



Recovery and resolution: Incentives Analysis

Follow-up to FSB's discussion paper "Financial resources to support CCP resolution and the treatment of CCP equity in resolution"

Introduction

The International Swaps and Derivatives Association (ISDA), The Futures Industry Association (FIA) and the Institute of International Finance (IIF and, together with ISDA and FIA, the Associations) represent the largest number of participants in national and global clearing, banking and financial markets. This incentive analysis is following the Associations' response¹ to the FSB discussion paper "Financial resources to support CCP resolution and the treatment of CCP equity in resolution"² (the discussion paper).

This analysis 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 expressed herein.

Management Summary

When considering recovery and resolution of CCPs, it is important not to look at CCP recovery and resolution in isolation, but to ensure the stability of the whole market and that incentives are aligned between all actors across both phases. In this paper we will review tools and processes around CCP recovery and resolution and analyze the incentives and disincentives they would each create for actions by

- CCP management,
- Clearing members and
- Clients.

¹ <https://www.isda.org/a/YrgME/FIA-IIF-ISDA-response-to-FSB-CCP-Equity-DP.pdf>

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

We will also review how these tools may be effected based on various legal structures, especially regarding CCPs with several clearing silos in one legal entity.

We have not covered the impact of tools for recovery and resolution on continuity of critical clearing services following resolution. We agree with the assessment in the discussion paper that those services can and should be covered by service contracts that include resolution, and that these topics will have to be addressed during resolution planning and resolvability assessments.

The analysis confirms that no tool is without trade-offs and disadvantages. That being said, however, there is strong support from members of the Associations, both sell-side and buy-side firms, that initial margin haircutting (IMH) and forced allocation raise significant concerns for market stability. As for variation margin gains haircutting (VMGH), which should only apply to suitable products, there are differences in members' views. Some members believe that due to, among other things, the potentially pro-cyclical and destabilizing nature of VMGH, it should be reserved for use on a very limited basis by the resolution authority (RA). Other Association members believe that a CCP should have the flexibility to use VMGH in recovery, subject to regulatory oversight by the CCP's supervisor, and that restricting use of the tool in recovery could result in the need for earlier entry into resolution, which they believe would also be destabilizing.

A resolution cash call might provide additional resources to the RA. However, incentives among the stakeholders listed above do not align very well if this tool is available, and many members believe cash calls are not suitable for CCP recapitalization (particularly if clearing members were to receive nothing in exchange for their cash).

The size of "skin-in-the-game" (SITG), the tranche of CCP funds in the default waterfall, is still being debated between clearing participants (clearing members and their clients) and CCPs, but we believe that the general incentives provided by SITG to align interests between CCP and participants are not disputed.

Members also strongly support providing compensation to clearing participants who bear losses in excess of clearing member default fund contributions and (capped) assessments and believe that compensation would provide an equitable solution as well as incentives for clearing participants to support the default management process, recovery and resolution.

Finally, the Associations wish to highlight the request made in their response to the discussion paper that the FSB re-evaluate the appropriateness of extending the no creditor worse off than in liquidation (NCWOL) safeguard to equity. The safeguard originated as a means of reducing the likelihood of litigation by creditors challenging a RA's deviation from the requirement of *pari passu* treatment of similarly situated creditors, and it is not at all clear why equity holders should be entitled to anything more than the residual value of a remnant CCP, after the payment of all creditor claims (including compensation claims of clearing participants). At the very least, the FSB should clearly articulate what the legal basis would be for litigation by a CCP's equity holder, and if it is unable to do so, it should limit the safeguard's coverage to creditors.

Detailed Incentives Analysis

Tool/Resource	Impact on / Incentives for		
	CCP management ³	Clearing members and clients (together participants)	Different business models and legal structures
VMGH ⁴	<ul style="list-style-type: none"> ✗ Would not incentivize more conservative risk management practices as all loss allocation tools to participants will shield equity⁵. ✗ Could present a conflict of interest as the CCP management would allocate losses to protect the CCP's equity holders. ✗ Could be viewed as forcing clearing participants to prop up a CCP whose management failed to satisfy the CCP's primary function of credit risk management. <p>Note: Compensation to clearing participants for the amount of their total losses resulting from the use of recovery tools (see at the end of the recovery section) would mitigate these disincentives.</p>	<ul style="list-style-type: none"> ✓ Could incentivize participation in the CCP's default management process (DMP) as exercise of the tool in recovery would be viewed as highly undesirable (for clients applicable only if they are allowed to bid in an auction). ✓ Could potentially incentivize participants on the opposite side of the market from the defaulting clearing member (and, thus, at risk of having their gains haircut) to reduce their positions, which could possibly provide market liquidity for the CCP to hedge the defaulter's portfolio⁶. ✗ Could have pro-cyclical and destabilizing impact as losses would be propagated to other participants in times of stress and could lead to disorderly attempts to exit a CCP. ✗ Could be potentially challenging to members clearing for clients to 	

³ We assume that CCP management would act in the interest of equity holders and that their interests are broadly aligned.

⁴ Only if VMGH is suitable for the products cleared.

⁵ While there is no further CCP capital at risk if losses are allocated to clearing participants, there will however be significant reputational impact and potential cost if the CCP uses mutualized resources in the waterfall.

⁶ This may not always be the case given VMGH applies to all participants with gains and is calculated at a portfolio level (rather than at a product level).

Tool/Resource	Impact on / Incentives for		
	CCP management ³	Clearing members and clients (together participants)	Different business models and legal structures
		<p>operationalize, especially with respect to clients in indirect clearing arrangements, or for clients such as fund managers who would have to allocate to underlying clients.</p> <ul style="list-style-type: none"> ✘ Could disproportionately impact participants with directional portfolios. 	
IMH	<ul style="list-style-type: none"> ✘ Would disincentive more conservative risk management practices as all loss allocation tools to participants will shield equity. ✘ Could be viewed as forcing clearing participants to prop up a CCP whose management failed to satisfy the CCP's primary function of credit risk management. 	<ul style="list-style-type: none"> ✔ Could incentivize participation in the DMP as exercise of the tool in recovery would be viewed as highly undesirable (for clients applicable only if they are allowed to bid in an auction). ✘ Would have pro-cyclical and destabilizing impact as losses would be propagated to other participants in times of stress and would lead to disorderly attempts to exit a CCP. ✘ Would run counter to the fundamental premise that initial margin (IM) is meant to cover the default risk of the participant posting the IM and should not be a mutualized resource. ✘ Would run counter to incentives for clearing and treatment of cleared transactions in bank regulatory capital regulations if IMH is also 	<ul style="list-style-type: none"> - Bankruptcy-remote IM, such as margin subject to a customer protection regime, would presumably not be subject to haircutting.

Tool/Resource	Impact on / Incentives for		
	CCP management ³	Clearing members and clients (together participants)	Different business models and legal structures
		<p>meant to cover bankruptcy-remote collateral.</p> <ul style="list-style-type: none"> ✗ Would incentivize firms to post as much collateral as bankruptcy-remote assets as possible (assuming IMH does not cover bankruptcy-remote assets), therefore complicating the CCP's liquidity management. ✗ Would be inconsistent with FSB guidance⁷ that resolution should <i>"maintain continuous access by participants to securities or cash collateral posted to and held by the CCP in accordance with its rules and arrangements and that is owed to such participants"</i>. 	
Limited cash calls (assessments)	<ul style="list-style-type: none"> ✗ Would not incentivize more conservative risk management practices as all loss allocation tools to participants will shield equity^{8 9}. 	<ul style="list-style-type: none"> ✓ Would incentivize participation in the DMP for clearing members, as all recovery tools including assessments are undesirable. ✗ Would potentially destabilize clearing members under stressed market conditions. 	<ul style="list-style-type: none"> - In the case of CCPs with multiple siloed segments, assessments would be silo-specific and would not have any impact on the wider structure of the CCP (unless it destabilized members who have memberships in

⁷ FSB "Guidance on Central Counterparty Resolution and Resolution Planning", see <http://www.fsb.org/wp-content/uploads/P050717-1.pdf>

⁸in case of limited cash calls equity is only shielded as long as the losses do not exceed the limited cash call if there are no other loss allocation tools or provisions shielding equity

⁹ While there is no further CCP capital at risk, there will however be significant impact and potential cost if the CCP uses mutualized resources in the waterfall. (if used in recovery)

Tool/Resource	Impact on / Incentives for		
	CCP management ³	Clearing members and clients (together participants)	Different business models and legal structures
		<ul style="list-style-type: none"> ✓ Would not directly affect clients (but would reduce likelihood they would be subjected to tools such as VMGH). 	both affected and unaffected segments).
Partial Tear-Up (PTU)	<ul style="list-style-type: none"> ✗ Would provide slightly less incentive to conduct effective auction. ✗ Could lead to risk-taking/ introduction of risky products without well-defined DMP. 	<ul style="list-style-type: none"> ✓ Would incentivize participation in the DMP, as use of tool in recovery would be viewed as highly undesirable (for clients applicable only if they are allowed to bid in an auction). ✓ Would possibly disincentivize maintenance of large illiquid positions. 	<ul style="list-style-type: none"> ✓ Could be executed regardless of business model or legal structure, as only a subset of transactions would be torn up.
Full tear-up and service closure	<ul style="list-style-type: none"> ✓ Could incentivize CCP management to try to make other position allocation tools work because a full tear-up and service closure would result in loss of an entire business segment. ✗ Could disincentivize CCP management to prevent this from happening as full tear-up allocates all losses to participants and shields CCP equity. 	<ul style="list-style-type: none"> ✓ Would incentivize participation in the DMP, as use of tool in recovery would be viewed as highly undesirable (for clients applicable only if they are allowed to bid in an auction). ✗ Would not be a credible tool for systemically important clearing services, particularly one that is the only, or one of the only, services that clears products subject to mandatory clearing requirements. 	<ul style="list-style-type: none"> - Although effectiveness of the tool has never been tested, could possibly be executed by a CCP with multiple clearing services if they (1) are properly structured with carefully drafted and legally effective non-recourse provisions that shield the CCP and its other services from the losses and (2) do not have other linkages that could result in closure of one segment destabilizing other segments.
Forced allocation	<ul style="list-style-type: none"> ✗ Could present slightly less incentive to conduct effective auction if this tool is available. ✗ Could result in significant detrimental impact on a CCP using 	<ul style="list-style-type: none"> ✗ Would incentivize participation in DMP as use of tool in recovery would be viewed as highly undesirable. 	<ul style="list-style-type: none"> ✓ Could be executed regardless of business model or legal structure.

Tool/Resource	Impact on / Incentives for		
	CCP management ³	Clearing members and clients (together participants)	Different business models and legal structures
	<p>this tool (in recovery) because arbitrary decisions on who positions are allocated to cannot be taken by a commercial party with their own interests at stake.</p>	<ul style="list-style-type: none"> ✓ Could possibly disincentivize maintenance of large illiquid positions compared to PTU. ✗ Could present challenges to firms to manage the risk allocated to them. ✗ Would be inequitable, as the choice of participants to whom transactions are allocated would be arbitrary and participants cannot manage risk to reduce the probability of being allocated positions.¹⁰ ✗ Would not be an appropriate tool to apply to clients, particularly ones that are not large, sophisticated financial institutions. 	
SITG	<ul style="list-style-type: none"> ✓ Would incentivize a good risk management framework, especially in relation to membership criteria, products to be cleared and DMP. 	<ul style="list-style-type: none"> ✓ Could be structured to have no negative impact on incentives, e.g. if the second SITG contribution is positioned beneath member assessments in default waterfall. ✓ Would provide comfort that the CCP has confidence in its risk management framework. - For clients should be no negative impact on incentives since clients typically are not allowed to participate in DMP. 	<ul style="list-style-type: none"> - Would need to be backed by CCP equity, but can be structured to follow the business model or legal structure.

¹⁰ This is contrary to tools like VMGH or PTU, where firms can to an extent control how much they will be affected. For instance, if a firm clears many illiquid contract, their portfolio is more likely to be torn up.

Tool/Resource	Impact on / Incentives for		
	CCP management ³	Clearing members and clients (together participants)	Different business models and legal structures
Compensation to clearing participants for the amount of their total losses resulting from the use of recovery tools.	<ul style="list-style-type: none"> ✓ Would incentivize appropriate sizing of default funds (on top of SITG) – extends incentive to properly size SITG in a way that is commensurate with the amount of resources available in the rest of the waterfall. 	<ul style="list-style-type: none"> ✓ Would not disincentivize participation in DMP (for clients applicable only if they are allowed to bid in an auction). ✓ Would strongly incentivize continuing to clear through the recovered CCP. 	<ul style="list-style-type: none"> ✗ Structure of compensation can be more difficult if the legal structure or the business model is very complicated.
Resolution Tools			
VMGH ¹¹	<ul style="list-style-type: none"> - Whether a CCP's owners and management are affected would depend on whether the RA dilutes or extinguishes CCP equity. As decisions are taken by the RA, CCP management and owners have no control anymore and cannot react to incentives or disincentives. 	<ul style="list-style-type: none"> ✓ Could incentivize participation in the DMP, as recovery/resolution tools are undesirable (for clients applicable only if they are allowed to bid in an auction). ✓ Could potentially incentivize participants on the opposite side of the market from the defaulting clearing member (and, thus, at risk of having their gains haircut) to reduce their positions, which could possibly provide market liquidity for the CCP to hedge the defaulter's portfolio. ✓ Would not present conflict of interest between CCP management and clearing participants as the tool would be administered by the RA. 	

¹¹ Only if VMGH is suitable for the products cleared.

Tool/Resource	Impact on / Incentives for		
	CCP management ³	Clearing members and clients (together participants)	Different business models and legal structures
		<ul style="list-style-type: none"> ✗ Would be difficult to operationalize beyond clearing members, especially for clients and indirect clients. 	
IMH	- As above.	- Same as in recovery.	- Same as in recovery.
Limited, reserved RA cash calls for loss allocation in resolution.	<ul style="list-style-type: none"> ✗ If unaccompanied by extinguishment of old equity and issuance of new equity to members, would present inequitable windfall to old equity and increase moral hazard risk. 	<ul style="list-style-type: none"> ✓ Would incentivize participation in DMP as use of this tool in resolution would be highly undesirable. ✗ Would potentially destabilize clearing members under stressed market conditions. ✗ Would not be applicable to clients. 	- Losses can be allocated regardless of business model or legal structure.
Bail-in of liabilities to clearing participants (see pages 15 and 22 of the discussion paper). Should this mean bailing in variation margin (VM) liabilities of the CCP, this tool is similar with Compensation (see below). Otherwise the incentives will mainly depend on the nature of the liability that is bailed in.	- As above.	<ul style="list-style-type: none"> ✗ Not all participants would be able or willing to hold CCP equity¹². ✓ Receiving equity in respect of liabilities owed to them by the CCP is better than the extinguishment of such liabilities (as would be the case in the exercise of loss allocation tools). 	<ul style="list-style-type: none"> ✗ Would depend on liabilities to be bailed-in, and what equity affected entities will receive.
PTU	- As above under VMGH.	- Same as in recovery.	- Same as in recovery

¹² This could be for instance due to regulatory constraints, capital requirements or investment constraints.

Tool/Resource	Impact on / Incentives for		
	CCP management ³	Clearing members and clients (together participants)	Different business models and legal structures
Full tear-up and service closure	- As above under VMGH.	- Same as in recovery.	- Same as in recovery.
Forced allocation	- As above under VMGH.	- Same as in recovery.	- Same as in recovery.
Compensation to clearing participants for the amount of their total losses resulting from the use of resolution tools	- As above under VMGH.	- Same as in recovery.	- Same as in recovery.
Exposure of equity via modification of contractual loss allocation arrangements (see discussion paper on page 21. We understand this proposal as mandating additional tranches of SITG).	<ul style="list-style-type: none"> ✓ Would incentivize to provide appropriately sized resources in the waterfall. Similar to how the current tranche of SITG incentivizes good risk management and appropriate sizing of IM, another tranche of SITG before the use of assessments would incentivize the CCP to appropriately size the default fund. ✓ Would incentivize more conservative risk management by CCP management since equity would be exposed to losses in recovery to a greater degree. ✗ Minimum capital levels would still be shielded via the NCWOL safeguard. This requires more discussion – in insolvency the CCP would incur administrative costs that might to be paid from CCP equity. This would 	<ul style="list-style-type: none"> ✓ Additional equity before assessments would incentivize the CCP to size the default fund appropriately and employ conservative risk management practices. Both of those will make the use of assessments and recovery tools less likely and increase confidence in the CCP. 	<ul style="list-style-type: none"> - SITG needs to be backed by CCP equity, but can be structured to follow the business model or legal structure.

Tool/Resource	Impact on / Incentives for		
	CCP management ³	Clearing members and clients (together participants)	Different business models and legal structures
	have to be factored into the NCWOL counterfactual valuation.		
Write down of equity and cancellation of existing shares (See discussion paper on page 21. We understand this as extinguishing of shares. Dilution is covered below).	<ul style="list-style-type: none"> ✓ Would incentivize the CCP to protect its equity by strengthening the waterfall, but only if there is no NCWOL claim for CCP shareholders. 	<ul style="list-style-type: none"> ✓ Incentives between participants and CCP are aligned. 	<ul style="list-style-type: none"> ✗ Depending on facts and circumstances, current articulation of NCWOL as applying to equity could result in NCWOL compensation to equity, which could make structuring an effective resolution strategy more challenging for a RA.
Bridge CCP (Includes writing down equity of the CCP shareholders)	<ul style="list-style-type: none"> ✓ Would incentivize the CCP to protect its equity by strengthening the waterfall, but only if there is no NCWOL claim for CCP shareholders. 	<ul style="list-style-type: none"> ✓ Would better align incentives between participants and CCP. ✗ Losses depend on the events leading to resolution and whether a liability is moved to the bridge entity or not and therefore can diverge from the counterfactual insolvency. 	<ul style="list-style-type: none"> - Would require more advance planning by RA than use of strategy not involving a bridge, but would provide greater certainty to the market that the RA would have to act quickly to restore a matched book and return critical operations to normalcy. - Would be critical for the RA to ensure that a bridge CCP would have all necessary licenses and regulatory approvals to continue operating the failed CCP's business – including ones that would allow the bridge to offer services to participants located outside its jurisdiction. ✓ Would insulate the CCP's business transferred to the bridge from

Tool/Resource	Impact on / Incentives for		
	CCP management ³	Clearing members and clients (together participants)	Different business models and legal structures
			litigation claims that might be asserted against the failed CCP.
<p>Dilution of shares (These incentives/disincentives will also apply to:</p> <ul style="list-style-type: none"> - bail-in of liabilities of clearing participants, - bail-in of long-term debt to provide pre-funded resources solely for recapitalization, - committed but unfunded capital instruments held by sophisticated, well-capitalized institutional investors unaffiliated with the CCP and - use of cash calls for recapitalization <p>if these tools lead to dilution of CCP equity.</p>	<p>✓ Would incentivize the CCP to protect its equity by strengthening the waterfall, but only if there is no NCWOL claim for CCP shareholders.</p>	<p>✗ Unless equity holders of failed CCP are significantly diluted, possible conflicts between them and new equity holders on strategy and/or management of the resolved CCP could undermine the prospects for an effective resolution, which would expose participants to potential future losses as CCP's business franchise would be more likely to fail.</p>	<p>✗ Would be critical that existing equity holders of the failed CCP be significantly diluted in order to avoid conflicts between them and new equity holders that could undermine the prospects for an effective resolution.</p> <p>✗ Is important to make it clear that NCWOL safeguard in no event applies to equity in the case of its dilution.</p>
Third parties willing to buy the CCP, in the	- Whether CCP owners and management are affected depends on whether the RA dilutes or	✓ Would have no direct impact on clearing members.	✓ Would not require upfront pre-funded resources.

Tool/Resource	Impact on / Incentives for		
	CCP management ³	Clearing members and clients (together participants)	Different business models and legal structures
process providing capital.	extinguishes CCP equity or not. As decisions are taken by the RA, CCP management and owners have no control anymore and cannot react to incentives or disincentives.	<ul style="list-style-type: none"> ✓ Would be an equitable way of recapitalizing the CCP. ✓ Would ensure financial stability while supporting continuity of clearing. 	
Use bail-in-able long term-debt to provide pre-funded resources reserved solely for recapitalization.	<ul style="list-style-type: none"> - As above. ✗ Would increase costs associated with implementing this tool, either to the CCP or leading to higher clearing fees. 	<ul style="list-style-type: none"> - Would have no direct impact on clearing participants unless costs are passed on. - Would be equitable, but could be costly if the CCP passed on cost by increased fees to clearing participants. ✓ Would ensure financial stability while supporting continuity of clearing. 	<ul style="list-style-type: none"> ✓ Would provide a comprehensive plan for recapitalizing a resolved CCP without use of taxpayer funds. ✓ Provides for certainty of recapitalization since resources are prefunded/ readily available. ✗ Could be more costly than doing nothing and hoping third parties purchase a CCP or a subset of participants voluntarily recapitalize it. ✓ Would significantly reduce likelihood of NCWOL compensation to equity.
A subset of clearing participants agrees to voluntarily recapitalize the CCP.	<ul style="list-style-type: none"> - As above. 	<ul style="list-style-type: none"> ✓ Would have no direct impact on clearing members. Sale to clearing participants who want to ensure continuity is similar as a sale to a third party, therefore an equitable way of recapitalizing the CCP. ✓ Would ensure entire membership base not burdened; would allow those who want to withdraw to exit without additional exposure to the CCP. 	<ul style="list-style-type: none"> ✗ Would not represent a comprehensive plan for recapitalizing a resolved CCP without taxpayer funds, as it is contingent upon a subset of participants electing to step up in stressed market conditions. ✓ Would not require upfront pre-funded resources.

Tool/Resource	Impact on / Incentives for		
	CCP management ³	Clearing members and clients (together participants)	Different business models and legal structures
Committed but unfunded capital instruments held by sophisticated, well-capitalized institutional investors unaffiliated with the CCP.	<ul style="list-style-type: none"> - As above. ✘ Would increase costs associated with implementing this tool, either to the CCP or leading to higher clearing fees. 	<ul style="list-style-type: none"> - Would have no direct impact on clearing participants unless costs are passed on. - Would be equitable, but would increase clearing costs if the CCP passed on costs by increased fees to clearing participants. 	<ul style="list-style-type: none"> ✓ Would be more credible plan than doing nothing and hoping third parties or a subset of clearing participants purchase the resolved CCP. ✓ Would likely be less costly on a BAU basis than bail-inable long-term debt. ✘ Would not reduce likelihood of NCWOL compensation to equity under current articulation of NCWOL safeguard. ✘ Would present performance risk related to the institutions who have committed to provide resources.
Use of cash calls for recapitalization (Note that cash calls are a special case of committed but unfunded capital instruments for which the CCP does not have to pay).	<ul style="list-style-type: none"> - No longer affected at this stage if CCP's equity is extinguished and equity is issued to members in exchange for meeting their cash calls. ✘ If members were not compensated with equity or other instruments and CCP's equity were not either extinguished or significantly diluted, would represent inequitable windfall benefitting equity and have significant moral hazard implications. 	<ul style="list-style-type: none"> ✘ Would be an inequitable tool if clearing members were not compensated. If members were compensated with equity or other instruments, they would have an incentive to continue clearing through the resolved CCP. ✘ Not all members would be able or willing to hold CCP equity. ✘ Would not be applicable for clients. 	<ul style="list-style-type: none"> ✘ Would present performance risk, as it is contingent on participants having the liquidity and financial capacity to contribute resources in stressed market conditions.

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About ISDA

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