MEMO# 35336

June 5, 2023

Global Regulators Issue Report on Margin Dynamics in Centrally Cleared Commodities Markets in 2022

[35336]

June 05, 2023

TO: ICI Members
ICI Global Members
Derivatives Markets Advisory Committee SUBJECTS: Derivatives
Financial Stability
International/Global RE: Global Regulators Issue Report on Margin Dynamics in Centrally Cleared Commodities Markets in 2022

The Basel Committee on Banking Supervision (BCBS), the Committee on Payments and Market Infrastructure (CPMI), and the International Organization of Securities Commissions (IOSCO) (collectively, the "regulators") recently published a report analyzing margin dynamics in centrally cleared commodities markets during the volatility following the Russian invasion of Ukraine in 2022 ("Report").[1] The Report focuses on exchange-traded derivatives markets and on both CCPs' approaches to risk management through the 2022 market volatility, as well as non-financial end-users' views on the transparency and predictability of CCPs' and clearing members' margin requirements, especially during the market stress period.[2]

The Report found that the surveyed CCPs: (i) have approaches designed to respond to elevated volatility and can, if necessary, adapt them during stress events; (ii) are sensitive to the impact of margin calls on market participants and many either maintain or have introduced measures to help mitigate the procyclicality of margin calls; and (iii) are adjusting their approach to stress testing for commodity derivatives following the 2022 volatility.

The Report, however, found that end-users are concerned about the current level of transparency and predictability of CCPs' margin requirements, particularly for intraday margin calls. Likewise, the Report noted that many end-users believe that there is scope to improve the transparency and predictability of additional margin requirements applied by their clearing brokers on top of initial CCP margin requirements (referred to as "margin multipliers").

Introduction and Context

The Report describes the turmoil in the physical and derivatives commodities markets following Russia's invasion of Ukraine in 2022. Reflecting such market volatility, initial margin (IM) and variation margin (VM) requirements on an aggregate basis increased significantly for certain commodities derivatives after the start of the war, particularly in Europe, with CCPs often calling IM and VM on an intraday basis. In the US, IM requirements also increased substantially for some US-based commodities futures contracts. Such IM requirements subsequently narrowed but remained at levels substantially higher than in 2021.

The Report ultimately states that its findings can help inform the policy development work related to evaluating the responsiveness of IM models and enhancing the transparency of margin requirements in centrally cleared markets.

CCPs' Approaches Under Market Stress and Following the 2022 Volatility

Based on the CCP survey, the Report describes CCPs' IM modelling approaches, concentration risk management, and stress testing, and highlights the impact of the 2022 volatility on CCPs' practices in these areas.

Setting IM Requirements. In terms of CCPs' margin models, the Report specifically analyzed the following CCPs' practices:

- **Frequency of margin model parameter recalibration:** Under normal market conditions, frequency of recalibration varies (e.g., as high as daily or as low as once a year). As market volatility rose, however, the frequency of recalibration increased across all surveyed CCPs, with recalibrations at least weekly for half the CCPs, and three of those CCPs recalibrating daily. The CCPs also noted that they reviewed model parameters on an ad hoc basis if market conditions called for additional scrutiny.
- **Discretionary changes to model parameters:** While CCPs reported using a variety of margin models to set IM requirements, six CCPs reported the use of manual model overrides, with five of those CCPs having a discretionary provision in their risk manuals, and four of them disclosing this use of discretion to clearing members in real time. The most cited reasons for using discretion included, among others, ensuring risk coverage and enhancing the stability of margin requirements by limiting the size or speed of IM increases.[3] As part of CCPs' ongoing model performance assessment, CCPs also evaluated back-testing results and monitored the impacts of parameter changes to ensure appropriate margin responses to changing market conditions.
- **CCPs' internal anti-procyclicality (APC) monitoring:** About a third of the CCPs reported using internal targets that act as hard or soft caps on IM increases, with targets usually measured by the size or speed of the change. Predefined APC thresholds were in place at many CCPs, though it varied whether such thresholds were set at either the product or the portfolio levels (or at both). How such APC targets worked in practice during the market stress also varied.[4] About half of the CCPs increased their focus on procyclicality effects during the first half of 2022 after observing large increases in margin requirements. Overall, the surveyed CCPs reported that their APC expectations were largely met.
- **Eligible collateral:** Four CCPs reported that, between March 2022 and November 2022, they expanded the types of collateral they accepted to meet margin requirements, mainly based on clearing members' requests. Such requests aimed to reduce end users' liquidity challenges by allowing them to post collateral types that

they otherwise may hold.[5] The Report noted that the European Commission recently amended the CCP regulatory framework in the EU to allow for a broader set of collateral types.[6]

Concentration Risk Management. Ten CCPs reported using average daily trading (ADT) volumes when quantifying the size of margin add-ons based on concentration risk, and several also considered volumes of highly correlated markets not directly associated with their core clearing activity. A few also used open interest for the relevant commodities along with ADT volumes.[7] Surveyed CCPs, however, did not significantly revise concentration add-ons during the stress period, as such add-ons are generally based on average historical volumes, which did not materially change during 2022. Some CCPs also stated that their parameters were already calibrated to be appropriate during stress periods or exclude the largest trading days to prevent them from skewing the average. Ultimately, the Report noted that for most CCPs, the 2022 volatility did not lead to a fundamental review of their concentration risk modelling.[8]

Stress Testing. The Report indicated that surveyed CCPs' approaches to designing their stress scenarios varied significantly, for both historical and hypothetical/forward-looking scenarios. For historical scenarios, CCPs' choice of key parameters varied, such as the length of the lookback period, which ranged from 10 to 30 years. For hypothetical scenarios, some CCPs reported combining both qualitative and quantitative approaches, while others only used quantitative techniques. Surveyed CCPs were also split on whether they expressly accounted for commodities-specific factors (e.g., physical delivery-related issues) in the design of their stress scenarios, though the more common approach was to not account for such factors explicitly.

Seven CCPs saw market movements in 2022 that exceeded the maximum shocks in their stress scenarios, mainly for the energy and metals markets. Five of those CCPs, and two others who did not see the market movements exceed the maximum shocks in their stress scenarios, reported taking steps to adjust their stress scenario assumptions and/or their stress test methodology after the 2022 volatility.[9] The other five surveyed CCPs reported no change to their stress scenario assumptions or stress-testing methodology, with some noting that they routinely review stress scenarios as part of their stress-testing methodology, so they did not consider their responses to the 2022 markets stress to require any specific adjustments to their prior approaches.

Transparency and Predictability of Increased Margin Requirements for End-Users in 2022

Participants in the end-user workshop reported that the predictability of both IM and VM was an issue in 2022, and highlighted issues of margin transparency related to IM, including add-ons, where requirements can vary among CCPs. With regards to VM, end-users noted issues in terms of the timing and predictability of VM calls (e.g., intraday calls). The Report discusses these challenges both at the CCP and clearing member level.

- **CCPs' IM requirements:** End-users noted that the way CCPs communicate margin changes can differ significantly from entity to entity, with some giving little or no forewarning of major shifts in margin levels. End-users stated that setting expectations for notice periods on IM model changes could facilitate end-users' preparedness. Moreover, one end-user stated that intraday cleared IM calls were the most unpredictable, and that the thresholds for such calls often differed across CCPs and clearing members. End-users also reported that such calls were often hard to understand, as they are commonly based on the aggregate call across all accounts at a clearing member instead of on individual accounts. Further, end-users reported that, while tools provided by CCPs could help with anticipating IM calls, some were not accurate enough to allow them to confidently predict potential calls during periods of market stress.

- **Clearing members' IM requirements:** End-users reported that clearing members' discretionary application of IM multipliers presented a particular challenge in terms of understanding those members' IM requirements. Specifically, the Report noted that margin multipliers: (i) were sometimes introduced or changed by clearing members without explanation and with very little notice; (ii) appeared arbitrary at times, covering risks that were not well understood or explained to end-users;[10] and (iii) were often unpredictable in size relative to CCP margin levels. End-users also stated that clearing members generally provide inadequate support in the form of margin forecasting tools, which is why third-party vendors are commonly used as an alternative. End-users believe that there is clear scope for improving client understanding of margin multiplier dynamics, including additional transparency related to their use and the factors used to assign them.

Nicolas Valderrama
Counsel

Notes

[1] BCBS, CPMI, IOSCO, Margin Dynamics in Centrally Cleared Commodities Markets in 2022 (May 2023), available at https://www.iosco.org/library/pubdocs/pdf/IOSCOPD735.pdf. The report seeks to build on a 2022 report from the regulators that examined whether and, if so, to what extent margin calls were unexpectedly large in the derivatives and securities markets during March 2020. See BCBS, CPMI, IOSCO, Review of margining practices (September 2022) ("2022 Report"), available at https://www.bis.org/bcbs/publ/d537.pdf. Note that the content of the 2022 Report was substantially similar to that of a 2021 joint consultation issued by the regulators, though the 2022 Report included analysis of the responses submitted on the joint consultation. For a summary of the 2021 joint consultation and of ICI's comment letter, please see ICI Memoranda No. 33909 and No. 34009.

[2] The Report is based on: (i) results from a mainly qualitative international survey of 12 CCPs that clear commodities derivatives (CCPs or "surveyed CCPs"), specifically those that clear commodities contracts most affected by the 2022 volatility (e.g., agriculture and electricity); and (ii) an industry workshop held to gather the perspectives of non-financial end users of commodities derivatives ("end-users"), such as commodities trading houses (the "end-user workshop").

[3] Other most cited causes were: (i) improving the match between margin and market liquidity conditions; (ii) anticipating risks that had not yet resulted in a market response; and (iii) incorporating feedback from users. Examples of model parameters that CCPs adjusted using discretion include the scan range, volatility floor, margin period of risk (MPOR), and the confidence interval.

[4] See Report at 12.

[5] Examples of types of collateral accepted under the CCPs' expansion include, among

others, European Union Allowances, collateralized bank guarantees, gold warrants, and short-term US Treasury exchange-traded funds.

[6] See Delegated Regulation (Oct. 21, 2022), available at https://ec.europa.eu/finance/docs/level-2-measures/emir-rts-2022-7536_en.pdf.

[7] In one case, for instance, market open interest included both the CCP's own cleared market as well as that of the same or very similar products at other CCPs.

[8] One CCP, however, is considering a potential review of its current assumption of an upward movement in trading volume during periods of stress, which would lead to increased concentration add-ons. Likewise, another CCP is considering a change in policy to cap the concentration add-ons as a share of IM for each clearing member.

[9] Four of these CCPs made, or are in the process of making, changes to their hypothetical scenario methodology, including by updating their shock definitions (e.g., focusing on scenarios that directly consider geopolitical risks).

[10] Examples reported include "special delivery margin" or "contingent intra-month margin," where it was not clear what drove such margin multipliers or the thresholds at which they would be charged.
