

**Response to the FSB Consultation Paper  
“Financial resources to support CCP resolution and the treatment of CCP equity in  
resolution”**

**MANAGEMENT SUMMARY**

The International Swaps and Derivatives Association (ISDA), The Futures Industry Association (FIA) and the Institute of International Finance (IIF), collectively the Associations, represent the largest number of participants in national and global clearing, banking and financial markets. The Associations appreciate this opportunity to comment on the consultation paper “Financial resources to support CCP resolution and the treatment of CCP equity in resolution”<sup>1</sup> (the consultation paper).

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

We would also like to refer to our response to Financial Stability Board (FSB)’s 2018 discussion paper on the same topic<sup>2</sup>, which was published in November 2018. The comments submitted by the Associations<sup>3</sup> in response to that discussion paper are still valid and form the basis for this response paper.

*General Comments*

***The consultation paper is another welcome step towards developing CCP resolution regimes***

We welcome the work the FSB have done with this consultation paper in seeking to provide more detailed guidance on CCP resolution which would advance financial stability. We support the focus on systemic risk and agree with the need to ensure taxpayers are not impacted. Resilience, recovery and resolution are closely interlinked and we are glad that the FSB has cooperated with the CPMI-IOSCO while writing this consultation paper. The FSB also rightly recognizes the interlinked nature of markets and the requirement for supervisors, including supervisors of clearing members and resolution authorities (RA) to work together. We support this cooperation and the work to be done by Crisis Management Groups (CMGs).

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<sup>1</sup> <https://www.fsb.org/wp-content/uploads/P151118-2.pdf>

<sup>2</sup> <https://www.fsb.org/wp-content/uploads/P151118-2.pdf>

<sup>3</sup> <https://www.isda.org/a/YrgME/FIA-IIF-ISDA-response-to-FSB-CCP-Equity-DP.pdf>

We also agree that the landscape is not static and support the requirement to conduct annual reviews of the assessment of CCP resources for those CCPs which might be systematically important in more than one jurisdiction.

We would however like to note that the guidance is not prescriptive enough. It requires a RA to consider various aspects, but does not require the RA to implement structures that for instance will achieve the objective of exposing CCP equity. As such the consultation paper does not go far enough and could lead to un-level playing fields across jurisdictions. This will shift the focus on how the guidance is implemented by authorities in individual jurisdictions. We therefore believe that a review of this guidance and how resolution regimes are implemented in individual jurisdictions is required sooner than the 5 year period currently proposed for a review.

### **Part I: Assessing the adequacy of financial resources to support CCP resolution**

#### ***The Associations support the five-step approach and more quantitative clarity***

We support the five-step approach and the helpful guidance on quantitative issues, especially for non-default losses (NDL). We would recommend including more guidance on quantitative issues for default losses or a combination of both default losses and NDL. We share the concern that resources and tools in the waterfall, recovery plan or resolution plans might not be available or may be unworkable if resolution tools have adverse secondary effects on financial stability in particular when incentives diverge. This needs to be taken into account in the assessment of CCP resources for resolution and ultimately in the resolution plans.

We welcome footnote 19 that states “an FMI needs to have sufficient liquid net assets funded by equity to implement its plan to recover from an extraordinary one-off loss or recurring losses from general business risk” as we believe that the current guidance in the CPMI-IOSCO Principles for Financial Markets Infrastructures (PFMI)<sup>4</sup> requiring CCP equity equal to six months of operational cost for wind-down is not sufficient.

#### ***The five-step process should be further developed into a CCP capital requirements framework***

While an approach for a retrospective review of CCP resources is very helpful and should be an important tool for RAs to determine adequacy of resources, we suggest expanding the guidance for quantifying losses in step 3 into a methodology for determining minimum capital requirements for CCPs.

CCPs should be capitalized in line with the risks they face. There also needs to be enhanced transparency on risks on the side of CCPs to ensure that risks for clearing members are transparent, predictable, and measurable.

This might not be in scope of this consultation paper or even for the FSB, but remains an important open issue in CCP regulation that international standard setters should address.

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<sup>4</sup> [www.bis.org/cpmi/publ/d101.htm](http://www.bis.org/cpmi/publ/d101.htm) and [www.iosco.org/library/pubdocs/pdf/IOSCOPD377-PFMI.pdf](http://www.iosco.org/library/pubdocs/pdf/IOSCOPD377-PFMI.pdf)

## **The need for increased transparency and testing of the resolution plans**

Predictability of resolution actions ensures that market participants will react to what the RA actually plans to do instead of each firm's projection of worst outcomes. We therefore propose that non-confidential parts of resolution plans are made public, or at least shared with market participants.

We agree with the requirement that RAs should coordinate with CCP regulators to review rulebooks on a regular basis. We believe RAs, in coordination and cooperation with CCP supervisors should test the resolution plans and playbooks regularly, including the interplay with the default management and recovery stages.

Even though difficult to achieve, we believe that consistency across jurisdictions in terms of default management, recovery tools, resolution processes and reporting on these would support financial stability and better enable resolution of a CCP. Such an approach would also be consistent with the FSB objective of avoiding regulatory fragmentation and would assist multinational clearing members, and end users, in more efficiently evaluating and managing their risk exposures.

## **Part II: Treatment of CCP equity in resolution**

We welcome the focus of the consultation paper on ways to expose CCP equity in resolution.

### ***Equity should be fully loss bearing in line with corporate finance principles***

The resolution objectives stated in the FSB *Key Attributes of Effective Resolution Regimes for Financial Institutions*<sup>5</sup> and the FSB *Guidance on Central Counterparty Resolution and Resolution Planning*<sup>6</sup> need careful balancing because there exists a natural conflict about the allocation of potential losses between CCPs on the one hand and clearing members and end users on the other hand.

All market participants agree that taxpayers should not bear losses, but the allocation of losses remains a topic on which CCPs and members continue to disagree. In a CCP resolution event stemming from a clearing member default, the CCP equity alone will likely not be sufficient to absorb all the resulting losses. Through the default fund and further assessments, clearing members already have to bear the larger part of such losses. Concentrating losses beyond that on market participants and sparing CCP shareholders will result in misaligning incentives and moral hazard.

CCPs have a unique corporate structure as they have rulebooks that allocate many losses to their participants and therefore shield their equity. A part of these provisions is due to the mutualized nature of clearing, for instance the use of the default fund. Recovery tools like variation margin gains haircutting (VMGH), which were introduced to provide continuity to clearing also have the effect of further shielding CCP equity from losses.

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<sup>5</sup> [www.fsb.org/2014/10/r\\_141015/](http://www.fsb.org/2014/10/r_141015/)

<sup>6</sup> [www.fsb.org/2017/07/guidance-on-central-counterparty-resolution-and-resolution-planning-2/](http://www.fsb.org/2017/07/guidance-on-central-counterparty-resolution-and-resolution-planning-2/)

The FSB has rightly highlighted the moral hazard if CCP equity is not fully used as a loss bearing resource in resolution. We welcome that the consultation paper analyzes ways in which this can be addressed and FSB's objective can be achieved.

We mostly agree with the points made by the response of the Systemic Risk Council (SRC) to the discussion paper<sup>7</sup>: Some elements of bank resolution should be applied, namely the distinction between financial liabilities (like bonds and equity) and service related liabilities (like deposits in a bank or clearing activity for a CCP). Service related liabilities should only be haircut once the financial liabilities have been utilized.

We also believe that CCP equity should not be covered by the No-Creditor-Worse-Off (NCWO) safeguard. As we note in Annex-1, there is a reason the safeguard is called the no-*creditor*-worse-off safeguard. It was developed to safeguard *creditors*, not shareholders. In resolutions involving the transfer of certain creditors to a bridge, with the result being they suffered no losses, while other similarly situated creditors, which would have otherwise been subject to pari passu treatment in the bank's liquidation, were left behind in the receivership and suffered significant losses, the safeguard's guarantee that the left-behind creditors would receive at least what they would have received in liquidation decreased the likelihood of their challenging the resolution plan. The safeguard was not developed to protect equity. Nevertheless, under most rulebooks, a CCP in resolution would have a NCWO claim if its equity is used to bear default losses, as these losses in the counterfactual would have been allocated to clearing participants. For a more detailed discussion of this effect we refer to a detailed legal memo how CCP equity is shielded<sup>8</sup>.

In this respect, we also support the proposal in the consultation paper that either contractual loss allocation rules can be modified or laws could be changed to avoid unhelpful incentives of the NCWO safeguard which should not be applicable to CCP equity in the first instance.

In the case of a resolution that utilizes a bridge strategy in which the remnant CCP is ultimately liquidated, the appropriate protection for equity should be that it is entitled to the residual value, if any, remaining in the remnant after claims senior to equity in the resolution claimant hierarchy have been satisfied. This protection would be consistent with the requirement that equity be fully loss-bearing.

### ***The NCWO counterfactual should be clarified***

The counterfactual that has been adopted by the FSB is unclear and should be clarified. More specifically, the requirement to assume the full application of the CCP's rules and arrangements for loss allocation could be construed to require an assumption that there would be application of loss allocation measures in a CCP's bankruptcy even when in reality such measures could not be applied as a legal matter. For example, the counterfactual would presumably require the assumption that a CCP's default fund assessments had been called and paid, but a CCP's rules may provide that its authority to call or require funding of assessments terminates upon its bankruptcy. If the resolution of such a CCP were to commence prior to assessments being called, the counterfactual would appear to require assumption that the assessments were called at a time when there would be no

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<sup>7</sup> [https://4atmuz3ab8k0glu2m35oem99-wpengine.netdna-ssl.com/wp-content/uploads/2019/03/New-CCP\\_Resolution\\_-\\_SRC\\_-\\_March18\\_2019.pdf](https://4atmuz3ab8k0glu2m35oem99-wpengine.netdna-ssl.com/wp-content/uploads/2019/03/New-CCP_Resolution_-_SRC_-_March18_2019.pdf)

<sup>8</sup> <https://www.isda.org/2020/07/30/ao-memorandum-on-ccp-equity-and-no-creditor-worse-off/>

legal authority to do so. As such, it could increase, rather than decrease, the likelihood of creditor challenges.

We believe that the counterfactual should be tethered to reality. In this regard, the formulation of the counterfactual should be consistent with the reality that in the case of a CCP with a closeout netting rule, it is that rule which would be enforced. Accordingly, the counterfactual should assume exercise of closeout netting against the CCP in accordance with its closeout netting rule, which as a general matter will require the prompt (or in some CCPs, the automatic and immediate) closeout of all its open contracts. To the extent there is a loss allocation provision related to or a part of the CCP's closeout netting rule, application of such provision should be assumed. This counterfactual would be far clearer and more transparent and easier to apply in any resolution.

### ***Participants should be compensated for the use of recovery and resolution tools***

We welcome the FSB's support for compensation, but believe that the proposals in the consultation paper do not go far enough. Compensation should not be limited to losses above any rulebook provisions. We agree with the consultation paper's point that compensation may be one way to dilute or expose equity.

When clearing participants cover the majority of losses and thus in effect enable the CCP to continue (through recovery and/or resolution), they should at least be eligible to recoup those losses. It would be unfair if clearing participants carry most of the losses and CCPs continue paying dividends to their owners after they have been bailed out by clearing participants. We propose that clearing participants that suffer losses from the use of recovery or resolution tools should receive compensation instruments that are not debt<sup>9</sup>, but senior to CCP equity that would provide holders of these instruments a claim to future income of the CCP. Please see response under question 12 for more details on characteristics of the compensation instrument.

Providing compensation in recovery and resolution would also align the incentive structure between these two phases. See below for more detail.

Our proposals on compensation provide a way around the shielding of CCP equity in resolution for default losses: the compensation instruments for loss allocation allow participants to become creditors who retain senior claims and make CCP equity claims more remote in recovery/insolvency and therefore NCWO claims by CCP equity are unlikely to arise in resolution. Please refer to Annex 2 for a detailed explanation of how this would work.

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<sup>9</sup> The reason why compensation should not be a debt instrument is that we want to avoid that compensation instruments trigger balance sheet insolvency if compensation is awarded in recovery.

### ***Clear distinction between recovery and resolution***

Another proposal to solve the issue that the use of CCP equity in resolution will likely lead to a NCWO compensation claim is to remove loss allocation tools like VMGH from recovery and modify default waterfalls (contractual loss allocation tools) to make CCP equity available as the last step in recovery. This step would form the clear boundary between recovery and resolution and ensure that non-recourse or similar provisions do not shield equity from losses outside resolution. Were recovery and resolution clearly delineated, the responsibilities and activities during recovery and resolution could be clearly separated.

At the last step of the waterfall the CCP will be liquidated, or the CCP will elect to implement its wind down plans. In case authorities determine that wind down is not appropriate for market stability, they would step in at the latest before wind-down starts. As described above, the RA stepping in should also mean that full CCP equity will be used as a loss-bearing resource.

The calculation of the costs in liquidation would not include any loss allocation to clearing participants beyond an assessment of up to one times the default fund contribution. Any haircutting in liquidation (as creditors receive their claims usually with only a haircut) would happen after CCP equity has been used to take losses and therefore CCP equity would not be shielded. Provided that non-recourse provisions are also amended so that they do not shield CCP equity in liquidation, equity holders would not have a claim if they suffered losses in resolution (because they would have also suffered losses in liquidation).

### ***Resolution tools should not make the crisis worse***

CCP resolution will likely happen when markets are already extremely stressed. It would be unhelpful for financial stability in such situations to exclusively rely on procyclical tools like cash calls and VMGH.

We believe that the bail-in bonds proposed by the SRC might be helpful tool in this respect. The SRC proposal suggests that the CCP issues subordinated bonds that can be bailed in (i.e. converted into equity, in the following called bail-in-able bonds) once resolution has commenced. We believe that this tool can address concerns around procyclicality; CCP bail-in bonds would be an attractive investment that should be allowed to be traded: this would provide a wide market for the bonds and also lead to market prices for CCP risk. This would ensure that authorities would not have to force clearing members to subscribe to these bonds should neither the CCP owners nor third parties be willing to buy them.

An alternative to bail-in-able bonds that are issued on a funded basis would be committed but unfunded capital instruments held by sophisticated, well-capitalized institutional investors unaffiliated with the CCP (which could, but not necessarily need to, include clearing participants). While this alternative may be more attractive than bail-in-able bonds in terms of cost, we would note there are two drawbacks to unfunded instruments when compared to funded bonds. The first is that there would be greater risk that in a stressed environment their holders may be unable to satisfy their funding obligations when called to do so by the RA. The second risk is that unlike fully funded bail-in-able bonds, which would clearly eliminate the possibility of equity being entitled to NCWO compensation, we question whether, under the current articulation of the NCWO safeguard, the use of unfunded securities might actually increase the chance of equity being due compensation. This is because unfunded securities that are funded in resolution would be senior to, and reduce the

value distributed to, equity in the resolution claimant hierarchy but would not be funded in the CCP's bankruptcy and would not appear, and would not similarly decrease value otherwise distributable to equity, in the insolvency claimant hierarchy. However, revising the safeguard so that equity is entitled to residual value in the remnant in its liquidation would address this issue.

### ***Resources to cover losses should be different from those set aside for recapitalization***

In the consultation paper and in other regulations regarding CCP resolution, loss allocation and recapitalization are treated in a very similar fashion, especially in terms of funds for recapitalization.

The consultation paper proposes tools like cash calls for both loss allocation and for recapitalization of a CCP in resolution. We believe that loss allocation and recapitalization need to be looked at separately. The aim of loss allocation is to deal with a past crisis. Recapitalization is to provide capital to the CCP for the future. Whoever provides this capital, should also become the owner of the CCP and either receive equity in the CCP or the proceeds from any sale.

We believe that the RA should not by default look at clearing members for recapitalization<sup>10</sup>. There are other options available that the RA should take into account:

- Use of bail-in-able long-term debt to provide pre-funded resources reserved solely for recapitalization, as described in the section "Resolution tools should not make the crisis worse" above.
- Committed but unfunded capital instruments held by sophisticated, well-capitalized institutional investors unaffiliated with the CCP (which could, but not necessarily need to, include clearing participants).
- Third parties willing to buy the CCP, in the process providing capital.
- A subset of clearing participants agrees to recapitalize the CCP.

We do not believe that clearing members should participate in recapitalization via cash calls. We also agree with the consultation paper on the procyclical effects of cash calls, especially if they are not capped or happen concurrently at different CCPs. If a cash call or any other tool is used for recapitalization despite the concerns listed above, members should either receive compensation instruments (see above under "Participants should be compensated for the use of recovery and resolution tools") or outright equity in the CCP.

In case where authorities rely on third party purchasers to recapitalize a CCP, the value of a CCP for a potential buyer is roughly the sum of discounted future dividends. Should clearing participants receive compensation instruments for loss allocation in recovery and/or resolution, part of the future dividends may go to the clearing participants who took losses, and not the shareholders. We acknowledge that this may reduce the value of the CCP to the buyers by the same sum as the losses suffered (assuming similar discount rates and no upper limit for claims), and might make shares in the recovered CCP difficult to market. To address this, compensation instruments can be converted into true shares. For clearing participants who do not want to hold equity, or cannot hold equity, for instance due to investment restrictions, the RA could hold an auction for these shares to be sold off

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<sup>10</sup> Please note that the consultation paper does mention minimum regulatory capital of a CCP as a reason not to fully expose CCP equity. As explained in the response to question 13, we do not believe that the minimum capital requirement means that CCP shareholders should be shielded from losses. Existing CCP equity should be utilized fully. The tools listed in this section will provide sufficient options for the RA to re-establish the minimum capital.

to other clearing participants or third parties who are interested in holding shares in the resolved CCP.

We recognize the challenges with such ex-post recapitalization tools and therefore believe that a cleaner approach, and consistent with the SRC proposal, would be to require the CCP to issue bail-in-able bonds on an ex-ante basis. This approach would enable participants to receive compensation claims while allowing for recapitalization, as investors in the bail-in bonds would already have factored in the potential for creditor claims while pricing the instruments. This would also ensure that the RA has access to resources for recapitalization while not having to worry about marketing the resolved CCP.

### ***Incentives need to be aligned***

It is important to align incentives between CCP, clearing members and clients to ensure all actors behave in a way that supports resilience, recovery and resolution.

Last year, FIA and ISDA produced an analysis<sup>11</sup> of the effect of recovery and resolution tools on incentives between CCPs, clearing members and clients.

We often hear the argument that compensation or even merely the use of CCP equity in resolution would incentivize clearing participants not to take part in the default management process and to push a CCP into resolution in order to become owners of the CCP. We do not think this argument is tenable, as clearing members would, on their way to become CCP owners, lose their default fund and assessments, which can be several times the default fund, and potentially also have to pay into tools like VMGH as well as risk full tear-up of trades. All of this would be a very high price to pay for a minority stake or partial ownership of a CCP.

### ***CCPs should have more SITG in two tranches***

We welcome that the consultation paper proposed that the RA should consider “*the point in time or the position in the default loss waterfall for equity to bear losses*”. While we believe the whole CCP equity should be loss-bearing in resolution, we believe that the CCP also needs to be sufficiently incentivized to focus on resiliency and therefore make recovery or resolution less likely. Most CCPs already expose some of their equity in the waterfall before mutualized resources are utilized. While currently the amounts are often not significant, once sized appropriately, this layer would incentivize the CCP to implement a state-of-the art risk management framework and collect sufficient margin. A second tranche of SITG would amplify the general incentive for good risk management and also incentivize appropriate stress testing and default fund sizing. We welcome the introduction of such a second tranche of SITG in the recently agreed European regulation on CCP Recovery and Resolution<sup>12</sup>.

A CCP should expose a significant and dynamic part of its capital as part of the default management waterfall. Clearing participants would like to see SITG set to a percentage of the full default fund and/or linked to the default fund contribution of the largest clearing members. The sizing of default funds reflects the level of business a CCP has chosen to take on and so a calculation based on a

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<sup>11</sup> <https://www.isda.org/a/OdKME/CCP-RR-Incentives-Analysis.pdf>

<sup>12</sup> <https://data.consilium.europa.eu/doc/document/ST-9397-2020-ADD-1/en/pdf>



percentage of the default fund or the contributions of the largest members is appropriate from the perspective of both incentives and fairness. Many clearing participants ask for SITG to be set between 8% and 10% of default fund. More work on calibration needs to be done. This calibration could include other factors like products being cleared or margin period of risk.

In conclusion, we believe that the combination of appropriately sized SITG, provision of compensation instruments to participants that absorb losses in recovery and/ or resolution, exposure of residual CCP equity through contractual loss allocation rules, usage of a wide range of resolution instruments including the issuance of bail-in bonds would help align incentives and ensure that CCP equity is not shielded from losses in resolution.

## QUESTIONS IN THE CONSULTATION

Please note that we did not repeat points made above under the responses to questions. The responses to questions should be read in conjunction with the management summary as it only addresses incremental arguments. As a result the responses to some question can be short.

### Part I: Assessing the adequacy of financial resources to support CCP resolution

#### Step 1: Scenarios

##### 1. What are your views on the scenarios presented for evaluating existing tools and resources?

We welcome the clarification that the circumstances leading to a CCP resolution are likely to be beyond the extreme but plausible market conditions for which a CCP should hold sufficient prefunded financial resources.

#### Non-default Losses (NDL)

On NDL, we refer to our recent whitepaper, which discusses who should bear which types of NDL and how resolution tools would work for NDL<sup>13</sup>.

As the FIA/ISDA paper on NDL states, investment losses should be covered by the CCP, as the CCP is the party that controls investments. This is in particularly the case for investment of a CCP's own resources.

The description of custodian losses in the consultation paper concentrates on timely access to the CCP's assets or the CCP becoming unable to transform non-cash collateral or investments into cash. While potentially less likely, custodian losses can also lead to credit losses. We note that step 3 provides quantification of losses from custodians.

We welcome the distinction between primary and secondary operational losses, which will be helpful for the analysis of such losses.

While we appreciate that the wording in the guidance is meant to cover all eventualities, the reference to "any unallocated loss arising from the materialization of general business risk" indicates that general business risk should be allocated, which we strongly oppose.

#### CCP capital requirements

Finally, as mentioned in the introduction, we welcome footnote 19 that states "*an FMI needs to have sufficient liquid net assets funded by equity to implement its plan to recover from an extraordinary one-off loss or recurring losses from general business risk*". We believe that this is not the case for most CCPs, as the application of the five-step process for CCP that are systemically important in more than one jurisdiction will have shown. High level information about the outcome of the analysis of current resources at CCPs for resolution would be helpful for the market.

We also reiterate our proposal to develop the five-step process further to determine capital requirements for CCPs.

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<sup>13</sup> <https://www.isda.org/2020/07/31/ccp-non-default-losses/>

## 2. Are there additional considerations that should be included in the guidance?

We would recommend that FSB look at additional considerations around:

- Appropriate governance structures that consider the views of clearing members and end users.
- Providing sufficient transparency of recovery and resolution plans to ensure participants can predict potential risks and exposures during the resolution process.
- Developing playbooks and conducting resolution simulation exercises.
- Detailed criteria for determining that only sufficiently liquid products with well-defined default management strategies are cleared.

### *Step 2: Evaluating existing resources and tools*

## 3. Are the qualitative and quantitative considerations for evaluating existing resources and tools comprehensive and sufficiently clear?

We welcome the qualitative and quantitative considerations for evaluating existing resources and tools. Below we have some comments to these considerations.

### Availability of resources

We welcome the discussion of analytical and operational challenges in evaluating existing resources and potential resolution losses (see step 3) and the acknowledgment of the importance of the nature of resources (prefunded, committed or uncommitted) and taking into account the level of confidence about whether tools or resources are likely to be available. We especially highlight this in relation to RA cash calls that are called from banks in extremely stressful times.

The consultation paper correctly recognizes that availability of resources would vary depending on whether they are prefunded, committed or uncommitted and that there is a need for discounting them. It will be prudent to assume that not all resources and tools in the waterfall and other rulebook provision might be available or effective in resolution. To this effect, as the consultation paper states, it is important to coordinate with supervisors of clearing members while evaluating financial stability implications of tools.

### Liquidity

The consultation paper also rightly highlights CCPs' ability to obtain liquidity in identified scenarios. FSB should provide guidance for central banks to make it easy for CCPs to obtain liquidity against eligible collateral, in business-as-usual (BAU), recovery and resolution. Access to liquidity that does not depend on clearing participants who could be under stress too, might make the difference between BAU operation and resolution.

## Alternative CCPs

Given that many CCPs exclusively serve their markets there are often no viable alternatives<sup>14</sup> ; even in cases where there are options available, we have doubts whether the availability of alternative CCPs is helpful in a stressed situation, particularly for members that are not already on-boarded. Alternative CCPs might be helpful for slow-burn scenarios though.

## Resolution tools

In relation to detailed resolution tools, section 2.1.1 on cash calls does not mention the requirement that cash calls need to be capped, albeit predictability is mentioned further down the paper. Uncapped cash calls will result in unlimited liability for clearing members, opposite to the CCP, especially if equity is shielded. It also allows the RA to concentrate resolution plans on one tool. The consultation paper however contains a helpful mention of financial stability implications especially if there are concurrent cash calls from several CCPs.

While it is important to understand how VMGH and partial tear-ups would work under the CCP rules (2.1.3 and 2.1.4), the RA should also review whether it would be better to have its own or even exclusive powers for such tools. As tools like VMGH span recovery and resolution, the guidance should elaborate on the governance around use of VMGH, including in recovery. Rules in individual jurisdictions should require oversight by, and explicit approval from, the RA and/or the relevant competent authority before the tools with impact on financial stability like VMGH or PTU are applied, even in recovery.

Section 2.2.3 considers the allocation of NDL to clearing members, but not other clearing participants. We believe that the CCP should not allocate NDL to clearing members, other than clearly defined exceptions like custodian losses or investment losses if the clearing participant directs the investments. In cases where losses are allocated, these should be allocated to all participants in line with their involvement in the actual NDL and their degree of control (e.g. to what extent much they used self-directed investments).

In section 2.2.4 we note that the allocation of losses to creditors will likely mean that losses are mostly allocated to clearing participants as most other creditors are likely protected or would stop providing crucial services. We also note that without special provision, bail-in of creditors will include bailing in of IM. Bailing in IM would have similar unhelpful effects similar to haircutting of IM for loss allocation. (See also our response to question 10). An exception to the last statement is if IM has been lost. In this case the owner of the IM should have a claim against the CCP that could be bailed in.

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<sup>14</sup> Please see the Clarus blogs on CCP market share (<https://www.clarusft.com/ccp-swap-volumes-and-share-2q-2020/> and <https://www.clarusft.com/2017-ccp-market-share-statistics/>) that shows that for many products the majority of transactions is cleared in one CCP.

4. Are there additional considerations that should be included in the evaluation?

We have no additional comments to this question.

*Step 3: Assessing resolution costs*

5. Are the considerations for analysing resolution costs comprehensive and sufficiently clear?

Quantification

We welcome the guidance on quantifying potential losses for NDLS, in particular the inclusion of legal risks by the requirement to quantify for each tool the amount missing for resolution if the particular tool is not available due to legal challenge.

For investment losses, we would welcome more detailed guidance how to calculate the fire sale value of securities received from the counterparty. As the consultation paper rightly suggests, resolution scenarios are likely outside of extreme but plausible scenarios. We assume this would be also the case for collateral haircuts, but believe there should be more guidance how to value collateral in stressed situations.

Distinction of loss allocation and operation of a resolved CCP

While we agree that the overall resolution can take weeks or even months, for the duration of supporting operational continuity we should make clear that resolution needs to be split into two phases:

- An initial period to bring the CCP back to viability (match books and allocate losses).
- A subsequent period where the RA sells the resolved CCP or elsewhere looks for a private operator. The length of this period would be a function of the approach used by the RA to recapitalize the CCP; where the RA relies upon bail-in bonds issued on an ex-ante basis to recapitalize the CCP, as opposed to sale of CCP to third-party during stressed time, this period can be significantly shorter.

6. Are there any other resolution costs that should be addressed?

We have no additional comments to this question.

#### *Step 4: Identifying gaps*

7. What are your views on the considerations for resolution authorities when they identify gaps in resources and tools?

When identifying and analyzing gaps, a RA could also look for the root cause of the gap. For instance, the RA might identify a gap under specific, so far unidentified stressed market conditions that would cause a substantial default loss. In such a case, the root cause could be the CCP's margin model rather than a lack of tools or a gap in the financial resources for default losses as such.

8. Are there additional considerations that should be included in the guidance?

In line with our reply to question 7, we believe that a RA needs to look at the whole architecture of BAU provisions, recovery and resolution, a CCP's governance and at the incentive structure for CCP management, shareholders and clearing participants. A guiding principle should be that those who are responsible for and/or control a risk should be the primary addressees for mitigating it.

9. Are there any specific steps or approaches you would suggest that authorities consider as part of quantitative analyses?

#### Detailed guidance on quantification of losses

We believe that the consultation paper has identified loss categories on a high level. For better comparison between jurisdictions we propose that the ideas in the consultation paper are broken down into a list of every conceivable loss, especially for NDL and to define how these losses are to be quantified.

Such a detailed list of loss scenarios and how to quantify losses in each of these scenarios would be helpful for CMGs to analyze resources in a standardized way. This list could also form the basis for more detailed capital requirements for CCPs. Note that Basel Committee on Banking Supervision (BCBS) capital requirements for banks are equally complex.

#### *Step 5: Evaluating means to address gaps*

10. What are your views on the considerations for evaluating the availability, costs and benefits of potential means to address identified credit or liquidity gaps?

#### Root cause of gaps / resilience

We would like to note that the RA should not only look at (additional) financial resources available or reserved for recovery and resolution to be made available from shareholder and/or all clearing participants but also at the root cause of an identified gap. This might lead to other measures to strengthen the resilience of a CCP. Those who bring risk exposure to a CCP and/or control it should also cover it.

While default management, especially auctions are technically part of BAU or recovery, decisions made during default management and recovery have a significant influence on the tools that are left to the RA. In this respect we believe it is important that the RA has regard to the work on auctions currently undertaken by CPMI-IOSCO<sup>15</sup>.

#### Tools to bridge the gap

In line with step 2 we want to make clear that cash calls need to be capped, also and especially in resolution. We also want to impress that cash calls are meant for loss allocation, but not for recapitalization. As described in the introductory comments there are better ways to recapitalize a CCP than using cash calls.

We also would like to make clear that initial margin (IM) should not be used for resolution. Any CCP that utilizes IM haircutting will experience a run to the door at the earliest sign of issues with the CCP.

While not explicitly mentioned in this consultation paper, we also believe that forced allocation should be banned. Forced allocation could require clearing members to take on positions they may not be suited to risk manage in extreme market conditions. Forced allocation could also be unequitable, especially if the RA allocates positions to participants which can “bear them”.

#### Resolution tools and NCWO

We agree that reserving tools for resolution might trigger NCWO claims. The counterfactual to NCWO would however already include a lot of losses and indirectly one round of unlimited VMGH (insolvency would collect all obligation but only pay out with a haircut). As resolution is meant to provide better outcomes than recovery or insolvency, other tools that have been reserved to the RA should still only be used if they deliver a better outcome than recovery or insolvency.

Residual CCP equity must also be used to cover gaps.

11. Are there additional suggestions for potential steps to address identified credit or liquidity gaps that should be included in the guidance?

We have no additional comments to this question.

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<sup>15</sup> <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD657.pdf>

## Part II: Treatment of CCP equity in resolution

### 12. Are the considerations for addressing the treatment of CCP equity in resolution plans sufficiently clear?

Many comments to part II of the consultation paper have already been made in the introductory comments. We will not repeat every point made already in the responses to question.

#### Compensation

The paper should be even clearer that the aim is to fully use CCP equity during resolution. We also ask for more consideration of compensation, not only for losses above the rulebook. Clearing participants who enable the CCP to continue with their service and with generating income should have a claim on at least part of such income.

We welcome the fact that compensation is mentioned, but regret that FSB proposes to include only losses above the rulebook provisions.

As a reminder, the Associations support compensation for clearing participants for all losses suffered during recovery and resolution.

Current legislative proposals on resolution and CCP rulebook provisions disproportionately allocate the burden of recovery and resolution on clearing participants in general and clearing members in particular. On the other hand, in recovery from large defaults, the CCP will merely lose its SITG, which is a small tranche of CCP capital. While profits in business are privatized by the CCP equity holders, losses in recovery and resolution will be socialized to clearing participants and in extremis the tax-payer. It is inappropriate and in contrast to basic corporate finance principles that clearing participants are asked to “bail out” a CCP yet future profits that the CCP would not have had without the support from clearing participants go to the shareholders of the CCP.

Clearing participants should retain claims for the amounts of their total losses resulting from the use of:

- (A) any loss-allocation tools beyond the CCP’s funded default fund contributions and clearing member assessments up to the applicable cap (e.g., compensation should be provided for use of VMGH); and/or
- (B) any involuntary position allocation or tear-up tools (e.g., partial tear-ups (PTUs) or the full tear-up that would occur in the shutdown of a silo’ed clearing service)

For clarification, losses under (A) would also include losses allocated to clearing participants by the RA, or any other NDL recovery tools that affect clearing participants<sup>16</sup>.

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<sup>16</sup> Please note that this affects only NDL that will lead to a resolution of the CCP. This can be only NDL types that are in the responsibility of the CCP. Other NDL types (e.g. investment losses for self-directed investments that are borne by the clearing members directing the investment) and cannot push a CCP into resolution).



Compensation should:<sup>17</sup>

- Be senior to existing CCP equity in the creditor hierarchy (both in an insolvency and in resolution), but junior to taxpayer claims if taxpayer funds have been used.
- Not be extinguishable prior to satisfaction or conversion into an instrument of corresponding value (in accordance with the terms of the compensation instrument and resolution strategy).
- Include rights to port over to a new entity if the existing CCP legal entity is terminated in resolution<sup>18</sup>.
- Not trigger balance sheet insolvency if compensation is awarded in recovery.
- Entitle holders to future CCP accumulated earnings or returns in excess of regulatory capital requirements (i.e., future CCP profits or something of economically equivalent value) until they are paid in full, taking the time value of those payments into account (this could for instance be done by attaching an inflation linked coupon to these instruments). During that time, strict limitations should apply to any dividend payments by both the CCP and its parent, including in particular, dividends to any pre-existing equity (for which heightened limitations would be appropriate).
- Keep the non-recourse default waterfall principle intact so as not to threaten the solvency of an operating CCP.
- Not be a longer-term controlling interest in the operating CCP, which might distort bidding in the auction and affect the ability to raise new equity in the recovered CCP.

How such compensation claims should be structured can be dependent on the jurisdiction and will require more analysis. A potential solution could be preferred shares, but other instruments or contractual obligations that would be more senior in the creditor hierarchy would be preferable.

Given that compensation would only be paid if and when the CCP returns to profitability, this not only creates additional incentives for clearing participants to contribute to the CCP's default management process, but also encourages clearing participants to continue clearing at the CCP. Continued participation in the CCP would, in turn, preserve the CCP's value and help attract new investors.

If these compensation instruments are structured in a way that they do not push a CCP into insolvency, but are senior to CCP equity, then in the liquidation counterfactual any assets would flow to creditors and holders of the compensation instruments before CCP equity would receive any funds. CCP equity would not be shielded from losses anymore. Please see Annex 1 for a detailed explanation and a worked example.

Compensation claims by the CCP owners would be less likely if they suffer losses in resolution because they would also be exposed to losses in liquidation.<sup>19</sup>

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<sup>17</sup> There might also be tax issues and capital requirements implications of awarding compensations that would have to be worked through. Also, not all clearing participants, especially on the buy-side will be able to hold certain forms of instruments. There could also be operational and legal challenges in identifying and providing certain forms of instruments to end-clients.

<sup>18</sup> This and the previous bullet will require adjustments to non-recourse provisions.

<sup>19</sup> There might be situations where there are so many assets left that some of those can be paid out to equity holders. In such cases resolution would however be unlikely.

None of the CCPs that have implemented recovery tools thus far have provided for compensation. Such compensation can only be implemented if there is strong regulation.

*On page 19 it is suggested that the RA “should also evaluate whether it should require that the CCP s rules enable clearing members to claim reimbursement from the CCP for any financial resources contributed in resolution that exceed the amount provided for in the CCP’s recovery arrangements. As a result, those subject to such additional haircuts or cash calls would have a corresponding claim against the CCP that would rank ahead of equity.”*

We support such clarifications via the rulebook to ensure that compensation is not subordinated to CCP equity.

#### NCWO claims for CCPs

The consultation paper highlights the risk that actions in resolution that expose CCP equity to larger default or non-default losses than in liquidation under the applicable insolvency regime could, based on the relevant counterfactual, enable equity holders to raise NCWO claims. We welcome that this moral hazard is recognized and also the proposal to change the contractual loss allocation rules and/or the legal framework to avoid such moral hazard. As mentioned in the introduction, we believe that CCP shareholders should not fall under the NCWO framework, which was never intended to protect equity.

We also welcome the proposal of converting debt to equity, but note that there is no requirement for the CCP to hold a certain level of debt. This level of debt could be defined with the five-step process, or by dedicated CCP capital requirements (see our point in the introduction).

We also support the acknowledgement that the RA would need powers to require modification of CCP capital structures and/or require changes to laws.

#### Incentives

The paper proposes to consider “incentives for stakeholders, particularly clearing members, to support recovery” when evaluating timing and sequencing of imposing losses on CCP equity. We strongly reject any suggestion that clearing members and clients would have an incentive not to support recovery to potentially gain ownership in a CCP. The cost involved by doing so (default fund, assessments, potential VMGH and PTU) would be considerably higher than any potential payoff from such an ill-conceived strategy.

#### CCP minimum capital

Concerns about depletion of CCP equity below regulatory requirements should not constrain the RA from requiring full write-off of equity. The fact that a CCP requires minimum amounts of equity does not mean that the existing shareholders should keep being the owners. New equity can and should ideally be provided ex-ante by third parties, bail-in debt or other pre-funded resources. This is in line with virtually any other commercial entity.

As mentioned elsewhere, the guidance references additional cash calls by the RA not only as a tool for loss absorbency but also for recapitalization, which we do not view as a credible recapitalization strategy.

13. Are there additional factors that resolution authorities should consider when evaluating the exposure of CCP equity to losses in resolution?

#### Minimum capital requirements are not meant to protect shareholders

In the description of two mechanisms for adjusting the treatment of CCP equity in resolution, namely

- Exposure of some or all of the CCP equity to losses via modification of the contractual loss allocation arrangements
- Full or partial write down of CCP equity

the consultation paper mentions that *“However, as the depletion of CCP equity below the minimum regulatory requirements would require the CCP to raise capital to continue to be able to provide its critical clearing services, the resolution authority should account for this in its planning.”* We agree that the RA needs to take this eventuality into account, but believe that this should be no reason not to utilize either of these two mechanisms. A CCP needs a minimum requirement of equity, but that this does not mean that the equity of the existing shareholders must be sacrosanct and does not impede the RA from requiring full write-off of CCP equity.

#### SITG

As also highlighted in the introduction, a key factor to be evaluated by RA for ensuring adequate incentives is the size of prefunded CCP capital within the default waterfall as this is the principal mechanism to align a CCP’s incentives and ensure effective risk management related to the CCP’s clearing activities. We believe SITG should be higher than the minimum levels currently exhibited by some CCPs.

14. Are there additional mechanisms that could be used for adjusting the exposure of CCP equity to losses in resolution that should be included in the guidance?

#### Compensation

Please see the response to question 12 for our proposals on compensation. We mention that these above proposals go much further than the compensation as mentioned under section 7 (iv), which is narrow in scope as it only contemplates compensation to clearing members for bearing losses beyond those prescribed in CCP rules and arrangements.

### Recoveries from the defaulter

In an ideal case a clearing member defaults on a CCP due to the lack of liquidity, but has assets that over time can be realized and used to pay back losses from the default. Most CCPs have provisions in their rulebook in which order these recoveries are used to cover losses. This is usually done in the reverse order in which losses have been taken (“reverse waterfall”).

Whether recoveries from the defaulter or several defaulters could be relied on in recovery or resolution is questionable. In an ideal case there are recoveries from the defaulter(s) which could be used to pay back recovery or resolution tools, therefore changing the nature of these tools from loss allocation tools to liquidity provision tools.

A defaulter large enough to cause recovery or even resolution of a CCP will likely be a GSIB that is covered by a bank resolution regimes. The RA of the bank in resolution will take on of these two decisions:

1. The RA decides that access to clearing is crucial for management of derivatives positions and therefore be a critical function. In this case the clearing membership will be kept in the “good bank”.
2. The RA decides that access to the CCP in question is not a critical function, for instance because the instruments cleared are not crucial for management of any positions and decided to put the clearing membership into the “bad bank”.

Only in the second case the bank in resolution will default at the CCP and trigger the default management process. However, in the second case there are likely not many assets available that will provide for significant recoveries to the default management process, recovery or even resolution of the CCP.

We believe that recoveries should be catered for in the sense of a reverse waterfall that covers default management, recovery and resolution so that eventual recoveries can be fairly paid to actors who had losses. Recoveries should however not be relied upon as resources in default management, recovery or resolution.

15. Within the section on implementing policy for the treatment of CCP equity in resolution, are there additional items that the relevant home authorities should consider?

We welcome the requirement “*This may also include identifying or proposing potential changes to laws, regulations or powers of the relevant supervisory, oversight or resolution authorities that would enable achieving the resolution objectives or limit the potential for NCWO claims.*” A RA should not shy away from utilizing CCP equity in resolution just because this would trigger a NCWO claim. As the consultation paper rightly suggests, the RA should rather consider changes to laws to make sure that such a counterintuitive outcome does not happen.

16. Would a statement in the resolvability assessment process on any limitations to equity bearing losses provide sufficient transparency for stakeholders? How could sufficient transparency be achieved?

A statement in the resolvability assessment process on their rationale for accepting any limitations on CCP equity fully bearing losses would provide transparency. We however question the outcome itself – CCP equity would be considerably better protected than equity in any other commercial entity.

While ideally there should be no limitations/exceptions in making CCP equity fully loss absorbing (in order to avoid moral hazard concerns), we understand that there are existing legal barriers in some jurisdictions that result in such limitations.

In such circumstances, consideration should be given to modifying contractual loss allocation arrangements as contemplated in sec 7. (i) to address jurisdictional challenges and ensure that they do not impede the resolution objectives and limit the potential for NCWO claims.

## ANNEX 1: POSSIBLE MECHANISMS TO EXPOSE CCP EQUITY TO LOSSES

In this Annex, we examine one of the possible mechanisms identified by the FSB in Section 7 of Part II of the Consultation to expose CCP equity to losses in resolution without giving rise to claims by equity go NCWO compensation: the transfer of critical CCP operations (assets and certain liabilities) to a bridge entity and the placement of the remnant CCP into receivership for liquidation upon the conclusion of the resolution (the “Bridge Strategy”).

### Summary of conclusions:

- Utilization of a Bridge Strategy may possibly be an effective mechanism to expose CCP equity to losses in resolution without becoming entitled to NCWO compensation if the following applies (and subject to the additional assumptions and qualifications discussed in this Annex):
  - The CCP’s ex ante issuance of securities, on either a funded or unfunded but committed basis,<sup>20</sup> that would provide resolution funding resources and that would be “bailed in” to become the new equity of the resolved CCP at the conclusion of the resolution (the “**Bail-in-able Securities**”); and
  - Revision of the NCWO safeguard to clarify that it does not extend to equity and that equity is instead entitled to the residual value remaining in the remnant CCP following satisfaction of claims against the remnant’s estate that are senior to equity in right of payment under the claimant hierarchy in resolution.<sup>21</sup>
- We have assumed that the correct interpretation of the FSB’s counterfactual is that it assumes the full application of the CCP’s rules and arrangements for loss allocation **to the extent they can be enforced, as a legal matter, in the bankruptcy of the CCP** (which, in the case of the hypothetical CCP described below, would be limited to the loss allocation arrangements that are incorporated as part of the CCP’s closeout netting rule).
- While the straw-man described in this Annex may possibly suggest a method for exposing CCP equity to losses in resolution without giving rise to an NCWO claim, it is very difficult to conclude with any confidence that such objective is achievable, as a general matter, given the requirements for comprehensive loss allocation in recovery and application of the NCWO

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<sup>20</sup> “**Funded basis**” means that the CCP would receive the proceeds of the Bail-in-able Securities upon their issuance. “**Unfunded basis**” means that the CCP would obtain issue the Bail-in-able Securities to their holders but receive no issuance proceeds from them. The holders would provide binding commitments to pay the CCP cash equal to their committed amounts if called to do so following the commencement of resolution.

<sup>21</sup> We have assumed that the resolution claimant hierarchy would be specified in the statute or regulation governing the resolution process and would be substantially similar to the claimant hierarchy applicable in the bankruptcy of the CCP. The resolution hierarchy would govern how the assets remaining in the remnant CCP (which would include the equity of the bridge) would be distributed at the conclusion of the resolution to the remnant’s creditors (whose claims have not been transferred to the bridge but rather left behind in the receivership) and its equity. We have assumed that the resolution claimant hierarchy for unsecured claims against the remnant CCP in receivership, or the RA as receiver for the remnant, is as follows: (i) administrative expenses of the RA, as receiver, (ii) any amounts owed to governmental entities, (iii) any other preferred liabilities, (iv) any other general or senior liability of the remnant, (v) any obligation of the remnant subordinated to its general creditors and (vi) any obligation to the shareholder(s) of the remnant.

safeguard to equity, particularly if resolution were to commence when a CCP is still a going concern.

### **Assumptions regarding the CCP**

For purposes of this discussion, we have assumed the following:

1. The CCP's default waterfall would be as follows: (i) defaulter's margin and DF contributions, (ii) the CCP's SITG contribution, (iii) non-defaulters' DF contributions, (iv) non-defaulters' DF assessments (capped at 1XDFC) and (v) either partial or full tear-up and a round of related VMGH.<sup>22</sup>
2. The CCP's rules would also specify that:
  - a) The CCP could only engage in position tear-up and related VMGH with regulatory approval, but clearing participants subject to VMGH would receive compensation ("**Compensation Instruments**").<sup>23</sup>
  - b) The CCP's authority to (A) make DF assessment calls (or otherwise require CMs to replenish or make any further DF contributions) and (B) exercise position tear-up and VMGH would, in each case, terminate immediately and automatically upon the commencement of bankruptcy or resolution, although the RA would retain the authority under the CCP's rules to exercise position tear-up and a related round of VMGH in resolution (and, if it did, affected clearing participants would receive Compensation Instruments)).
  - c) The transactions cleared by the CCP would be closed out on a net basis either immediately or promptly upon its bankruptcy or resolution, but in the case of resolution, such closeout netting that is based solely upon the commencement of resolution, would be prohibited (A) until the close of business on the business day immediately succeeding the commencement of resolution or (B) if a CM is notified that all its transactions are being transferred to a bridge entity) (the "**Resolution Stay**").<sup>24</sup>

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<sup>22</sup> By a "round of related VMGH," we mean that, with respect to an open position that is terminated in whole or in part on a given trading day, the claim of the position's beneficial owner to VM accrued in respect of the position on such trading day would be extinguished, to the extent the CCP had insufficient resources to pay the VM accrual in full.

<sup>23</sup> By providing compensation for a claim to VM gains that would otherwise be haircut (i.e., extinguished), the claim is not extinguished, but rather exchanged for Compensation Instruments, which we assume for purposes of this discussion would be non-voting preferred equity interests in the CCP that would be repaid over time (if the CCP recovers) or exchanged for equity in the resolved CCP (if the CCP does not recover and is resolved), as described below.

<sup>24</sup> The CCP's closeout netting rule may also provide that if following exercise of closeout netting, the final VM payments received from out-of-the-money clearing participants are insufficient to pay the final VM accrual due to in-the-money clearing participants in full, the latter's deficiency claims would be extinguished, so that they would have no claims therefor against the CCP's bankruptcy estate (the "**Closeout Loss Allocation Provision**").

- d) Upon the commencement of insolvency, any funds held by the CCP in respect of members' DF contributions and initial margin would be returned directly to members (i.e., such funds would be excluded from the CCP's bankruptcy estate), subject to any right of setoff by the CCP.
3. To mitigate execution risk with respect to the transfer of the CCP's clearing operations to the bridge entity (described below), the CCP would be required, on an ex ante basis, to set up a shell subsidiary that would serve as the bridge were resolution ever commenced. The CCP would also be required to modify its contractual arrangements, to the extent reasonably necessary, to facilitate quick transfer of its clearing operations to the subsidiary in a resolution, without risk of their interruption. Additionally, the resolution authority would be expected to prepare, on an ex ante basis, a detailed plan of how it would affect the transfer of the CCP's clearing operations to the bridge.
4. In order to better assure that the RA would have resources to capitalize the bridge in resolution, the CCP, on an ex ante basis, would issue the Bail-in-able Securities to sophisticated institutional investors, which investors could be, but would not necessarily have to be, clearing participants (but could not be affiliates of the CCP). Only the RA would have the authority to exercise the CCP's right to require funding of the unfunded Bail-in-able Securities (and the commitments of holders to fund such Bail-in-able Securities would terminate automatically upon the commencement of a CCP's bankruptcy).
5. In a default loss scenario:
  - a) If the CCP received regulatory approval to engage in position tear-up and a related round of VMGH, affected clearing participants would receive Compensation Instruments. If the CCP recovered, the Compensation Instruments would be paid off over time, but if the CCP did not recover or if it subsequently failed, the Compensation Instruments would be senior to equity under the applicable claimant hierarchy. The CCP would be required to repay the Compensation Instruments in full prior to resuming the payment of dividends or distributions to its shareholder(s).
  - b) If the CCP did not receive regulatory approval to utilize position tear-up and a related round of VMGH, resolution would presumably be commenced either (i) immediately or (ii) after the CCP's remaining capital (other than resources in an amount sufficient to cover the administrative expenses of either a bankruptcy or resolution) was utilized to cover default losses (and assuming the CCP's shareholder(s) declined to recapitalize the CCP).
  - c) The additional resources provided by the issuance of Bail-in-able Securities, whether they are issued on a funded or unfunded basis, would permit the RA to refrain from entering early since it would have available resources even after the CCP's remaining equity capital had been utilized to absorb losses.
  - d) The RA would have the contractual authority under the rules to exercise position tear-up and one round of related VMGH. However, by virtue of the constraints effectively imposed by the interplay between the CCP's closeout netting rule and the Resolution Stay, the actions the RA could take would be limited to engaging in such tear-up in order to re-balance the



CCP's book and transferring the re-balanced book to the bridge as described below, and it would need to complete such actions within the course of a single business day, as described below.<sup>25</sup>

## Resolution

1. By no later than the close of business on the business day immediately following the appointment of the RA and commencement of resolution, the RA would tear up any remaining positions of the defaulting clearing member(s) and corresponding positions of non-defaulting clearing member(s) in order to re-balance the remnant CCP's book and then transfer the re-balanced book to the (pre-established) bridge entity, together with clearing participant margin, members' replenished DF contributions and any other assets and liabilities of the remnant CCP necessary for the uninterrupted continuation of its clearing operations in the bridge (including issuance proceeds of any Bail-in-able Securities and any remaining equity capital, less the amount of resources necessary to cover the administrative expenses of the resolution).
2. The Bail-in-able Securities themselves and any outstanding Compensation Instruments would be left behind in the receivership, and their holders would have claims against the remnant's estate.<sup>26</sup>
3. Upon the conclusion of the resolution (which come could months after its commencement), the RA would distribute equity and warrants issued by the bridge (together with proceeds resulting from liquidation of any other assets that were left behind in the receivership) to holders of claims against the remnant's estate in accordance with the resolution claimant hierarchy, in exchange for their claims. The bridge would be converted into the new, resolved CCP and the remnant would be dissolved.
4. The NCWO safeguard would be modified so that it extended to only creditors with claims against the remnant and would provide that they receive in respect of their claims in resolution not less than the amounts they would have received in a bankruptcy that had been commenced instead of resolution, assuming full implementation of the CCP's loss allocation rules and arrangements, ***to the extent such rules and arrangements could be enforced by a bankruptcy trustee (or other insolvency official) in the CCP's counterfactual bankruptcy.***<sup>27</sup> As modified, the NCWO safeguard

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<sup>25</sup> While policymakers may view such constraints as limiting the options available to the RA, they would provide welcome certainty to clearing participants as to how resolution would proceed and comfort that the RA could not attempt to engage in actions it would have no expertise to engage in (e.g., conducting auctions).

<sup>26</sup> As funded Bail-in-able Securities would constitute debt of the remnant, holders would have general unsecured, unsubordinated creditor claims. Unfunded Bail-in-able Securities and Compensation Instruments would be issued as preferred equity and their holders would be treated as equity, albeit equity that is senior to common equity in the resolution claimant hierarchy.

<sup>27</sup> As discussed more fully under "Meaning of the NCWO Counterfactual," we believe that a CCP's closeout netting rule and any incorporated Closeout Loss Allocation Provisions would be exercised in its bankruptcy, while the authority to exercise other loss allocation arrangements, such as calling DF assessments, conducting auctions and exercising position tear-up and VMGH, would terminate upon the commencement of the bankruptcy. Accordingly, for purposes of the NCWO

would not extend to the remnant's equity, which would be entitled only to any residual value remaining after satisfaction of claims more senior to equity in the resolution claimant hierarchy. Thus, losses would be allocated to equity by operation of the resolution claimant hierarchy and the fact that there would be claims senior to equity in the hierarchy that would have to be satisfied before any value could be distributed to equity, and the efficacy of such loss allocation would not be undermined by the applicability of the NCWO safeguard to equity.<sup>28</sup>

5. We would observe that of all the structural modifications we have proposed, the most effective in terms of imposing losses on equity in resolution without risk of NCWO compensation is funded Bail-in-able Securities. In fact, they would so effective that it might be unnecessary to limit the NCWO safeguard's applicability to creditors. This would be due to the fact that while they would be in the resolution claimant hierarchy and absorb value that would otherwise be distributed to equity, they would also be in the counterfactual bankruptcy claimant hierarchy and would similarly absorb and decrease the value that would otherwise be distributed to equity. We believe Compensation Instruments provided to clearing participants in recovery are an equally effective mechanism, in a resolution subsequent to the issuance of such Compensation Instruments, for absorbing value that would otherwise be distributed to equity in both resolution and a counterfactual bankruptcy.
6. We believe that to ensure the effectiveness of unfunded Bail-in-able Securities that are funded, as well as Compensation Instruments that are provided to clearing participants, *after* the commencement of resolution, it would be necessary to exclude the applicability of the NCWO safeguard to equity and specify that it would be entitled only to residual value remaining in the remnant. Unlike fully funded Bail-in-able Securities, which would clearly eliminate the possibility of equity being entitled to NCWO compensation, we question whether, under the current safeguard, the use of unfunded Bail-in-able Securities could actually increase the chance of equity being due compensation. This is because Bail-in-able Securities that are funded in resolution would be senior to, and reduce the value distributed to, equity in the resolution claimant hierarchy but would not be funded in the CCP's counterfactual bankruptcy and would not appear, and would not similarly decrease value otherwise distributable to equity, in the CCP's bankruptcy claimant hierarchy. Revising the safeguard so that equity is entitled to residual value in the remnant in its liquidation would address this issue.

## Meaning of the NCWO counterfactual

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safeguard, the counterfactual should assume full implementation of the CCP's closeout netting rule and Closeout Loss Allocation Provisions.

<sup>28</sup> Thus, claims in respect of (funded) Bail-in-able Securities in the form of debt, as well as claims in respect of liabilities of the remnant not essential to the clearing operations of the CCP, would be left behind in the receivership and not transferred to the bridge. However, they would constitute creditor claims to which the NCWO safeguard would apply and they would be senior to equity in the resolution claimant hierarchy. Claims in respect of (unfunded) Bail-in-able Securities and Compensation Instruments in the form of preferred equity would similarly be left behind in the receivership. However, as equity instruments, they would not benefit from the protection of the modified NCWO safeguard. Nevertheless, they would be senior to common equity in the resolution claim hierarchy, and this seniority would operate to allocate losses to the common equity in the remnant CCP.

1. As noted above, we believe, and would welcome the FSB's confirmation, that what it means by the requirement to assume "the full application of the CCP's rules and arrangements for loss allocation" is the full application of the CCP's rules and arrangements for loss allocation, ***to the extent such rules and arrangements could be enforced by a trustee (or other insolvency official) in the CCP's counterfactual bankruptcy.*** Such rules and arrangements would be limited to, in the case of many CCPs, their Closeout Loss Allocation Provision that is incorporated in or related to their closeout netting rules, which would be the only rules that are indisputably intended to be enforced following bankruptcy.
2. We have considered two other alternative interpretations but have concluded that neither could apply. The first is that at the CCP's counterfactual bankruptcy is not assumed to commence at the time of the commencement of resolution, but is instead assumed to be commenced at some subsequent time, after (and somehow despite) the complete application of the CCP's loss allocation rules and arrangements. We are confident that this cannot be the correct interpretation of the counterfactual. As the FSB states in the Consultation, an RA should consider in its resolution planning a scenario in which the "CCP's loss allocation arrangements set out in the recovery plan do not operate as intended . . . [and] . . . as a result the planned resources or tools are not, or not sufficiently, available at the time of recovery." It cannot be the case that the RA is supposed to plan for such an eventuality, but if it happens and resolution is commenced, the RA would be required to apply a counterfactual that the loss allocation arrangements whose unavailability necessitated the resolution were, in fact, available and fully applied.
3. The second interpretation is that at the time of the commencement of the resolution, it is assumed that instead of resolution, bankruptcy is commenced and in the bankruptcy, any loss allocation arrangements not previously exercised are then exercised, presumably by the bankruptcy trustee (or other insolvency official), even if the CCP's authority to exercise such rules or arrangements is terminated by its bankruptcy. For example, the counterfactual would presumably require the assumption that a CCP's DF assessments had been called and paid, despite the fact that many CCPs' rules provide that the CCPs' authority to call or require funding of assessments terminates upon their bankruptcy. If the resolution of such a CCP were to commence prior to assessments being called the counterfactual would appear to require assumption that the assessments were called at a time when the CCP (or its bankruptcy trustee or other insolvency official) would have no legal authority to do so. Again, we cannot imagine that such interpretation is correct.
4. We believe that the FSB intends for the counterfactual to be tethered to reality and what is possible. Otherwise, the counterfactual could increase, rather than decrease, the likelihood of creditor challenges. Accordingly, we believe that our interpretation of the FSB's meaning is correct. The counterfactual should assume exercise of closeout netting against the CCP in accordance with its closeout netting rule, which as a general matter will require the prompt (or in some CCPs, the automatic and immediate) closeout of all its open contracts. To the extent there is a Closeout Loss allocation Provision related to or a part of the CCP's closeout netting rule, application of such provision should be assumed. We believe that this interpretation will

result in a counterfactual that would be simpler and more straightforward to apply and less subject to challenge.

#### **Limitation of the no-*creditor*-worse-off safeguard to *creditors***

1. Policymakers and market participants have now spent several years discussing and struggling to reconcile the FSB's extension of the NCWO safeguard to CCP equity and the requirement for comprehensive loss allocation in recovery with the FSB's principle that equity should be fully loss-bearing and the objective that no taxpayer funds be used to pay NCWO compensation to equity. These things cannot be reconciled (particularly in a scenario in which the RA enters early), and the FSB should either accept this fact or revise the safeguard so that it does not extend to CCP equity.
2. There is a reason the safeguard is called the no-*creditor*-worse-off safeguard. It was developed to safeguard *creditors*, not shareholders. In bank resolutions involving the transfer of some but not all creditors to a bridge, with the result being that the transferred creditors suffered no losses, while the creditors left behind in the receivership suffered significant losses (and would have otherwise been subject to pari passu treatment along with the transferred creditors if the bank had been liquidated), the safeguard's guarantee that the left-behind creditors would receive at least what they would have received in liquidation decreased the likelihood of their challenging the resolution plan.
3. The safeguard was not developed to protect equity, and we are not aware of any fundamental legal right or principle that dictates the NCWO safeguard must be extended to CCP equity. In our letter to the FSB commenting on the previous consultation regarding treatment of CCP equity, we asked that the FSB explain why the safeguard should apply to equity. We respectfully reiterate our request that the FSB state its case for the applicability of the safeguard to equity, particularly given that the FSB continues to struggle with the conundrum of exposing equity to losses in resolution.
4. A resolution that utilizes a bridge strategy in which the remnant CCP is ultimately liquidated may provide a mechanism to help achieve the objective of ensuring equity is fully loss-absorbing without giving rise to a potential claim for NCWO compensation, but we believe that its efficacy in doing so is best assured if (i) there are Bail-in-able Securities or Compensation Instruments senior to common equity in the CCP's resolution claimant hierarchy and (ii) the NCWO safeguard does not extend to the CCP's equity and it is instead entitled only to the residual value, if any, remaining in the remnant CCP after claims senior to equity in the resolution claimant hierarchy have been satisfied. This protection would be consistent with the requirement that equity be fully loss-bearing. Without such a fundamental change to the FSB's framework, we believe that it would be challenging to achieve the FSB's objective of making equity fully loss-bearing without risk of it having a potential NCWO compensation claim.

## ANNEX 2: COMPENSATION AND NO CREDITOR WORSE OFF

### Introduction

We do not believe that CCP shareholders should have NCWO claims at all. As many jurisdictions include CCP equity in the NCWO safeguard, we show in the following how compensations would solve the issue that loss allocation tools shield CCP equity in resolution.

The consultation paper highlights the issue that the exposure of CCP equity to losses in resolution in excess of those to which it would be exposed in liquidation assuming full application of a CCP's loss allocation rules will likely lead to a NCWO compensation claim, in particular for default losses.

This is because in recovery prior to insolvency, at least for default losses, such losses will in most CCPs be allocated to clearing participants (clearing members and their clients). These recovery tools therefore shield the CCP equity (other than the skin-in-the-game (SITG), the amount of CCP funds that are exposed to losses in default management) from losses.

The Associations propose that clearing participants should receive compensation for the amount of their total losses resulting from either the use of recovery tools above default fund and limited assessments (including, for example, variation margin gains haircutting (VMGH)) or from limited recourse provisions that would operate to extinguish affected clearing participants' deficiency claims in connection with the closing of a contractually silo'ed clearing service. This compensation should be senior to CCP equity and entitle the holders to a portion of the CCP's future income up to the full amount of the loss including interest. Such compensation of clearing participants for losses suffered in recovery as a result of the use of such tools would be fair, as the CCP would not be a viable business without these incremental loss allocations to participants that go beyond the agreed-upon limited assessments. If losses from recovery tools were compensated in recovery with an instrument senior to CCP equity, recoveries in liquidation would go to the holders of those instruments first. It is therefore less likely for CCP shareholders to have a NCWO claim in resolution if the CCP equity is used in resolution to bear losses. Please see the response to question 12 for more details on the compensation proposal.

This Annex will explain the mechanisms of how compensation of clearing participants will reduce the likelihood of NCWO claims of CCP shareholders with a worked example based on a stylized CCP.

These examples show a resolution scenario with two different counterfactuals: One with and one without compensation. The NCWO analysis for these counterfactuals shows that CCP shareholders will have a NCWO claim if CCP equity is used to bear losses in resolution unless clearing participants receive compensation instruments in recovery.<sup>29</sup>

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<sup>29</sup> In their response to the discussion paper (<https://www.isda.org/a/YrgME/FIA-IIF-ISDA-response-to-FSB-CCP-Equity-DP.pdf>), and in section "Equity should be loss bearing in line with corporate finance principles" and the response to question 12 of this response, the associations propose that the NCWO safeguard should not apply to CCP equity. However, the discussion in this Annex assume that the safeguard will remain unchanged and will continue to be extended to equity in order to demonstrate how compensation will reduce the likelihood of NCWO claims by CCP shareholders.

## Proposed regulation “on a framework for the recovery and resolution of central counterparties”

The analysis in this paper is based on the outcome of the trilogue on the European proposed CCP R&R regulation<sup>30</sup>.

The counterfactual in this draft regulation is also in line with one potential interpretation of the FSB key attributes and CCP resolution rules in other jurisdictions.

In short, losses during resolution will be compared to a counterfactual where all outstanding obligations and contractual arrangements in the CCP operating rules are enforced and the CCP is then wound down up under normal insolvency proceedings.

Relevant sections in this proposed regulation are Art 60 and 61 (2).

### Worked Examples

To illustrate and analyze the effects of compensation on NCWO claims, we use a simplified CCP with a stylized balance sheet<sup>31</sup>.

#### Base Case

Please find below the waterfall of this simplified CCP. For future analysis this also includes a column that shows how an example clearing member, called CM1, would be affected by each of the steps in the waterfall.

Step	CCP Waterfall	Of which CM1	
Cash IM (not bankruptcy remote)	2000	100	
Skin-in-the-game (SITG)	25		
Default fund (DF)	1000	50	
Assessments	1000	50	
VMGH	2000	200 (10%)	
CCP Equity	100		

We assume that all IM posted is cash and not bankruptcy remote. We believe that bankruptcy remote margin would not affect the results of the example.

We have added Variation margin gains Haircutting (VMGH) as a recovery tool in the waterfall. We assume that VMGH is limited in recovery to 2000.

We also have added CCP equity in the waterfall, even though CCP equity is generally shielded from losses by VMGH if there is no cap to VMGH.

We also assume there is a commercial creditor (for instance a vendor who hasn't been paid yet, or an unsecured loan from a bank which is not a clearing participant).

<sup>30</sup> <https://data.consilium.europa.eu/doc/document/ST-9397-2020-ADD-1/en/pdf>

<sup>31</sup> Numbers in these balance sheets are made-up for demonstration purposes and are not based on any existing CCP.

For these worked examples we assume that the NCWO safeguard does apply to CCP equity.

The creditor hierarchy for this CCP is shown below, including what assets were available if the CCP would be wound down in BAU:

Description	Liabilities	Of which CM1	Assets available
Cash IM (unsecured)	2000	100	2000
Commercial loan (unsecured)	20		20
DF (unsecured)	1000	50	1000
CCP Equity	100		100

*The counterfactual: Assumed default triggering recovery and/or resolution without compensation*

We assume the default of two clearing members who have posted 400 IM and 200 default fund contribution. VM payments on behalf of the defaulters and the auction cost are assumed to add up to 3000. This cost is too large for defaulter-pay resources and would use mutualized resources including recovery tools (VMGH).

Step	Amount	Of which CM1
Cash IM of Defaulters	400	
DF contribution of defaulters	200	
Skin-in-the-game (SITG)	25	
DF non-defaulting CM	800	50
Assessments (only surviving CMs)	800	50
VMGH	775	77.5

In recovery, the CCP has allocated all the losses and is still a going concern, including having a franchise value.

As counterfactual to resolution, the CCP should be treated as *“a gone concern with no residual franchise value and wound up under normal insolvency proceedings”*.

For this case, we consider the following creditor hierarchy:

Description	Liabilities	Of which CM1	Assets available
Cash IM (unsecured)	1600	100	1600
Commercial loan (unsecured)	20		20
DF (unsecured)	0	0	0
CCP Equity	100		100

The assets available to the administrator are the remaining cash IM, the asset that has been bought with the commercial loan (we assume this could be sold at book value) and the CCP equity (we assume this has been kept in cash or another liquid investment). As all the losses have been allocated to clearing participants via VMGH, there are enough assets available to pay for all liabilities and CCP equity.

Losses in the counterfactual without compensation are as follows:

<b>Losses for NCWO</b>	<b>All CM</b>	<b>Of which CM1</b>	<b>CCP</b>
Cash IM	0	0	0
SITG	0	0	25
DF	800	50	0
Assessments	800	50	0
VMGH	775	77.5	0
CCP Equity	0	0	0

#### *Resolution without compensation*

We assume that the RA stepped in at some point before VMGH has to be used, for instance due to financial stability concerns.

In line with FSB guidelines, the proposed EU regulation foresees that CCP equity will be used in resolution first<sup>32</sup>. This will create a slightly changed waterfall – instead of all remaining losses be allocated via VMGH, some of the loss is borne by CCP equity:

<b>Step</b>	<b>Amount</b>	<b>Of which CM1</b>
Cash IM of Defaulters	400	
DF contribution of defaulters	200	
Skin-in-the-game (SITG)	25	
DF non-defaulting CM	800	50
Assessments (only surviving CMs)	800	50
CCP Equity	100	
VMGH	675	67.5

For comparison with the counterfactual, the losses for participants in resolution are:

<b>Losses for NCWO</b>	<b>All CM</b>	<b>Of which CM1</b>	<b>CCP</b>
Cash IM	0	0	0
SITG	0	0	25
DF	800	50	0
Assessments	800	50	0
VMGH	675	67.5	0
CCP Equity	0	0	100

<sup>32</sup> See Article 23 (b): the shareholders of the CCP under resolution bear first losses following the enforcement of all obligations and arrangements referred to in point (a) in accordance with that point;



The difference between the losses in resolution and recovery will determine NCWO claims: If losses in resolution are higher than in recovery (positive amounts in the table below), participants have a NCWO claim. Negative amounts show that participants are better off in resolution.

<b>NCWOL Analysis w/o compensation</b>	<b>All CM</b>	<b>Of which CM1</b>	<b>CCP</b>
Cash IM	0	0	0
SITG	0	0	0
DF	0	0	0
Assessments	0	0	0
VMGH	-100	-10	0
CCP Equity	0	0	100
<i>Sum</i>	<i>-100</i>	<i>-10</i>	<i>100</i>

This shows that the CCP shareholders would have a NCWO claim that would have to be covered by the RA.

The calculation of the counterfactual above appears very straightforward in this stylized example. We assume that VMGH is executed on the same days in recovery and resolution. In reality, this assumption might not always be valid. Pay-offs for CM1 might be very different between resolution and the counterfactual if VMGH is not commenced on the same day, as variation margin payments will be different every day. In more extreme cases, for instance if the RA deviates from the rulebook and does not utilize VMGH, or does so to a lesser extent, it would be even more difficult to estimate VM payments per counterparty.

*Adapted counterfactual: Recovery with compensation to clearing participants*

We now consider the same default as above, but with compensation to clearing participants. Use of the waterfall resources is as above:

<b>Step</b>	<b>Amount</b>	<b>Of which CM1</b>
Cash IM of Defaulters	400	
DF contribution of defaulters	200	
Skin-in-the-game (SITG)	25	
DF non-defaulting CM	800	50
Assessments (only surviving CMs)	800	50
VMGH	775	77.5

However, now VMGH does not result in losses to clearing participant, but they receive for the VM that was cut an instrument senior to CCP equity. How to structure these instruments will depend on the jurisdiction and further work may be required to evaluate the benefits and implications of various forms of instruments. If clearing participants receive such instruments automatically as part of VMGH<sup>33</sup>, the new creditor hierarchy will look as follows:

Description	Liabilities	Of which CM1	Assets available
Cash IM (unsecured)	1600	100	1600
Commercial loan (unsecured)	20		20
DF (unsecured)	0	0	0
Compensation instrument, nominal 775	775	77.5	100
CCP Equity	100		0

For the NCWO analysis, the losses in the counterfactual of recovery with compensation to clearing participants will be as follows:

Losses for NCWO	All CM	Of which CM1	CCP
Cash IM	0	0	0
SITG	0	0	25
DF	800	50	0
Assessments	800	50	0
VMGH	0	0	0
Compensation instrument	675	67.5	0
CCP Equity			100

#### *Resolution with the adapted counterfactual including compensation*

We assume the same conditions as the resolution case above, other than compensation being paid in recovery (or assumed in the counterfactual) to clearing participants who took losses from the use of recovery tools.

The order of tools used is the same as if there was no compensation:

Step	Amount	Of which CM1
Cash IM of Defaulters	400	
DF contribution of defaulters	200	
Skin-in-the-game (SITG)	25	
DF non-defaulting CM	800	50
Assessments (only surviving CMs)	800	50
CCP Equity	100	
VMGH	675	67.5

This results in the same losses in resolution for participants and the CCP:

<sup>33</sup> Compensation instruments need to be set up ex-ante, and the mechanisms to award these as part of loss allocation needs to be documented in the operating rules of the CCP.

<b>Losses for NCWO</b>	<b>All CM</b>	<b>Of which CM1</b>	<b>CCP</b>
Cash IM	0	0	0
SITG	0	0	25
DF	800	50	0
Assessments	800	50	0
VMGH	675	67.5	0
CCP Equity	0	0	100

Comparing the losses in resolution to the losses in the counterfactual, assuming there would have been compensation for the use of recovery tools results (positive amounts in the table below indicate that cost is higher in resolution):

<b>NCWOL Analysis with compensation</b>	<b>All CM</b>	<b>Of which CM1</b>	<b>CCP</b>
Cash IM	0	0	0
SITG	0	0	0
DF	0	0	0
Assessments	0	0	0
VMGH	675	67.5	0
Compensation instrument	-675	-67.5	0
CCP Equity	0	0	0
<i>Sum</i>	<i>0</i>	<i>0</i>	<i>0</i>

Having compensation for losses from recovery tools like VMGH in recovery would ensure that there are no NCWO claims for neither CCP shareholders nor clearing participants in recovery.

*Resolution with the adapted counterfactual including compensation, and compensation paid during resolution*

We assume the same conditions as the resolution case above, other than compensation being paid in recovery (or assumed in the counterfactual) and in resolution to clearing participants who took losses from the use of recovery tools.

The order of tools used is the same as if there was no compensation:

<b>Step</b>	<b>Amount</b>	<b>Of which CM1</b>
Cash IM of Defaulters	400	
DF contribution of defaulters	200	
Skin-in-the-game (SITG)	25	
DF non-defaulting CM	800	50
Assessments (only surviving CMs)	800	50
CCP Equity	100	
VMGH	675	67.5

In this case, clearing participants do not take losses from VMGH as they are awarded compensation instruments. The table below shows the losses after awarding compensation. How much these are worth depends on the future income of the CCP. In the worst case, there is no future income and the loss is 675. In the best case, there is future income to pay back participants and there is no loss. For the worst-case scenario, the losses are:

<b>Losses for NCWO</b>	<b>All CM</b>	<b>Of which CM1</b>	<b>CCP</b>
Cash IM	0	0	0
SITG	0	0	25
DF	800	50	0
Assessments	800	50	0
VMGH	0	0	0
Compensation instrument	675	67.5	0
CCP Equity	0	0	100

Comparing the losses in resolution to the losses in the counterfactual, assuming there would have been compensation for the use of recovery tools results (positive amounts are cost higher in resolution):

<b>NCWOL Analysis w/o compensation</b>	<b>All CM</b>	<b>Of which CM1</b>	<b>CCP</b>
Cash IM	0	0	0
SITG	0	0	0
DF	0	0	0
Assessments	0	0	0
VMGH	0	0	0
Compensation instrument	0	0	0
CCP Equity	0	0	0
<i>Sum</i>	<i>0</i>	<i>0</i>	<i>0</i>

There are no NCWO claims in this case. Should the CCP have future income, participants would have fewer losses in resolution and would end up better off than recovery. This however does not lead to any claims and does not change the case for compensation of clearing participants, namely that the parties who get losses allocated for the CCP to return to viability should receive compensation for doing so.

#### *Other creditors*

So far we haven't taken into account the other creditors, such as suppliers whose invoices haven't yet been paid. This because we have looked at a situation that arose from a default loss, where the best tools affect clearing participants only. Other creditors not affected by the default loss are not involved in loss allocation and therefore not disadvantaged.

If however a CCP's liabilities to such creditors are haircut without compensation for these creditors, for instance a bail-in, then this creditor should receive the same compensation instruments as clearing participants receive. Such creditors would have supported recovery and/or resolution in the same way as clearing participants, and therefore should be entitled to claims on future incomes as much as other participants who suffered losses to enable the CCP to survive.

*Generalization – Will compensation always reduce NCWO claims?*

It is difficult to generalize from one example. We however believe that the availability of compensation as a tool will reduce NCWO claims in general, as long as compensation in the form as claim to future income of the CCP is awarded also in resolution. By awarding compensation, clearing participants will not have higher but likely lower losses in resolution, therefore at minimum not affecting the NCWO claims, but likely reducing these claims if the losses in resolution have been covered by compensation.