

**Response to the BCBS/CPMI/IOSCO
Consultative report “Review of margining practices”**

January 26, 2022

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Executive Summary

Members of the Institute of International Finance (IIF) and the International Swaps and Derivatives Association (ISDA, together the Associations) welcome the consultative report “Review of margining practices¹” (the Report). We in particular appreciate the large amount of data shared by BCBS, CPMI and IOSCO. The Report paints a very accurate picture of the events of 2020 in relation to margin practices.

The Associations broadly agree with the proposed follow up actions and stand ready to support further work on this important topic.

We welcome that the Report acknowledges the difference between margin models for cleared exposures and for non-centrally cleared exposures. These differences meant that cleared and non-cleared margin models, especially the ISDA Standard Initial Margin Model (ISDA SIMM® or SIMM), reacted differently to the stress in March 2020.

These differences also mean that the responses to each of the questions in the Report were, for most questions, very different between cleared and non-cleared margin models. In these cases, we clearly mark which part of the response covers cleared margin (blue background) or non-centrally cleared margin (green background). Responses applicable to both are on white background.

Centrally cleared margin

With respect to cleared margin, the Report provides a large amount of data on margin procyclicality: the differences in procyclicality of CCPs within and across asset classes and the impact of large margin calls on different market constituents. We propose that the whole clearing market (CCPs, clients, clearing members) and regulators agree to a target level of procyclicality that balances the cost of clearing (margin levels) with stability (reduced procyclicality) acknowledging that margin calls during some tail situations may have to exceed this to ensure CCPs are not under-collateralized. We do not propose to further specify anti-procyclicality (APC) tools, but rather leave it up to each CCP to adapt its models to achieve the agreed level of risk appetite for procyclicality. Overall, preparedness of market participants could be improved with more transparency. We therefore advocate for improvements in transparency for risk models in general and on procyclicality in particular and better access to margin simulators for a wider range of market participants. We would also like to see improvements in intraday margin call processes. We support the proposed international follow-up work.

¹ <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD686.pdf>

Non-centrally cleared margin

With respect to non-cleared margin, the Report acknowledges the relative stability of ISDA SIMM during the period of analysis but suggests further review of the timeliness of introducing new stress into an IM model and the transparency regarding model performance and remediation practices. With respect to calibration, we believe it is important to consider the many interdependent factors which contribute to the timeframe necessary to recalibrate an IM model like ISDA SIMM, including processes which are required by regulation such as internal model validation approval and regulatory model approval or notification. Although there may be ways to conduct an expedited calibration to incorporate stress into the risk weights for specific risk classes should it be warranted by market conditions, it would be necessary for regulators to consider (i) evidence of material and widespread IM shortfalls which should be immediately addressed at the industry level rather than rely on remediations at the individual portfolio level and (ii) the end-to-end cycle that allows recalibrated parameters to be reflected in the IM calculation for portfolio to determine whether there is sufficient value to warrant an ad hoc calibration.

Regarding model performance transparency and shortfall remediation, frequent and robust reporting is provided to global authorities regarding changes to and validation of SIMM, as well as the ongoing monitoring of its performance and the remediation of bilateral portfolios. The SIMM Governance Forum is reviewing any clarifications or enhancements that can be made to the guidelines for remediation of shortfalls under the SIMM Governance Framework.

This consultation response covers the positions of our members that are clearing members and their clients. The paper does not reflect the views of many CCPs, and many of the CCPs are in disagreement with the views expressed herein.

Discussion questions

Risk coverage

1. Does the report accurately describe the key market events of the Covid-related period of stress from February to April 2020 and its effects on the magnitude and frequency of the calculation and payment of margin in centrally and non-centrally cleared markets? If not, in what ways are the descriptions not fully representative of the events? Are there any other important events or effects missing? If so, please provide any information or data that are relevant to the missing events or effects to the extent feasible.

Overall, we believe the Report describes the key market events of the Covid-related stress period very well.

Non-centrally cleared margin

With respect to non-centrally cleared markets, the magnitude of initial margin (IM) payments is roughly aligned with ISDA's analysis for the same period. It is important to recognize that the stability experienced in the non-cleared derivatives market can be attributed in large part to global regulatory margin requirements which have significantly increased the levels of variation margin

(VM) and IM available to mitigate market moves and counterparty credit risk². As noted in the Report, regulatory IM levels for non-cleared derivatives remained relatively stable during this period due to design of the ISDA SIMM®, which is calibrated using 25% stressed data to meet or exceed a 99% confidence level over a 10-day horizon, creating a conservative buffer for IM amounts which absorb market volatility. This buffer proved to be a solid mitigant for the market volatility in early 2020 without any changes to the model or the incorporation of recent stress into the calibration. The predictability of SIMM provided an important means for parties to understand their IM obligations and manage portfolio volatility.

We note that the Report is unable to capture and consider the additional impact of IM requirements with respect to the increased number of entities that became subject to regulatory IM requirements for non-centrally cleared derivatives on September 1, 2021 (Phase 5) and which will become subject to these requirements as of September 1, 2022 (Phase 6). With this increased number of entities subject to IM, liquidity management and operational efficiencies will both continue to be important considerations for the future.

2. Does the report draw appropriate conclusions from the presented observations and analysis of the various aspects of centrally and non-centrally cleared margin during the 2020 stress period? If not, in what cases do you feel the conclusions are not justified by the included analysis? Are there any areas or specific topics of analysis you consider to be missing? If so, please provide any information or data that are relevant to the extent feasible. Please set out your views across the following sections:

a. The drivers of margin calls during the period of market stress covered by the report.

We agree with many conclusions of the Report, for instance:

- The volatility of cleared IM compared to the stability of uncleared
- Within the cleared market, the difference in performance between over the counter (OTC) and exchange traded derivatives (ETD).
- The link between CCP IM increases and model design
- The fact that the CCP IM increase was driven by model design and market volatility, rather than portfolio rebalancing
- The impact of the margin calls on broader market stress.

Centrally cleared margin

Base margin model versus portfolio changes and margin add-ons

We especially welcome that the Report tries to identify the drivers of IM increases. The Report confirms that the majority of the IM increase was driven by the reaction of the base margin model to market volatility, i.e. CCP model choices, opposite to portfolio changes or margin add-ons. In this

² See ISDA Margin Survey Year-End 2020: <https://www.isda.org/2021/04/21/isda-margin-survey-year-end-2020/#:~:text=The%20ISDA%20Margin%20Survey%20analyzes%20the%20amount%20and,derivatives%20%28IRD%29%20and%20credit%20default%20swap%20%28CDS%29%20transactions> .

context, it is interesting to see in Figure 13 that IM of static portfolios was actually higher than the actual IM, indicating that firms overall reduced risk during the crisis.

Increases in margin rates

We appreciate Figure 7, which shows the base-to-peak increase of IM and the large variations within and across asset classes. This figure shows a few outlying CCP margin rates. It might be helpful for the analysis of market events to analyze whether these outliers were driven by the products cleared at these CCPs or by their margin models.

Given the diversity of asset classes within ETD, it would be beneficial to further study variations in margin rates among different classes of exchange traded derivatives. It would also be helpful to assess increases in margin rates across a period of time beyond a one-day period, for example increases across a five-day or one-month period.

Overcollateralization

The Report claims “*Overcollateralization in the form of excess margin and the amount of collateral posted as cash are potentially one indicator of the ability of market participants to source liquidity*”. We agree that market participants would have managed their overcollateralization tighter (if allowed, some CCPs require a certain level of overcollateralization) if they had struggled to source liquidity, which to some extent is also an indicator that liquidity preparedness was not an issue during that period.

An interesting follow-up analysis would be to review CCPs’ charges for cash and non-cash collateral and for placing excess collateral and whether these charges influenced the rates of overcollateralization. We also wonder whether the working group considered other potential drivers of increased excess margins in the midst of market turmoil. For instance, overcollateralization was also a way to limit the need for intraday calls.

Incidentally, it is worth noting that there are several benefits to using non-cash collateral in both the cleared and uncleared space for IM. For clearing the primary advantage is the reduction of credit risk to a CCP and many clearing members will prefer posting securities collateral for this and other reasons, such as balance sheet management. However, many CCPs have limits on the amount of securities collateral that can be posted, so the fact that a large part of IM consisting of cash does not necessarily show that it was easy to access cash. The Report acknowledges this effect by observing that liquidity could have been sourced at higher cost.

There are several other reasons why market participants could have left excess collateral at CCPs:

- They might keep excess collateral at the CCP in absence of visibility and predictability of further margin increases.
- They could have lacked attractive investment alternatives to invest their excess liquidity and CCPs might have been seen as a “safer” location to place excess liquidity.
- They might post cash as excess collateral as other collateral types would not be instantaneously available. Operationally, cash collateral seems also easier to source, transfer, deposit and withdraw/recall than securities collateral.

- Even if margin add-ons did not seem to play a significant role in margin increases, excess collateral may reflect overcollateralization in anticipation of unpredictable margin add-on knock on effects.
- They might have kept excess collateral for the possibility of threshold-based margin increases or add-on increases, e.g. due to position limits in ETD. Margin add-ons may be on a single clearing member rather than across the entire population of clearing members of a given CCP, hence the severity of the impact may not be large in absolute numbers but rather meaningful in terms of liquidity risk management for that particular clearing member and may not have been included to the right extent in its own liquidity risk stress testing framework.
- They could have anticipated scarcity of high-quality collateral during the stress period or possible limitations in the range of eligible assets for collateralization, or limitations in collateral transformation.

How excess collateral was managed across asset classes and end-users (buy side) deserves further analysis, including whether there were disparities across CCPs.

It would also be worthwhile to explore if the increase in excess collateral was a function of participants not recalling this excess collateral after reducing the size of cleared risk/positions, hence reducing the quantum of IM required.

Initial margin models

The Report shows the wide variety of model parameters like lookback periods, margin periods of risk (MPOR), confidence intervals and APC tools. Observations during the crisis point to a link between short MPOR, short look-back periods and ineffective APC tools and procyclicality. This observation might however be also affected by the asset classes cleared by each CCP. It would be a useful follow-up analysis whether modelling choices like shorter MPOR or lookback periods are correlated with higher procyclicality of IM during the crisis, correcting for asset classes.

Individually taken, we believe that margin floors and inclusion of stressed periods as part of lookback periods are more effective methods to reduce margin procyclicality than adjustments to confidence intervals. The impact of other parameters can be very significant such as decay factors³.

While each model choice is important, margin models should be analyzed as a whole, including potential offsetting effects through corrective actions, contract level margining impact on portfolio level margining etc. Stronger base margin models would mean reduced reliance on specific APC tools.

We also note that margin models are not per se designed to be stress test resistant: it is to be expected that margin may need to be higher in times of market volatility. What is important is the behavior when the stress situation unfolds and the extent of reaction of the margin model to increased volatility. Nevertheless, margin models should not stray towards a survivor pay model.

³ BoE paper on APC Tools: "Staff Working Paper No. 950 A CBA of APC: analyzing approaches to pro-cyclicality reduction in CCP initial margin models", <https://www.bankofengland.co.uk/-/media/boe/files/working-paper/2021/a-cba-of-apc-analysing-approaches-to-procyclicality-reduction-in-ccp-initial-margin-models.pdf?la=en&hash=08DD15D139692B010207B4CE52C0862A8908B415>

Timing of margin increases

It would be interesting to see if there was a difference in margin levels and procyclicality between CCPs that use a parametric margin model with manual parameter changes such as SPAN and CCPs that incorporate realized volatility directly into their margin models. BCBS, CPMI and IOSCO have collected data that could be used for such an analysis.

Margin exceedances

On margin exceedances the Report claims that CCPs were well protected as the exceedances generally represented less than 15% of the default fund. This might be true from the view of the overall system and the CCP but means a shift into mutualized resources from a defaulter-pays model. This would also indicate that that current levels of skin-in-the-game (SITG) are not a sufficiently strong incentive for CCPs.

We also suggest better and more timely transparency about these exceedances. Clearing members did not have information about the margin breaches to judge for themselves as the current timelines allowed for CCPs to produce their public quantitative disclosures are too long.

Backtesting breaches which occurred in March 2020 were only reported at the end of June 2020 or beginning of July 2020. Likewise, backtesting breaches in April 2020 were only reported at the end of September 2020.

Increasing transparency in disclosing margin exceedances in terms of timeliness and detail would likely make CCPs more reluctant to incur exceedances and thereby encourage them to adopt additional APC tools, higher confidence intervals and longer MPOR. As suggested earlier in our response, this could include reporting exceedances at the contract level (so as not to obscure margin trends via portfolio level effects) and across an extended time period, for example across a 1-week or 4-week period.

At a minimum, disclosure should show at an absolute and relative level to margin posted, the quantum of this exceedance, and a distribution of this exceedance by product type and number of counterparties.

Impact of non-linearity

It would also be worth analyzing the split between margin requirements in the cleared space between linear and non-linear portfolios as there is very limited trading of non-linear derivatives in the OTC IRS, FX, and CDS, whereas there is significant trading in the ETD space. Given the material fall in the value of risk assets during this period, it may well be that large moves in the underlying assets caused out-of-the money to move in-the-money, significantly increasing the risk and hence margin requirements for these transactions rather than just the increases in volatility in the market (except of course where volatility was the underlying, e.g. with VIX options).

Ad hoc margin calls

The Report states that ad hoc margin calls were far lower than peaks of end of day and intraday VM calls. However, while these calls overall might not be sizeable, depending on the CCP that issued the call, how distributed it was across members and the time provided to them to meet the calls, it could still have added to stress.

Non-centrally cleared margin

We agree with the assessment in the Report that key factors affecting IM calls for non-centrally cleared markets were market volatility and the type and size of positions traded. ISDA SIMM version 2.2 went into effect on December 1, 2019, and there were no changes to the model design or model parameters during the referenced period in early 2020.

b. The current level of transparency in margin practices by CCPs and intermediaries.

Transparency on details of the risk management framework

Disclosure on details of the full margin framework varies between CCPs, and clearing members usually have better access to such information than clients, though we find information available to clearing members to still be wanting for certain CCPs.

In the report “Resilience of central counterparties (CCPs): Further guidance on the PFMI”, CPMI/IOSCO require CCPs to provide sufficient transparency over their risk management framework to users⁴. In Europe, according to the “Guidelines On EMIR Anti-Procyclicality Margin Measures for Central Counterparties”, ESMA requires CCPs to provide sufficient information to replicate the margin models⁵. We believe this disclosure is not yet happening in a consistent way across CCPs, neither in the EU nor elsewhere.

Margin calculators / simulators

Margin calculators are helpful but do not contain necessarily information about margin changes following higher volatility. As the Report states in section 4.1, only 20% of CCPs believe they offer a margin prediction functionality that lets users see a “what-if” under different periods of volatility.

Please find proposals how margin simulators could be improved under question 4 a).

⁴ <https://www.bis.org/cpmi/publ/d163.pdf>, section ‘Disclosure and feedback mechanism for reviewing the margin system and stress-testing framework’, 2.2.18 ff.

⁵ “The information disclosed should be sufficiently detailed to allow the replication of margin calculations and anticipation of big-stepped margin revisions.”

https://www.esma.europa.eu/sites/default/files/library/esma70-151-1496_guidelines_on_ccp_apc_margin_measures.pdf

Backtesting reporting in public quantitative disclosures

As mentioned under question 2 a), clearing participants did not have timely information about margin breaches to make themselves comfortable with CCPs' margin models. Backtesting breaches in March 2020 were only reported at the end of June 2020 or beginning of July 2020. Backtesting breaches in April 2020 were only reported on at the end of September 2020. Further portfolio level backtesting may not be sufficient to evaluate margin performance given exceedances may be hidden by portfolio effects and aggregation of client accounts into an omnibus account.

c. The preparedness of intermediaries and clients for meeting the increased margin calls seen during the period of market stress covered by the report.

Centrally cleared margin

While bank-affiliated intermediaries were well prepared to meet margin calls, due to large liquidity buffers, overall preparedness for market participants could be further improved with better transparency (see above). For example, better predictability of margin calls would enable intermediaries to more efficiently manage excess margin/liquidity buffers and thereby reduce liquidity demand during times of market stress.

On clients, many conclusions of the report are at least partially driven by the large range of size and sophistication amongst clients, in addition to the differences of transparency and availability of tools. The Report's conclusions indicate that CCPs should develop new tools and/or raise awareness of existing tools and information amongst clients.

Sharing detailed methodology documentation would allow margin participants to replicate margin frameworks and would help them anticipate model reactivity. Clear and transparent rules around margin add-ons and for ad hoc margin calls would greatly help preparedness. Real-time IM and VM calculation/estimates would help intermediaries' and clients' preparedness during market events. Often even CCPs that offer relatively advanced tools do not provide real-time market data, enabling at best margin simulations based on previous end-of-day data, which is not fit for purpose when markets are volatile.

Clients (in particular smaller clients) are generally more reliant on tools provided by CCPs and third parties to assess their margin requirements, as clearing members and larger clients usually have in-house tools or direct connectivity via application programming interfaces (APIs). In-house tools have the advantage that they are able to provide flexibility in modelling and assessing impact on margin requirements, but, as the Report notes, there is a large degree of variability in terms of the tools and functionality offered to clients.

There is also significant variability in terms of how readily available CCP margin tools are, with some being publicly available whilst others only being available to existing clients or potential members under a non-disclosure agreement (NDA). This creates limitations for clients who lack the resources and expertise in margin analysis to be able to use third party firms to help them run stress analysis on their existing or (more likely) hypothetical portfolios, and also makes it difficult for them to run comparisons between CCPs without actually signing up as clients.

As mentioned above, making user-friendly tools with a minimum standard of functionality publicly available would help clients, in particular smaller clients who may be either new to clearing, or are considering clearing as a result of the uncleared margin rules, be better able to assess and prepare for the impact to potential liquidity demands in stress conditions. These tools or their APIs should ideally be standardized across the market.

Non-centrally cleared margin

We are not aware of any significant issues for intermediaries and clients to meet their non-cleared margin calls during early 2020. This can be attributed largely to the ability to predict the IM impact of entering into a transaction covered by ISDA SIMM.

We note, however, that managing unexpected periods of market volatility may be more challenging for portfolios brought into scope of the non-cleared margin requirements in Phases 5 and 6. For some time a large percentage of these relationships will manage their IM exposures within the EUR 50 million threshold and will only complete preparation for IM exchange as they approach this threshold. Market volatility could mean unexpected spikes in IM exposure which might push IM calculations closer to or beyond the IM threshold, requiring them to rapidly finalize documentation, custodial arrangements, and operational readiness in order to make and meet margin calls.

d. The relationship between margin demands and other liquidity demands during the period February–April 2020.

Centrally cleared margin

We agree with the conclusion that procyclical effect of margin calls had some impact on market liquidity, e.g., in US Treasury market and that the situation could have worsened without central bank intervention. This makes it all the more important to strengthen CCP models and tools against procyclicality, as system soundness should not be predicated on central bank intervention.

We also note that there does not seem to be enough data to not only map in granular detail the transmission routes of the shock but also quantify the effect different liquidity shocks had. It remains difficult to draw conclusions on the specific network nodes where bottlenecks did build up; particularly at the end of the chain and in medium to smaller players and could not be clearly identified.

Non-centrally cleared margin

Cash was mentioned throughout the Report as a source of liquidity in the February – April 2020 time of volatility. Although cash is allowed to be posted and received as margin under global non-cleared margin requirements, eligible collateral must be segregated, and therefore, cash will not be widely posted as IM. When it is posted, it will likely be reinvested at the custodian into a non-cash form of eligible collateral.

Another option would be posting cash to be swept into a government-only Money Market Fund (MMF) or posted by the pledgor on behalf of the secured party at the MMF. From a pledgor's perspective, government-only MMFs have very similar liquidity profile and settlement time

parameters as cash as eligible collateral and yet won't be held at the custodian on the custodian's balance sheet as MMFs are segregate-able.

However, there is a lack of global harmonization between the eligible collateral parameters for MMFs in the US and the EU/UK. Specifically, the US does not allow for MMFs to use repo while the EU and UK encourage the use of repo. As a result, there is a cross-border limitation that will impede a unified approach to posting cash to be reinvested into MMFs or posting MMFs directly for IM.

Working toward global harmonization, especially with the US and the EU/UK policy makers to resolve these challenges, would be beneficial to future liquidity management challenges in times of volatility, especially for entities that are subject to non-cleared margin rules (UMR) as of Phase 5 and will be subject to UMR after September 1, 2022 with Phase 6.

3. Do you agree with the proposals for further international work regarding good practices, metrics and disclosures concerning procyclicality in CCP IM models? Are there other aspects of CCP IM where additional disclosures should be prioritised for further work?

Centrally cleared margin

The majority of our proposals on transparency are described under question 4. Please find below a few proposals of transparency and disclosures concerning procyclicality in CCP IM models.

General transparency

CCPs should disclose details on the extent of usage of APC tools in the current margin models so that clearing participants can anticipate how IM calls will trend during stress periods. To enable this, CCPs should disclose the following:

- CCPs' risk appetite for procyclicality of margins similar to requirements under EMIR Guidelines⁶ and performance relative to the appetite. This should be applied globally. Setting APC tools is not helpful unless there is a mechanism to evaluate if they are effective. In addition, risk appetite should not be set in isolation but must be discussed with participants such that they can provide input.
- The extent of usage of APC tools in their IM models so that market participants can predict IM calls during stress periods – e.g. whether margin levels are model driven vs. floor driven, extent of usage of margin buffers, would assist with this.
- Specification of adjustments made to address procyclical behavior, such as volatility floors or scaling schemes (decay factor).
- Analysis of how margins would react to extreme volatility (e.g., 10%, 20% or 50% increase in volatility) scenarios that are specific to each of the significant products cleared by the CCP. Please also see below under "forward looking transparency".
- Back testing results and margin breach information at both the account level and product/contract level.
- Frequency of margin breaches, largest relative margin breach and average relative margin breach. These metrics should be calculated against the same baseline such as 1-day profit/loss for comparability across CCPs with different MPORs.

⁶ *Guidelines On EMIR Anti-Procyclicality Margin Measures for Central Counterparties*, 15/04/2019, https://www.esma.europa.eu/sites/default/files/library/esma70-151-1496_guidelines_on_ccp_apc_margin_measures.pdf

- For significant products, disclose metrics on margin breaches over one day, two days or five days periods as well as maximum one day, two days, five days or one month margin increase⁷ over the prior quarter with a comparison of volatility change in the same period.

Backward looking

CCPs should disclose the maximum margin increase over one day and over one month, based on a suitable long lookback period (for instance min 15 years).

This should be reported for:

- the total portfolio (total margin).
- flagship products – at least the three products with the highest volumes.
- asset classes if applicable.

Calculation of these maximum margin increases needs to be standardized, so it is comparable between CCPs. Even though this consultation suggests that IM increases were mostly driven by changes in base margin, it could also be helpful to provide this calculation based on real portfolios and constant portfolios.

Forward looking

CCPs should share the margin increase (from current levels) if volatility increases and decreases by 10%, 20% or 50% and the impact on their APC tools of these moves. CCPs should provide one-day, one-week and one-month forward view on IM would be under different volatility assumptions.

These projections should be provided for:

- The total portfolio (total margin).
- flagship products (contract level) – at least the three products with the highest volumes.
- asset classes if applicable.

Details of APC tools

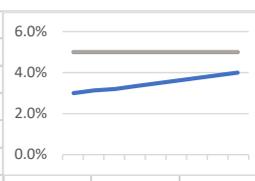
CCPs should provide information to their clearing participants whether current margin rates are driven by the model or by APC tools and to what extent. This information will differ for each CCP, depending on their APC tool, or mix thereof.

⁷ Eurex has started sharing the margin increases at a product level: <https://www.eurex.com/en/find/news/Pioneering-CCP-transparency-to-maintain-safer-markets-part-7--2716180>

More details how this could look like can be taken from the below mock-up:

CCPs using floors should disclose whether the margin rates are driven by the floor or the shorter-term model.

	...	15-Feb	16-Feb	17-Feb
Model		3.7%	3.9%	4.0%
Floor		5.0%	5.0%	5.0%
Effective Margin		5.0%	5.0%	5.0%



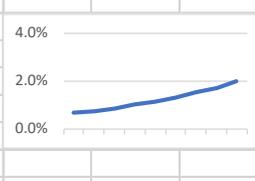
If a CCP is using a margin buffer, the CCP should disclose the current size (in percent) of the buffer.

	...	15-Feb	16-Feb	17-Feb
Model		3.7%	3.9%	4.0%
Buffer		13.0%	11.0%	9.0%
Effective Margin		4.2%	4.3%	4.4%



If a CCP uses stressed scenarios in the lookback period, the CCP should disclose the percentage of losses driven by recent (non-stressed) scenarios outside the confidence interval.

	...	15-Feb	16-Feb	17-Feb
Percentage		1.5%	1.7%	2.0%



If a CCP uses filtered historical simulation, the CCP should disclose the current volatility to scale the VAR output with.

	...	15-Feb	16-Feb	17-Feb
Current Vol		6.4%	6.7%	7.0%



4. Does the report identify appropriate aspects of transparency in centrally and non-centrally cleared markets for further international work, including identifying data gaps, enhancing disclosures to clearing members and increasing margin model transparency?
 a. What specific areas of transparency would be most helpful? What (if any) are the barriers to providing those points of transparency?

Centrally cleared margin

Cleared transactions

Enhanced transparency and predictability would significantly assist participants in preparing for and managing margin calls. This transparency is provided already by a small minority of CCPs to but should be enhanced and made more consistent across the market.

Disclosure of risk methodologies

One of the most critical pieces of information required from a clearing member perspective is documentation on risk methodologies— i.e. details on CCPs’ margin framework, backtesting and stress testing framework. With enough detail provided so that, if participants wanted to, they could replicate the methodology or at least have a deep understanding of likely margin consequences given a market move. This would benefit participants by enabling them to conduct in-depth what-if analysis and allow an understanding of their membership risks and how liabilities may evolve in a variety of stressed market scenarios where margin and default fund may be inadequate.

Detailed disclosure of the risk management framework would provide the following benefits to clearing members as well as clients, who often seek to replicate margins to manage their own liquidity and risk:

- Understanding their risk.
- Predictability.
- Enhance the quality of clearing member participation in risk working groups/ risk committees of CCPs.
- Enhancing liquidity risk management practices of clearing members and clients including stress testing.
- Fostering communication between users and the CCP through distinct channels handling confidentiality issues at different layers.

We believe that the risk methodologies for systemically important systemic market infrastructure such as CCPs should not be seen as commercially sensitive information but instead one that will create competitive advantage for CCPs with more robust approaches, driving improvements and best practices across all CCPs.

There is a requirement for consistency in transparency between CCPs.

Margin add-ons

Another critical area of transparency would be calibration of various margin add-ons and how these interact with intraday margin frameworks so that members can better anticipate potential margin calls.

CCPs should also make the impact of the APC measures available in CCP tools which would then allow market participants to include the results in their liquidity stress testing and ensure that they provide for sufficient contingent liquidity should a stress event occur. See also under question 3.

If a CCP utilizes stress add-ons, the CCPs should disclose their stress testing scenarios to allow participants to predict the amount of margin they might be called to pay. A lot of that information can be provided to clearing participants through specific portals that only participants can access and does not have to be in the public website/ domain.

While we largely agree with the regulatory intent to enhance disclosures to market participants, we disagree with the proposal that clearing members should be responsible for facilitating transparency for clients. A large amount of information made available to clearing members is subject to NDAs or available to the private side of the firm which cannot and should not be disclosed to clients. Imposing requirements on clearing members would expose them to legal risk. As owners of the information, CCPs are best placed to determine the information they are willing to share with clients.

Margin simulators

Margin simulators are important tools for preparedness of market participants.

In a perfect world, clearing participants would have access to real-time calculations of IM and VM. CCPs should at a minimum give sufficient transparency on their margin models for clearing participants and their vendors to replicate their margin calculations. However, to save its

membership and clients the duplicative cost of replicating margin calculations, it would be best for CCPs to give their members timely, up to real-time estimates of current IM calculations. The tools need to include margin add-ons.

Ideally, these margin calculators would have standardized APIs to avoid prohibitive implementation cost for accessing margin calculators that could overwhelm medium sized and smaller clients if they had to develop links to many different simulators with different APIs. Standardized access would make it easier for all clients to simulate their liquidity requirements, including in times of stress.

These tools need to be available for all types of clearing participants, including different departments or external suppliers of clients.

Margin simulators are useful for several use cases:

- Planning, including liquidity planning.
- Historical analysis.
- Analyzing market participants' capabilities to provide collateral timely.

For liquidity planning, it is paramount that simulators not only provide margin levels for current margin rates, but also for margin under higher volatility ("What if analysis").

There should be a minimum viable offering that at least allows firms to add and remove trades into a portfolio to be simulated and ideally stress tested.

Development of standardized simulators and their APIs could be done in a phased approach to improve their functionalities and usefulness over time.

This is provided that clearing members do not use models different from the CCP. Such calculators would also not include add-ons or multipliers to CCP IM which clearing members might ask from their clients. In a future step, after standardization of simulator APIs, these add-ons or multipliers could be integrated into margin simulators by the respective user.

CCPs' actions during stress of clearing members

An additional area in which we would like CCPs to be more transparent, which is linked to their margin models, is around actions they would take under either perceived or actual stress of a clearing member. It would be helpful for clearing members to know how their margin models or ad hoc margin requirements (additional margin imposed or limits imposed) change when their financial situation worsens, for instance if the credit rating were to deteriorate.

Miscellaneous

In addition to the above we would also advocate for CCPs to make available to clearing participants granular data on:

- Collateral haircuts in stress situations.
- Risk indicators per contract. E.g., for a future contract, what index would they link it to from a margin calculation perspective.
- Greater transparency on contract margin and changes per contract across asset classes for ETD.
- Historical rates, which were used for margin calculations e.g. interest and FX rates, CDS spreads etc.

Non-centrally cleared margin

The ISDA SIMM methodology is transparent, being published on ISDA’s website⁸ in advance of the effective date of a new version. Prior to such publication, SIMM users and global regulators which oversee model use are provided with all relevant documentation pertaining to the calibration, backtesting and benchmarking of the updated version of the model.

In addition, ISDA conducts quarterly monitoring exercises with SIMM users and provides corresponding reports to global regulatory authorities. These reports are not public in order to preserve the confidentiality of the participating firms, but can be shared within the regulatory bodies, as needed.

Section 4.6 of the Report suggests looking into “the level of disclosure regarding the performance of non-centrally cleared models”, but the Report does not speak to the specific concerns regulatory authorities may have in respect of ISDA SIMM. We believe that the transparency to global regulators on SIMM’s performance is frequent and robust and that public disclosure is not appropriate given the reports contain portfolio-level information.

b. Should any other areas of increased transparency be considered?

Non-centrally cleared margin

As mentioned in the Report, the number of margin calls significantly increased during the period of market stress covered by the Report. However, the Report does not recognize the number of recalls of collateral during that same time – for both cleared and non-cleared margin. In times of volatility, it is important to be able to process outgoing calls with ease and automation but recalling collateral that could be used efficiently elsewhere also needs to be automated.

Specifically, non-cleared segregated account margin held at a third-party custodian, whether VM or IM, requires that collateral be released back to the pledging party. This process has widely been orchestrated via fax communication and signature checks by the custodian. However, the industry, led by global custodians, has developed automated solutions that can reduce operational and liquidity management challenges.

With the increased number of segregated accounts at third party custodians due to Phase 5 and Phase 6 of the non-cleared margin requirements, more firms need to implement the margin call, settlement, and recall automation process. Industry resources are available, such as the International Securities Association for Institutional Trade's Third Party Custodian Cash and Security Market Practice⁹, ISDA’s Collateral Management Transformation Toolkit: Automated Collateral

⁸ See publication page for ISDA SIMM v2.4: <https://www.isda.org/2021/09/09/isda-publishes-isda-simm-v2-4/>

⁹ <https://pma-isitc-org.s3.amazonaws.com/Market%20Practice%20Documents/Third%20Party%20Cash-and-Security-Segregated-Collateral-MP-V4.3.pdf>

Settlement¹⁰, ISDA's OTC Derivatives Collateral Suggested Operational Practice¹¹, and ISDA's Triparty and Third Party Custodian Suggested Operational Practice¹².

5. Do you agree with the proposals for further international work to enhance liquidity preparedness in the NBFIs sector, including the development of appropriate liquidity metrics and disclosures, analysis of liquidity provision robustness and expanded information sharing between intermediaries and clients? Have the proposals identified all key aspects of NBFIs sector liquidity preparedness which should be included?

Centrally cleared margin

As mentioned above, the primary way to address liquidity issues should be through greater transparency to facilitate better preparedness, as well as greater attention to anti-procyclicality measures and consistency among CCPs in their application though specific models may differ based on products cleared and other characteristics.

Intermediaries

Bank-affiliated clearing members are highly capitalized with ample liquidity and funding capacity – as demonstrated by Figure 20 in the Report. Liquidity regulation already requires banks to maintain liquidity buffers necessary to face potential increase in margin calls.

For instance, Art. 30(3) of the delegated act in compliance with Article 423(3) of the EU Capital Requirements Regulation (CRR) requires that *“the credit institution shall add an additional outflow corresponding to collateral needs that would result from the impact of an adverse market scenario on the credit institution's derivatives transactions if material.”*

Clients

More analysis is needed on liquidity preparedness of non-bank affiliated clearing members and clients.

However, repeated ad hoc intraday calls can place funding pressures on some market participants. Please see under question 7 for streamlining intraday calls. Overall, market participants, in particular clients need sufficient information for their liquidity planning.

Specifically, this should include CCPs making such information available to clients. As stated above, this process should not be facilitated by clearing members due to legal (i.e., non-disclosure) barriers and operational complexity. Clearing members would then add any additional information driven by the particular relationship between clearing member and client.

¹⁰ <https://www.isda.org/2020/10/05/collateral-management-transformation-toolkit-collateral-settlement-automation/>

¹¹ <https://www.isda.org/a/FDEgE/2021-Best-Practices-for-the-OTC-Derivatives-Collateral-Process-6.7.21-FINAL.pdf>

¹² <https://www.isda.org/a/j8ITE/Triparty-vs.-Third-Party-SOP-Updated-2.22.21.pdf>

Examples of information that could be valuable to clients includes standardized stress test results on their existing cleared portfolios showing the impact of both IM requirements and the magnitude of VM calls in this environment.

Note that the ESRB previously published in January 2020 a report on mitigating procyclicality¹³ with the policy option “limiting the discretion of client clearing services providers towards clients” which we disagree with. Just as CCPs need discretion to raise margin during stressed periods to ensure they do not have uncollateralized risk, clearing members should have ability to pass-through intraday margin calls and ensure that the risk that they are guaranteeing is adequately covered.

More collateral options for clients

Clients make the case that they are dependent on the good functioning of money markets and repo markets in stressed periods and highlighted the example of one central bank that offered emergency liquidity to a wider range of market participants during the crisis. Please see also ICMA’s report on imbalances between supply and demand in the money / repo markets during the crisis¹⁴.

Many clients are asset-rich but running high levels of excess cash collateral would be inefficient for them. Uncleared margin rules might exacerbate pressure on collateral for IM. It will be increasingly important for non-cash IM to be workable for clients.

This is especially evident with clients using non-linear derivative products for risk management and hedging purposes (for example out of the money equity put options), which are faced with the paradoxical scenario that their hedges require more liquidity as markets sell off as a result of increased IM requirements from options moving into the money. This could be an issue in particular in UCITS funds where there are restrictions of setting-off IM and VM.

Regulators could therefore consider adding MMFs to the list of eligible collateral for both cleared and uncleared IM, subject to appropriate conditions, such as liquidity, credit quality, gates/fees, concentration limits etc. As further discussed in response to question 10, where MMFs are allowed as eligible collateral, regulators should work collaboratively ensure that conditions on MMFs do not prohibit their use for cross-border transactions.

A review of bank capital requirements and leverage ratios could be helpful for repo markets in stressed periods.

¹³ ESRB, “Mitigating the procyclicality of margins and haircuts in derivatives markets and securities financing transactions”, https://www.esrb.europa.eu/pub/pdf/reports/esrb.report_200109_mitigating_procyclicality_margins_haircuts~0f3e9f9e48.en.pdf. The final “Recommendation of the European Systemic Risk Board of 25 May 2020 on liquidity risks arising from margin calls” ([https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020Y0729\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020Y0729(01))) says at least that the “soundness of the risk management practices adopted by the clearing members” should not be “materially curtailed” and their resilience not be affected.

¹⁴ <https://www.icmagroup.org/assets/documents/Regulatory/Repo/The-European-repo-market-and-the-COVID-19-crisis-April-2020-270420v2.pdf>

Payment systems

The Report does not mention potential improvements in payment systems, especially the extension of operating hours.¹⁵

Non-centrally cleared margin

The level of transparency that ISDA SIMM affords to those who use it – including the model documentation – is key to enabling liquidity preparedness, allowing firms to run pre-trade checks and hypothetical portfolio analysis. The stable design of SIMM avoids procyclicality, aiding in liquidity preparedness for users.

6. Do you agree with the proposals for further international work to evaluate data gaps in regulatory reporting by banks and non-banks? Are there particular data gaps you would identify as being of material importance? If so, please provide any supporting information and data to the extent feasible?

Liquidity reporting

Banks already provide granular and frequent (daily) reporting on their liquidity positions to their regulators. We have not identified any data gaps given the high degree of frequency and granularity of reporting. Overall, derivatives markets, both cleared and uncleared, are very transparent to regulators.

Current disclosures and regulatory reporting requirements for banks are already exhaustive and extensive. An example would be COREP Reporting on collateral (Template 34.2) or ECB Covid19 Regulatory Reporting Templates, which give a full picture of margining figures.

As these disclosures are very detailed and contain confidential information, they cannot be made public. We note that a lot of information is already being made public in financial statements and Pillar 3 reporting by banks.

Given the granularity and complexity of liquidity reporting from banks, we propose not to copy this regime for NBFIs. Should regulators require more liquidity data from NBFIs, the reporting regime should be targeted and proportionate.

In any case, all additional reporting requirements should be subject to a strict cost/benefit analysis.

We also note that better APC tools, for instance higher floors/ larger base margin requirements driven by inclusion of stressed periods in lookback would reduce margin jumps that lead to liquidity issues for clients.

In terms of liquidity provision, clearing members provide as much repo liquidity to their clients as they can. They can however not guarantee that they will always provide sufficient liquidity. Similar to the pension funds debate in Europe, central banks should consider whether they can provide a backstop for the repo market.

¹⁵ <https://www.bis.org/cpmi/publ/d199.htm>

Margin and Collateral Reporting

There may be some cases in which regulatory authorities may not have readily available access to data on the margin amounts posted and collected by the parties they regulate to give them insight into the mitigating collateral available for both cleared and non-cleared derivatives portfolios in the event of a market stress period or a counterparty credit risk event.

CPMI and IOSCO have already taken steps necessary to address this gap through the publication of the CPMI-IOSCO Technical Guidance on the Harmonisation of Critical OTC derivatives data elements (other than UTI and UPI)¹⁶ in April 2018 (“CDE”) and the Governance Arrangements for critical OTC derivatives data elements (other than UTI and UPI)¹⁷ published in October 2019. Revisions to the CDE were published in September 2021 in the Regulatory Oversight Committee of the Global Legal Entity Identifier System’s (LEI ROC) Harmonisation of Critical OTC derivatives data elements (other than UTI and UPI): Revised CDE Technical Guidance – version 2¹⁸.

The CDE includes four data elements related to valuation and nineteen data elements related to collateral and margin. The LEI ROC revised three of these fields in its Revised CDE Technical Guidance - 2.28 Valuation Amount, 2.29 Collateral Portfolio Indicator and 2.47 Collateralisation category.

The CDE are being adopted by global regulatory authorities through revisions to their regulatory trade reporting requirements. The Commodity Futures Trading Commission (CFTC) has incorporated the CDE into its Part 43 Real-Time Public Reporting Requirements¹⁹, Amendments to Parts 43, 45 and 49²⁰, and Technical Specifications²¹. The European Securities and Markets Authority (ESMA) has incorporated the CDE into its Technical standards on reporting, data quality, data access and registration of Trade Repositories under EMIR Refit²². The joint consultation²³ of the Financial Conduct Authority and the Bank of England on changes to the reporting requirements under UK EMIR incorporate the CDE. Other regulatory authorities are in the process of amending their trade reporting requirements to incorporate the CDE, including the Monetary Authority of Singapore, the Australian Securities and Investments Commission, and the Canadian Securities Administrators.

The adoption of the margin and collateral fields will provide regulators with comprehensive daily portfolio level information on the amount of collateral which has been posted or collected by market participants. This expands and refines the margin data already collected by these authorities. However, unless global regulatory authorities adopt the CDE consistently, reporting of this data will be more complex to implement, more apt for error and be difficult to compare or consolidate across borders. For instance, there is a difference in the published requirements of CFTC and ESMA with respect to Valuation Amount. To the best of our understanding, the former requires this to be the adjusted amount while the latter requires it to be the unadjusted amount. Regulators should coordinate to ensure the consistent application of margin reporting requirements, and the LEI ROC

¹⁶ <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD598.pdf>

¹⁷ <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD642.pdf>

¹⁸ https://www.leiroc.org/publications/gls/roc_20210922.pdf

¹⁹ <https://www.cftc.gov/sites/default/files/2020/11/2020-21568a.pdf>

²⁰ <https://www.cftc.gov/sites/default/files/2020/11/2020-21570a.pdf>

²¹ https://www.cftc.gov/media/4891/DMO_Part43_45TechnicalSpecification091720/download

²² <https://www.esma.europa.eu/sites/default/files/library/esma74-362->

824_fr_on_the_ts_on_reporting_data_quality_data_access_and_registration_of_trs_under_emir_refit_0.pdf

²³ <https://www.fca.org.uk/publications/consultation-papers/cp21-31-fca-and-bank-england-consult-changes-reporting-requirements-under-uk-emir>

should provide oversight of consistent adoption in its capacity as the International Governance Body for CDE.

Significant time and effort have been spent by global authorities to establish the CDE valuation, margin and collateral data elements with the stated purpose of enhancing regulators' transparency of the exposures and liquidity provisions of market participants. Adoption of these fields will provide regulators with more data to assess market soundness, but we caution that transactional trade reporting is not the ideal mechanism for gathering data on margin amounts which is portfolio-based rather than transactional. The extension of regulatory trade reporting for this purpose steps outside of the original core intention for requiring OTC reporting, which was to provide transactional data to regulators rather than margin transparency.

Trade reporting infrastructures were not originally designed for margin reporting and thus the retrofit is challenging. However, as the margin and collateral fields in the CDE will be required to be reported by global regulators, then we do not believe it is appropriate to require another separate type or level of reporting for margin and collateral information. Such a requirement would be duplicative and onerous. Global regulators should now make best use of the CDE data that will be available to them to satisfy the transparency concerns raised in this Report. We believe these data fields are comprehensive and sufficient.

Separately, we concur with suggestion that broader use of LEIs is helpful to understanding the concentration of trading activity within and across trade repositories, even where such data is reported by the other party. Broad use of UTIs would allow for identification of duplicates. Consistent incorporation of CDEs by global regulators into their trade reporting requirements is essential to a more meaningful review of data aggregated across jurisdictions. We further note that international regulatory cooperation is necessary to eliminate impediments to the aggregation of data reported to trade repositories pursuant to different regulatory requirements.

7. Does the report identify appropriate proposals for further international work on streamlining VM processes in centrally and non-centrally cleared markets? Should any other aspects of VM processes be included in this work?

Centrally cleared margin

VM processes

We support the prior FIA position regarding streamlining the VM process in cleared markets²⁴.

In general, CCPs' use of intraday margin calls should be calibrated to reduce funding pressures on clearing members (i.e., intraday calls should be scheduled and defined unless in extreme situations). CCP rules for ad hoc calls should be clear and give clearing members sufficient warning on when such calls may be made and sufficient time to act on the call.

Other examples of VM process issues include whether clearing members are able to pass through intraday calls to customers, the timing of such calls vs. EOD cut-offs and processes, the currency in

²⁴ See section 3.1.3 in the FIA paper *Revisiting Procyclicality: The Impact of the COVID Crisis on CCP Margin Requirements*, https://www.fia.org/sites/default/files/2020-10/FIA_WP_Procyclicality_CCP%20Margin%20Requirements.pdf

which intraday margin is called, and whether CCPs give credit for margin paid earlier in the day during the EOD process or return excess margin when there are variation margin gains – all of which impact liquidity demands and margin procyclicality, though they may not strictly be considered margin model parameters.

As part of future work, it would be helpful to discuss whether it is preferable that

- CCPs call intraday cash VM in the currency of the transaction and pay out intraday VM, therefore redistributing liquidity, or
- CCPs allow for securities collateral to be posted as intraday margin, which would mean the CCP cannot pay out VM.

Ideally intraday margin call projections could be added to margin simulators.

CCPs should also be mindful that clearing members often do not and cannot (given the associated deadlines) pass intraday margin calls to their clients. This creates additional liquidity requirements on the clearing member and adds uncovered risk towards the client for the clearing member.

Therefore, there is a need to review and ensure intraday calculations related to client accounts happen on a net basis recognizing that such margin is paid by the clearing member guaranteeing the positions.

There is however a trade-off between credit risk and liquidity risk: scheduled calls have the potential to increase uncovered credit risk. Some regulation requires real time calls under certain thresholds. This means that regulatory action might be needed to allow different trade-offs between scheduled and ad hoc margin calls under stress periods.

Post trading risk reduction (PTRR)

Clearing benefits from multilateral netting as all transactions are novated to the CCP. This is not the case for uncleared transactions. While transactions with a given client can usually be netted, transactions cross counterparties cannot.

This leads to higher IM requirements and higher liquidity requirements due to VM for uncleared transactions: While the portfolio of a firm might be overall fairly market risk neutral, portfolios with their counterparties will not. This leads to higher VM payments – at the end of the day these will net out in the firms' payment accounts, but intraday there could be higher liquidity requirements because a firm usually has to pay before all payments are received.

Post trading risk reduction providers cater for this issue by adding transactions to participating firms' portfolios that overall reduce counterparty risk for participating firms while leaving market risk unchanged. This is usually done with swaptions or OIS that are not covered by the clearing mandate.

Allowing more vanilla instruments to be used for these PTRR services would lead to a wider range of firms being able to use these services.

PTRR service provider however can only use vanilla product if these are exempt from the clearing obligation (only if used for PTRR exercises). Allowing more products to be usable for PTRR exercises would however benefit firms because they can reduce their counterparty risk and liquidity requirements by doing so.

Protected Payment Systems (PPS/APS)

Some CCPs operate a direct debit system, known as the Protected Payments System (PPS), for the transfer of funds to and from clearing members. A clearing member is required to maintain PPS bank accounts in certain currencies currency at one of the participating PPS banks. Different banks can be used for different currencies. Such a direct debit system creates an uneven playing field as (i) clearing members do not have the same immediate access to clients' funds, (ii) CCPs with PPS arrangements effectively get preferential access to clearing members' funds ahead of CCPs that do not have PPS arrangements, effectively draining liquidity from the market.

One long-term potential strategic solution would be to develop industry-wide infrastructure to extend the PPS arrangements to large buy-side clients of clearing members.

Non-centrally cleared margin

Automation of margin call, settlement, and collateral recall processes would reduce operational, liquidity, and counterparty risks in both times of volatility and times of market regularity. Suggested operational practices, as mentioned in 2c, would be beneficial for both VM and IM.

Further, with the increased margin call volume, it is likely that there will be increased margin call disputes. Deploying automated and streamlined processes to prevent and/or decrease margin call disputes would be beneficial to the industry. ISDA has developed resources to assist with this topic, such as the Initial Margin Disputes Processing Suggested Operational Practice²⁵ and the ISDA Collateral Management Transformation Toolkit: Portfolio Reconciliation and Dispute Resolution²⁶.

8. Does the report identify appropriate proposals for further international work on the degree and nature of the responsiveness of CCP IM models to market stress? Should any other aspects of CCP margin models be included in this initiative?

Centrally cleared margin

We agree strongly that further work should be done on the topic of the degree and nature of responsiveness of CCP IM models to market stress.

We fully support the ability of a CCP to protect itself at all times. In reality, procyclicality can be reduced only by tools that increase margin in benign times.

We believe that the best way forward on margin procyclicality is for the whole market (CCPs, clients, clearing members) and regulators to agree a target level of procyclicality that balances the cost of clearing (margin levels) with stability (reduced procyclicality). These target levels of procyclicality (procyclicality risk appetite) could be different for different asset classes. Higher margin levels in benign times could provide for more stability in margin requirements or at least less procyclicality, therefore making liquidity management easier, especially for smaller clients. Higher margin levels however affect the funding cost of clearing participants but may be necessary considering these

²⁵ <https://www.isda.org/a/eaDgE/IM-Disputes-Processing-SOP-27-May-2021.pdf>

²⁶ <https://www.isda.org/2020/08/05/collateral-management-transformation-toolkit-portfolio-reconciliation-and-dispute-resolution/>

costs exist but are hidden in benign markets. More robust margin requirements could benefit financial stability.

We do not propose to further specify APC tools, but rather leave it up to each CCP to adapt their models to achieve the accepted level of risk appetite for procyclicality. As the Report concludes, CCPs use a wide variety of margin model types to margin a wide variety of products. Because of this variety, not every APC tool might be equally suitable for every CCP. As long as these models deliver similar procyclicality outcomes, consistently measured, there is no reason to prescribe specific tools. We advocate for consistency in outcome without impairing diversity.

Please see under question 3 for more details about potential standardized measures of procyclicality. During the analysis of their solutions, CCPs might refer to the work on analyzing APC tools by ESMA²⁷ or the BoE²⁸.

Existing APC tools

Most CCPs already have APC measures in place, as recommended by the CPMI-IOSCO Principles for Financial Market Infrastructures (PFMIs) and largely implemented since the 2008 global financial crisis (GFC). But it is not clear that these measures were effective; during the COVID period of volatility, margins rose higher (relative to pre-crisis rates) than they did in the GFC and as markets recovered, have fallen faster.

EMIR contains APC measures which are the most stringent required by regulators globally. However, the increases in margin rates at some EU CCPs demonstrates that even these were not adequate to sufficiently address procyclicality.

- The 25% erodible buffer is simply not large enough compared to the shocks experienced during the March 2020 crisis, and many CCPs lack a procedure to allow it to erode.
- Margin floors (set by a 10-year flat HVAR) were low, as the GFC rolled out of the lookback window in the year preceding the COVID Crisis.

Proposals for margin frameworks

We propose for CCPs to identify and develop their own APC tool that fits their particular markets, products, participants and models. Please find however some thoughts below how CCP models could be improved to reduce procyclicality:

- CCPs should utilize longer look back periods – 1-year look backs are likely inadequate. Models should retain the market moves from both the GFC and those from the pandemic in 2020 in their margin models but must also consider stressed periods that are appropriate (or consider hypothetical scenarios if stressed periods do not exist) for the specific asset class.

²⁷ https://www.esma.europa.eu/sites/default/files/library/2015/11/esma-2015-1252_-_emir_review_report_no.2_on_procyclicality.pdf

²⁸ <https://www.bankofengland.co.uk/-/media/boe/files/working-paper/2021/a-cba-of-apc-analysing-approaches-to-procyclicality-reduction-in-ccp-initial-margin-models.pdf?la=en&hash=08DD15D139692B010207B4CE52C0862A8908B415>

- If not covered by separate floors, base margin calculations should consider and provide appropriate weightage to stressed periods relevant for the specific products. Strengthening base IM models reduces the need to rely on specific APC measures.
- If buffers are used, the methodology for use of the buffer and replenishment needs to be very clearly documented.
- If margin floors are used, these should be calibrated using stressed look back periods. Margin floors are key to address trade-off between margining in benign times and stressed times.
- Margin models should be based on an MPOR that aligns with a CCP's default management strategy with a floor of at least 2-days.
- In any case, falling back to the regulatory minimum might not be sufficient in many cases.

Higher margin floors also help clearing members to ensure that client exposures are covered by margin, even if they might pay intraday margin calls on behalf of their clients.

Timing of margin increases

One aspect that was not looked at in the Report is whether margin models which immediately increase margins because they incorporated prior day volatility immediately (usually models using historical simulations), are more desirable than models where there is a lag because risk parameters in the model are adjusted manually (SPAN). This topic could benefit from further discussion.

Difference in house and client margin

CCP IM model calibrations need to reflect the fact that cleared margin rates are applied not only to the CCP-clearing member leg of cleared transactions but also propagated to the clearing member-client leg as a base reference level (potentially subject to client-specific margin multipliers). These settings differ significantly both from an operational perspective and in terms of the legal framework, so a more conservative base margin calibration is recommended for client transactions.

One way to address this is via a longer MPOR assumption for client trades²⁹.

Another way to mitigate this asymmetry of credit risk between CCP-clearing member leg and clearing member-client leg (i.e. difference in frequency of margin calls, grace periods, and therefore default management frameworks & liquidation horizons) is to set margin floors at a more conservative level. This would address the industry-wide implications of CCP margining decisions and ensure that CCP base margins are adequate for clearing member transactions facing clients.

²⁹ As already practiced for instance at LCH SwapClear.

9. Do you agree with the proposals in the report to evaluate the degree and nature of responsiveness of non-centrally cleared IM models to market stresses, remediation of IM shortfalls and the level of disclosure of non-centrally cleared IM model performance? Should any other aspects of non-centrally cleared IM models be included in this initiative?

Non-centrally cleared margin

As correctly identified in the Report, SIMM is conservative by design with a buffer for times of volatility. That buffer proved to be generally sufficient during the market stress period in early 2020, resulting a modest increase in shortfalls.

As the administrator of SIMM, ISDA has reviewed the proposals for evaluation with SIMM users. We believe the most direct and effective way to address any regulatory concerns would be to establish a dialogue with ISDA and SIMM users, to ensure that any analysis adequately accounts for the history, rationale and practical considerations which underlie the current approach to SIMM calibration. The next paragraphs contain our initial response to the suggested areas for evaluation.

Nature and responsiveness to market stresses

In the non-cleared market, it is imperative that firms are able to understand their counterparty's calculation of the IM that they are required to post. Hence, the ISDA SIMM is a parametric model which is designed to be easy to replicate, transparent, quick to calculate, easy to predict and less data-intensive³⁰. One of the practical benefits of a parametric model is that it is inherently less procyclical since model parameters, such as risk weights, are held fixed between the periodic recalibrations. In the case of ISDA SIMM, the periodic recalibration cycle is augmented by a robust governance framework, including monitoring and bilateral remediation procedures in the case that the SIMM IM requirement is determined to be insufficient, for details please see "Remediation of IM shortfalls" below.

We note that the ISDA SIMM model and its governance framework performed very well throughout 2020. Even after the market stress observed in early 2020, ISDA, in collaboration with major dealers through the quarterly monitoring, identified a very small number of exceptions beyond the remediation threshold set in the ISDA SIMM Governance Framework (i.e., a red exception with the ISDA SIMM shortfalls greater than 15% of SIMM margin amount and EUR 50 million EUR) across the industry. A significant majority of those portfolios were promptly remediated by firms facing the concerned portfolios, and otherwise no longer required remediation by the next quarterly monitoring cycle. We also confirmed that the ISDA SIMM was sufficiently conservative for almost all the portfolios and the average exceedance rate across the industry was well below 1.0%, the theoretical average exceedance rate for a 99% confidence level. This is because the ISDA SIMM was calibrated to periods including the most stressed one-year period in the global financial crisis in 2008-09 and there are various assumptions in the model (e.g., no netting and diversification benefits across different product classes) to make the ISDA SIMM conservative further.

The annual calibration cycle for SIMM takes 11 months from inception (i.e., from the end of the new historical period to which the new version of the model is calibrated) to application, considering the extensive processes necessary to conduct a robust calibration and backtest cycle and the corresponding regulatory requirements previously mentioned. It takes from 11 month to 23 months

³⁰ [1] See ISDA SIMM: From Principles to Model Specification for further background:
<https://www.isda.org/a/vAiDE/simm-from-principles-to-model-specification-4-mar-2016-v4-public.pdf>

to reflect a period of recent market stress in the current process because the regular recalibration is conducted annually. For example, the ISDA SIMM 2.4 is calibrated to historical data until the end of 2020 and became effective in the beginning of December 2021; it took 21 months to reflect the market stress in March 2020 to the ISDA SIMM.

Regulatory requirements which apply to model changes are a significant contributor to the overall recalibration timeline. These requirements vary by jurisdiction, but as SIMM is used globally the most restrictive requirements must be considered. Those factors include the requirement for sign-off by a firm's internal model validation team and the requirement to provide 60 days written notice prior to use of the recalibrated model. If a regulator should deem the changes to IM amounts for a recalibrated SIMM as "material" even in the absence of model changes and require firm-level pre-approval before use of the recalibrated model, then the timeline will be further extended.

ISDA has considered with SIMM users the ways in which it might be possible to shorten the latency between a period of market stress, as was observed in early 2020, and its reflection in SIMM calculations for existing portfolios. A potential additional SIMM process could be to perform a check as a part of the existing regular annual re-calibration (or more frequently, e.g., semi-annually) to see if there has been a recent period of significant financial market stress which should lead to an overall increase in SIMM margins as evidenced by material and widespread SIMM shortfalls observed through the quarterly monitoring that are impractical for the industry to remediate bilaterally at the individual portfolio level. If this is the case, then an accelerated SIMM calibration of the delta risk weights for major risk factors could be performed, and the new (partially) calibrated parameters could be patched into current and future versions of SIMM until a fully-recalibrated version of SIMM includes data from the period of concern.

Adoption of the proposed stress checks detailed above might allow for recent stress to be factored into the risk weights for specific risk class(es) by ISDA in 6.5 to 18 months (or 6.5 to 12 months if the proposed stress checks are conducted semiannually), a significantly shorter timeframe than 11 to 23 months in the current process. These timeframes could be reduced if there is a corresponding exception in the regulatory requirements for internal model validation approval, model change notification and pre-approval.

In summary, any meaningful reduction in the time to reflect a recent market stress in ISDA SIMM, should it be deemed necessary, will require consistent global regulatory compromises with respect to model change notification and approval requirements under certain circumstances. ISDA would be happy to discuss the matter with the Working Group on Margin Requirements or another global regulatory body.

Remediation of IM shortfalls

Bilateral remediation of IM shortfalls is a key pillar for the use of ISDA SIMM®. To balance the complexity of the model and its coverage, SIMM includes all major risks for the product classes in a conservative manner (by calibrating the model to a 99th percentile confidence level using market data that incorporates 25% of stressed data) and requires that users engage bilaterally to remediate portfolios with a shortfall which exceeds €50 million and 15% of the SIMM amount. ISDA monitors industry-wide shortfalls to assess whether they are material, persistent and widespread, and therefore may warrant a change to the model.

Transparency on the level, severity and cause of IM shortfalls and any appropriate remediation under industry-wide use of SIMM are reported in quarterly monitoring reports provided to regulators which oversee the use of ISDA SIMM® for the purpose of their respective regulatory margin requirements. In the latest version of this report sent to regulators on December 7, 2021, ISDA enhanced the reports to (i) include the regulatory jurisdiction(s) associated with each portfolio for which red shortfalls are reported and (ii) carry over the list of shortfalls reported during the prior quarter to show the status of the remediation (since in some cases there has been insufficient time for the parties to complete remediation prior to the report which initially included the shortfall).

ISDA is actively working with SIMM users to assess and adopt clarifications and enhancements to the policies for remediation of IM shortfalls, including the approach to backtesting for quarterly monitoring, the timely identification of shortfall causes, the scope of portfolios subject to remediation, the timeliness and extent of bilateral remediation, and the reporting of remediation actions to ISDA for inclusion in quarterly monitoring reports to regulators. In the case of this evaluation scenario, we would also recommend direct, coordinated engagement between global authorities and ISDA to discuss any specific concerns with respect to these processes.

Level of disclosure of non-centrally cleared IM model performance

As stated in our response to question 4a, transparency to global regulators on SIMM's performance is frequent and robust. These reports are not public in order to preserve the confidentiality of the participating firms, but can be shared within the regulatory bodies, as needed. If the authorities have specific questions or suggestions on the reporting which is being provided to relevant authorities, ISDA would be happy to discuss.

10. Are there any other important aspects not covered by the report which should also be prioritised for further international work or policy development?

Centrally cleared margin

The report does not cover any issues experienced in operational processes, which lead to positions not being given up to the correct participants. This leads to margin calls to the wrong entities and participants not benefitting from offsetting transactions.

Non-centrally cleared margin

As demonstrated in the Report, market participants tend to use cash for collateral in times of market volatility. However, cash is recognized on the balance sheet of custodians when posted as collateral, which can transfer counterparty risk to custodian risk. Cash is often transformed, whether used as VM or segregated IM, to another type of eligible collateral once posted, and a prominent type of eligible collateral for transformation is a government-only MMF.

As mentioned in 2a, there are conflicts between UMR in the US vs. the EU/UK that prevent a US counterparty facing an EU or UK entity or vice versa to post cash to be transformed into a MMF. An

alternative is for a counterparty to consistently transform cash ahead of margin calls, however, this can be quite challenging in times of market volatility.

Global policy makers should work together to resolve the MMF conflicts that constrict the use of MMFs as IM.

About ISDA

Since 1985, ISDA has worked to make the global derivatives markets safer and more efficient. Today, ISDA has over 960 member institutions from 78 countries. These members comprise a broad range of derivatives market participants, including corporations, investment managers, government and supranational entities, insurance companies, energy and commodities firms, and international and regional banks. In addition to market participants, members also include key components of the derivatives market infrastructure, such as exchanges, intermediaries, clearing houses and repositories, as well as law firms, accounting firms and other service providers. Information about ISDA and its activities is available on the Association's website: www.isda.org. Follow us on Twitter, LinkedIn, Facebook and YouTube.

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About IIF

The Institute of International Finance ("IIF") is a global association of the financial industry, with more than 400 members from more than 70 countries. Its mission is to support the financial industry in the prudent management of risks; to develop sound industry practices; and to advocate for regulatory, financial and economic policies that are in the broad interests of its members and foster global financial stability and sustainable economic growth. IIF members include commercial and investment banks, asset managers, insurance companies, sovereign wealth funds, hedge funds, FMIs, central banks and development banks.

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