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Submitted Electronically

Financial Stability Board

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Re: Discussion Note: *Essential Aspects of CCP Resolution Planning*

The Futures Industry Association (FIA), the Global Financial Markets Association (GFMA), the Institute of International Finance (IIF), the International Swaps and Derivatives Association, Inc. (ISDA) and the Clearing House (TCH; and together with FIA, GFMA, IIF and ISDA, the Associations) welcome the Discussion Note on *Essential Aspects of CCP Resolution Planning* recently published by the Financial Stability Board (FSB). The role and significance of central counterparties (CCPs) has increased in recent years as over-the-counter (OTC) derivatives have moved to clearing. Effective resilience, recovery and resolution mechanisms for CCPs are now more than ever critical to the efficient operation, stability and sustainability of the global financial markets. The Associations support the Discussion Note as an important step towards addressing the financial disruption that could occur in the unlikely event that a CCP fails and welcome the opportunity to provide the following comments.

In many instances, if a CCP experiences distress, the Associations support a CCP-led recovery in accordance with a clear and transparent CCP rulebook.¹ However, we recognize that a CCP-led recovery should not continue if recovery measures would cause contagion in the market, negatively impact financial stability, increase moral hazard (*e.g.*, by promising to “bail out” owners of for-profit CCPs), irreversibly erode confidence in a CCP’s management or erode resources beyond the point at which a resolution authority could successfully intervene. Some

¹ See the “Recovery” section of the letter from the Associations to CPMI-IOSCO regarding Consultative Report: *Resilience and recovery of central counterparties (CCPs): Further guidance on the PFMI* (October 18, 2016) available at <http://www2.isda.org/functional-areas/risk-management/>.

members also believe that resolution authorities should consider commencing resolution proceedings before use of any loss allocation tools beyond the CCP's funded resources.

The Associations believe that CCP resolution regimes supplemented by viable strategies for a CCP's resolution are crucial and view the following as key principles to consider in developing CCP resolution regimes and strategies:

- Authorities should establish and clearly define, on an *ex ante* basis, objective conditions and considerations for when to commence a resolution of a CCP, as well as the strategies that they would use in such a resolution, to allow clearing participants² to risk manage their cleared portfolios.
- Commencement of resolution should not be automatic or presumed, allowing the possibility for a CCP-led recovery to continue in certain situations (provided that implementation of recovery measures is subject to regulatory supervision and oversight).³
- A careful consideration of all facts and circumstances at the time of a potential resolution is critical.
- Aside from statutory powers available to resolution authorities, the sequence of tools set forth in CCP rulebooks and publicly-disclosed resolution strategies should guide how loss allocation and position rebalancing proceeds in a CCP's resolution. Resolution strategies should also disclose how resolution authorities expect to use their applicable statutory power together with their enforcement of CCP rulebooks.
- CCP rulebooks should provide for senior debt claims to clearing participants who suffer losses from the exercise of variation margin gains haircutting (VMGH) or partial tear-ups (PTUs)⁴ in CCP recovery and/or resolution.
- CCPs are more than a market infrastructure or utility and they do themselves bring risk to the financial system. CCPs make decisions on a daily basis that impact their risk profiles, including introducing new products, setting membership criteria and establishing requirements for margin and default fund contributions. Accordingly, CCPs must contribute appropriate amounts of "skin-in-the-game" (SITG)⁵ to their default "waterfall," provide claims to clearing participants who suffer losses from the use of certain tools in recovery and/or resolution and ensure that their equity is not shielded from losses in resolution.

² As used herein, "clearing participants" refers to clearing members and their direct and indirect clients.

³ As an example that we discuss in greater detail herein, if it remains likely that a CCP could re-establish a matched book for all but a subset of illiquid, highly concentrated and/or outsized positions in the defaulting clearing member's (or clearing members') portfolio(s), it may be preferable for the CCP to exercise PTUs (under regulatory oversight and supervision, including to the extent possible under relevant law, oversight by a resolution authority) for such subset, without entering a resolution that would apply to a broader set of products.

⁴ We refer to VMGH and PTU because these are the tools that the Associations recommend if funded and unfunded resources are inadequate (in the case of VMGH) or if the CCP cannot return to a matched book through its default management process (in the case of PTU). However, in the event that different tools are utilized for these purposes, we believe that clearing participants suffering losses from the use of such other tools should also receive senior debt claims. We also note that, as discussed below, while some members support a limited amount of VMGH in recovery, other members do not support any VMGH outside of resolution.

⁵ See the "CCP Contribution to Losses" section of the letter from the Associations to CPMI-IOSCO regarding Consultative Report: *Resilience and recovery of central counterparties (CCPs): Further guidance on the PFMI* (October 18, 2016) available at <http://www2.isda.org/functional-areas/risk-management/>.

Separately, CCPs and their shareholders must be fully responsible for bearing non-default losses.⁶

- Relevant authorities should have the power to relax clearing mandates and capital requirements for cleared derivatives as necessary to facilitate orderly resolution of a CCP.

We elaborate on these principles below and make reference to them in our responses to the specific questions in the Discussion Note.

1. Default Losses – Tools Available Prior to and During Resolution

CCPs have the ability to apply funded resources to allocate losses in accordance with default “waterfalls” and, upon exhaustion of funded resources, also have capabilities to assess members for additional contributions, in each case, in accordance with their rulebooks.⁷ These funded and unfunded resources should be sized and stress-tested to cover losses during the default management process set forth in the CCP’s rulebook and clearing participants should have full transparency into the results of such sizing and stress testing.⁸ As part of these resources, the Associations maintain that CCPs should provide at least two tranches of SITG. The first tranche of SITG should be applied to cover losses before the CCP uses any funded or unfunded mutualized resources (other than those of the defaulting clearing member) and the second tranche should be applied to cover losses after assessments on clearing members.⁹ CCP SITG ensures that the CCP and its shareholders share in losses and therefore incentivizes them to engage in prudent risk management both prior to, and during, a stress event. A second tranche of CCP SITG further aligns the motivations of clearing participants on the one hand and the CCP and its shareholders on the other. Adequate resources at the CCP to cover the default management process and transparency into those resources would also incentivize meaningful clearing member participation in the default management process because clearing members would have confidence that the CCP could return to viability.

In the event that a CCP’s default management process, supported by funded and unfunded CCP resources, fails to return a CCP to a matched book and cover losses, the Associations support

⁶ One exception would be if a clearing member has an active right to direct specific investments of funds held by the CCP and the CCP does not profit from such investments. Under these circumstances, it would be appropriate for the clearing member to bear losses from such investments. For clarity, the right to allocate investments of assets generally is not an active right to direct specific investments and therefore would not trigger this exception.

⁷ We strongly support transparency and clarity in CCP rulebooks regarding the procedures CCPs would follow to effectuate these capabilities, both to allow clearing participants to manage their risks to CCPs and to incentivize meaningful participation in CCP default management processes.

⁸ See the “Stress Testing” section of the letter from the Associations to CPMI-IOSCO regarding Consultative Report: *Resilience and recovery of central counterparties (CCPs): Further guidance on the PFMI* (October 18, 2016) available at <http://www2.isda.org/functional-areas/risk-management/>.

⁹ See the “CCP Contribution to Losses” section of the letter from the Associations to CPMI-IOSCO regarding Consultative Report: *Resilience and recovery of central counterparties (CCPs): Further guidance on the PFMI* (October 18, 2016) available at <http://www2.isda.org/functional-areas/risk-management/>. For clarification, we do not envision that the second tranche of CCP SITG would result in the CCP exceeding appropriately-established “coverage” requirements. See the “Coverage” section of the letter from the Associations to CPMI-IOSCO regarding Consultative Report: *Resilience and recovery of central counterparties (CCPs): Further guidance on the PFMI* (October 18, 2016) available at <http://www2.isda.org/functional-areas/risk-management/> for additional explanation of this point.

utilization of the following tools in CCP resolution (as opposed to other tools contemplated by Appendix II-Annex 1 (the FMI Annex) to the FSB *Key Attributes of Effective Resolution Regimes for Financial Institutions*).¹⁰

- *Variation Margin Gains Haircutting*: If the CCP’s auction or similar mechanism to return it to a matched book continues to function but losses exceed funded and unfunded mutualized resources, VMGH is a loss allocation tool that can be applied to all clearing participants of the CCP. Some members believe VMGH is an effective and efficient loss allocation tool, as it distributes losses, and therefore risk, widely. These same members also believe that VMGH creates the right incentives by encouraging the subset of clearing participants with positions opposite the defaulting clearing member’s (or clearing members’) positions to close-out this risk. Other members believe that the use of VMGH could have knock-on effects in an already distressed market.¹¹ Many of these members support VMGH only after exhaustion of funded and unfunded mutualized resources, provided that it is administered by a resolution authority in resolution. Other members support a “modest”¹² use of VMGH in recovery and believe that a more significant use of VMGH would be more appropriate in resolution than recovery. Some members also maintain that VMGH should not be used until the CCP’s own resources have been exhausted, including any funding obligations or guarantees from the CCP’s parent.¹³ One member does not support any use of VMGH prior to, or in, resolution.
- *Partial Tear-Ups*: PTUs should be a last resort position allocation tool to re-establish a matched book upon failure of the CCP’s auction or similar mechanism to rebalance its book. We believe that PTUs should apply to the smallest portion of illiquid contracts possible but recognize that the scope of contracts may need to expand in certain circumstances and/or may be affected by concerns regarding financial stability. Any decisions regarding the scope of contracts to be torn up should be subject to strict governance procedures that are established and disclosed to clearing participants on an *ex ante* basis and account for the views of clearing participants whose positions could be torn up. The price for torn-up contracts should be as close to the fair market value of the contracts as possible so as not to negatively affect accounting or capital treatment for cleared transactions. We note that appropriate pricing may differ across product classes and urge the FSB and national regulators to work with CCPs and their clearing participants to establish appropriately consistent procedures and methodologies for pricing torn-up positions.

¹⁰ Please see our responses to questions 7 and 9 below for a discussion of tools that the Associations believe should not be utilized to allocate losses or rebalance a CCP’s book.

¹¹ These members believe that potential knock-on effects are particularly an issue if clearing members causing the four largest losses (assuming “Cover 2” plus one assessment), have already defaulted. See the “Coverage” section of the letter from the Associations to CPMI-IOSCO regarding Consultative Report: *Resilience and recovery of central counterparties (CCPs): Further guidance on the PFMI* (October 18, 2016) available at <http://www2.isda.org/functional-areas/risk-management/> for additional explanation of this point.

¹² These members support additional work to determine appropriate thresholds for what constitutes a “modest” use of VMGH.

¹³ We recognize that such obligations do not universally exist today but recommend that CCPs consider them as a further means to allocate losses.

- *Liquidity from Central Banks:* The Associations strongly support access to liquidity from central banks on standard market terms (including the requirement for high quality liquid collateral) as necessary to support CCP recovery and resolution.¹⁴ CCPs should be required to hold sufficient high quality liquid, central-bank eligible collateral to ensure that they would be able to access liquidity from central banks on these terms. We believe that requirements for the provision of high quality liquid collateral should mitigate any concerns about central bank access with respect to liquidity in resolution.¹⁵ Central bank access on standard market terms significantly enhances CCP resolution strategies without threatening financial stability or utilizing public money for recapitalization (which we agree should be explicitly prohibited).

As discussed in greater detail elsewhere in this letter, any clearing participants that suffer losses from VMGH or PTUs should receive compensation in the form of senior debt claims (either against the CCP or a parent company of the CCP).

It is crucial that CCP rulebooks provide clearing participants and the market with transparency and clarity regarding how VMGH and PTUs would be utilized from a technical perspective both to allow clearing participants to manage their risks to CCPs and to incentivize meaningful participation in the CCP default management processes. It is equally as important that resolution authorities publicly disclose CCP resolution strategies to provide transparency regarding expected application and sequencing of such tools in resolution. Without clarity regarding how tools would be utilized under various potential resolution scenarios, clearing participants may be incentivized to exercise “self-help” by entering transactions that minimize their exposures to the CCP. In doing so, clearing participants may enter into transactions that impede the ability of the CCP to return to a matched book.

It is also critical to note that VMGH and PTU serve two different purposes and are, therefore, not interchangeable. VMGH is a tool to source additional resources by allocating losses whereas PTU is a tool to return a CCP to a matched book upon failure of an auction or similar mechanism to return a CCP to a matched book. As discussed below, PTUs should be priced as close to fair market value as possible and, therefore, do not allocate losses. Similarly, VMGH would not return a CCP to a matched book if the CCP’s default management process fails. To the contrary, if the CCP’s auction process (or similar mechanism to rebalance its book) fails, the CCP may still have funded or unfunded mutualized resources that could be used alongside a limited amount of PTUs. On the other hand, the auction or similar mechanism may function beyond exhaustion of the CCP’s funded and unfunded mutualized resources. If this happens, either additional resources from the CCP or a parent of the CCP, or some form of further loss allocation among clearing participants, would be necessary to avoid using public money.

The Associations do not support initial margin haircutting (IMH) at any point in either recovery or resolution. We believe that IMH would have knock-on effects in an already distressed market,

¹⁴ To clarify, CCP access to central banks should be direct and should not require intermediation by clearing members or other banks with central bank access. Requiring intermediation by clearing members and other banks in a time of market stress would be procyclical, as such banks may be under liquidity strains as well.

¹⁵ See ISDA and TCH “Considerations for CCP Resolution” (May 2016) *available at* <http://www2.isda.org/news/clearing-members-analyze-the-resolution-of-central-counterparties-in-new-white-paper>.

is procyclical and could incentivize clearing members to close out of positions in order to reduce their initial margin requirements at the first sign of distress. This would likely cause further disruption in the market and could impede the CCP's recovery. IMH could also dis-incentivize participation in an auction, as clearing members may not want to bid on positions that would increase their initial margin requirements. Finally, the potential for IMH could incentivize clearing members to post non-cash collateral, which could cause undue liquidity constraints in a CCP's day-to-day operations and therefore require larger liquidity facilities and additional sources of liquidity in the ordinary course. Moreover, in the event of a clearing member default, non-defaulting clearing participants would likely substitute their cash collateral immediately, which would further exacerbate liquidity constraints during a period of stress. Additionally, if IMH is permitted in some jurisdictions, it could drive clearing participants to clear only through CCPs in jurisdictions that prohibit IMH. Finally, in many jurisdictions initial margin for uncleared derivatives must now be held with a third-party custodian to shield it from the insolvency of the receiving counterparty. Not providing the same degree of protection to initial margin for cleared derivatives could dis-incentivize central clearing, which would be contrary to stated objectives of the G-20. For these reasons, we strongly believe that clearing participants should always maintain a claim for the return of the full amount of their initial margin posted, without any haircuts or other risk of such claim being reduced.¹⁶

2. Default Losses – Commencement of CCP Resolution

The Associations fully concur with the conditions for CCP resolution set forth in Section 4.3 of the FMI Annex to the FSB *Key Attributes of Effective Resolution Regimes for Financial Institutions*, which are:

- Recovery measures available to the [CCP], including the use of its available assets and default resources and the application of any loss allocation rules, are exhausted and have failed to return the [CCP] to viability and continuing compliance with applicable legal and regulatory requirements, or are not being implemented in a timely manner; or
- The relevant oversight, supervisory or resolution authority determines that the recovery measures available to the [CCP] are not reasonably likely to return the [CCP] to viability within the timeframe required to enable continued compliance with applicable legal and regulatory requirements, or that they are otherwise likely to compromise financial stability.

Resolution regimes and strategies for CCP resolution should clearly define the point at which resolution could commence under various scenarios in order to provide market participants with clarity and certainty. If the resolution regime applicable to CCPs in a particular jurisdiction applies to entities other than CCPs, we urge resolution authorities in that jurisdiction to make publicly available more granular resolution strategies specifically for CCPs. These strategies should address, *inter alia*, specific criteria and considerations for triggering CCP resolution (within the confines of the applicable statutes) and the manner in which resolution tools would

¹⁶ We note that this is required by law in some jurisdictions.

be applied under various potential scenarios. We think it would be useful for these strategies to be in the form of resolution “playbooks” for particular CCPs.

The Discussion Note indicates that resolution authorities may decide to commence resolution before a CCP has utilized all tools in its rulebook because, for a resolution to be credible, it requires a quantum of resources sufficient to absorb losses as well as replenish the CCP’s financial resources. While some members support the foregoing, the Associations urge resolution authorities to carefully consider all the facts and circumstances at the relevant time and weigh potential benefits of intervening prior to the point at which financial stability could be threatened with the potential costs of such an intervention, including uncertainty for all market participants.

The Associations recommend that resolution regimes and/or publicly disclosed resolution strategies, as applicable, provide for a time at which a resolution authority may consider commencing resolution and the factors that the resolution authority would consider at that time. However, we believe that the resolution authority should have a significant amount of flexibility for recovery to continue if the resolution authority deems it appropriate from a systemic risk perspective and within applicable regulatory and resolution frameworks. More specifically, we believe that resolution authorities should have the authority to intervene once a CCP’s funded mutualized resources are exhausted but we do not think that resolution should be automatic at that point (or any time after that) if recovery could proceed within pre-determined limitations. For example, if it remains likely that a CCP could re-establish a matched book for all but a subset of illiquid, highly concentrated and/or outsized positions in the defaulting clearing member’s (or clearing members’) portfolio(s), it may be preferable for the CCP to exercise PTUs (subject to limitations) for such subset, without entering a resolution that would apply to a broader set of products.¹⁷ If recovery proceeds beyond utilization of funded resources and/or beyond the CCP’s auction or similar mechanism to rebalance its book, we believe that oversight by relevant authorities, including resolution authorities to the extent possible under relevant law, should be required.

If resolution commences prior to exhaustion of all tools in a CCP’s rulebook, we strongly recommend that the resolution authority apply the remaining default management processes and steps set forth in the CCP’s rulebook,¹⁸ as this would be consistent with the *ex ante* risk management decisions made by clearing participants prior to resolution. By applying this known framework, clearing participants would be better able to participate in the resolution process, as they would have planned for the steps to be taken and processes to be effectuated. Such certainty and predictability would go a long way in promoting financial stability in resolution. To further these objectives and therefore minimize market disruption, any potential deviations from the CCP’s rulebook should be clearly articulated in a publicly disclosed resolution “playbook.”

We anticipate that resolution authorities will need to act very expeditiously and may not have time to evaluate different potential courses of action. Therefore, we strongly support resolution

¹⁷ See response to questions 7 and 8 below regarding additional restrictions that we believe should apply to the exercise of PTUs.

¹⁸ We assume in this statement that the CCP rulebooks are amended consistent with our recommendations, including our recommendations with regard to senior claims for those who are affected by the exercise of VMGH and/or PTU.

regimes that give resolution authorities the power to step in immediately upon commencement of resolution and begin enforcing provisions of the CCP's rulebook. Additionally, advance planning for various potential scenarios will be crucial. In this regard, we also note that in some jurisdictions, a resolution authority may have to transfer the contracts cleared by the CCP to a bridge or other eligible transferee (assuming the CCP as opposed to a holding company of the CCP is in resolution) within limited stay periods in order to avoid exercise by clearing members of their rights to close-out their positions with the CCP.¹⁹ In relevant jurisdictions, the resolution authority must therefore put in place a clear and detailed plan so that it is able to rebalance the CCP's book (or, alternatively, ensure that the CCP enters resolution with a balanced book) and effectuate the transfer of the matched book to the bridge or other transferee within the limited stay period.²⁰ Some members believe that if a resolution authority is required to transfer a matched book away from a failed CCP within a limited stay period, but is unable to develop a credible plan for doing so, it should consider alternative resolution strategies, such as, potentially, resolution of a holding company of the CCP, which could address timing constraints associated with transfers.²¹

To facilitate the foregoing, CCPs should have in place processes and real-time risk management capabilities to capture, monitor and report records and conditions (including total exposures, specific large clearing member and client exposures, liquidity demands (*i.e.*, uses) and coverage (*i.e.*, sources), available cash by currency, composition of non-cash collateral and certain other aspects of the CCP's default management process). Such processes and capabilities would enable CCP management and relevant authorities (including resolution authorities) to assess the stress situation in real time.²²

¹⁹ For example, clearing members of a CCP subject to resolution under Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) in the United States would be prevented from exercising any close-out rights in respect of their contracts until the end of the business day following commencement of resolution, after which time they would be free to exercise close-out rights, unless they had received notice their contracts were being transferred to a bridge or other transferee.

²⁰ It is important to bear in mind that transfer of the CCP's book to a bridge or other transferee does not restore the CCP to a matched book or allocate losses (or otherwise address the risks that resulted in a failure of the CCP's default management process) and, thus, in a jurisdiction (such as the United States) where the resolution authority has to effect a transfer when entering at the CCP level, it would have to transfer an already rebalanced book to the bridge or other transferee. Transfer to a bridge of a book that has not been rebalanced would be wholly inconsistent with the concept of a bridge and any other transferee (*e.g.*, a third-party purchaser) would presumably have no interest in acquiring an unbalanced book. Additionally, a resolution strategy that contemplates the possibility of transferring an unbalanced book to a bridge or other transferee might raise an interpretive question that is potentially relevant to whether clearing members could net exposures to a CCP for capital and other purposes in some jurisdictions, including the United States. We strongly encourage the FSB and national regulators to consider netting and other capital implications of CCP resolution strategies in the context of current regulatory capital requirements for banks prior to implementing any such strategies.

²¹ If, however, the FDIC placed a holding company of a CCP into resolution under Title II, and the CCP's obligations under its contracts were guaranteed or otherwise supported by or linked to the holding company, such guaranty or other support and all related assets and liabilities would have to be transferred from the holding company to a bridge or other transferee within the limited stay period in order to avoid exercise by clearing members of any closeout rights under the CCP's closeout netting provisions, if such rights were triggered by the holding company's resolution (as opposed to the CCP's resolution).

²² We recognize that many CCPs have such capabilities in place today, at least with respect to their supervisors. However, we urge universal implementation of these capabilities with respect to all relevant authorities, including resolution authorities.

3. Claims for Clearing Participants Affected by the Application of Recovery and Resolution Tools

As noted above, CCP rulebooks should provide senior debt claims for clearing participants who suffer losses beyond the CCP's funded (*i.e.*, default fund) and unfunded (*i.e.*, capped assessments) default resources, in CCP recovery and resolution, including in connection with our recommended use of VMGH and PTU. Issuing senior debt claims would:

- Ensure that clearing participants suffering losses beyond their contribution to funded and unfunded mutualized resources are “creditors” for the amounts of such losses in resolution, irrespective of whether they incur such losses in recovery or resolution. In particular, clearing members must be creditors for these amounts in order to benefit from creditor protections in resolution such as “no creditor worse off” (NCWO).²³
- Mitigate moral hazards associated with allocating losses or positions among clearing participants and thereby protecting equity holders of for-profit CCPs.
- Incentivize CCPs to focus on resilience in order to avoid exhaustion of funded and unfunded default resources and subsequent use of tools that would entitle clearing participants to senior claims.
- Offer greater likelihood of repayment than equity in the CCP if recovery is successful and resolution does not commence.
- Facilitate a subsequent bail-in of all senior debt claimants on a *pari passu* basis for equity in order to wipe out existing shareholders in resolution.

As noted above, if resolution does not occur, the terms of these senior debt claims should require repayment from the CCP's earnings prior to any such earnings being distributed to shareholders or any existing debt holders that are affiliates of the CCP.²⁴ If recovery measures fail and resolution commences, then such claims should be paid prior to any distribution to the CCP's shareholders or could be exchanged or bailed in for debt or equity in the successor or resolved CCP, in accordance with the hierarchy of claims under the relevant resolution regime. This would ensure structural subordination of existing shareholders.²⁵ It is crucial that the holders of the senior debt claims have recourse beyond the defaulting clearing member's estate. Senior debt claims for losses due to VMGH are relatively simple to value and should be valued as the amount by which variation margin gains were haircut. However, the value of such senior debt claims for PTUs is less straightforward. We believe that the claims should follow the

²³ As discussed in greater detail below, under current CCP rulebooks, clearing members would be creditors in resolution only for the return of their initial margin and, if they are in-the-money vis-à-vis the CCP, the net amount by which they were in the money to the extent that the CCP's resources covered such amounts. Limited recourse provisions in existing CCP rulebooks limit the amount of a clearing member's claims to the amount of resources held by the CCP or the relevant silo of the CCP.

²⁴ We recognize that additional work is necessary to establish precisely where such senior debt claims should fall within the creditor hierarchy. Among other things, liquidity providers to the CCP may ultimately find themselves with claims against the CCP and the ranking of such claims deserves careful consideration, as it should not hinder a CCP's ability to source liquidity in a time of stress.

²⁵ In addition to wiping out existing shareholders, we believe that a resolution authority should have the power to replace the existing board of directors and senior management.

calculations typically used in the uncleared derivatives markets and therefore the value of claims should generally be based on the cost to clearing participants' of re-establishing their torn-up positions. We believe that more work needs to be done in determining the appropriate price for torn-up positions.

As noted above, many view compensation in the form of senior debt claims upon the use of VMGH and PTU as essential to align the interests of a CCP's shareholders with those of its clearing participants. In this regard, we note that the availability of such compensation would have implications for the CCP's solvency in a time of distress and could impact a CCP's decisions regarding which products to clear and how to structure its default management process. Some members believe that such compensation may also impact incentives for clearing participants to bid in auctions. Accordingly, we believe that when structuring the terms of compensation (including type, amount, priority, repayment terms and maturity of any claims), careful consideration should be given to resulting incentives for both a CCP's shareholders and its clearing participants. We also believe that additional work is necessary to determine which entity (the CCP or a holding company of the CCP) should issue the senior debt claims. This determination will likely depend in part on the resolution strategy for a particular CCP and the CCP's existing corporate structure.

4. CCP Resolution for Non-Default Losses

As a general matter, we support additional work to analyze potential non-default losses (*e.g.*, losses from custodial, investment, credit, liquidity,²⁶ market, operational, legal, general business and cyber risks) and the effect that they could have on the viability of CCPs. However, at this time the Associations do strongly believe that only the CCP's management is able to control and mitigate the CCP's exposure to non-default losses. Therefore, we believe that non-default losses should accrue to the ultimate equity holders of the CCP.²⁷ If CCPs and their shareholders bear the risk of non-default losses, they will be properly incentivized to exercise prudent risk management and focus on CCP resilience.

Some members believe that if clearing participants were to bear non-default losses in certain situations, they could be incentivized to post non-cash collateral (to the extent permitted), which would be more difficult to use in covering non-default losses and therefore could increase the likelihood of liquidity shortfalls for a CCP in distress. Many members believe that CCP regulatory capital should be right-sized to cover credit, liquidity, market, operational, legal, general business and cyber risks and that CCPs should bear the burden of demonstrating to their regulators and clearing participants that their capital covers these risks. Other members believe that CCPs should hold dedicated reserves (that are not funded by clearing participants) outside of regulatory capital for this same purpose. In absolutely no event should initial margin be

²⁶ Liquidity risk could be associated with default losses and/or non-default losses. In the context of non-default losses, liquidity risk includes, *e.g.*, the risk that a liquidity provider defaults and the CCP experiences liquidity stresses that are unrelated to a clearing member default.

²⁷ One exception would be if a clearing member has an active right to direct specific investments of funds held by the CCP and the CCP does not profit from such investments. Under these circumstances, it would be appropriate for the clearing member to bear losses from such investments. For clarity, the right to allocate investments of assets generally is not an active right to direct specific investments and therefore would not trigger this exception.

available to cover any losses, including non-default losses. In the unlikely event that regulatory capital (or, as some members prefer, a separate right-sized quantum of dedicated reserves to cover non-default losses) does not cover non-default losses, additional losses should be covered exclusively by any additional CCP equity and/or a parent company of the CCP (as opposed to loss allocation measures imposed on clearing participants). In order to ensure the foregoing and also create the right incentives for the CCP and its management, CCP rulebooks should unambiguously indicate that default “waterfalls” do not apply to non-default losses.

In the event that non-default losses cause the CCP to enter into resolution, we realize that clearing participants would be creditors for any amounts the CCP owes them and may therefore bear losses. In light of this, we believe it is critical that non-recourse provisions do not shield CCP shareholders from non-default losses as such losses should not be passed along to clearing participants in the creditor hierarchy until all equity has been wiped out.²⁸ To ensure that shareholders bear non-default losses, it is also important that any intercompany debt owing to a CCP’s parent is junior to claims for non-default losses.

Currently clearing participants do not have adequate transparency regarding how CCPs measure and manage the potential for non-default losses or how CCPs would handle such losses in recovery or resolution. As discussed above for default losses, we believe it is critical for publicly available resolution strategies to address treatment of non-default losses completely separately from treatment of default losses.

If a CCP suffers both a default loss and a non-default loss (because, *e.g.*, a clearing member that is also a settlement bank or custodial bank for the CCP defaults), the portion of the losses that are attributable as non-default losses should not be treated the same as default losses. That is, the CCP’s default “waterfall” should not cover these non-default losses. Among other scenarios, CCP resolution strategies should therefore contemplate simultaneous management of default losses and non-default losses. We believe that more work is necessary to analyze these different scenarios.

Specific Responses to Questions

Q1. Does this discussion note identify the relevant aspects of CCP resolution that are core to the design of effective resolution strategies? What other aspects, if any should authorities address?

The Discussion Note identifies many of the significant aspects of CCP resolution. We suggest that future FSB work in this area also cover:

- *Coordination between recovery rules and resolution.* Coordination among applicable regulators and resolution authorities is essential to ensure that recovery rules are not

²⁸ Please see our response to question 15 below for additional discussion of issues associated with non-recourse provisions. Please also note that one large U.S. bank continues to support limited recourse clearing.

structured in a way that is contrary to the objectives of resolution.²⁹ For example, recovery rules should not have limited recourse provisions that protect shareholder equity from loss allocation in recovery or resolution. Additionally, recovery tools should not extinguish losses incurred by clearing participants but instead, as discussed elsewhere in this letter, clearing participants should receive senior debt claims that ensure priority over shareholders.

- *Rights to claims.* The rights of clearing participants suffering losses from the use of loss allocation tools utilized after exhaustion of funded (*i.e.*, default fund) and unfunded (*i.e.*, capped assessments) mutualized resources, and position allocation tools (which we believe should be PTUs) utilized upon the failure of the CCP's auction (or similar mechanism to rebalance its book), to senior debt claims and the details of such claims, as discussed elsewhere in this letter.
- *Beginning of resolution.* Articulation of what should occur during the first approximately two business days of a CCP resolution. We anticipate that resolution authorities will need to act very expeditiously during this period in order to restore market confidence, and therefore may not have time to evaluate different potential courses of action. Therefore, advance planning for various potential scenarios will be crucial. Among other things, such planning should cover steps that must be taken to ensure that clearing participants do not have the right to close-out their positions with the CCP during a limited-stay period and coordination with relevant authorities, including market regulators as well as domestic foreign regulators of clearing participants. Resolution authorities should assume that they may have to restore the CCP to a matched book and resume normal operations on a stable platform with fully replenished default fund resources, CCP SITG and regulatory capital, all within a limited stay period.
- *Joint fire-drills.* Joint resolution-related fire-drills across multiple CCPs and among CCPs and other market participants including settlement banks, custodians, liquidity providers, investment counterparties and other financial market infrastructures.
- *Concurrent default and non-default losses.* Instances in which a CCP suffers both default and non-default losses. As noted above, we strongly believe that the portion of such losses that are attributable as non-default losses should not be treated the same as default losses and, in particular, should not be covered by the CCP's default "waterfall."
- *Statutory resolution frameworks.* Availability of statutory resolution frameworks for CCPs that provide resolution authorities with a broad set of rights, powers and privileges and contain protections (including a NCWO safeguard) applicable to the use of such rights, power and privileges. Among other things, regardless of whether the relevant resolution regime contemplates transfer to a bridge or other transferee, or resolution within the same entity, statutory resolution regimes should provide resolution authorities with:

²⁹ Note objective (iii) in the preamble to the FSB *Key Attributes of Effective Resolution Regimes for Financial Institutions* (the Key Attributes) and paragraph 5.1 of the Key Attributes.

- The power to enforce the CCP’s rulebook;
 - The ability to ensure that a successor or resolved CCP has temporary licences and is otherwise authorized to continue operations without interruption;
 - The power to effectuate transfers of the CCP’s assets and liabilities without consents;
 - The ability to obtain financing in the name of a successor or resolved CCP;
 - The ability to administer a claims process;
 - The power to replace a CCP’s board and senior management;
 - The power to subordinate inter-company debt owed by a CCP to any parent holding companies to claims of clearing participants;
 - The power to write-down or bail-in debt and equity of the CCP and any parent holding companies; and
 - The power to stay temporarily litigation against the CCP.
- *CCP structures.* Consideration of structuring alternatives, including but not limited to the establishment of “dedicated” intermediate holding companies that would wholly-own the CCP. The primary purposes of these intermediate holding companies (which would be established in the same jurisdiction as the CCP to avoid cross-border issues) would be to facilitate resolution (as resolution authorities would enter at the intermediate holding company).³⁰ Under potential resolution strategies for CCPs, some members believe that these intermediate holding companies could also serve as a “pre-positioning” vehicle by holding high-quality liquid assets in an amount equal to regulatory capital plus the CCP’s SITG, which would be contributed down to the CCP to effectuate the recapitalization discussed below in response to question 4 immediately prior to the resolution authority placing the intermediate holding company into resolution. Analysis of structural issues should also address issues related to structural subordination that exists between CCPs and their parent holding companies and any effects that such structural subordination could have on resolution strategies. Any structuring alternatives should be considered on a CCP-by-CCP basis and must take into account all aspects of applicable regulatory regimes.
 - *Impact on netting and clearing participant capital.* The impact of CCP resolution on clearing participants’ ability to net their exposures to a CCP for regulatory capital and other purposes. We strongly believe that CCP resolution regimes and strategies should not impede clearing participants’ ability to net exposures for their cleared transactions or require clearing participants to hold additional capital and that resolution authorities should always consider whether their actions would implicate these issues for clearing participants.³¹

³⁰ Members who support intermediate holding companies for these purposes believe that they could address some of the issues (which are described above) associated with requirements to transfer contracts within a limited stay period.

³¹ A resolution strategy that contemplates the possibility of transferring an unbalanced book to a bridge or other transferee raise an interpretive question that is potentially relevant to whether clearing members could net exposures to a CCP for capital and other purposes in some jurisdictions, including the United States. We strongly encourage the FSB and national regulators to consider netting and other capital implications of CCP resolution strategies in the context of current regulatory capital requirements for banks prior to implementing any such strategies.

- *Cross-border coordination.* Cross-border coordination in the event of a CCP resolution, including but not limited to measures to ensure that resolution tools would apply in a cross-border context. This is particularly important for any tools that are not contained in a CCP’s rulebook (and are therefore not part of the CCP’s contract with its clearing members).
- *Clearing member resolution.* Coordination with resolution authorities for clearing members to further reduce the likelihood of that a clearing member would default to a CCP.

Q2. What is the impact on incentives of the different aspects of resolution outlined in this note for CCP stakeholders to support recovery and resolution processes and participate in central clearing in general? Are there other potential effects that have not been considered?

Incentives play a critical role in determining how various stakeholders act prior to and during recovery and resolution. We strongly believe that clearing participants currently have the proper incentives to support CCP resilience, recovery and resolution, as the failure of the CCP in an already stressed market would make it difficult, if not impossible, for clearing participants to maintain their portfolios of cleared transactions, which could result in additional losses to the clearing participants.

The potential for usage of default fund contributions and subsequent assessments incentivizes clearing members to participate in the CCP’s default management process. Additionally, the potential for PTUs upon the failure of a default management process further incentivizes clearing participants to participate in such default management process to avoid having their positions torn up. Any PTUs in a stressed market may likely be akin to failure of the CCP if clearing participants cannot replace torn-up positions. As a result of the foregoing, we strongly disagree with any notions that clearing participants would “rig” an auction or other mechanism to rebalance a CCP’s portfolio.³² Separately, some members believe that VMGH creates the right incentives by encouraging the subset of clearing participants with positions opposite the defaulting clearing member’s (or clearing members’) positions to close-out this risk.

However, we believe that incentives for CCPs and their shareholders to support CCP resilience, recovery and resolution may not be properly aligned with those of clearing participants. Currently, as a result of non-recourse provisions in CCP rulebooks, clearing participants would bear losses before CCP shareholders upon a stress event at the CCP, a result that we view as problematic. This shield from potential losses effectively dis-incentivizes CCPs from prudently addressing risks prior to and in a CCP resolution. As discussed above, we believe that CCPs should provide two tranches of SITG in the default “waterfall” to better align their potential losses with those of clearing members.³³ Many CCPs currently do not disclose how they will

³² It is also important to note that such actions would be illegal.

³³ See the “CCP Contribution to Losses” section of the letter from the Associations to CPMI-IOSCO regarding Consultative Report: *Resilience and recovery of central counterparties (CCPs): Further guidance on the PFMI* (October 18, 2016) available at <http://www2.isda.org/functional-areas/risk-management/>.

cover non-default losses. As discussed elsewhere in this letter, we believe that in order to create the right incentives for the CCP, its shareholders and its management, CCP rulebooks should unambiguously indicate that default “waterfalls” do not apply to non-default losses. We also believe that CCP equity and potentially funds from the CCP parent should be available to cover both default and non-default losses.

Finally, as discussed in greater detail elsewhere in this letter, any clearing participants that suffer losses from VMGH or PTUs should receive compensation in the form of senior debt claims (either against the CCP or a parent company of the CCP).

Q3. What are the appropriate factors for determining timing of entry into resolution? How might a presumptive timing of entry (or range of timing), if any, be defined in light of the criteria set out in the FMI Annex to the *Key Attributes*? If defined, should the presumptive timing of entry be communicated to the CCP and its participants?

The Associations fully concur with the conditions for CCP resolution set forth in Section 4.3 of the FMI Annex to the FSB *Key Attributes of Effective Resolution Regimes for Financial Institutions*, which are:

- Recovery measures available to the [CCP], including the use of its available assets and default resources and the application of any loss allocation rules, are exhausted and have failed to return the [CCP] to viability and continuing compliance with applicable legal and regulatory requirements, or are not being implemented in a timely manner; or
- The relevant oversight, supervisory or resolution authority determines that the recovery measures available to the [CCP] are not reasonably likely to return the [CCP] to viability within the timeframe required to enable continued compliance with applicable legal and regulatory requirements, or that they are otherwise likely to compromise financial stability.

The Discussion Note indicates that resolution authorities may decide to commence resolution before a CCP has utilized all tools in its rulebook because, for a resolution to be credible, it requires a quantum of resources sufficient to absorb losses as well as replenish the CCP’s financial resources. The Associations urge resolution authorities to carefully weigh the potential benefits of such an intervention prior to the point at which financial stability is threatened against the potential costs, including uncertainty for clearing participants and all market participants.

The Associations recommend that resolution regimes and/or publicly disclosed resolution strategies, as applicable, indicate a time at which resolution could commence but provide flexibility for recovery to continue beyond that time. More specifically, we believe that resolution authorities should be able to intervene once a CCP’s funded resources are exhausted but we do not think that resolution should be automatic at that point if recovery could proceed within pre-determined limitations and subject to applicable regulatory and resolution regimes.³⁴

³⁴ As an example that we discuss in greater detail herein, if it remains likely that a CCP could re-establish a matched book for all but a subset of illiquid, highly concentrated and/or outsized positions in the defaulting clearing member’s (or clearing members’) portfolio(s), it may be preferable for the CCP to exercise PTUs (under regulatory

In the event that resolution does not commence prior to assessments on clearing members, we believe that subsequent recovery measures exercised by the CCP should be subject to supervision and oversight by applicable regulators and, to the extent possible under applicable law, the resolution authority. During the time after exhaustion of pre-funded resources, resolution authorities should consider the following factors when determining whether a CCP-led recovery should proceed:

- Is the stress at the CCP impacting orderly trading in the market?
- Is the CCP able to macro-hedge its exposure?
- What are the costs to establish such hedges?
- Are clearing participants transacting in the market in ways that impede the CCP's recovery?
- Are clearing participants voluntarily withdrawing (indicating erosion of confidence in the CCP)?
- Are regulators in foreign jurisdictions cooperating with the CCP's home country supervisors and resolution authority?
- Is the CCP's default management process proceeding in a timely manner?
- What will a resolution authority be able to do and what it will have to do (*e.g.*, transfer contracts or equity to a bridge or successor entity) on an expedited basis upon commencement of resolution?
- Are clearing members able to make required contributions without jeopardizing their own viability?
- Is the CCP balance sheet insolvent?
- Is there a credible private sector solution to resolution if recovery fails?
- What would be the impact of subsequent liquidation under applicable general insolvency laws?

As noted above, disclosure of when resolution could commence and the criteria that resolution authorities would use to determine whether resolution should commence is crucial to clearing participants. This is even more important if the resolution regime applicable to CCPs in a particular jurisdiction applies to entities other than CCPs. We urge resolution authorities in these jurisdictions to make public specific criteria and considerations for triggering CCP resolution (within the confines of the applicable statutes).

Q4. Should CCPs be required to hold any additional pre-funded resources for resolution, or otherwise adopt measures to ensure that there are sufficient resources committed or reserved for resolution? If yes, what form should they take and how should they be funded?

We note that regulators are reviewing adequacy of CCP resources as part of ongoing work on CCP resilience and recovery. We urge regulators and CCPs to continue this analysis and believe

oversight and supervision, including to the extent possible under relevant law, oversight by a resolution authority) for such subset, without entering a resolution that would apply to a broader set of products.

that CCP resolution planning should anticipate and account for adequate resources in “extreme but plausible” situations upon completion of this work.³⁵

We also agree with the concerns articulated in paragraph 4.9 of the Discussion Note regarding the balance between the need to have sufficient and credible resources to carry out a resolution and the impact on central clearing of the cost of such resources. As a result of these concerns, if regulators determine that pre-funded resources are required as an absolute back-stop for resolution, they should not be funded by clearing participants.

Many members do not believe that additional pre-funded resources will be necessary to cover default or non-default losses if the ongoing work to review the adequacy of CCP resources mentioned above results in capital requirements for CCPs that are right-sized to cover potential risks (or, as some members prefer, a separate right-sized quantum of dedicated reserves to cover non-default losses) and appropriate levels of CCP SITG.³⁶ Members believe that under these circumstances, any exhaustion of funded and unfunded resources would *de facto* be beyond an extreme but plausible circumstance and that it would not be appropriate from an economic perspective to pre-fund in anticipation of such a circumstance.

Some members also do not believe that pre-funded resources should be required for any purpose at all, including recapitalization of a successor or resolved CCP. On the other hand, other members believe that in order to address the potential need for resources to facilitate immediate recapitalization of the successor or resolved CCP and replenishment of its SITG contributions in resolution, CCPs should be required to pre-position, or otherwise demonstrate that they have reliable access to, an amount equal to SITG plus right-sized regulatory capital requirements from sources other than clearing participants.³⁷ These pre-positioned or otherwise available amounts would be *in addition to the* actual regulatory capital³⁸ that a CCP is required to hold in the ordinary course.³⁹ These resources should not be used to further allocate any remaining losses but should be preserved for recapitalization of the post-resolution CCP’s clearing services, in addition to amounts paid in by clearing members to replenish their default fund obligations.

Importantly, in the event that such resources are not pre-positioned, resolution strategies should clearly articulate an alternative credible plan for timely recapitalization and replenishment of CCP SITG and contemplate any related issues that could arise at the relevant point in time.

³⁵ See the “CCP Coverage” section of the letter from the Associations to CPMI-IOSCO regarding Consultative Report: *Resilience and recovery of central counterparties (CCPs): Further guidance on the PFMI* (October 18, 2016) available at <http://www2.isda.org/functional-areas/risk-management/>.

³⁶ See the “CCP Contribution to Losses” section of the letter from the Associations to CPMI-IOSCO regarding Consultative Report: *Resilience and recovery of central counterparties (CCPs): Further guidance on the PFMI* (October 18, 2016) available at <http://www2.isda.org/functional-areas/risk-management/>.

³⁷ Some members believe that any such pre-positioning requirements should apply to CCP regulatory capital requirements only. They believe that it is not crucial for a CCP to replenish its SITG immediately in order to continue operations.

³⁸ Many members believe that CCP regulatory capital should be right-sized to cover credit, liquidity, market, operational, legal, general business and cyber risks and that CCPs should bear the burden of demonstrating to their regulators and clearing participants that their capital covers these risks. Other members believe that CCPs should hold dedicated reserves outside of regulatory capital for this same purpose.

³⁹ Of the members who support such requirements, some believe that CCPs should hold resources at a central bank to mitigate investment and depository risk.

Q5. How should the appropriate quantum of any additional CCP resources be determined? In sizing the appropriate quantum, what factors and considerations should be taken into account? Do your answers vary for default and non-default losses?

Many members believe that regulatory capital requirements for CCPs should be sized to cover non-default losses. Other members believe that CCPs should hold dedicated reserves (that are not funded by clearing participants) outside of regulatory capital for this same purpose. We believe that additional work to model non-default losses is crucial in order to establish more robust, right-sized capital requirements for CCPs (which many members support) or, alternatively, to determine the quantum of dedicated reserves outside of regulatory capital that CCPs should hold to cover non-default losses.

As noted in the response to question 4, some members believe that CCPs should be required to pre-position or otherwise demonstrate that they have reliable access to an amount equal to its SITG plus right-sized regulatory capital from sources other than clearing participants. In the case of both default and non-default losses, these amounts would be reserved exclusively for recapitalization of a successor or resolved CCP.

Q6. Should resolution funds external to the CCP be relied upon? If so, how should such funding arrangements be structured so as to minimise the risk of moral hazard, including for CCPs with significant cross-border participation? Where these are pre-funded, how should the target size be determined and which entities should be required to contribute?

If funds external to the CCP are relied upon to cover any losses or replenish resources in resolution, we do not think that clearing participants should be required to contribute to them.⁴⁰ As noted above, we agree with the concerns in paragraphs 4.8 and 4.9 of the Discussion Note regarding potential costs to clearing participants of prefunded resources, which would be in excess of existing costs of clearing. We believe that additional work is necessary to determine the potential extent of these costs.

Q7. What factors should the resolution authority consider in choosing and exercising tools to return the CCP to a matched book? Is one (or more) of the tools for restoring a matched book preferable over others and if so, why?

If a CCP is in resolution due to one or more clearing member defaults, it is likely that the CCP's default management process failed to return the CCP to a matched book in recovery. However, if for some reason resolution commences prior to completion of the default management process (*e.g.*, because resolution was necessary to maintain financial stability), the resolution authority should have the power to continue the default management process in accordance with the CCP's rulebook provided that the CCP has access to funded resources and/or assessments.

⁴⁰ We realize that if resolution strategies contemplate a resolved CCP that is owned by "bailed in" clearing members, such clearing members may be required to provide funding in their capacity as owners. However, in this situation, these clearing members could chose to either provide such funding or sell their ownership. We view this as different than a requirement for clearing participants to provide undefined amounts of funding to the CCP.

In the event that the CCP's auction or similar mechanism to rebalance its book fails prior to resolution or in resolution, we support the use of PTUs to return a CCP to a matched book (as opposed to other tools contemplated by the FMI Annex to the FSB *Key Attributes of Effective Resolution Regimes for Financial Institutions*). In particular, we oppose forced allocation as a means of returning a CCP to a matched book. Forced allocation requires clearing members to take on positions that they may not be suited to risk manage in extreme market conditions. In the context of a resolution, resolution authorities should exercise PTUs in accordance with clear and transparent procedures set forth in CCP rulebooks on an *ex ante* basis. PTUs should apply to the smallest portion of illiquid contracts possible, with recognition that the scope of contracts may need to expand in certain circumstances and/or may be affected by concerns regarding financial stability.⁴¹ Governance procedures that are established and disclosed in CCP rulebooks, and that account for the views of clearing participants whose positions could be torn up, should continue to apply to decisions regarding the scope of contracts to be torn up in resolution.

The price for torn-up contracts should be as close to fair market value as possible⁴² so as not to negatively impact accounting or capital treatment for cleared transactions. We note that appropriate pricing may differ across product classes and urge the FSB and national regulators to work with CCPs and their clearing participants to establish globally-appropriate procedures for pricing torn-up positions on an *ex ante* basis.

As noted above, any clearing participants that suffer losses from PTUs should receive senior debt claims equal to the replacement value of their contracts. Without debt claims, these clearing participants would not be "creditors" with respect to such amounts and therefore would not be entitled to protections such as NCWO. In addition, many resolution regimes contain so-called "anti-cherry picking" requirements that require resolution authorities to treat all financial contracts in a netting set or, in some instances, all financial contracts with a counterparty and the counterparty's affiliates, in the same manner. For example, the resolution authority must either affirm all such contracts or reject all such contracts. Under these regimes, a resolution authority could not tear up some contracts in a relevant set without tearing up all contracts. And if the resolution authority tore up all contracts, the affected parties would be entitled to claims. Notwithstanding the foregoing, a resolution authority could exercise PTUs in resolution by enforcing the relevant provisions of a CCP's rulebook. If it does this, the result to certain clearing participants would be the same as if the resolution authority had violated anti-cherry picking requirements. While we accept this outcome and recognize it as potentially necessary to return a CCP to a matched book in extreme situations, we strongly believe that affected clearing participants should receive senior debt claims as compensation for losses they are required to incur in reestablishing their torn-up positions. Without these claims, these clearing participants would effectively be deprived of the fundamental protections set forth in resolution regimes.

⁴¹ However, we note that for accounting purposes, it is necessary that offsetting contracts be widely held and terminated on a *pro rata* basis.

⁴² It is also important to price PTUs as close to fair market value as possible to reflect the fact that PTUs are not a loss allocation tool.

Q8. Should any tools for restoring a matched book only be exercisable by resolution authorities? If so, which tools and subject to what conditions?

As noted above in response to question 3, we generally believe that any use of PTUs for more than a limited set of relatively illiquid contracts would raise questions regarding the viability of the CCP and therefore may indicate that resolution is more appropriate than continued recovery.

Q9. What are in your view effective tools for allocating default and non-default losses and what are the pros and cons of these tools? Should initial margin haircutting be considered as a tool for the allocation of losses in resolution? Is one or more of the tools preferable over others? What are your views on the use of tools to restore a matched book as a means of loss allocation?

Default Losses. If default losses exceed funded and unfunded mutualized resources, VMGH can be applied to all clearing participants of the CCP. Some members believe VMGH is an effective and efficient loss allocation tool, as it distributes losses, and therefore risk, widely. These same members also believe that VMGH creates the right incentives by encouraging the subset of clearing participants with positions opposite the defaulting clearing member's (or clearing members') positions to close-out this risk. Other members believe that the use of VMGH could have knock-on effects in an already distressed market.⁴³ Many of these members support VMGH only after exhaustion of funded and unfunded mutualized resources, provided that it is administered by a resolution authority in resolution. Other members support a "modest"⁴⁴ use of VMGH in recovery and believe that a more significant use of VMGH would be more appropriate in resolution than recovery. Some members also maintain that VMGH should not be used until the CCP's own resources have been exhausted, including any funding obligations or guarantees from the CCP's parent. One member does not support any use of VMGH prior to, or in, resolution.

As noted above, any clearing participants that suffer losses from VMGH should receive senior debt claims. Without debt claims, these clearing participants would not be "creditors" with respect to such amounts and therefore would not be entitled to protections such as NCWO. In addition, typically if a resolution authority fails to make a payment in full, the affected party would be entitled to claims. And if the resolution authority fails to make a payment on financial contracts, many resolution regimes allow counterparties to such contracts to exercise default rights. Notwithstanding the foregoing, a resolution authority could exercise VMGH in resolution by enforcing the relevant provisions of a CCP's rulebook. If it does this, the result to certain clearing participants could be the same as if the resolution authority had taken statutory actions that entitle affected parties to rights. While we accept this outcome and recognize it as potentially necessary to allocate default losses in extreme situations, we strongly believe that

⁴³ These members believe that potential knock-on effects are particularly an issue if clearing members causing the four largest losses (assuming "Cover 2" plus one assessment), have already defaulted. See the "Coverage" section of the letter from the Associations to CPMI-IOSCO regarding Consultative Report: *Resilience and recovery of central counterparties (CCPs): Further guidance on the PFMI* (October 18, 2016) available at <http://www2.isda.org/functional-areas/risk-management/> for additional explanation of this point.

⁴⁴ These members support additional work to determine appropriate thresholds for what constitutes a "modest" use of VMGH.

affected clearing participants should receive senior debt claims as compensation for losses they incur from the use of VMGH. Without these claims, these clearing participants would effectively be deprived of basic protections set forth in resolution regimes.

We do not support IMH at any point in recovery or resolution. We believe that IMH would have knock-on effects in an already distressed market, is procyclical in that clearing participants would have to replenish haircut margin at the worst possible time (*i.e.*, in a severely distressed market). IMH could also incentivize clearing members to close out of positions in order to reduce their initial margin requirements at the first sign of distress. This would likely cause further disruption in the market and could impede the CCP's recovery. IMH could also disincentivize participation in the CCP's default management process, as clearing members may not want to bid on positions that would increase their initial margin requirements. Finally, the potential for IMH could incentivize clearing members to post non-cash collateral, which could cause undue liquidity constraints in a CCP's day-to-day operations and therefore require larger liquidity facilities and additional sources of liquidity in the ordinary course. Moreover, in the event of a clearing member default, non-defaulting clearing participants would likely substitute their cash collateral immediately, which would further exacerbate liquidity constraints during a period of stress. Additionally, if IMH is permitted in some jurisdictions, it could drive clearing participants to clear only through CCPs in jurisdictions that prohibit IMH. Finally, in many jurisdictions initial margin for uncleared derivatives must now be held with a third-party custodian to shield it from the insolvency of the receiving counterparty. Not providing the same degree of protection to initial margin for cleared derivatives could disincentivize central clearing, which would be contrary to stated objectives of the G-20. For these reasons, we strongly believe that clearing participants should always maintain a claim for the return of the full amount of their initial margin posted, without any haircuts or other risk of such claim being reduced.⁴⁵

Non-default losses. The Associations believe that only the CCP's management is able to control and mitigate the CCP's exposure to non-default losses (*e.g.*, losses from custodial, investment, credit, liquidity,⁴⁶ market, operational, legal, general business and cyber risks). Therefore, we believe that non-default losses should accrue to the ultimate equity holders of the CCP.⁴⁷ If CCPs and their shareholders bear the risk of non-default losses, they will be properly incentivized to exercise prudent risk management and focus on CCP resilience.

Some members believe that if clearing participants were to bear non-default losses in certain situations, they could be incentivized to post non-cash collateral (to the extent permitted), which would be more difficult to use in covering non-default losses and therefore could increase the likelihood of liquidity shortfalls for a CCP in distress. Many members believe that CCP

⁴⁵ We note that this is required by law in some jurisdictions.

⁴⁶ Liquidity risk could be associated with default losses and/or non-default losses. In the context of non-default losses, liquidity risk includes, *e.g.*, the risk that a liquidity provider defaults and the CCP experiences liquidity stresses that are unrelated to a clearing member default.

⁴⁷ One exception would be if a clearing member has an active right to direct specific investments of funds held by the CCP and the CCP does not profit from such investments. Under these circumstances, it would be appropriate for the clearing member to bear losses from such investments. For clarity, the right to allocate investments of assets generally is not an active right to direct specific investments and therefore would not trigger this exception.

regulatory capital should be right-sized to cover credit, liquidity, market, operational, legal, general business and cyber risks and that CCPs should bear the burden of demonstrating to their regulators and clearing participants that their capital covers these risks. Other members believe that CCPs should hold dedicated reserves (that are not funded by clearing participants) outside of regulatory capital for this same purpose. In absolutely no event should initial margin be available to cover any losses, including non-default losses. In the unlikely event that regulatory capital (or, as some members prefer, a separate right-sized quantum of dedicated reserves to cover non-default losses) does not cover non-default losses, additional losses should be covered exclusively by any additional CCP equity and/or a parent company of the CCP (as opposed to loss allocation measures imposed on clearing participants). In order to ensure the foregoing and also create the right incentives for the CCP and its management, CCP rulebooks should unambiguously indicate that default “waterfalls” do not apply to non-default losses.

In the event that non-default losses cause the CCP to enter into resolution, we realize that clearing participants would be creditors for any amounts the CCP owes them and may therefore bear losses. In light of this, we believe it is critical that non-recourse provisions do not shield CCP shareholders from non-default losses as such losses should not be passed along to clearing participants in the creditor hierarchy until all equity has been wiped out.⁴⁸ To ensure that shareholders bear non-default losses, it is also important that any intercompany debt owing to a CCP’s parent is junior to claims for non-default losses.

Q10. Which, if any, loss allocation tools should be reserved for use by the resolution authority (rather than for application by a CCP in recovery)?

As noted above in response to question 3, some members believe that VMGH should only be used in resolution. Other members support a “modest”⁴⁹ use of VMGH in recovery, subject to regulatory oversight and supervision (including by a resolution authority to the extent possible under applicable law), but believe that a more significant use of VMGH would be more appropriate in resolution than recovery. Members who support VMGH prior to resolution do not believe that CCPs should be able to utilize it for an indefinite period of time.⁵⁰ In these situations, it is likely that losses are substantial and unpredicted.

Q11. How much flexibility regarding the allocation of losses is needed to enable resolution authorities to minimise risks to financial stability? For example, to what extent should a resolution authority be permitted to deviate from the principle of pari passu treatment of creditors within the same class, notably different clearing members in resolution? What would be the implications of a resolution strategy based primarily or solely on a fixed order of loss allocation in resolution set out in CCP rules vs. a resolution strategy that confers discretion to the resolution authority to allocate losses in resolution differently to CCP rules?

As a driving principle, we think that flexibility afforded to resolution authorities should be minimized and limited to circumstances in which it is absolutely necessary to ensure a successful

⁴⁸ One large U.S. bank continues to support limited recourse clearing.

⁴⁹ We support additional work to determine appropriate thresholds for what constitutes a “modest” use of VMGH.

⁵⁰ We support additional work to determine an appropriate length for application of VMGH.

resolution. In particular, we view deviation from the principle of *pari passu* treatment of creditors within the same class as an extreme measure that should be carefully scrutinized and used only in very narrow circumstances.⁵¹ For example, PTUs in accordance with clear and transparent rulebook provisions, including governance procedures that account for the views of clearing participants whose positions could be torn up, may be an acceptable deviation from *pari passu* treatment of all clearing participants. As discussed above, those members who support VMGH believe that it should apply to all clearing participants. Application of VMGH is a situation in which we do not support deviation from *pari passu* treatment of clearing participants under any circumstances.⁵²

Outside of the foregoing, we generally do not support even a limited deviation from the *pari passu* treatment of clearing participants. For other creditors in the same class, we believe that any deviation from *pari passu* treatment should be absolutely limited to circumstances in which it is necessary to maintain financial stability, maximize the value of the assets of the CCP in resolution, minimize losses or initiate and continue operations essential to the viability of the resolved or successor CCP.⁵³ Any such deviations must also be subject to NCWO protections. Even in these limited circumstances and subject to applicable protections for creditors, we believe that resolution authorities should carefully consider any disparate treatment of creditors and exercise relevant powers judiciously. It is also crucial that publicly-disclosed resolution strategies clearly contemplate any potential deviation from the *pari passu* treatment of creditors.

Additionally, we note that resolution authorities and other relevant regulators must account for any segregation requirements and other regulatory protections applicable to any classes of clearing participants or other creditors. It is very important to consider whether any resolution strategies that would treat any subset of creditors differently comply with applicable regulatory requirements and protections.

With regard to deviation from a CCP's rulebook, as noted above, if resolution commences prior to exhaustion of all tools in the applicable rulebook, we strongly recommend that the resolution authority apply the remaining default management processes and steps set forth in the CCP's rulebook,⁵⁴ as this would be consistent with the *ex ante* risk management decisions made by clearing participants prior to resolution. By applying this known framework, the clearing participants' risk management plans would better enable them to participate in the resolution

⁵¹ One member has very strong concerns about any deviation from the *pari passu* treatment of all clearing participants and believes that more work should be done to determine if any such deviations would actually be appropriate in CCP resolution.

⁵² Some members believe that a benefit of VMGH is that it distributes losses, and therefore risk, widely. Application of VMGH to less than all clearing participants would erode that benefit.

⁵³ We note that paragraph 5.1 of the FSB *Key Attributes of Effective Resolution Regimes for Financial Institutions* provides that resolution powers should be exercised in a way that respects the hierarchy of claims while providing flexibility to depart from the general principle of equal (*pari passu*) treatment of creditors of the same class, with transparency about the reasons for such departures, if necessary to contain the potential systemic impact of a firm's failure or to maximize the value for the benefit of all creditors as a whole. In particular, equity should absorb losses first, and no loss should be imposed on senior debt holders until subordinated debt (including all regulatory capital instruments) has been written-off entirely (whether or not that loss-absorption through write-down is accompanied by conversion to equity).

⁵⁴ We assume in this statement that the CCP rulebooks are amended consistent with our recommendations, including our recommendations with regard to senior claims for those who are affected by the exercise of VMGH and/or PTU.

process, as they would have planned for the steps to be taken and processes to be effectuated. Such certainty and predictability would go a long way in promoting financial stability in resolution. To further these objectives and therefore minimize market disruption, any potential deviations from the CCP's rulebook should be clearly articulated on an *ex ante* basis in publicly disclosed resolution strategies. Publicly disclosed resolution strategies should also clearly disclose any statutory tools outside of the applicable CCP's rulebook that the resolution authority contemplates utilizing under various articulated scenarios. In addition, any deviations should be subject to NCWO protections.

Q12. What are your views on the potential benefits or drawbacks of requiring CCPs to set out in their rules for both default and non-default losses:

- (i) The preferred approach of the resolution authority to allocating losses;**
- (ii) An option for, or ways in which, the resolution authorities might vary the timing or order of application of the loss allocation tools set out in the rules?**

Aside from the statutory powers available to resolution authorities, we believe that the sequence of tools set forth in CCP rulebooks and publicly-disclosed resolution strategies should determine how CCP resolution proceeds. While we strongly support adherence to the sequence of tools in a CCP's rulebook, we recognize that resolution authorities may need flexibility to respond to different circumstances in resolution. If this is the case, we believe that publicly-disclosed resolution strategies should clearly articulate and limit what a resolution authority may do in various different scenarios. Resolution strategies should also cover how resolution authorities expect to use their applicable statutory power together with enforcement of CCP rulebooks and application of the NCWO safeguard.

It is also critical to note that VMGH and PTU serve two different purposes and are, therefore, not interchangeable. VMGH is a tool to source additional resources by allocating losses whereas PTU is a tool to rebalance a CCP upon failure of an auction or similar mechanism to return a CCP to a matched book. As discussed below, PTUs should be priced as close as possible to fair market value and, therefore, do not allocate losses. Similarly, VMGH would not return a CCP to a matched book if the CCP's default management process fails. To the contrary, if the CCP's auction process (or similar mechanism to rebalance its book) fails, the CCP may still have funded or unfunded mutualized resources that could be used alongside a limited amount of PTUs. On the other hand, the auction or similar mechanism may function beyond exhaustion of the CCP's funded and unfunded mutualized resources. If this happens, either additional resources from the CCP or a parent of the CCP, or some form of loss allocation, would be necessary.

Q13. How should non-default losses be allocated in resolution, and should allocation of non-default losses be written into the rules of the CCP?

As a general matter, we support additional work to analyze potential non-default losses (*e.g.*, losses from custodial, investment, credit, liquidity,⁵⁵ market, operational, legal, general business

⁵⁵ Liquidity risk could be associated with default losses and/or non-default losses. In the context of non-default losses, liquidity risk includes, *e.g.*, the risk that a liquidity provider defaults and the CCP experiences liquidity stresses that are unrelated to a clearing member default.

and cyber risks) and the effect that they could have on the viability of CCPs. However, at this time the Associations do strongly believe that only the CCP's management is able to control and mitigate the CCP's exposure to non-default losses. Therefore, we believe that non-default losses should accrue to the ultimate equity holders of the CCP.⁵⁶ If CCPs and their shareholders bear the risk of non-default losses, they will be properly incentivized to exercise prudent risk management and focus on CCP resilience.

Consistent with the foregoing, we generally support paragraph 7.2 of the Discussion Note, which provides that, consistent with the PFMI, CCPs should hold adequate capital against the risks of non-default losses. Many members believe that CCP regulatory capital should be right-sized to cover credit, liquidity, market, operational, legal, general business and cyber risks and that CCPs should bear the burden of demonstrating to their regulators and clearing participants that their capital covers these risks. Other members believe that CCPs should hold dedicated reserves (that are not funded by clearing participants) outside of regulatory capital for this same purpose. In absolutely no event should initial margin be available to cover any losses, including non-default losses. Some members believe that if clearing participants were to bear non-default losses in certain situations, they would be incentivized to post non-cash collateral that would be more difficult to use in covered non-default losses, which could increase the likelihood of liquidity shortfalls for a CCP in distress (unless the CCP caps the amount of non-cash collateral it will accept).

In the unlikely event that regulatory capital (or, as some members prefer, a separate right-sized quantum of dedicated reserves to cover non-default losses) does not cover non-default losses, additional losses should be covered exclusively by any additional CCP equity and/or a parent company of the CCP (as opposed to loss allocation measures imposed on clearing participants). In order to ensure the foregoing and also create the right incentives for the CCP, its shareholders and its management, CCP rulebooks should unambiguously indicate that default "waterfalls" do not apply to non-default losses.

In the event that non-default losses cause the CCP to enter into resolution, we realize that clearing participants would be creditors for any amounts the CCP owes them and may therefore bear losses. In light of this, we believe it is critical that non-recourse provisions do not shield CCP shareholders from non-default losses as such losses should not be passed along to clearing participants in the creditor hierarchy until all equity has been wiped out.⁵⁷ To ensure that shareholders bear non-default losses, it is also important that any intercompany debt owing to a CCP's parent is junior to claims for non-default losses.

We agree with the statement in paragraph 7.3 of the Discussion Note providing that an assessment of whether the CCP meets the applicable conditions for entry into resolution will depend on the ability to quantify the actual or expected losses to which the CCP is subject and an assessment of the likelihood that other actions available to the CCP would restore a breach, or

⁵⁶ One exception would be if a clearing member has an active right to direct specific investments of funds held by the CCP and the CCP does not profit from such investments. Under these circumstances, it would be appropriate for the clearing member to bear losses from such investments. For clarity, the right to allocate investments of assets generally is not an active right to direct specific investments and therefore would not trigger this exception.

⁵⁷ One large U.S. bank continues to support limited recourse clearing.

likely breach of the minimum regulatory requirements necessary for the CCP to continue. We support additional work to ensure that regulators, including resolution authorities, have access to such information on an *ex ante* basis and clear plans regarding how to analyze it in a stress event. Currently clearing participants do not have adequate transparency regarding how CCPs measure and manage the potential for non-default losses or how CCPs would handle such losses in recovery or resolution. As discussed above for default losses, we believe it is critical for publicly available resolution strategies to address treatment of non-default losses completely separately from treatment of default losses.

If a CCP suffers both a default loss and a non-default loss (because, *e.g.*, a clearing member that is also a settlement bank or custodial bank for the CCP defaults), the portion of the losses that are attributable as non-default losses should not be treated the same as default losses. That is, the CCP's default "waterfall" should not cover these non-default losses. Among other scenarios, CCP resolution strategies should therefore contemplate simultaneous management of default losses and non-default losses. We believe that more work is necessary to analyze these different scenarios.

Q14. Aside from loss allocation, are there other aspects in which resolution in non-default scenarios should differ from member default scenarios?

Non-default losses are more likely to erode market confidence in a CCP's management. Therefore, it is even more crucial that the resolution authority have the power to replace the existing board of directors and terminate existing senior management.

Q15. What is the appropriate NCWO counterfactual for a resolution scenario involving default losses? Is it the allocation of losses according to the CCP's rules and tear-up of all the contracts in the affected clearing service(s) or liquidation in insolvency at the time of entry into resolution, or another counterfactual? What assumptions, for example as to timing and pricing or the re-establishment of the CCP's matched book, will need to be made to determine the losses under the counterfactual?

We believe that the appropriate NCWO counterfactual is liquidation under the CCP's rulebook upon commencement of resolution. However, we do not believe that the counterfactual should try to account for, or make assumptions regarding, unexercised provisions of the CCP's rulebook. To do so could require assumptions that are contrary to prevailing market conditions. For example, if an auction or similar mechanism to return a CCP to a matched book failed, it would be extremely difficult, if not impossible, to accurately calculate what would have happened if the default management process played out and re-established a matched book at the CCP. Notwithstanding the foregoing, as noted above, we believe that a resolution authority should have the power to enforce unexercised provisions of the CCP's rulebook without violating NCWO.

In addition to the foregoing, it is extremely important to note that currently, clearing participants will not be creditors of the CCP entitled to NCWO protection except with respect to a return of their initial margin and, subject to non-recourse provisions, any net amounts that the CCP owes them, which is concerning. Non-recourse provisions at CCPs today generally restrict clearing

participants' recoveries to a limited amount of financial resources allocated to a particular clearing service of the CCP. If these resources are exhausted prior to payment in full of clearing participants' claims against the CCP, the unpaid portions of such claims are extinguished. Thus, limited recourse provisions in effect represent an agreement between a CCP and its clearing participants that the clearing participants will not be creditors of the CCP to the extent their claims are extinguished. For these amounts clearing participants are therefore subordinated not only to the CCP's other general unsecured creditors (which may include the CCP's parent or other affiliates that hold inter-company debt issued by the CCP), but also to the CCP's shareholders. Without a more meaningful status as creditors, NCWO does not protect clearing participants in the way that it protects other creditors of the CCP or creditors of other types of financial entities that could be in resolution.

To address these issues and ensure that clearing participants are general unsecured creditors for the full amount of any losses they incur as a result of CCP recovery and resolution and rank ahead of CCP shareholders, we believe that national regulators should require CCPs to (1) remove non-recourse provisions from their rulebooks (subject to certain exceptions for product silos provided that assets of a parent company are available to clearing participants in the affected silo)⁵⁸ and (2) provide senior debt claims to clearing participants that suffer losses from the application of loss allocation tools utilized after exhaustion of funded (*i.e.*, default fund) and unfunded (*i.e.*, capped assessments) mutualized resources and position allocation tools utilized upon the failure of the CCP's auction (or similar mechanism to rebalance its book). As noted above, absent resolution, these senior debt claims would be paid from future earnings of the CCP. In resolution, they could be bailed in for debt or equity as part of a recapitalization. In these situations, clearing participants would benefit from NCWO protection because they would be entitled to receive as much for their claims as they would have received for such claims in a liquidation of the CCP.

Without taking the steps outlined above to limit non-recourse provisions in CCP rulebooks and provide senior debt claims to clearing participants that suffer losses from VMGH and PTUs, clearing participants would be entitled to significantly less protection in resolution than other creditors of the CCP and it would be difficult to wipe out existing shareholders.

Q16. What is the appropriate NCWO counterfactual for a resolution scenario involving non- default losses? Is it the liquidation of the CCP under the applicable insolvency regime, assuming the prior application of any relevant loss allocation arrangements for non-default losses that exist under the CCP's rules or another counterfactual?

For non-default losses, we believe that the appropriate NCWO counterfactual is liquidation under the applicable insolvency regime at the time of resolution.

⁵⁸ One large U.S. bank continues to support limited recourse clearing and therefore does not support compensation claims structured as described herein. This large U.S. bank does, however, support additional work to determine if compensation could be structured in a way that is consistent with non-recourse clearing.

Q17. How should the counterfactual be determined in cases that involve both default losses and non-default losses?

We also believe that the appropriate NCWO counterfactual in these situations is liquidation under the applicable insolvency regime at the time of resolution. Among other things, this ensures that non-default losses could not be covered by resources in the CCP's default "waterfall."

Q18. Should CCP owners' equity be written down fully beyond the committed layer of capital irrespective of whether caused by default or non-default events?

Yes, we believe that shareholders of a CCP should be completely wiped out in a resolution.

Q19. Should new equity or other instruments of ownership be awarded to those clearing participants and other creditors who absorb losses in resolution?

As noted above, we strongly believe that CCP rulebooks should provide senior debt claims for clearing participants who suffer losses beyond the CCP's funded (*i.e.*, default fund) and unfunded default resources (*i.e.*, capped assessments), in CCP recovery and resolution. Under our recommendations for CCP resolution tools, such losses would be from VMGH and PTUs. Issuing senior debt claims as compensation for VMGH and PTU losses would:

- Ensure that clearing participants suffering losses beyond their contribution to funded and unfunded mutualized resources are "creditors" for the amounts of such losses in resolution, irrespective of whether they incur such losses in recovery or resolution. In particular, clearing members must be creditors for these amounts in order to benefit from creditor protections in resolution such as "no creditor worse off" (NCWO).⁵⁹
- Mitigate moral hazards associated with allocating losses or positions among clearing participants and thereby protecting equity holders of for-profit CCPs.
- Incentivize CCPs to focus on resilience in order to avoid exhaustion of funded and unfunded default resources and subsequent use of tools that would entitle clearing participants to senior claims.
- Offer greater likelihood of repayment than equity in the CCP if recovery is successful and resolution does not commence.
- Facilitate a subsequent bail-in of all senior debt claimants on a *pari passu* basis for equity in order to wipe out existing shareholders in resolution.

As noted above, if resolution does not occur, the terms of these senior debt claims should require repayment from the CCP's earnings prior to any such earnings being distributed to shareholders

⁵⁹ As discussed in greater detail below, under current CCP rulebooks, clearing members would be creditors in resolution only for the return of their initial margin and, if they are in-the-money vis-à-vis the CCP, the net amount by which they were in the money to the extent that the CCP's resources covered such amounts. Limited recourse provisions in existing CCP rulebooks limit the amount of a clearing member's claims to the amount of resources held by the CCP or the relevant silo of the CCP.

or any existing debt holders that are affiliates of the CCP.⁶⁰ If recovery measures fail and resolution commences, then such claims should be paid prior to any distribution to the CCP's shareholders or could be exchanged or bailed in for debt or equity in the successor or resolved CCP, in accordance with the hierarchy of claims under the relevant resolution regime. This would ensure structural subordination of existing shareholders.⁶¹ It is crucial that the holders of the senior debt claims have recourse beyond the defaulting clearing member's estate. Senior debt claims for losses due to VMGH are relatively simple to value and should be valued as the amount by which variation margin gains were haircut. However, the value of such senior debt claims for PTUs is less straightforward. We believe that the claims should follow the calculations typically used in the uncleared derivatives markets and therefore the value of claims should generally be based on the cost to clearing participants' of re-establishing their torn-up positions. We believe that more work needs to be done in determining the appropriate price for torn-up positions.

As noted above, many view compensation in the form of senior debt claims upon the use of VMGH and PTU as essential to align the interest of a CCP's shareholders with those of its clearing participants. In this regard, we note that the availability of such compensation would have implications for the CCP's solvency in a time of distress and could impact a CCP's decisions regarding which products to clear and how to structure its default management process. Some members believe that such compensation may also impact incentives for clearing participants to bid in auctions. Accordingly, we believe that when structuring the terms of compensation (including type, amount, priority, repayment terms and maturity of any claims), careful consideration should be given to resulting incentives for both a CCP's shareholders and its clearing participants. We also believe that additional work is necessary to determine which entity (the CCP or a holding company of the CCP) should issue the senior debt claims. This determination will likely depend in part on the resolution strategy for a particular CCP and the CCP's existing corporate structure.

Q20. What are your views on the suggested standing composition of CMGs? Should resolution authorities consider inviting additional authorities to the CMG on an ad-hoc basis where this may be appropriate?

We support the suggested standing composition of CMGs. We believe that any permanent or *ad hoc* additions should be based on:

- The need for a holistic understanding of all the consequences of the actions contemplated in CCP resolution, including by prudential regulators, market regulators and central banks, all of whom may have to take actions to support CCP resolution (*e.g.*, relaxation

⁶⁰ We recognize that additional work is necessary to establish precisely where such senior debt claims should fall within the creditor hierarchy. Among other things, liquidity providers to the CCP may ultimately find themselves with claims against the CCP and the ranking of such claims deserves careful consideration, as it should not hinder a CCP's ability to source liquidity in a time of stress.

⁶¹ In addition to wiping out existing shareholders, we believe that a resolution authority should have the power to replace the existing board of directors and senior management.

of capital requirements, suspension of clearing mandates, provision of liquidity on standard market terms).

- The cross-border nature of most systemically important CCPs, and thus the necessity for international participation.
- The need for rapid and effective decision making at the time of CCP resolution.

Q21. What should be the nature of engagement with authorities in jurisdictions where the CCP is considered systemically important, for the purpose of resolution planning and during resolution implementation?

We believe that authorities should have transparency into resolution strategies for these CCPs on an *ex ante* basis and should be in real-time communication with the CCP and the relevant supervisors and resolution authorities in the CCP's home jurisdiction if resolution is contemplated. In order to properly plan for and anticipate a CCP resolution, we also believe that that authorities in all relevant jurisdictions should have transparency into recovery plans for such CCPs, both on an *ex ante* basis and on a real-time basis in the event that the CCP exercises its recovery plans. Home resolution authorities should particularly plan and coordinate on an *ex ante* basis with any third-country authorities who may be required to make quick decisions in the event of a CCP resolution. Such coordination should limit the need for any time-consuming coordination upon commencement of resolution.

To facilitate the foregoing, as noted above, CCPs should have in place processes and real-time risk management capabilities to capture, monitor and report records and conditions (including total exposures, specific large clearing member and client exposures, liquidity demands (*i.e.*, uses) and coverage (*i.e.*, sources), available cash by currency, composition of non-cash collateral and certain other aspects of the CCP's default management process). Such processes and capabilities would enable CCP management and relevant authorities (including resolution authorities) to assess the stress situation in real time.⁶²

Q22. Should CCP resolution authorities be required to disclose basic information about their resolution strategies to enhance transparency and cross-border enforceability? If so, what types of information could be meaningfully disclosed without restricting the resolution authority's room for manoeuvre?

The Associations believe that regulators should disclose CCP resolution strategies to the maximum extent possible to clearing participants and other relevant regulators (both domestic and foreign). At a minimum, clearing members and any other clearing participants that are expected to support default management processes and/or bear losses should have full access to resolution strategies. We also support fire drills to enhance operational understanding of resolution strategies.

⁶² We recognize that many CCPs have such capabilities in place today, at least with respect to their supervisors. However, we urge universal implementation of these capabilities with respect to all relevant authorities, including resolution authorities.

Q23. Does this section of the note identify the relevant CCP-specific aspects of cross-border effectiveness of resolution actions? Which other aspects, if any, should also be considered?

The Associations support the considerations outlined in the Discussion Note, particularly with regard to ensuring cross-border enforceability of rulebook provisions, any other relevant resolution tools (including statutory tools) and the terms of relationships with custodians and other key counterparties.

Q24. What should be the role, if any, of the suspension of clearing mandates in a CCP resolution and how should this be executed in a cross-border context?

The Associations support the ability of all supervisory authorities to suspend their clearing mandates on an expedited basis (*i.e.*, within one day) in the event of distress at a CCP that is eligible to clear products covered by that mandate. This should apply regardless of whether the CCP is actually located in the jurisdiction of the relevant clearing mandate. We also think that clearing mandates for products covered by a CCP in resolution should be reviewed as a general matter on an *ex post* basis to determine if they are still appropriate under the applicable regulatory regime.

We very much appreciate your consideration of our comments. If we may provide further information, please do not hesitate to contact the undersigned or staff at any of the Associations. Specifically, as we have noted to the FSB recently, the Associations plan to continue working on the novel and complex issues related to CCP resolution. We look forward to responding to future FSB consultations on these issues and would also welcome the opportunity for further engagement with the FSB in the interim as we expect that we will have more to share in the coming months.



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