The Systemic Risk Council

The Hon. Randal K. Quarles, Chair
Financial Stability Board
Bank for International Settlements
Centralbahnplatz 2
CH-4002 Basel
Switzerland

Copy:

Klaas Knot, Vice Chair
Financial Stability Board

Mark Branson, Chair
FSB Resolution Steering Group

SUBMITTED VIA FEDEX

Re: CCP RESOLUTION

Dear Chairman Quarles:

This letter sets out the response of the Systemic Risk Council to the Financial Stability Board's discussion paper on the resolution of central counterparty clearing houses.[1]

After some introductory remarks providing background to this policy issue, the comment letter has five sections, setting out the views of the Systemic Risk Council (SRC) on why in-life recovery plans will not always suffice; two fundamental principles that should guide the design of resolution regimes for central counterparties (CCPs); the loss-absorbing capacity and hierarchy for a failed CCP in resolution following a member's default; the loss-absorbing capacity for a failed CCP in resolution following losses from some other (non-member-default related) source; and, finally, the possibility of a new international default fund subscribed by the securities exchanges and others who own CCPs.

The emphasis is on incentives and on taking care to ensure that, when distressed, CCPs do not flip from being risk absorbers to being systemic-risk transmitters and amplifiers. The SRC's main recommendations are summarised in the "Conclusions" at the end of this comment letter.

If the Financial Stability Board (FSB) or its key members were to conclude that (something like) the proposals set out below could not work in the event of a systemic CCP's failure,

---

[1] FSB Discussion Paper: "*Financial resources to support CCP resolution and the treatment of CCP equity in resolution*", 15 November 2018, http://www.fsb.org/wp-content/uploads/P151118-2.pdf

then the SRC is minded to think that the current model (structure, governance, ownership) of CCPs would need to be questioned, but we do not get into that here.

Nor does this letter cover the option of transferring the clearing operations and contracts of a distressed CCP to another existing CCP; or, except partly in the final section, how CCP resolution should proceed when multiple clearing houses are failing simultaneously.

Introduction: the need for policy action

The authorities' latest consultation is as welcome as it is overdue. A decade ago, at the G20 summit held in Pittsburgh, the leaders of the world's most important economies declared that, as part of efforts to make the financial system more resilient, the bulk of the international derivatives markets should be cleared through CCPs.[2] This pledge was later made good by legislation in the US, EU and elsewhere.[3]

The effects are twofold. On the one hand, the network of counterparty credit exposures among financial intermediaries has been simplified somewhat. This is achieved through multilateral netting of the cleared positions of clearing members and their customers. That multilateral netting is effected by CCPs substituting themselves as the counterparty to the trades they clear. In the years following the crisis, this has been extended on a voluntary basis to many of the largest government sale-and-repurchase (repo) markets, not only the legislatively mandated "standardised derivatives" markets. And, even before the crisis, some CCPs cleared cash securities transactions, covering the exposure in the period between trading and settlement.[4]

On the other hand, the simplification of the network of counterparty credit exposures is achieved by concentrating the residual exposures onto the CCPs, making their functions *too important to fail*. In contrast to the banks and dealers becoming too big to fail in the run up to the 2007/08 crisis, this is not the result of lapses in official-sector policy and supervision. CCPs occupy a position in the financial system that leaves them too important to fail through official mandate. Reflecting this, the central banking community decided in 2012 to ensure that there are no technical obstacles in the way of their providing emergency liquidity assistance to clearing houses that are distressed but fundamentally sound.[5] That underscores

[2] G20 Leaders' Statement at the Pittsburgh Summit, 24-25 September 2009, http://www.fsb.org/wp-content/uploads/g20_leaders_declaration_pittsburgh_2009.pdf
[3] Dodd-Frank Wall Street Reform and Consumer Protection Act, sec. 210(8)(G); Regulation (EU) No 648/2012, Title III, Article 4(3).
[4] Non-standard derivatives are not centrally cleared, and so are catered for in the resolution regimes and plans for banks, dealers and other intermediaries and traders.
[5] The central banks' agreed common policy was not for the routine availability of liquidity to CCPs, but for the technical availability of emergency liquidity assistance to "a CCP that is fundamentally sound but faces a shortage of liquidity at very short notice. …But central banks also need to be confident that there are mechanisms in place to resolve distressed CCPs." See Statement by the central banks' Economic Consultative Committee, included in Appendix II of Financial Stability Board "OTC Derivatives Market Reforms – Third Progress Report on Implementation", 2012, http://www.fsb.org/wp-content/uploads/r_120615.pdf at page 48.

the need for CCPs to be super-resilient, and also for the official sector to have credible powers and plans for resolving a fundamentally unsound CCP without government (ie taxpayer) solvency support. Absent such resolution plans, there is a risk of central banks providing solvency support in the guise of liquidity assistance.

Ten years on, a good deal has been done to tighten regulatory policy on the resilience of CCPs, including in stressed circumstances. But resolution plans for CCPs have not been articulated; and the most significant jurisdictions, including the EU and the US, do not even have tailored statutory regimes for CCPs.[6] That is despite the FSB having included CCPs in its initial policy statements on resolution regimes.[7]

It is not as if central counterparties cannot fail. Since World War II, three have failed: in 1974, the Caisse de Liquidation in Paris, due to default on margin calls when sugar-futures prices fell sharply; in 1983, the Kuala Lumpur Commodities Clearing House, when half a dozen large brokers defaulted following a crash in palm-oil futures; and, most seriously, the Hong Kong Futures Exchange clearing house, in the wake of 1987's global stock market crash. In that last case, both the futures and stock exchange had to close, and could reopen only when the clearing house was, in effect, rescued by a combination of the Hong Kong Government and the city-state's big banks.[8]

Those episodes matter: not because they had global spillovers but because of the lessons they provide about the reality of clearing house failure. Since they occurred, CCPs have become a lot more important in the international financial system, and many for-profit CCPs now compete with each other for business. Yet, for CCPs to fulfill their economic function, everyone --- and most of all their members --- must believe they are safe. In the jargon of

---

In 2015 the European Central Bank and Bank of England extended (https://www.ecb.europa.eu/press/pr/date/2015/html/pr150329.en.html) the scope of their standing swap lines to facilitate the provision of liquidity to CCPs established in the UK and Euro area. In the United States, under Section 806(b) of the Payment, Clearing, and Settlement Supervision Act of 2010 (Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act), 12 USC 5465(b), in urgent or exigent circumstances the Federal Reserve system may, on majority vote of the Board and after consultation with the Secretary of the Treasury, extend credit to a Designated Financial Market Utility (which include the major US CCPs) that is unable to borrow from the private sector.

[6] In the view of some US bankruptcy scholars, Title II of Dodd Frank could in principle be applied to clearing houses, but the rules of the Federal Deposit Insurance Corporation giving effect to Title II have, so far, been confined to systemically significant banks and dealers. See, for example David Skeel, "What if a Clearing House Fails?", report published by Brookings, June 6, 2017 https://www.brookings.edu/research/what-if-a-clearinghouse-fails/ The EU Commission published a proposal for a CCP Recovery and Resolution Regulation in 2016, but it has not progressed yet, pending the development of an international standard. Nevertheless, for those CCPs that are also credit institutions (and a few are) the Bank Recovery and Resolution Directive 2014/59/EU provide a recovery and resolution framework.

[7] The FSB's *Key Attributes* document is very explicit on this, with KA 1.2. providing that "Financial market infrastructures ("FMIs")4 should be subject to resolution regimes that apply the objectives and provisions of the Key Attributes in a manner as appropriate to FMIs and their critical role in financial markets. The choice of resolution powers should be guided by the need to maintain continuity of critical FMI functions." *The Key Attributes of Effective Resolution Regimes for Financial Institutions*, Financial Stability Board, October 2011.

[8] Report of the Hong Kong Securities Review Committee, *The Operation and Regulation of the Hong Kong Securities Industry*, 1988. Disclosure: the SRC's chairman was a member of the team who wrote that report.

economists, claims on them must be *information insensitive*,[9] meaning that market participants do not feel a need to assess their resilience when entering into new transactions.[10]

A need for more demanding CCP stress testing

In principle, the necessary assurance might be delivered by regulatory stress testing of CCPs. The international accord on CCP resilience requires, among other things, that a clearing house should be able to withstand the default of its two largest clearing members and their affiliates.[11] But, to date, stress tests have been modeled inadequately, not taking account of what it would mean for a clearing member that was part of a systemically important financial group to default.[12] Given the post-crisis reforms in resolution regimes for banks and dealers, a clearing-member legal entity will default only if the resolution of the group of which it is a part has not worked.[13] In those circumstances, there would be contagion across financial markets, both directly from the effects of the relevant group's distress and, indirectly, from the damage to the credibility of the post-crisis regulatory regime as a whole. In consequence, CCP stress testing of clearing member defaults needs to take account of broad systemic meltdown. It seems unlikely that CCPs would always be able to withstand such chaos. Even when, in late 2018, a self-clearing trader in Nordic power contracts defaulted, some two thirds of the Nasdaq clearing house's default fund was exhausted.[14] Yet, this was hardly a systemic firm in the broader scheme of things.

If a CCP could not withstand the failure of a clearing member that was part of a large and complex financial group, it would become a devastating mechanism for transmitting distress across the financial system. Central counterparties are *super-systemic*.

In summary, the FSB's discussion paper on CCP resolution regimes and plans is addressing one of the biggest gaps in the post-crisis regime for financial stability, as emphasized in the

---

[9] On information insensitivity, see Bengt Holmstrom "Understanding the role of debt in the financial system", Working Papers No 479, Bank for International Settlements, January 2015.

[10] Broadly, if market participants were concerned about a CCP's resilience, they could side-step the legal obligation to clear "standardized" derivatives via CPPs by synthesizing the economic substance through customized bundles of complex derivatives. For non-derivatives, they have a legal choice in any case.

[11] Committee on Payments and Market Infrastructures (CPMI) and International Organization of Securities Commissions (IOSCO), *Principles for Financial Market Infrastructures* (PFMIs), Principle 4: "*Credit Risk*".

[12] In addition, regulatory stress testing needs to cover losses on the investment of margin collateral, liquidity risk, severe operational disfunction, and how to factor in the hazard of a clearing member's default affecting a number of CCPs at the same time given overlapping clearing memberships.

[13] Broadly speaking, this is because systemically important banking groups will be resolved by what is known as top-down bail-in of bonds issued by the group holding company or, in some cases, a subgroup's intermediate holding company. Operating entities will be recapitalised by the conversion of intra-group debt into equity, and so do not go into bankruptcy or resolution themselves. If they do default, it will because some element in the resolution plan or powers has failed. (In some European jurisdictions, the bail-in will not occur at holding company level, but the intended effect is the same. Regulators and resolution authorities need to explore how this will affect CCP clearing members.)

[14] Financial Times, *Regulators probe Nasdaq's derivativese market safeguards*, 14 September 2018, https://www.ft.com/content/3fcb6df4-b813-11e8-bbc3-ccd7de085ffe

Systemic Risk Council's 27 February 2017 letter to G20 Finance Ministers and Governors.[15]

Recovery versus Resolution

One of the reasons for lack of action in this field is the belief, not uncommonly held among regulators, that a CCP's own recovery plans can substitute for resolution. This is a serious point, and the SRC doubts progress can be made until it is properly addressed. SRC urges the FSB to make an unequivocal public statement on whether or not it accepts that view.[16] The SRC does not accept it. While in-life recovery actions might sometimes suffice, that cannot be guaranteed.

What CCPs have in common with securities dealers

A CCP is akin to a securities dealer with a completely matched book that hedges itself against counterparty risk --- the market-risk exposures opened up by a counterparty's default --- via collateral requirements of various kinds. Each participant has to pledge collateral to cover its own obligations (known as 'initial margin', which is kept up to date by daily or more frequent 'variation margining'). And each of the participants contributes to insuring the CCP against its aggregate counterparty risk by writing what amounts to a credit-default swap against a basket of names that is partially collateralized up front (ie, a default fund; see below on the "waterfall").

It would, however, be misleading to think that the resolution plan for a CCP could be modelled entirely on the resolution plans for large dealers.

CCPs as algorithmic, rule-based entities

That is because CCPs are, in effect, rules-based intermediaries in life, not only in bankruptcy. Their recovery plans are largely algorithmic, rather than discretionary. Thus, in the event of a clearing-member counterparty defaulting, a waterfall kicks in under which, depending on the precise rules, the affected CCP can draw on, first, the margin pledged by the defaulting firm, then that firm's contribution to the default fund, then part of the owner's equity, then the rest of the default fund, another slice of owners' equity, a replenished default fund, and so on.[17] Extra measures might include haircutting non-defaulting members' initial margin claims

---

[15] SRC: "*To the Finance Ministers, Governors, Chief Financial Regulators, and Legislative Committee Leaders of the G20 Countries*", 27 February 2017, http://4atmuz3ab8k0glu2m35oem99-wpengine.netdna-ssl.com/wp-content/uploads/2017/02/Systemic-Risk-Council-Policy-Statement-to-G20-Leaders.pdf

[16] Arguably, the FSB has already done so a number of times, including most recently in its 2017 Guidance on CCP Resolution (paragraph 3; http://www.fsb.org/wp-content/uploads/P050717-1.pdf) and in its November 2018 Discussion Paper, but the perception of SRC members is that some authorities (and clearing houses) still wish to persist on the basis that in-life recovery plans can and should always suffice.

[17] Where a clearing house organisation operates separate CCPs for different types of contract (eg, swaps, government-bond repo, cash equities, etc), there may be separate margin pools and default funds so as to avoid contagion but the owner's equity (own funds) might be a single pool standing in line as part of the waterfall for each of the CCPs.

(where permitted contractually)[18], haircutting amounts owed as part of daily variation-margin rebalancing, and partly (or even entirely) tearing up the underlying cleared contracts themselves.[19]

The big policy question is whether rules-based recovery plans can substitute entirely for statutory resolution regimes and planning. SRC believes they cannot do so.

Why recovery operations do not remove the need for resolution

There are two kinds of reason why recovery policies do not eliminate the need for CCP resolution regimes: one objective, the other normative.

Objective reasons why, in some circumstances, recovery actions might not suffice include, for example, that:

- the losses suffered by the CCP exceed the amount that, legally, it can recover given its contractual (rule-book) rights or, as a practical matter, its clearing members or others are willing or able to pay
- the books and records of the CCP are incomplete so that either or both of its losses or its recovery rights are unclear
- management is incompetent or corrupt or absent.

Normatively, some types of recovery action might be unacceptable if they entail the CCP's management making discretionary judgments about the order in which stakeholders take losses; or decisions that would discriminate between creditors (and contingent creditors) who would rank *pari passu* in a bankruptcy proceeding; or choices between different public policy objectives. In other words, private sector for-profit CCP managers should not exercise discretionary powers where, even after mechanically executing a loss-absorbing rule book, a CCP would still be fundamentally insolvent or unviable.

In consequence, measures such as haircutting a CCP's initial-margin or variation-margin obligations or partly tearing up contracts should be permitted as recovery measures only if completely mechanical and non-discriminatory in their application.

Moreover, haircutting margin obligations and tearing up contracts would switch a CCP from being a risk absorber to being a risk transmitter, potentially aggravating financial instability. Indeed, where members spotted that one of their peers was distressed, the prospect of their claims on the clearing house being haircut or torn-up would give them an incentive to enter into market transactions to cut that exposure, which in some circumstances might aggravate

---

[18] In some clearing houses, initial margin moneys are segregated (effectively held in trust), and so do not form part of the regular creditor hierarchy in a bankruptcy proceeding. In others, they are an ordinary liability of the CCP.

[19] For a description of this from academia, see for example: Darrell Duffie, "Resolution of Failing Central Counterparties," in *Making Failure Feasible: How Bankruptcy Reform Can End 'Too Big To Fail'*, edited by Thomas Jackson, Kenneth Scott and John E. Taylor, Hoover Institution Press, 2015

the market stress and would, in any case, reduce the CCP's loss-absorbing capacity (see below). In consequence a CCP should be permitted to effect even completely mechanical measures to haircut margin and/or tear up contracts in a particular crisis only if the authorities are satisfied that doing so would not create greater financial stability problems than would be incurred if, instead, the CCP went into resolution.

There are at least two crucial differences between recovery and resolution in this respect. First, unlike under resolution, there is no temporary freezing of contracts under recovery, so the run from the CCP and any consequently afflicted members can continue unabated. Second, the managers and owners of a CCP are not accountable to the relevant legislative assembly (and public) for preserving the public good of stability.

Principles for CCP resolution regimes

The SRC commends to FSB two principles to guide the construction of resolution regimes for CCPs. Both underpin the FSB's existing approach to the resolution of large and complex banks and dealers.

Distinguish between operational and pure financial liabilities

One of the merits of the FSB's banking-resolution policy is that it draws a clear distinction between the treatment of, on the one hand, pure financial liabilities (eg, bonds, equities) and, on the other hand, those liabilities that are incurred in consequence of providing or receiving a service of some kind (eg checking account balances, derivatives-related counterparty exposures or obligations, trade creditors). The former must be bailed-in before the latter suffer losses. The distinction is drawn because the holders of service-related claims are less likely to panic if they know that a clear mass of purely financial liabilities will take losses ahead of them. That is the animating idea behind top-down bail-in of super-subordinated bonds issued by large and complex banking groups.

SRC proposes that the same distinction should apply to CCP recovery and resolution. In practice, it would mean that there should be no question of haircutting the initial margin claims of or variation margin due to non-defaulting members or of partly tearing up the underlying member positions until the absorbative capacity of purely financial claims has been exhausted.

Further, the loss-absorbing capacity of those purely financial claims should, therefore, be required to be sufficient to meet extreme losses.

Thus, it would be preferable to require clearing members to subscribe to a larger default fund or to bonds that could be bailed-in than it would be to haircut the very same members' margin claims or cleared contracts. This is because the former are more akin to a sunk cost that a member cannot reduce or avoid, whereas, as noted above, a member can reduce its margin and position exposures to a CCP through its trading activity (eg by closing out trades in anticipation of another member's impending distress).

Owners' equity should be eliminated upon entry into resolution

A second fundamental principle of the FSB's banking-resolution policy is that, in resolution, as in bankruptcy, equity should be completely eliminated before debt claims of any kind take losses.[20] The SRC believes that the same principle should be applied to CCPs that enter resolution (or bankruptcy).

That does not preclude a CCP's rule book from obliging clearing members, as part of in-life recovery plans, to replenish the default fund (up to some capped amount) while some equity remains intact. But if the recovery plans proved incomplete or inadequate, this principle entails that equity would be wholly eliminated before losses were imposed on, for example, members' margin claims or contracts partly torn up.

The justification of this principle is that it ought to be unacceptable for equity owners to retain rights to future earnings if a CCP they are responsible for managing fails and so goes into resolution (or bankruptcy). While members might enter into contracts that preserve some of the owners' equity under in-life recovery plans, the same should not apply once entry into the statutory resolution regime (or bankruptcy) is triggered. Any other approach not only dampens top management's incentives, it would violate the values of a market economy and the incentive structures such economies depend upon.

The FSB needs to agree and publish its guiding principles for CCP resolution

SRC commends those guiding principles to FSB. If, however, FSB disagrees with them, it should explain why and, more important, state the alternative set of high-level principles that will guide its own approach to CCP resolution. A statement of that kind by FSB is necessary in order to cut through the technical complexity that, in recent years, has characterised the debate on how to handle CCP distress.

<u>Loss-absorbing capacity in CCPs in the event of member defaults</u>

As the FSB's Discussion Paper makes clear, CCPs can be derailed by two quite different sources of financial loss: from the default of members, and from other events (such as losses on the investment of equity, initial margin moneys or the default fund). This section

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

addresses the loss-absorbing capacity under the former circumstances, while the following section turns to loss-absorbency for other losses.

Given the two guiding principles set out in the previous section, losses from member defaults would be absorbed in the following order once a CCP entered resolution:

1) equity
2) certain categories of subordinated obligations that would be converted into equity
3) via the application of any recovery rules not applied (or exhausted) before entry into resolution, such as obligations to replenish (repeatedly) the member default fund
4) haircutting of initial margin, variation margin or the underlying cleared contracts (which might also be partly converted into equity).

This ranking would ensure that, consistent with the principles set out in the previous section, operational liabilities (category (4)) would be haircut and utilized to reconstitute a CCP only as a last resort, and by a resolution authority with a statutory obligation to minimize the impact on financial-system stability.

The equity issued under (2) should not be *fully* written off if and when a resolution authority has to turn to (3) to absorb excess losses, because it will be necessary to maintain some equity base in the CCP for it to continue operating.[21]

An important policy question is how to frame policy requirements for the second category (subordinated bonds). SRC suggests that FSB consider the following:

- that CCPs issue deeply subordinated bonds that can be bailed in by a resolution authority
- that the CCP's owners have a priority right to subscribe to such bonds
- that where a CCP's owners do not buy all (or any) such bonds (and where there is no take up of any offering to third parties)[22], its clearing members be under an obligation to buy them (each clearing member's underwriting share being proportional to, for example, a slow-moving average of their initial margin outstanding or default-fund contribution)[23]
- that such bonds would not be for sale or trading, so that it is known where they are held.

[21] Similarly, any haircutting of operational liabilities would probably need to involve some conversion into CCP equity, in order to maintain the clearing house's operation.

[22] If the owners decline to invest in the subordinated bonds, there would be the option of offering them to sale to investors that are not participants in the clearing house.

[23] For those clearing members that are part of banking or dealer groups, any investment in such bonds would needed to be deducted from capital (tangible common equity) in calculating their regulatory capital ratios, because the same resources cannot support risk exposures in the bank (or dealer) and in the CCP. If a clearing member's required subscription was expressed in terms of its initial-margin held or default-fund contribution, it would need to be a slow-moving average in order to address the problem, identified earlier in the main text, of members running from a CCP when they spot distress among their peers.

The effect of this would be that when a CCP's equity was wiped out, ownership would switch to the clearing members (or to any third party subscribers to the bonds). This would help to incentivize owners to manage their CCPs prudently rather than for short-term cash flow and/or earnings from rising volumes. As with resolution policy for banks, the amount of such bonds issued by any CCP should be at least as big as the CCP's common-equity requirement (as that means that when equity is extinguished, the pre-crisis level can be restored). That is an absolute minimum, however, as conversion of the bonds is substituting for repeated replenishment of the default fund and, especially, haircutting or tearing up operational liabilities.

CCP loss-absorbing capacity for losses not caused by member defaults

There has been much less discussion of how CCPs' should absorb financial losses from events other than member defaults. There is no doubting that CCPs are exposed to risk through their investment of margin moneys and, in some cases, through investment of the default fund.[24] But most for-profit clearing houses have very little equity to absorb those losses that cannot be put to their members.[25]

The first response to this should be very restrictive investment and credit policies for CCPs' own-name portfolios. That is reflected in the international accord on financial market infrastructure[26], which effectively bars the practice, employed in the past by some CCPs, of placing margin assets in the unsecured money markets. But no prudential policy, however tight, guarantees against losses.

SRC proposes three steps to cope with that scenario. First, CCPs should be required to purchase third-party insurance against such losses. This would function as an in-life recovery tool. The providers of the insurance would have incentives to conduct due diligence on CCP's risk controls. In order to ensure that their capacity to honor their commitment to a CCP was not undermined by the causes of the CCP's distress, they should be institutions that are not themselves (and whose affiliates are not) members of the CCP they insure, do not have large positions in the markets that the CCP clears or large exposures to its members, and should not be funded in short-term debt markets. They would also need to be subject to limits

---

[24] The CPMI/IOSCO PFMI (Principle 16, key consideration 4) effectively recognises the inherent risk exposure by providing that "investments should be secured by, or be claims on, high-quality obligors".

[25] A CCP can put such losses to clearing members only where that is expressly codified in its contractual rule book. Practice varies across CCPs in this respect. The CPMI/IOSCO PFMIs call for clearing houses to ensure that their "own funds" are sufficient: see Principle 4 (on credit risk), Principle 15 (general business risk), and Principle 16 (custody and investment risks). But the PFMIs do not establish a minimum standard. The amount of equity carried by CCPs is typically thin, although that varies somewhat between user-owned mutualised CCCs and externally (eg exchange) owned for-profit CCPs: see Figures 6 and 7 of Wenqian Huang, "Central Counterparty Capitalization and Misaligned Incentives", BIS Working Papers No. 767, Bank for International Settlements, February 2019. At present, there is not an international minimum standard for CCP common equity.

[26] CPMI/IOSCO PFMIs, Principle 16.

on the insurance provided to CCPs, in order to avoid a transfer of systemic concentration risk from CCPs to another part of the financial system.

Second, where such external insurance proves insufficient and a CCP enters resolution (instead of bankruptcy), the equity should be extinguished and the bail-inable bonds described in the previous section should be converted into equity. That would recapitalize the CCP, and would also transfer ownership if the original equity owners had declined to subscribe to the bail-in bonds.

Finally, if even that loss-absorbing capacity proved insufficient, the resolution authority should be empowered to convert members' Initial and/or Variation Margin moneys into equity, since it would be open to a bankruptcy trustee to offer that possibility in a bankruptcy proceeding.

An international CCP-owner default fund

The final suggestion that SRC proposes that FSB consider is the formation of a mutualized CCP-default fund subscribed by the exchanges and others that own internationally systemic (and for-profit) CCPs.

At present, clearing members have to contribute to a default fund in each of the CCPs they join, but the exchanges and other organizations that own the non-mutual CCPs in order to make an economic profit do not have anything at stake other than their equity. One way of giving them more skin in the game, not only in their own CCP but in the social costs of over exuberant competition among CCPs, would be for them to have to subscribe to a fund that would absorb the losses of one of their number after the defaulter's initial margin and member-subscribed default-fund, but before the replenished member- default fund took losses. This CCP-owner fund would need to be invested completely safely: perhaps on an escrow basis with the Bank for International Settlements.

Conclusions

This SRC comment letter has three main messages for FSB and its member authorities.

First, SRC has stressed that it is urgent that the authorities agree what is needed for CCPs to be resolved in an orderly way without taxpayer solvency support. Given that CCPs are super-systemic, there is no good explanation for the gap that currently exists in the post-crisis regime. Turf rivalries between market regulators, resolution authorities and central banks cannot justify the lack of action. If regulators insist that in-life recovery plans can always be sufficient (and so set aside any resolution planning), their incentives need to be sharpened by laws that would make them liable if they prove wrong.

Second, SRC has proposed two guiding principles for CCP resolution regimes. They are that resolution strategies should always impose losses on pure financial liabilities before (unsecured) operational liabilities; and that equity should be wiped out when a clearing house goes into resolution (or a bankruptcy proceeding).

Third, SRC has proposed how those principles can be effected by policies for resolving CCPs that are in distress due to either member defaults or other financial losses. The key recommendations are that:

- any in-life haircutting of margin moneys or part tearing up of the underlying contracts should be completely mechanical recovery actions that do not involve CCP management making discretionary judgments and, in the judgment of the authorities, do not threaten or exacerbate financial instability
- once a CCP has entered resolution, the order in which losses are absorbed should be: equity, subordinated bonds converted into equity, any incomplete recovery actions, partial hair cutting and conversion into equity of margin obligations, part tearing up of underlying contracts
- the owners of CCPs should have first option on buying the bail-inable bonds, with clearing members having to subscribe if the owners (and third parties) decline
- CCPs should take out third-party insurance from unconnected insurers against losses that do not arise from the default of their members
- policymakers should explore the possibility of establishing an internationally mutualized disaster fund subscribed to by internationally systemic CCPs

SRC considers that for-profit CCPs themselves and their owners are unlikely to welcome or support these proposals, which would require changes to some CCP rule books; probably changes to the G20 authorities' international accord for financial market infrastructure (the CPMI/IOSCO PFMIs); and possibly legislation in some jurisdictions to ensure that the necessary resolution powers exist. But private interests should not dictate or drive policy directed to preserving financial stability, without which market economies can barely function.

Sir Paul Tucker, Chair

On behalf of the Systemic Risk Council
www.systemicriskcouncil.org

Systemic Risk Council Membership

Chair: Sir Paul Tucker, Fellow, Harvard Kennedy School and Former Deputy Governor of the Bank of England

Chair Emerita: Sheila Bair, Former Chair of the Federal Deposit Insurance Corporation

Senior Advisor: Jean-Claude Trichet, Former President of the European Central Bank

Senior Advisor: Paul Volcker, Former Chair of the Federal Reserve Board

Members:

Brooksley Born, Former Chair of the Commodity Futures Trading Commission

Baroness Sharon Bowles, Former Member of European Parliament and Former Chair of the Parliament's Economic and Monetary Affairs Committee

Bill Bradley, Former U.S. Senator

William Donaldson, Former Chair of the Securities and Exchange Commission

Peter Fisher, Tuck School of Business at Dartmouth, Former Under Secretary of the Treasury for Domestic Finance

Jeremy Grantham, Co-Founder and Chief Investment Strategist, Grantham May Van Otterloo

Richard Herring, The Wharton School, University of Pennsylvania

Simon Johnson, Massachusetts Institute of Technology, Sloan School of Management

Jan Pieter Krahnen, Chair of Corporate Finance at Goethe-Universität in Frankfurt and Director of the Centre for Financial Studies

Sallie Krawcheck, Chair, Ellevate, Former Senior Executive, Citi and Bank of America Wealth Management

Lord John McFall, Former Chair, UK House of Commons Treasury Committee

Ira Millstein, Senior Partner, Weil Gotshal & Manges LLP

Paul O'Neill, Former Chief Executive Officer, Alcoa, Former U.S. Secretary of the Treasury

John Reed, Former Chairman and CEO, Citicorp and Citibank

Alice Rivlin, Brookings Institution, Former Vice-Chair of the Federal Reserve Board

Kurt Schacht, Managing Director, Standards and Advocacy Division, CFA Institute

Chester Spatt, Tepper School of Business, Carnegie Mellon University, Former Chief Economist, Securities and Exchange Commission

Lord Adair Turner, Former Chair of the UK Financial Services Authority and Former Chair of the Financial Stability Board's Standing Committee on Supervisory and Regulatory Cooperation

Nout Wellink, Former President of the Netherlands Central Bank and Former Chair of the Basel Committee on Banking Supervision

* Affiliations are for identification purposes only. SRC members participate as individuals and this statement reflects their own views and not those of the organizations with which they are affiliated.