

# CCP Margin Practices Under the Spotlight

## Introduction

A resilient financial ecosystem creates the confidence investors need to put their capital at work by investing, often through funds, in sovereign states, companies, and specific projects. At the heart of today's global financial ecosystem are central clearing counterparties (CCPs). Through a system of financial safeguards, CCPs maintain market integrity and capital protections by standing in the middle of each trade — the buyer to every seller's clearing member and the seller to every buyer's clearing member.<sup>1</sup> Once a trade has been matched, the clearing house becomes the central counterparty to the trade, thereby guaranteeing financial performance of the contract. This level of counterparty risk intermediation became the centerpiece of financial market infrastructure to create efficient, liquid and transparent markets following the Global Financial Crisis of 2008-09.

**BlackRock has consistently supported the centrally cleared model**, including voluntarily clearing products beyond the scope of clearing mandates. Many market participants who are not subject to clearing mandates, including end-investors, do decide to clear voluntarily, underlining the increasingly compelling economics and risk reduction rationale to clear trades centrally. Ultimately, we believe the reduction in bilateral counterparty credit risk, increased market transparency, together with the improved efficiency in trade execution continue to outweigh the operational costs incurred by market participants to comply with clearing mandates.

While central clearing as a concept and market practice continues to mature, the regulatory framework to incentivize clearing through resilient CCPs, that protect the interests of all stakeholders in times of stress, is still a work in progress. The propensity of market participants to clear

voluntarily (for example, clearing trades not subject to a mandate) may stall unless the market and its regulators address certain shortcomings. Indeed, the losses incurred in the Nordic power markets in September 2018 revealed that CCPs are not immune to market disruptions. Likewise, **dramatic and unexpected spikes in initial margin (IM) calls from CCPs during the COVID-19 pandemic exacerbated volatility at a time when liquidity across markets was becoming increasingly challenging**. As a result, global standard setters are currently examining margining practices<sup>2</sup> and policymakers have commented on the role of margin during the COVID-19 market volatility and the need for further analysis.<sup>3</sup>

Beyond CCP margin practices, BlackRock, and many other asset management (or “buy side”) firms and clearing members, have called for further work to improve CCPs' resiliency and ensure that all stakeholders are adequately protected in the event of a CCP failing and needing to go into remedial measures.<sup>4</sup> We provide recommendations related to CCPs' resiliency, as well as recovery and resolution processes. **As global policymakers review margining practices, we encourage a comprehensive examination of CCP risks**. In isolation, improvements to margin practices could enhance market efficiencies and liquidity management during times of stress; however, we believe that more holistic improvements that go beyond margining, addressing CCP governance practices, transparency, capital resources, and other elements would significantly improve the financial stability of globally cleared markets.

In this paper we review the COVID-19 market volatility and discuss our key recommendations for improving margining practices, as well as additional CCP resiliency, recovery, and resolution recommendations.

All source information can be found in the Endnotes section. The opinions expressed are as of March 2022 and may change as subsequent conditions vary.

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## Recommendations

- Considering the lessons learned from March 2020, we recommend policymakers ensure CCPs size IM requirements more conservatively using appropriate model assumptions to mitigate the potential for future procyclical IM moves. Specifically, IM models should have more conservative and sound margin periods of risk, look back periods and margin offsets, and margin add-ons should be more transparent and defensible.
- CCPs should enhance transparency to the market on specific margin rate changes to allow investors and market participants to more easily identify contracts impacted and prepare accordingly.
- We recommend the CPMI-IOSCO Principles for Financial Market Infrastructure (PFMIs) be updated to reflect these enhanced standards to ensure a global minimum standard of margining practices, while still allowing for appropriate flexibility for CCPs and across jurisdictions.
- To enhance financial stability more significantly, we encourage policymakers to look holistically at CCP risk improvements. Beyond CCP margining practices, we recommend additional enhancements to CCP resilience, recovery, and resolution.

## Upgrading margin practices to reduce amplification of market stresses

Swap and futures markets generally performed well during the market volatility induced by the onset of the COVID-19 pandemic in March 2020, as measured by record volumes traded and cleared in global markets. However, the dramatic and unexpected spikes in IM calls during this period, depicted in the chart below, indicate that there is room for CCPs to further enhance their IM modelling to mitigate their procyclical effects.

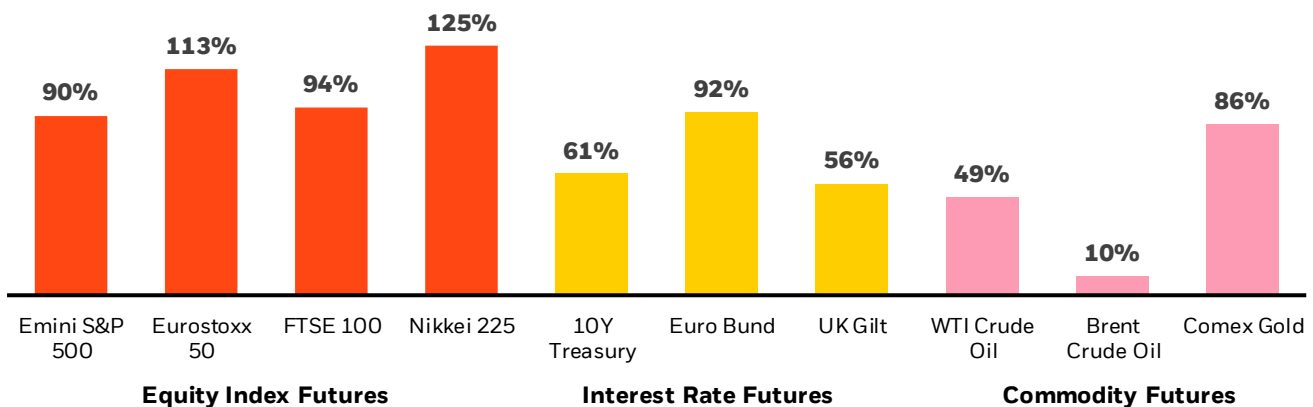
Whilst CCP margin calls did not cause market volatility, there is strong evidence to suggest that they exacerbated volatility. This came at a time when liquidity across markets was becoming increasingly challenging to source and market participants sought to access additional cash and

cash-equivalents, combining to cause severe market stress. Given the clearing market structure, where the end-investors face CCPs through intermediaries, an asset manager's direct access to details and insights into a CCP's IM models is limited. This limited transparency resulted in unpredictable margin calls and made it additionally challenging for some asset managers to prepare their portfolios accordingly. Similarly, the lack of transparency from CCPs regarding margin rate changes made it difficult for asset managers and end-investors to make informed investment decisions in a timely manner at the height of the market volatility.

BlackRock does not believe that a one size-fits-all, prescriptive and fully harmonized IM model for all CCPs is desirable or necessary to address the shortfalls in evidence through March 2020. Instead, we would encourage global standard setters to look at inconsistencies of application of

## Margin Calls

Percent increase in initial margin requirement between January 1 and March 30, 2020



Source: FIA (data published on CCP websites and provided by FIA member firms)

existing regulations and standards and upgrade these with enhanced standard setting to ensure margin models are sized more conservatively and that end-investors, via their asset managers, have better information about how these models operate in normal market conditions and times of market stress.

## **Appropriate model assumptions hold the key to reducing margin volatility**

We recommend that policy makers ensure CCPs size IM requirements more conservatively using appropriate model assumptions to mitigate the potential for future procyclical initial margin moves. Whilst there is a significant body of regulatory guidance on IM standards developed as part of the 2012 CPMI-IOSCO Principles for Financial Market Infrastructure and the 2017 additional guidance (PFMIs),<sup>5</sup> the experience in March 2020 underscores the need to enhance the standards themselves and/or review their implementation and compliance.

Specific areas to review include:

- Application of appropriate and defensible assumptions on the time it takes to liquidate a portfolio of trades. This is referred to as the “Margin Period of Risk” (MPOR).
- Inclusion of relevant historical market trends, otherwise known as the “look back period.”
- Transparency and completeness of margin adjustments that fall outside of the stated model parameters, also known as “add-ons” and “offsets.”

Few would contest that heightened levels of market volatility were the primary driver of increased margin calls during March 2020. Equally, it is evident that model construction was the differentiator in how margin models responded. BCBS-CPMI-IOSCO noted in its report the wide range of model types and choices for key parameters, such as confidence levels of the model, lookback periods, MPOR, and other measures, acknowledging, “Model choices can lead to differences in how IM requirements respond to changes in volatility.”<sup>6</sup>

There was also a divergence between exchange-traded derivatives (ETD) and cleared over-the-counter (OTC) model performance. ETD margin made up less than half of total margin posted but was responsible for roughly two-thirds of the total increase of required IM for all asset classes.<sup>7</sup> This divergence is consistent with the differences between ETD and cleared OTC model requirements. As stated in the 2012 PFMIs, “OTC derivatives require more-conservative margin models because of their complexity and the greater uncertainty of the reliability of price quotes.”<sup>8</sup> This difference in approach, which demands less rigor for ETD margin models, has left ETDs more vulnerable to market shocks.

We encourage a global review of how the PFMI model design choices are interpreted and applied at the jurisdictional level as well as at the CCP level. We fundamentally believe that margin parameters should be determined by a contract’s underlying risk. While we agree OTC trades can be more complex and subject to more opaque pricing mechanisms, a significant portion of ETDs exhibit similar risk characteristics. We suggest de-emphasizing the distinction between OTC and ETD when considering key model design choices.

First, **MPOR** is a key input into all initial margin models. It is the factor that estimates how many days it will take to sell a contract or hedge its underlying risk. Though CPMI-IOSCO guidance suggests the parameter must be “appropriate” for a given contract, most CCPs generally default to regulatory minimums, which we believe are not always sufficiently conservative.<sup>9</sup>

Second, the **look back period** determines how far back in history a margin model will look to inform predictions of future market moves. CPMI-IOSCO guidance suggests that the sample period be “appropriate” for each product, though there is no additional guidance on how to define “appropriate.” As a result, we believe some margin models may not capture relevant market stresses

Third, **margin offsets** and **add-ons** are applied to address structural limitations to statistical modeling; they can both decrease (offsets) and increase (add-ons) margin levels. While the PFMIs provide some guidance on these tools, a more targeted approach that addresses supervisory expectations for their use and disclosure could help improve transparency to the market and better enable review of model performance.<sup>10</sup>

To be clear, we do not advocate for globally identical, overly restrictive parameters, rather, we recommend guidelines be designed to raise the standards of risk models while allowing CCPs to retain flexibility and discretion within these heightened standards. If the guidelines themselves are not altered, at a minimum, more detailed guidance and requirements for the way in which jurisdictions review adherence to the principles should be provided to ensure consistent global implementation and a level playing field across entities which clear risk in global markets.

## **The importance of transparency**

The BCBS-CPMI-IOSCO margin report provides a useful summary of the feedback received from survey respondents, underscoring a notable divergence of views amongst respondents.<sup>11</sup> CCPs generally believe they provide tools to predict margin while intermediaries and clients often conclude that those tools are not sufficient for them to predict IM changes.

CCPs often defend not sharing details of margin models since they consider the models proprietary and protected by intellectual property rights. We do not believe a CCP's margin models should be viewed in such a manner since IM is a cornerstone of the clearing mandate's risk mitigation goal, and CCPs' role in the global financial system is too important for stakeholders who are trying to manage their counterparty exposure to not understand how these models work.

Having this information on the details of margin models, would be useful for market participants in preparing for the next market stress event. Specifically, liquidity risk management can be enhanced by incorporating systematic forecasts of initial margin, which would require access to specific details of a CCP's margin models, which are not part of the currently available "what if" calculators some CCPs provide. One potential option to achieve this would

## Eligible Collateral for Margin

Various types of collateral can be posted to meet initial margin requirements in cleared and uncleared markets. In uncleared markets, acceptable types of collateral and haircuts are agreed between bilateral counterparties, subject to the broad guidelines established in the uncleared margin rules (UMR) where relevant. In cleared markets, CCPs unilaterally establish a list of eligible collateral and haircuts, as well as limits on non-cash collateral instruments, usually established at the clearing member level.

We believe an expansion of the list of eligible collateral (with appropriate risk-adjusted haircuts) and a review of collateral type limits at CCPs is warranted. Specifically, we recommend expanding acceptable collateral in both cleared markets and uncleared markets to include ETFs, reviewing restrictions imposed on MMFs to broaden the range of eligible MMFs, and reconsidering how collateral limits at CCPs constrain the use of non-cash collateral in cleared markets.<sup>14</sup>

With respect to ETFs, regulators should clarify that ETFs which hold eligible assets (e.g., U.S. Treasury securities) can be treated as eligible collateral under uncleared margin rules.<sup>15</sup> ETFs whose portfolio holdings consist of assets that would otherwise be eligible collateral can serve as a highly appropriate form of collateral for both cleared and uncleared transactions. ETFs are easily transferrable from collateral poster to CCP or counterparty and provide portfolio transparency and real time pricing (collateral value) data to the holder of such collateral. Moreover, ETFs can be liquidated quickly and efficiently in a close-out scenario. The ETF's ability to be sold on a national securities exchange generally provides at least as much, if not more, liquidity to the selling holder than the instruments otherwise held in the ETF's portfolio. Additionally, in-kind redemptions (via an Authorized Participant) generally provide holders of the ETF the ability to access securities in the ETF's underlying portfolio should a

collateral holder prefer to access ETF portfolio holdings and sell these securities directly rather than relying on exchange liquidity.

Both the potential liquidity and pricing transparency benefits of ETFs were clearly demonstrated during the COVID-induced market volatility in Spring 2020.<sup>16</sup> As bond and treasury markets became more volatile, investors flocked to bond and Treasury ETFs for liquidity. During the late February to March period of that year, average daily trading volumes in all U.S. bond and treasury ETFs more than tripled. Further, as more investors turned to bond and treasury ETFs, they became indicators of real-time prices.

With respect to MMFs as collateral, we recommend reconsidering certain eligibility criteria, such as restrictions on securities lending, securities borrowing, repurchase agreements, and reverse repurchase agreements. As outlined in the CFTC's Global Markets Advisory Committee (GMAC) 2020 recommendations, these restrictions severely reduce the number of MMFs that qualify as eligible collateral.<sup>17</sup> Absent the ability to post MMFs as collateral, end-investors may be led instead to redeem their MMF investment; upon redemption the underlying assets would be liquidated, which could contribute to market instability. We agree with the GMAC's recommendations to eliminate these restrictions.

Lastly, as mentioned previously, most CCPs have clearing member-level limits on collateral types (e.g., no more than X% of equity collateral as IM) that serve to protect the CCP from having to sell a large amount of a security that could move the market price beyond the haircut value. While we support the theory behind these limits, they can restrict the eligibility of certain collateral types at the end-investor level. Consideration should be given to loosening these restrictions at the customer account level in a way that preserves the intent of the limits, while giving the end-investor additional flexibility in margin selection.

be for CCPs to publish regularly, in a centralized location, an expected stressed IM multiplier that asset managers can incorporate into liquidity risk management processes. Further discussion amongst CCPs, market participants, and regulators is needed to ensure enhancements to transparency are structured effectively and meaningfully.

## Lessons from the uncleared derivatives market

The uncleared market is working relatively well, therefore we believe the cleared market should be the priority focus of regulators. BCBS-CPMI-IOSCO acknowledged in their report that in contrast to cleared markets, “IM requirements on non-centrally cleared products remained relatively stable during the stress period...This is likely to be an intended consequence of the conservative design of the Standard Initial Margin Model (SIMM).”<sup>12</sup> Indeed, SIMM

was designed to incentivize clearing and is therefore inherently more conservative (and expensive) than a CCP’s model. While we do not advocate that CCP models be replaced by or aligned with SIMM, SIMM’s behavior is consistent with our view that if CCP models had been more conservative at the outset, the 2020 moves in IM would have been more muted.

We would note that, absent regulatory requirements, it is not standard market practice to subject real money funds (i.e., investors who fund investments at their full value) to IM requirements for uncleared derivatives. Where regulatory requirements compel the posting of IM (which will expand under the continued global implementation of the uncleared margin rules), the industry standard margin models, such as the SIMM provide the market with the necessary tools to plan for changes in margin levels.<sup>13</sup>

## “A Path Forward for CCP Resilience, Recovery, and Resolution” Key Recommendations

Principle	Recommendations
<p><b>Resilience</b> Resiliency incorporates safeguards to avoid a potential CCP failure. A strong risk management framework should keep the CCP viable in extreme but plausible market conditions.</p>	<ul style="list-style-type: none"> <li>• Make improvements to CCPs’ IM model assumptions and transparency of models.</li> <li>• Size the default fund to a minimum “Cover 2” standard.</li> <li>• Increase CCP contributions to the default waterfall to meaningful levels of skin-in-the-game.</li> <li>• Require effective and credible default management processes.</li> <li>• Limit clearing to liquid products.</li> <li>• Enhance governance practices to obtain and address input from a broader array of market participants on relevant risk issues.</li> <li>• Publish meaningful, standardized and audited disclosures on CCP risk methodologies, back testing, and stress testing.</li> <li>• Apply rigorous governance and clear limits to emergency powers.</li> <li>• Require CCPs to be responsible for non-default losses, supported by appropriately sized regulatory capital requirements.</li> </ul>
<p><b>Recovery</b> Recovery consists of rules written by the CCPs that allocates losses so that the CCP stays in business, even if resiliency fails. Ensures continuity of service for critical CCPs.</p>	<p>Include in CCP default waterfalls:</p> <ul style="list-style-type: none"> <li>• Pre-defined assessment right capped at one times each clearing member’s default fund contribution.</li> <li>• A second tranche of pre-funded CCP resources after clearing member assessments.</li> <li>• Provisions to allow for additional, voluntary CCP capital.</li> <li>• A clearing member ballot to determine if sufficient market support is available to allow the CCP to call for an additional assessment.</li> <li>• Limited use of variation margin gains haircutting (VMGH) and partial tear-ups (PTUs).</li> <li>• Residual CCP capital that is available as a last resort to absorb outstanding losses.</li> <li>• Compensation for losses incurred through post-ballot assessments, VMGH, or PTUs.</li> </ul>
<p><b>Resolution</b> Resolution is the orderly wind down of the CCP in the event recovery cannot be achieved.</p>	<p>Recommend resolution authorities:</p> <ul style="list-style-type: none"> <li>• Require CCPs to set aside ex ante resources for recapitalization.</li> <li>• Conduct regular reviews of CCP rulebooks.</li> <li>• Form cross-border crisis management groups to develop and test resolution playbooks.</li> <li>• Work with CCPs to provide transparency on resolution plans.</li> </ul>

## CCP Resilience, Recovery, and Resolution

Margining practices are a key component to the clearing ecosystem and improvements to these practices will improve market efficiency and resiliency. However, to enhance financial stability more significantly, we encourage policymakers to look holistically at CCP risk improvements. While the shift to central clearing has reduced counterparty credit risk, it has also centralized credit and operational risk in a small number of CCPs, exposing the global financial system to potentially significant points of failure.

BlackRock joined a group of 19 other buy-side and sell-side firms to publish a white paper, identifying issues that regulators and CCPs should consider and made recommendations to address issues related to CCP resilience, recovery, and resolution.<sup>18</sup> The table above shows a summary of the paper's key recommendations.

It is important to note that CCPs' structures have evolved from mutualized ownership to for-profit publicly listed companies, whose objective of creating value for shareholders may create a misalignment of incentives that can lead to unduly emphasizing shareholder returns over bolstering the safety and soundness of CCPs as a provider of critical market infrastructure. Hence, regulatory involvement is needed to establish accountability and baseline standards of care.

Market participants and CCPs have convened in several forums to discuss perspectives and potential reforms. Most recently, the Commodity Futures Trading Commission's (CFTC) Market Risk Advisory Committee (MRAC) established a CCP Risk & Governance Subcommittee, tasked with providing reports and recommendations regarding issues impacting CCP risk management and governance. The Subcommittee produced reports regarding margin methodologies, governance, stress testing and liquidity, and capital and skin-in-the-game.<sup>19</sup> The reports were the result of significant discussion and debate amongst Subcommittee members and represented a meaningful first step toward reform. However, there were many areas of disagreement between CCPs and market participants that could not be resolved, which is reflected in the reports. Such disagreements should be carefully reviewed by the regulatory community, as they may represent impasses that could be resolved through targeted intervention. Importantly, despite meaningful discussions, the Subcommittee was unable to agree on any recommendations on the topic of disclosure and transparency and did not produce a paper on the topic.<sup>20</sup> Continued industry discussion is warranted, however the

process of producing the CCP Risk & Governance Subcommittee papers shows that regulatory intervention may be needed in some areas.

The EU has made progress on these issues through its CCP Recovery & Resolution framework, which was recently agreed after several years of discussion and debate. There are several important technical details outstanding that will require further work by ESMA throughout 2022 so that the full benefit of the framework for end-investors can be realised. One such element is to work out how end-investors would be protected in the event a CCP fails and calls upon the end-investor's variation margin to restore the CCP. Another area is to determine the scope of non-default losses for which the CCP ought to be responsible. This sits alongside very important technical specifications to ensure the European CCP recovery and resolution framework is operational and balances the interests of systemic stability and the users of CCPs, who are ultimately end-investors. BlackRock will contribute toward this work to ensure the voice of end-investors is represented and considered.

## Conclusion

The shift to central clearing following the Global Financial Crisis significantly enhanced financial stability. CCPs ultimately provide the market and regulators with improved transparency and reduced counterparty credit risk. However, it is important to recognize that risk is not eliminated completely.

As demonstrated during the COVID-19 market volatility in 2020, markets are interconnected, with CCPs playing a central role in the market ecosystem. CCPs increased IM requirements at a time when liquidity was already constrained, further exacerbating the liquidity squeeze across assets. Given the core function of CCPs and their global interconnectedness, it is critically important to ensure their stability, as well as protect the market participants that rely upon their services.

Margin is a core component of risk management, as well as CCP resiliency, and improvements to CCP IM models and increased transparency will benefit the market. While adjustments to margin models will likely result in higher margin requirements during ordinary market conditions, such enhancements should provide the market with more stability during periods of market stress.

In addition to reforms to margining practices, broader improvements to CCPs' resiliency and recovery and resolution processes will provide greater certainty for market participants, particularly in times of stress. These properly aligned incentives for risk management, together with reduced liquidity risks, should significantly improve global financial stability.

# Endnotes

1. Clearing members are global banks that acts as guarantor and payment agent for all trades concluded at the spot market and steps between the transactions of CCP and non-clearing member to be contractual counterparty for both on the derivatives market
2. BCBS-CPMI-IOSCO Consultative Report, "[Review of Margining Practices](#)," October 2021
3. Speech by Sir Jon Cunliffe, Bank of England Deputy Governor, Financial Stability, "[Learning from the Dash for Cash – Findings and Next Steps for Margining Practices](#)" Keynote Address at the FIA & SIFMA Asset Management Derivatives Forum 2022, February 2, 2022. Additionally, Financial Stability Oversight Council (FSOC) [Annual Report](#), 2021.
4. Joint industry white paper, "[A Path Forward for CCP Resilience, Recovery, and Resolution](#)," March 10, 2020
5. Committee on Payment and Settlement Systems, Technical Committee of IOSCO, "[Principles for Financial Market Infrastructures](#)," April 2012 and 2017 additional guidance. Unless otherwise stated, the term PFMI will be used to refer to both the original 2012 publication and the 2017 additional guidance.
6. BCBS-CPMI-IOSCO [Consultative Report](#), Section 3.2, "CCP models," page 23
7. BCBS-CPMI-IOSCO [Consultative Report](#), Section 2.2, "Initial Margin," page 13
8. [PFMIs](#), Margin Requirements, Section 3.6.3., page 50
9. BCBS-CPMI-IOSCO noted in its [report](#) that CCPs reported a number of choices – MPOR for ETD varied from 1 to 5 days, while MPOR for cash equities varied from 2 to 10 days.
10. We support the recommendations regarding margin offsets and add-ons in FIA's paper, "[Revisiting Procyclicality: The Impact of the COVID Crisis on CCP Margin requirements](#)," October 2020
11. BCBS-CPMI-IOSCO Consultative Report, "[Review of Margining Practices](#)," October 2021
12. BCBS-CPMI-IOSCO [Consultative Report](#), Executive Summary, page 2
13. Most BlackRock-managed portfolios are not required to post IM under bilateral trading agreements, consistent with the SIMM approach. For those BlackRock funds that are required to post IM for uncleared derivatives to our counterparties, these clients generally post very little IM relative to variation margin.
14. We note that ESMA is currently considering eligible collateral and issued a consultation paper November 19, 2021, "[Report on highly liquid financial instruments with regards to the investment policy of central counterparties](#)"
15. See BlackRock comment letters to [CFTC](#) (December 23, 2019) and [Office of the Comptroller of the Currency, Federal Reserve, Federal Deposit Insurance Corporation, Farm Credit Administration, and Federal Housing Finance Agency](#) (December 9, 2019).
16. See "[Lessons from COVID-19: ETFs as a Source of Stability](#)," July 2020.
17. GMAC, "Recommendations to Improve Scoping and Implementation of Initial Margin Requirements for Non-Cleared Swaps," May 19, 2020
18. Joint industry white paper, "[A Path Forward for CCP Resilience, Recovery, and Resolution](#)," March 10, 2020
19. The governance and margin papers were presented during the [February 23, 2021 MRAC meeting](#) and the capital and skin-in-the-game and stress testing and liquidity papers were presented during the [July 13, 2021 MRAC meeting](#).
20. Noted in the minutes from the [July 13, 2021 MRAC meeting](#)

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