Additional thoughts on margin practices

Introduction and executive summary

The International Swaps and Derivatives Association (ISDA), together with the Institute of International Finance (IIF) responded[1] last year to the consultative paper on margin practices[2] (the Response). Back then there were some issues that we acknowledged but could not develop further in the time available.

This paper provides some additional thoughts on these topics. In addition, we also address some discussions within industry over the last year.

In summary, we cover:

- Intraday variation margin (VM) collection practices: We consider the potential costs and benefits of CCPs paying out intraday margin, and note that there are pros and cons that need to be discussed with participants in each market.
- Measurement of procyclicality: To support comparability between models, measurement of procyclicality should be easy to implement and to understand.
- Governance considerations around anti-procyclicality (APC) tools: We flag the importance of governance of anti-procyclicality (APC) tools.
- Notice for margin rate increases: We consider whether CCPs can provide advance notice of margin rate changes, especially if the use VaR models.
- Forward-looking margin transparency: We propose simple scenarios as a basis for forward-looking margin simulators.

This response covers the positions of our members on the buy-side and sell-side. The paper does not reflect the views of many CCPs, and many of the CCPs are in disagreement with the views.

Intraday variation margin (VM) collection practices

In the Response, ISDA acknowledged the trade-off between intraday VM margining models, where a CCP:

- Either pays out intraday VM margin, with the requirement that intraday VM payments be made in transaction currency such that liquidity is not trapped at the CCP.
- Or the CCP does not pay out intraday VM, which allows intraday VM payments to be made in cash other than the transaction currency, or even non-cash collateral. The cost is that intraday liquidity is trapped at the CCP.

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[1] https://www.isda.org/2022/01/26/iif-and-isda-respond-to-the-bcbs-cpmi-iosco-consultation-on-margin-practices/. Text we copied from this Response is set in *italics*.
[2] https://www.iosco.org/library/pubdocs/pdf/IOSCOPD686.pdf

The best solution to this trade-off is not necessarily the same for every CCP or every jurisdiction.

In jurisdictions where the local currency can be paid over the whole trading day and the CCP does not have meaningful exposures in other currencies, the CCP should be in a position to pay out intraday VM. Such pay out of intraday VM becomes all the more pertinent where a call was made to a participant, and then the market reversed. There are other requirements, for instance deep and liquid funding (repo) markets. Generally, ISDA members prefer scheduled intraday VM calls, as these are easier to predict, at least in terms of timing. Should a CCP have to make unscheduled calls, it should publish guidelines under which conditions extraordinary VM calls would be made and whether these would be made across all participants or for specific participants only. The guidelines should also cover what the thresholds are for intraday VM and whether these are combined with intraday IM calls. In general, for scheduled and for unscheduled VM calls, CCPs should provide near-real time transparency about the accumulated risk and the call thresholds to each participant, so all participants can anticipate the size of intraday VM and/or IM calls. This also underlines the importance for CCPs to monitor intraday exposures on an ongoing, near-real time basis.

On the other hand, where the local currency cannot be paid over the whole trading day, or the CCP clears transactions in other currencies than the currency of the home jurisdiction (especially currencies in other time zones), it might be more difficult to request payment of intraday VM in transaction currency. A solution could be that the CCP defines a time window for each currency in which intraday VM has to be paid in the transaction currency and intraday VM will also be paid out. Outside this window, the CCP could accept other collateral, but would not pay out intraday VM.

A CCP could, instead of paying out intraday VM, net the unpaid intraday VM (which a participant did not receive) with appropriate haircuts against IM requirements and could reduce liquidity requirements that way. I.e., if a clearing participant would be owed intraday VM, but does not get it paid it out for the reasons outlined above, this participant could recall some IM if operationally possible. Especially if a clearing participant uses tri-party arrangements, even non-cash collateral can be transferred intraday.

CCPs that accept a wider range of collateral for intraday VM calls (some CCPs combine intraday VM and IM calls) are also likely not be able to net the intraday VM with the regular EOD VM margin call due to potential currency discrepancies.

We would also like to remind of some other points we made in the Response:

- *"For many CCP, there is no sufficient transparency on how various margin add-ons interact with intraday margin frameworks so that members can better anticipate potential margin calls.*
- *CCPs should give credit for previous intraday calls when calling a participant for more intraday margin.*
- *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."

On this last point, we add that calling intraday margin on a net basis is consistent with the treatment for end-of-day calculations. The fact that such margin is paid by the clearing member guaranteeing reinforces the case for using intraday margin to set off end-of-day payment obligations. Separately, we note that to allow outward payment of intraday VM calls the CCP would need to net the amounts in each currency separately.

Measurement of procyclicality

In our response, we proposed as a measure of procyclicality:

"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 backtest should include all add-ons and similar that are charged on top of the core margin model.

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."

We are mindful that the output of margin models is a random variable and path-dependent and that the measure proposed above might be overly simplistic. We however believe that a measure of procyclicality needs to be easy to understand and easy to implement in order for the measure be useful for comparison between CCPs.

Even if there are no explicit rules on anti-procyclicality tools, transparency about how procyclical the margin model of a CCP is will help the market. We also propose that CCPs should disclose characteristics of APC tools they use – including the extent to which current margin levels are driven by APC measures (see below under "Notice for margin rate increases").

It would also be helpful if a CCP would disclose its risk-appetite for procyclicality, including a discussion of the trade-off between the increased base margining and long-term liquidity burden vs margin volatility and short-term liquidity shocks.

In Europe, part of this is already covered by the 2019 Guidelines on EMIR Anti-Procyclicality Margin Measures for Central Counterparties[3]. These guidelines include the requirements that:

"Competent authorities should ensure that any CCP supervised by them therefore develops a policy for the review of its APC measures. The policy should at least specify:

    i.   the risk appetite for procyclicality of its margins e.g., tolerance threshold for big-stepped margin increases;
    ii.   the quantitative metrics it uses to assess the procyclicality of its margins;
    iii.   the frequency at which it conducts the assessment;
    iv.   the potential actions it could take to address the outcomes of metrics; and
    v.   the governance arrangements surrounding the reporting of the outcomes of the metrics and approval of actions it proposes to take in relation to the outcomes"

Governance considerations around anti-procyclicality (APC) tools

It is important that any APC tools utilised by a CCP is complemented by an appropriate governance framework. This could include requirements[4]:

- for written policies and procedures which are signed off by the board.
- for appropriate consultation of the CCP risk committee.
- to substantiate model choices and choices of APC tools .
- for consistent decision-making processes, and clear documentation/justification when the CCP uses discretionary measures.
- transparency on how an APC tool would work (e.g., for margin buffer a description when the CCP would use the buffer, for stressed scenarios how these are selected etc).
- for general model transparency.

Notice for margin rate increases

In the Response, we mentioned that it would be helpful for market participants if margin rates become effective with some lead time that would allow participants to line up required

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[3] https://www.esma.europa.eu/sites/default/files/library/esma70-151-1496_guidelines_on_ccp_apc_margin_measures.pdf
[4] The majority of these proposal are from the ECB Occasional paper "CCP initial margin models in Europe" (https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op314~afc6d2980c.en.pdf?bed67387c5fa21d6990ef9792d227919) and from ESMA's consultation paper "Review of RTS No 153/2013 with respect to procyclicality of margin" (https://www.esma.europa.eu/sites/default/files/esma91-372-1975_consultation_paper_on_review_of_emir_rts_on_apc_margin_measures.pdf)

additional margin – to the extent that it would not result in leaving the CCP under collateralized.

Such a notice period is easy to implement in SPAN models, where the timing of recalibration and effectiveness is discretionary.

Today, many CCPs use VaR models for margin calculation. VaR models do not have an explicit recalibration, but each day calculate margin requirements based on all market observations in the lookback period. There are theoretical possibilities to implement notice periods in VaR, for instance by updating the production margin VaR model with new market data with a one-day lag, while calculating up to date margin requirements for information. This would provide clearing participants with a similar notice period as in SPAN, but would feel counterintuitive to the up-to-date risk measurement in VaR models.

However, market participants should be cognizant that realised volatility may increase IM for CCPs utilising VaR based margining. It might be helpful if the CCP could give some indication whether margin rates will increase as soon as the CCP is aware. This could be as soon as a price shock has happened, without the CCP users having to wait for the formal margin calls after the CCP has completed end-of-day processing. This could provide firms additional time to source funding.

Forward-looking margin simulators would also be helpful (see below).

In general, more transparency how the models work in details would be helpful, as would be more data on model output in relation to APC tools will be helpful. As a reminder, in the Response we proposed the following:

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.

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

	...	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%

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

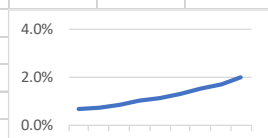|	...	15-Feb	16-Feb	17-Feb
Model		3.7%	3.9%	4.0%
Buffer		13.0%	11.0%	9.0%
Effective Margin		4.2%	4.3%	4.4%
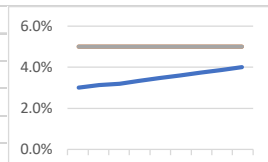
If a CCP is using a margin buffer, the CCP should disclose the current size (in percent) of the buffer.

	...	15-Feb	16-Feb	17-Feb
Percentage		1.5%	1.7%	2.0%
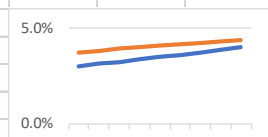
If a CCP uses stressed scenarios in the lookback period, the CCP should disclose the percentage of losses driven by recent (non-stressed) scenarios outside the confidence interval.

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

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

Forward-looking margin transparency

In the Response, we proposed the following:

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.*

Some CCPs claim that such forward-looking estimates how the margin model reacts to volatility shocks is impossible, as the reaction of the margin model is path dependent. We agree that this is the case – a volatility jump of 30% in a week would cause a different margin increase than the same volatility increase over a month.

However, the aim of such forward-looking transparency is not exact numbers, but to have an estimate of potential margin increases and linked liquidity requirements for preparedness of market participants. Such estimates could be provided based on scenarios that are agreed – ideally industry-wide – ex-ante. These scenarios could be based on historical scenarios (credit crisis and the COVID shock) or hypothetical scenarios.

A useful disclosure from a CCP using a VaR model is how much IM would increase (and how much VM would be called) if certain pre-specified stress scenarios were to occur tomorrow and over the next few days (depending on the scenario).

We note that Eurex has already implemented "Forward-looking margin simulations into periods of stress"[5], which could be a very helpful basis for forward-looking margin simulators.

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[5] https://www.eurex.com/ec-en/find/news/Part-7-Product-level-back-testing-a-look-at-the-COVID-19-crisis-2716180

About ISDA

Since 1985, ISDA has worked to make the global derivatives markets safer and more efficient. Today, ISDA has over 1,000 member institutions from 79 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.