revisions-to-uncleared-margin-rules-address-industry-fears

[20] See: http://www.risk.net/risk-magazine/news/2432224/massad-us-to-raise-dollar-threshold-in-uncleared-margin-rules

Question 14.MAS seeks comments on the proposal to permit a one-time re-hypothecation of non-cash IM collateral and the liquidity implications of such a proposal.

No Comment.

Question 15.MAS seeks comments on the proposed treatment of intra-group transactions.

No Comment.

Question 16.MAS seeks views on the proposed treatment of cross-border transactions, and whether there are other arrangements that may better address concerns of level playing field and regulatory arbitrage. Please elaborate on the rational for the suggested option.

No Comment.

Question 17.MAS seeks views on the proposed approach for the application of deemed compliance, particularly for cross-border transactions.

No Comment.

Question 18.MAS seeks comments on the proposed phase-in schedule for margin requirements to apply to MAS Covered Entities.

We appreciate MAS' recognition that the implementation of margin requirements will be onerous and will likely to "entail significant operational and system enhancements". We also welcome MAS' proposal to provide MAS Covered Entities with "a 6-month transition period from the respective VM commencement dates to provide them with sufficient time

to be operationally ready for a smooth implementation of the requirements".[21]

However, based on our experience in supporting market participants with the implementation of similar requirements in various jurisdictions, we believe that such time period might not suffice to allow for a smooth implementation. We therefore suggest that MAS build in sufficient flexibility to reflect challenges that market participants might be exposed to.

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We hope that our above comments are helpful to MAS. We would be more than happy to elaborate or further discuss any of the points addressed above in more detail. In the event you may have any questions, please do not hesitate to contact us.

Yours sincerely,

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[21] Par 10.1, 10.4 and 10.6