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What is the Resolution Plan for CCPs?

In the midst of a dramatic increase in the number of transactions channeled into central counterparties as required by regulation, CCPs have arguably become one of the most systemically important of any systemically important financial institution ("SIFI").

Securities and derivatives clearinghouses ("CCPs") play a crucial role in reducing systemic risk by facilitating the netting of exposure and the mutualization of tail risk among many participants. Following the Dodd-Frank Act, the volume of transactions (as measured by trade count or notional exposure) going through these institutions has increased significantly and will continue to do so. In addition, the use of clearinghouses is no longer optional: In the United States, all derivatives deemed standardized must be cleared on a CCP. The EU and Asia are following this requirement in close succession.¹ The size and required use of CCPs demands careful scrutiny of how those institutions will manage a potential failure, and whether the risk concentrated in CCPs represents a new single point of failure for the entire system.

The issue of resolution is even more important given that many CCPs have migrated from being utilities, owned by members, to private for-profit institutions. This model introduces an inherent tension (and possible conflict) between a CCP's role as a market utility and its commercial objectives to increase revenues and market share.

In order to achieve the objectives of global regulatory reform and manage market and economic risk effectively, two questions must be asked and answered. First, are we confident that CCPs have sufficient financial safeguards to minimize the threat of the new "too big to fail"? Second, if a CCP should fail, how can that failure be managed to limit market contagion, avoid pro-cyclicality and ensure the continuity of critical financial market functions?

Recapitalization should be preferred over liquidation.

Maintaining critical operations of the CCP should be the driving principal in default. Existing industry solutions advocate, and CCP frameworks seem to favor, tear-up and/or liquidation as the current solution to resolution. This is largely because neither a clear recapitalization fund nor a practical resolution plan for CCPs has yet been discussed. However, there are several issues with liquidation as a preferred solution.

This paper proposes the steps required to establish a credible CCP resolution framework to manage the unlikely event of a CCP failure. The scope is separate and distinct from the valuable work related to CCP recovery tools (measures to allocate losses) that is ongoing by industry groups and regulators.

Recommended solutions for consideration

- A standard, disclosed stress test framework should be mandated by regulators and used to size "Total Loss Absorbing Resources."
- The CCP's entire Total Loss Absorbing Resources should be fully pre-funded.
- CCPs should be recapitalized rather than liquidated upon failure, to continue systemically important activities.
- CCPs should have "Recapitalization Resources" to allow opening on the business day following failure with a fully funded Guarantee Fund.
- CCPs should contribute to the Guarantee Fund and Recapitalization Resources requirements the greater of 10% of the Guarantee Fund or the largest single clearing member contribution.
- Beyond this minimum, CCPs should retain flexibility as to how such resources are tranched and allocated.

¹Following a global 2008 commitment by the G-20, the central clearing of OTC derivatives transactions is now mandated under the Dodd-Frank Act, European Market Infrastructure Regulation (EMIR) and laws in other jurisdictions.

First, liquidation of a failed CCP could result in the immediate collapse in the price of many types of collateral typically used for initial margin in cleared, as well as non-cleared, markets (the so-called "fire-sale problem").

Second, although the liquidation and tear-up of trades would provide some immediate crystallization of losses to counterparties and potentially allow for the return of guarantee funds and initial margins, this would create asymmetry of risk across market participants, resulting in extreme price volatility and unpredictable levels of gain and loss on any individual portfolio. In addition, the time it would take to coordinate a full tear-up (inclusive of agreeing on final settlement prices) and/or liquidation could leave many counterparties with an extended period of uncertainty, where risk is unclear and they are unable to replace closed-out trades on the business day following a failure.

The systemic destabilization caused by CCP liquidation would increase when options for market participants to seek replacement services are limited. For many centrally cleared products, the market is either vertically integrated with execution venues (i.e., in the futures market) or a single CCP is the only clearer for specific OTC derivatives, repo or securities products. In each case, in order to transact in these products, market participants are required to clear their transactions through a single CCP without an option to easily replace the risk in the event of a CCP failure.

Variation Margin Gains Haircutting ("VMGH"), or the reduction of unpaid payment obligations, while well intended by its proponents, is equally flawed as a sole solution to resolution. VMGH could have unexpected consequences: End users who expected cash payments would be likely to liquidate assets in order to raise funds-including the same assets that serve as collateral for initial margin. This would depress the value of these assets and weaken the market, creating a pro-cyclical scenario that could further destabilize a collapsing market.

It is possible that VMGH could be used as an interim resource prior to a proper CCP recapitalization plan being implemented. Use of VMGH as an interim measure presumes the default management process has remained effective but additional resources are required to facilitate the allocation of losses after a failure.

Is the current framework sufficient to address a possible CCP failure?

The failure of a CCP would occur at the point where loss absorbing resources are insufficient for the CCP to meet its obligations as a going concern. Currently, upon the failure of a clearing member, loss absorbing resources are allocated as follows:

- **Defaulting member collateral:** A defaulting member's initial margin and guarantee fund contribution are the first source of offsetting funds against losses.
- CCP contributions: Some, but not all, CCPs contribute resources as a first tranche of losses after initial margin.
- Non-defaulting member guarantee fund: The nondefaulting members' contributions to the guarantee fund serve as the primary defense against losses that exceed the defaulting member's initial margin and guarantee fund contribution.
- Non-defaulting member assessments: To mutualize and cover remaining losses, the CCP may assess non-defaulting members for predefined or, in some cases, uncapped amounts. These assessments are often a multiple of a member's original guarantee fund contribution.

There are several issues with this framework. First, CCPs size their loss-absorbency resources via their own proprietary models. While these models may in fact be robust, it remains challenging to understand how resources are sized since CCPs do not share their stress scenarios and associated inputs and methodologies with members or members' clients. Thus, market participants cannot have full confidence in the sufficiency of the resources. Furthermore, as CCPs clearing the same products use different approaches to sizing resources, the ability for a member to compare CCPs from a risk perspective becomes nearly impossible. This opacity stands in stark contrast to banks, whose standardized stress tests are conducted by the Federal Reserve Board (and are underway by the Bank of England) with published results on a regular basis.2

Without a credible recapitalization resolution strategy, policymakers confronting a failed CCP will be presented with the same Hobson's choice faced during the 2008 financial crisis. Given the choice between liquidating a failing CCP (thereby ceasing its critical market functions) and bailing out the CCP with taxpayer funds, policymakers will likely be forced to choose the latter.

²A framework for stress testing the UK Banking System (October 2013) requested comments on whether CCPs should be held to the same stress testing as U.K. banks.

Second, once the guarantee fund is depleted, the CCP may require additional assessments from clearing members to cover losses, as described above. Meeting these requirements could prove difficult during a market crisis when the ability to provide liquidity and capital may be challenged. Moreover, it is possible, and even likely, that if one CCP is in a stress event other CCPs will be impacted. Should more than one CCP call on members to fund contingent liabilities simultaneously, the consequences would be magnified-placing additional stress on markets at the worst possible time.

Third, the guarantee fund of most CCPs is typically funded almost entirely by clearing member contributions, with the CCP making minimal, often fixed, contributions that don't scale to correspond to risk. The current risk mutualization model means that the CCP often has little, if any, direct financial stake in the funds used to cover losses from default. This can be problematic given their conflicting objectives of market stability versus profit maximization and could allow for growth at the expense of appropriate rigor in risk management.

It's the right time to put in place a resolution framework and properly funded recapitalization resources.

Given the importance of CCPs, recapitalization should be the desired outcome in the event of a failure. Recapitalization would occur only after all losses associated with a failure have been allocated and would allow systemically important activities to continue. Recapitalization also avoids the uncertainty associated with liquidation and/or tear-up of trades, and reduces the likelihood and impact of fire-sale risk on collateral.

Proposed resolution framework and process

- · The supervisory authority closes the CCP or its holding company.
- A resolution authority charters and transfers operating subsidiaries to a bridge holding company.
- · The CCP or its holding company is recapitalized by transferring liabilities to the bridge company until the balance sheet reaches appropriate levels.
- The escrowed recapitalization resources would be used to create a new guarantee fund without requiring initial contributions from CCP members.

We believe that substantive changes are needed to ensure that CCPs can continue as ongoing concerns and serve as the market-stabilizing force envisaged by regulators. In order to align protections to the current market environment and limit the potential for market disruption and systemic risk, we propose that:

 Standardized regulatory stress testing and disclosure should be mandatory to determine the size of required loss absorbing resources. A regulatory driven framework based on sufficiently severe stressed macroeconomic conditions would provide a consistent, initial baseline from which CCPs can start to size their loss absorbing resources. CCPs would need to comply with this baseline set of macro assumptions, which would be part of a broader required framework that includes idiosyncratic stresses on basis/ higher order risk exposures embedded within individual CCP portfolios. Regulatory-driven macro scenarios, combined with the specific micro scenarios unique to particular asset classes and portfolios, would be used to determine the financial safeguards needed to cover losses arising from the defaults of the "n" largest net debtors (where "n" represents the number of member defaults in accordance with current regulatory coverage requirements).

A consistent, disclosed scenario-based framework, along with the disclosure of results, will create CCPs that are more resilient and transparent, fostering confidence in members and their clients, settlement banks, liquidity providers and other market participants.

 Remove uncertainty by prefunding all loss-absorbency resources to remove reliance on members' unfunded commitments or assessments during market instability. Forcing the total liability of all market participants to be fully funded will remove the current uncertainty as to whether funds will be available at the time of greatest need. This could also allow regulators to work in close coordination with one another to monitor the total liabilities of all market participants in aggregate across the system. Although the removal of assessments will likely increase the upfront funding obligations of many market participants, the liability of each participant (measured as the current guarantee fund and future assessments) may be unchanged or lower based on a regulatory stress framework.

- CCPs should have a minimum contribution to the Guarantee Fund. We recommend that CCPs contribute the greater of 10% of member contributions or the largest single clearing member contribution. Having a minimum level of "skin in the game" would more appropriately align incentives amongst the CCP and its members and ensure proper risk management and governance. Aligning and scaling CCP contributions with those of the largest clearing member will also help to ensure that membership requirements remain strong and will limit the possibility that any single member becomes too large as a proportion of total risk (concentration risk).
- · A disciplined resolution framework, with designated recapitalization resources funded by CCPs and members, should become the market standard. In the event of a failure, CCPs should have recapitalization resources on hand. Contributions would be in addition to the guarantee fund and would be held in escrow at a central bank or government agency. These resolution resources (the "recap fund") would only be tapped once an existing guarantee fund is fully or nearly depleted, after all losses have been fully allocated (via margin haircutting or other tools), and resolution has been triggered. The recap fund would allow for orderly resolution once a CCP has reached the point of nonviability (the "end of the waterfall").

Only the appropriate government agency would trigger a CCP resolution, at which time the recap fund would be "bailed in" and exchanged for equity in the recapitalized CCP. The resources would be used to establish a new guarantee fund, which would allow a failed CCP to open on the following business day, limiting the potential for market contagion or further destabilization.

This is a similar approach to that seen for SIFI banks in the U.S., where the Federal Reserve is expected to require loss absorbing resources of bank holding companies to facilitate resolution without taxpayer assistance. In Europe, under the new Bank Recovery and Resolution Directive, banks and investment firms will also be required to hold a minimum amount of liabilities that would be "bailed in" as part of resolution.

Similar to our proposal for the guarantee fund, both the CCP and its members should contribute to the recap fund.3 A recap fund based on contributions from all interested parties will help to align their shared interests.

How does this resolution proposal fit in to existing and evolving legal constructs?

U.S.: CCPs facilitate the clearing, settlement and recording of monetary and other financial transactions, such as payments, securities and derivatives contracts (including derivatives contracts for commodities). As such, a CCP would be deemed a "financial company" under the criteria defined in Title II of the Dodd-Frank Act.* In the event of failure, CCPs would be eligible to be resolved by the Federal Deposit Insurance Corporation ("FDIC").

U.K.: The Bank of England's (Bank) Special Resolution Regime (SRR) was extended (via the Financial Services Act of 2012) to CCPs and other non-bank financial entities. Where a CCP is failing (or likely to fail), the Bank could transfer the CCP business to a wholly or partially Bankowned bridge entity, provided that such a transfer is in the public interest. Her Majesty's Treasury is introducing secondary legislation to enact these new SRR powers following its 2013 consultation on Secondary legislation for Non-Bank resolution regimes.

European Commission: The European Commission is expected to introduce draft legislation on CCP recovery and resolution by early 2015 after the Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Organizations ("CPSS-IOSCO") and the Financial Stability Board ("FSB") issue final financial market infrastructure ("FMI") resolution and recovery international standards. This follows the 2012 Consultation on a possible recovery and resolution for financial institutions other than banks.

*A "financial company" for purposes of Title II includes a company organized under U.S federal or state law that is "predominately engaged" in activities that the Federal Reserve has determined are financial in nature or incidental thereto for purposes of section 4(k) of the Bank Holding Company Act. A company is "predominately engaged" in "financial activities" if it derives a least 85% of its total consolidated revenues from such activities. Absent unusual facts and circumstances, a CCP in the United States is a "financial company" because 85% or more of its revenue is derived from safekeeping, custody, clearance, settlement, extensions of credit and hilateral or multilateral netting services all of which are not only financial activities but within the business of banking. Indeed, the core function of a CCP is to substitute itself as counterparty on both sides of a trade, which is essentially substituting its credit for the credit of the two counterparties, and reducing the overall credit risk of transactions through the bilateral or multilateral netting of obligations. Making extensions of credit either as a lender or guarantor, or providing bilateral or multilateral netting services, are traditional banking functions.

³ The CCP would retain flexibility over the form the recapitalization resources would take in its capital structure.

 Beyond the minimum CCP contribution, and provided that total loss absorbing resources are properly sized and fully pre-funded, CCPs should retain flexibility as to how total resources are tranched and allocated among the CCP, members and end users. CCP flexibility on tranching and allocating total loss absorbing resources could help alleviate the funding requirement that will be associated with the elimination of future assessments and the creation of new recapitalization resources by shifting some of the additional burden to end users in the form of higher initial margin. This approach is simply a recalibration of the allocation of total loss absorbing resources and moves the market more towards a defaulter pay model, where initial margin is increased as the first tranche in the waterfall. Raising initial margin levels could be achieved in a number of ways, including—but not limited to—applying a higher confidence interval or longer liquidation period assumption beyond regulatory minimums.

CCP flexibility on tranching and allocating total loss absorbing resources presumes a competitive landscape for clearing services.

The case for change

We believe this is an opportune time to establish safeguards for the future; namely, a framework that will allow for CCP resolution and recapitalization to protect market participants in the event of a CCP failure or crisis scenario. As described above, recapitalization of a failed CCP is always preferable to liquidation: it preserves the operation of the CCP's systemically important functions and its value as a going concern, while significantly reducing the probability that the failure of a CCP and associated risk asymmetry or fire-sales could destabilize the broader market.

To ensure a CCP has appropriate available resources, the default funding waterfall should eliminate unfunded assessments on non-defaulting clearing members, but be extended to include dedicated recapitalization resources. These resources should be funded from the contributions of CCPs as well as their clearing members. The size of the funding resources—including the recap fund—will be defined by regulatory-driven, transparent and rigorous stress tests, with scenarios and results that are fully disclosed to participants. This proposed approach will promote greater market confidence in CCPs, providing the last step to achieving the promise of the new centrally-cleared market paradigm driven by global legislation and regulations.

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