



March 20, 2017

Financial Stability Board
Bank for International Settlements
CH-4002 Basel, Switzerland

By E-mail (fsb@fsb.org)

RE: Guidance on Central Counterparty Resolution and Resolution Planning

Ladies and Gentlemen:

Intercontinental Exchange, Inc. (together with its subsidiaries, "**ICE**") appreciates the opportunity to comment on the Financial Stability Board's 1 February 2017 Consultative Document concerning Guidance on Central Counterparty Resolution and Resolution Planning (the "**Draft Guidance**").

ICE is a leading global operator of regulated exchanges, clearing houses and listings venues, and a provider of data services for commodity and financial markets. ICE operates six central counterparty clearing houses serving the global derivatives markets in the U.S., U.K., continental Europe, Canada and Singapore.¹

On 17 October 2016, ICE provided comments to the Financial Stability's Board's 16 August 2016 Discussion Note concerning Essential Aspects of CCP Resolution Planning. ICE is grateful for the extent to which these comments have been reflected in the Draft Guidance.

This letter contains ICE's responses to the specific questions raised in the Draft Guidance. We have also annexed our mark-up of an abridged version of the Draft Guidance, which reflects our proposed textual amendments to certain elements of the Draft Guidance. ICE would like to highlight the following points in particular:

1. Resolution authority actions should be prescribed *ex ante* in the CCP's rules to ensure certainty, and should not be deviated from.
2. ICE believes that, to the fullest extent possible, resolution authorities should not interfere with a CCP's implementation of its existing recovery process. If it does become necessary

¹ The ICE clearing houses are ICE Clear Europe, ICE Clear US, ICE Clear Credit, ICE Clear Canada, ICE Clear Singapore and ICE Clear Netherlands.



for a resolution authority to intervene before a CCP has exhausted its available tools, the resolution authority should continue to act consistently with the CCP's existing rules and arrangements.

3. Once a CCP enters resolution, equity should only be written down after rulebook resources and tools (such as variation margin gain haircutting or tear-up) have been exhausted. Otherwise, the CCP would, *inter alia*, be in breach of regulatory capital requirements whilst such resources or tools were undertaken.

ICE welcomes the ongoing involvement of the Financial Stability Board and its members in the important topics of clearing house recovery, resolution and resilience. ICE believes that the Draft Guidance in particular raises significant questions concerning the operation of resolution proceedings in the context of a clearing house that warrant further consideration and discussion among clearing houses, their participants and users, regulators and other interested stakeholders.

1. **The overall objectives of CCP resolution and resolution planning (Section 1)**

- 1.1 ICE supports the Draft Guidance's express reference to maintaining existing incentives for CCPs, clearing members and market participants during a crisis situation. ICE believes these incentives are critical to facilitating an effective recovery and resolution of a CCP.
- 1.2 CCPs themselves, and their rulebooks, should focus principally on establishing tools and procedures to provide for CCP recovery – that is, the return to a matched book and full allocation of losses under a process run by the CCP. Resolution authorities should not be entitled or incentivised to interfere with, or override, the CCP's pre-agreed recovery process. Allowing such deviations may allow particular industry interests to leverage resolution situations to their benefit and detracts from legal and market certainty. On this basis, ICE believes that resolution is to be invoked only in a situation where all efforts at recovery have been unsuccessful (whether taken by CCP itself, the resolution authority, or a combination of the two). The CCP's existing recovery procedures have been: (1) developed in consultation with the CCPs' clearing members and end-users; (2) formally agreed upon, by the clearing members pursuant to CCP rulebooks and member agreements and, where applicable, by customers pursuant to their clearing agreements; (3) reviewed and approved by the CCPs' regulators; and, (4) codified in the CCP's rulebooks for purposes of transparency and certainty. These procedures are expected to manage most, if not all, difficulties faced by a CCP. To ensure that appropriate incentives and market certainty are maintained, we suggest that Section 1 of the Draft Guidance should expressly endorse the centrality of the CCP's agreed recovery and default management processes within the recovery / resolution framework and remove discretion to disapply this process.



2. **The powers that resolution authorities should have to maintain the continuity of critical CCP functions, return the CCP to a matched book and address default and non-default losses (Section 2)**
 - 2.1 CCPs have established rules, which are supported by members and provide a strong framework for return to a matched book. These include default management powers to deal with contract close outs, powers of assessment, variation margin gain haircutting ("VMGH") and, in extremis, tear-up. These procedures have been agreed with the CCP's regulators and members. It is important to consider the procedures that the market has already agreed to and which are already in place at many CCPs. If a resolution authority acts in a manner which is inconsistent with the CCP's rules, it will harm certainty in the market, potentially subject members to unlimited liability for regulatory capital purposes, and risk undermining the incentives that have been designed to affect recovery and resolution.
 - 2.2 Resolution authorities should have the power, during recovery and resolution planning, to compel a CCP to incorporate the appropriate tools in its rulebook. However, once a CCP enters into a crisis situation, ICE believes that the actions taken by the resolution authority should be in accordance with the CCP's existing rules and arrangements which have been agreed on an *ex ante* basis.
 - 2.3 For these reasons, the last sentence in the Section 2 box and paragraph 2.2 of the Draft Guidance should be amended. Our amendments would ensure appropriate powers are included in the CCP's rules and arrangements *ex ante*. Moreover, these amendments require a resolution authority to adhere to these existing arrangements if it intervenes before such steps and processes have been exhausted. This adherence to existing rules and arrangements has also been reflected in our changes to the description of the available tools (*see*, paragraphs 2.3, 2.5, 2.6, 2.7, 2.9, and 2.10)
 - 2.4 ICE is of the view that auctions should serve as the primary recovery tool for restoring a matched book. Default auctions can be designed to incentivise participation and robust bidding, and, in ICE's view, provide the most efficient means for the CCP to return to a matched book and allocate losses based on actual bids made by market participants. Auctions also give members and end-users an opportunity to participate in default management and protect themselves against the use of recovery tools that they may view as unfavourable or undesirable, such as VMGH or tear-up. ICE appreciates that the Draft Guidance states that a resolution authority may conduct auctions (paragraph 2.3) and that ideally the partial tear-up tool would only be used once market based actions (such as auctions) had failed (paragraph 2.4). ICE believes, however, that auctions should be explicitly prioritised in the recovery/resolution toolbox and, unless subject to strong overriding consideration, should have proven unsuccessful prior to the use of any other,



more drastic, tool. We have therefore proposed a new draft paragraph 2.3A in the attached Draft Guidance which expressly endorses the primacy of auctions in the recovery framework.

- 2.5 Generally, with respect to preference of tools, ICE believes that the resolution authority should seek to follow the hierarchy prescribed by the CCP's rules to the fullest extent possible. ICE agrees with the distinction made in the Draft Guidance between recovery tools, such as partial tear-up, which may be used if market based actions to return to a matched book have failed, and more extreme tools, such as full tear-up and forced allocation, which should only be used as a last resort, when a CCP is effectively subject to final resolution or wind-down. Likewise, we believe that due to the extreme nature of VMGH its exercise should also be constrained to certain circumstances. Although VMGH may be appropriately employed before final resolution or wind-down, it should serve as a limited tool that allows the CCP to continue operations for a defined time in extraordinary circumstances. We have therefore proposed textual amendments to paragraph 2.10 which make clear that VMGH should only be used at the end of the default waterfall, and for a specified period.
- 2.6 For the reasons set out in paragraph 2.1 of this letter, we do not support granting the resolution authority distinct, statutory powers to make cash calls which go beyond the CCP's rules (as indicated in paragraphs 2.9 and 2.14 of the Draft Guidance). To the extent the Financial Stability Board concludes that such powers should be available, we strongly support the Draft Guidance to the extent that it notes that such statutory power shall be subject to a specific, *ex ante* statutory limit. Without a specific *ex ante* statutory limit, such powers could subject members to unlimited liability for regulatory capital purposes and would create market uncertainty and mis-incentives in a crisis scenario.
- 2.7 ICE does not support original margin write downs. This tool would represent a major loss of assets for users of financial markets and would risk major industry contagion. Any powers to take such steps would also have serious effects on regulatory capital treatment of participants posting collateral. Such steps are probably unlawful or conflict with insolvency laws and customer asset protection regimes in many jurisdictions. For these reasons, we propose that paragraph 2.11 should be struck out.
- 2.8 ICE believes that the Draft Guidance should more clearly distinguish between "partial tear-up" and "full tear-up". We understand that partial tear-up (as understood by the Financial Stability Board) occurs when the CCP settles and cancels the contract of entities opposite to those of the defaulter. The Draft Guidance should also cover situations where a particular product within a cleared service that has become "toxic" is terminated entirely but where other contracts (reflecting working powers of the market) continue. For example, ICE believes that a CCP should be able to apply a full tear-up to a particular fungible set of



contracts within a clearing service *e.g.* emissions but not oil contracts, even if such contracts fall within the same "clearing service". To differentiate between the tools on this basis, we have proposed textual amendments to the definition of "partial tear-up" and "full tear-up" in Section 2 (paragraphs 2.5-2.6) and in the *Key Terms*.

- 2.9 ICE supports the Draft Guidance's suggestion that "*ideally*" partial tear-up should occur if market based action to return to a matched book have failed or are expected to fail. ICE would go further and suggest that this tool should ideally be used following an unsuccessful attempt at an auction (see paragraph 2.4). An unsuccessful which includes participation of appropriate client firms who express an interest in bidding on the portfolio, may indicate that there is no longer an appetite for the products in the market. Partial tear-ups done in this way distribute losses only after reasonable effort has been made to dispose of the positions through a market mechanism.
- 2.10 The Draft Guidance envisages that the resolution authority should have the power to write down and convert unsecured liabilities into equity (point (vi), box, Section 2). The Draft Guidance subsequently goes into greater detail on write-down and conversion upon non-default losses (paragraphs 2.13-2.15). We believe that this power would subvert and substantially weaken clearing participants' incentives to commit to the recovery phase in a way that would lend unhelpful momentum towards resolution. As discussed in our response to Section 1, the incentive structures designed to manage a default or CCP recovery depend on putting all participants (CCPs and clearing members) at risk of greater loss for lack of participation in the process. Any compensation at the end of the resolution process must be designed to preserve these crucial incentives.
- 2.11 As a starting point, it should be appreciated that equity as a compensation tool will skew the incentive structure supporting the CCP's default management and recovery process. Allocating equity to the clearing members effectively creates an ownership opportunity for clearing members in a market stress event. If the CCP is approaching resolution, the clearing member will likely have suffered losses under the default management process. If bearing a relatively small amount of additional losses would result in an ownership stake in the CCP, there is a risk that clearing members would view it as more beneficial to artificially limit their participation in the default management process and encourage the resolution of the CCP to gain this ownership. In addition, awarding equity may also upset the CCPs structure, which is established to ensure that independent owners, clearing participants (through the risk committee), and CCP senior management are all incentivised to manage overall risk effectively.
- 2.12 In the event that a CCP operates multiple asset classes with unique clearing memberships, providing an equity stake would, at a minimum, be extremely complicated. Moreover, equity offerings could threaten the security of the other asset classes if defaults only



occurred for certain asset classes and therefore allowed persons who were disadvantaged to have ownership over the entire CCP structure. There is also a risk that this compensation structure favours some clearing members while dis-incentivising others, who may not be permitted to take an ownership stake in the CCP.

2.13 For all of these reasons, there are significant issues with using equity to reward clearing members for behaving in an appropriate manner during a default, recovery, or resolution. Therefore, we support the Draft Guidance's suggestion that, if equity is to be awarded, this should only occur once:

- (a) all loss allocation measures and recoveries from defaulting counterparties have been applied;
- (b) the CCP's owners are unwilling or unable to recapitalise the CCP; and
- (c) existing equity has been written down.

2.14 ICE would, however, propose to amend paragraph 2.13, such that it is clear that resolution authorities must follow these steps in the sequence listed above before writing down unsecured liabilities or providing equity as a return for extraordinary financial contributions made during the CCP resolution. Ignoring this sequence would upset the agreed incentive and default structures and could prevent a CCP from avoiding harm to the market, if, for instance, existing equity holders were not given an opportunity to recapitalise the CCP before equity was written down or awarded to creditors.

3. **The potential indicators of circumstances that could lead to a determination to trigger resolution (Section 3)**

3.1 CCPs should be given every chance to execute their recovery plans, as set forth in their rulebook, prior to resolution authority intervention. If intervention by the resolution authority is too prescriptively defined or too easily enacted and allows for deviation from the rulebook, this may constrain participation in recovery actions, militate against an effective recovery and incentivise lobbying and pressurising of authorities by particular interest groups. Entry into resolution is most clearly defined as the point at which the recovery plan has been exhausted and has failed to achieve its objective of a balanced market. On this basis, we support the triggers introduced in Section 3 of the Draft Guidance to the extent that they defer to the exhaustion of the recovery process, or are premised upon a determination that a CCP-led recovery process is reasonably likely to fail and that the resolution authority may better discharge the tools in a manner that furthers the resolution objectives.



- 3.2 Paragraph 3.1 of the Draft Guidance states that a CCP may be placed in resolution before recovery actions are exhausted in instances where (inter alia) "*confidence in the CCP is failing and participants will be unwilling to participate fully in recovery in a way that maintains continuity of critical functions*". ICE believes that regulatory intervention based on this loose test should not displace the CCP's published recovery plan. Allowing resolution authorities to sidestep the recovery process on this basis would effectively empower participants to frustrate the incentives that have been built into the recovery plan and force a CCP into resolution prematurely by not engaging in the recovery process. Participants may be led by mis-incentives; it is conceivable that for a collection of participants, their economic interests would favour the CCP's resolution in circumstances where the CCP could still be viably saved through the recovery process. For these reasons, we suggest deleting the quoted wording.
- 3.3 Likewise, in the case of default loss, in the Draft Guidance one of the potential indicators of circumstances that could lead to a determination to trigger resolution is that "*the CCP's participants no longer have confidence in its ability to manage risks effectively*" (paragraph 3.4(iv)). For the reasons already given, participant disengagement does not act as an appropriate indication that resolution should be triggered and we therefore also propose to strike out this sub-clause.
- 3.4 In respect of non-default losses, any failure by the CCP to comply with regulatory requirements for authorisation should not, without more, serve as a potential indicator of circumstances that could lead to a determination to trigger resolution (paragraph 3.5(iii)). Such a failure could conceivably be triggered by an IT failure or mishandling of a complaint. On this basis, we suggest limiting this sub-clause to instances where the failure to comply with regulatory requirements for authorisations "*results in a significant threat to the continuity of the CCP*".
- 3.5 ICE supports the suggestion in paragraph 3.3 of the Draft Guidance that any publicly disclosed indicators that would inform the resolution authority's determination to trigger resolution "*should not be regarded as exhaustive or as fixed or automatic triggers*". In this particular respect, we believe the market will benefit from "constructive ambiguity", allowing the authorities to have the flexibility to respond to the market stress as appropriate given the facts and circumstances at the time, without being bound by a strict, pre-defined plan, provided that the trigger for exercising powers is well-defined, as set out above.
- 3.6 Finally, we propose including clarificatory wording in the Section 3 box of the Draft Guidance that sets out that once a CCP enters resolution, decision making authority over the CCP passes to the resolution authority. This wording will avoid any uncertainty on the



part of the CCP's board, participants and the resolution authority itself as to where responsibilities and liabilities for operating the business lie.

4. The treatment of equity of existing CCP owners in resolution (Section 4)

4.1 ICE appreciates that in a resolution, equity holders may absorb losses. ICE reiterates, however, that existing owners' equity should absorb losses in resolution after other available tools and resources in the CCP's rulebook (including VMGH and tear-up) have been applied. Distinct from the write-down of equity upon resolution, CCP owners are already liable for significant losses in addition to their equity on a CCP failure. These amounts are agreed and pre-funded in the default fund. CCP owners contribute to default funds in a commercially appropriate amount which, at a minimum, meets any relevant regulatory requirements and enhances confidence in the CCP's provision of service. Any mechanism which allows the agreed waterfall to be altered in order to impose losses on equity holders instead of those liable under the CCP's rules would create incentives on members not to participate in default management. This new proposal for equity write down at such an early stage would eliminate regulatory capital prior to, for instance, VMGH. This places participants in an uncertain situation where recovery would then take place for a CCP in breach of regulatory capital requirements. Moreover, equity should not be written down where members have agreed in the rules to limited recourse (particularly where there are multiple clearing services, in other cases as well). No CCP rulebook or regulations propose such a structure today. In any event, share capital (funded by owners and capable of being written down under resolution frameworks, after loss sharing) is already present as a further level of "skin in the game", once dedicated financial resources made available in the default waterfall or to cover non-default losses have been depleted. On this basis, we have proposed amendments to Section 4 of the Draft Guidance which ensure the CCP's rules and resources have been exhausted before equity is written down.

5. The application of the "No Creditor Worse Off" safeguard and determination of the insolvency counterfactual (Section 5)

5.1 ICE strongly supports the Draft Guidance's description of the no creditor worse off ("NCWO") counterfactual as it assumes "*the full application of the CCP's rules and arrangements for loss allocation*". The counterfactual for both default and non-default losses assumes full application of the CCP's default or loss sharing arrangements, which means participants are not given mis-incentives which would encourage placing a CCP into resolution prematurely. We have proposed minor amendments to paragraphs 5.6 and 5.7 to ensure the counterfactual takes account of all available CCP tools, including cash calls and VMGH.

5.2 ICE recognises that the actions of a resolution authority for a CCP may be governed by a wider set of objectives in the service of financial stability, which may result in a number of considerations that potentially conflict with each other. We do not believe, however, that this would justify deviation from the default loss waterfall for a CCP in resolution. For these reasons, the resolution authority should not be empowered to act in a manner that is



contrary to the CCP's rules and arrangements unless specified *ex ante*. We have therefore proposed that paragraphs 5.2 and 5.3 should be deleted.

- 5.3 Finally, a new draft paragraph 5.4A is proposed for the Draft Guidance which will make clear that if both a default loss and a non-default loss occur simultaneously, the tools to address them would remain separate. Likewise, the default and non-default losses would be addressed individually on the basis of the unique NCWO counterfactuals described for each in the Draft Guidance.
6. **The assessment of the adequacy of financial resources in resolution, including elements that the FSB should consider in future work on the quantum of resources for purposes of resolution (Section 6)**
 - 6.1 Section 6 of the Draft Guidance is premised upon the resolution authority making "*appropriately prudent assumptions about the financial resources that may be required to achieve the resolution objectives*". The Financial Stability board should strive to provide further detail on what these prudent assumptions would constitute. Most CCPs premise their default fund size on the basis of the simultaneous default of the two largest clearing members ("cover 2"). Benchmarking the concept of "*prudent assumptions*" would involve a more extreme event. Further guidance, on what these prudent assumptions should be, would be welcome.
 - 6.2 Resolution authorities should limit their assessments of suitability to the CCP itself. CCPs are stand-alone vehicles that must by their nature have a matched book. There should be no additional mandatory look beyond the CCP, by means of assessing the parent of a CCP or a third party because doing otherwise risks contagion. For instance, directions made at the level of the CCP's parent risk detrimentally affecting all members of the CCP's group, including other, distinct CCPs within such group.
 - 6.3 In theory, insurance could be used at any level of the waterfall *e.g.* to cover CCP contributions. In practice, it has been difficult to obtain insurance policies for CCPs in recent years, due to lack of availability of such products in the market. References to such resources should clarify it is not mandatory to obtain such policies. For these reasons, we have proposed minor amendments to paragraph 6.3 to clarify that a resolution authority should consider both the viability and credibility of any additional arrangements.
 - 6.4 We have added an amendment to paragraph 6.7 to clarify that a CCP equity owner may also be entitled to redistributions from the estate of a defaulting counterparty (once temporary public funds have been recouped). Additionally, we have included wording which clarifies that distributions should be made to CCP equity owners, clearing participants and/or other



markets participants who contributed to the loss allocation arrangements of the CCP *"in the reverse hierarchy to that in which they were applied to meet a loss"*.

7. **The aspects of resolution planning and resolvability assessments (Sections 7 and 8)**

7.1 ICE believes that, in accordance with the Draft Guidance, resolution authorities should consider during the resolution planning process *"how the plan would support operational continuity, including where threats to the viability of the CCP arise from an interruption or loss of critical third party services, for example arising from the failure of a CSD"* (paragraph 7.5(ix)). We would, however, suggest that consideration should be given in the Draft Guidance as to whether resolution authorities should be empowered to force critical service providers to CCPs to perform during a crisis situation and how this would be accomplished in an international context.

7.2 ICE does not believe that it is appropriate for the resolution authority to deviate from the agreed default waterfall or to act in a manner which is contrary to the pari passu treatment of creditors. However, to the extent necessary, ICE strongly supports the suggestion, at paragraph 7.5(v) of the Draft Guidance, that any such deviations should be set out *ex ante* in the Resolution Authority's resolution plan for the CCP.

7.3 The Draft Guidance provides that resolution authorities *"should consider the merits of publicly disclosing some elements of the resolution plan"* but should also *"take into account the effects of doing so on incentives of CCP clearing members, CCP owners, and market participants to participate in a CCP's default management process and recovery procedures"* (paragraph 7.7). As noted in paragraph 3.5 of this letter, we agree that the market benefits from *"constructive ambiguity"*. It is also helpful that the Draft Guidance makes specific reference to the potential threats that disclosure may have on incentives and participation in the recovery process. However, we believe that the relevant default loss waterfall (and any deviations thereof) should be defined and published *ex ante*, to provide legal certainty and maintain pari passu treatment of creditors in the same class. Therefore, we have included proposed wording in paragraph 7.7 which requires the default waterfall to be publicly disclosed.

8. **Cross-border cooperation and the cross-border enforcement of resolution actions (Sections 9 and 10)**

8.1 It is crucial that the home authority of the CCP plays a leading role in the crisis management group ("**CMG**"). As a member of a CMG, a home resolution authority may have difficulties thoroughly consulting other members of the CMG during a crisis situation as efficiency and quick responses to the circumstances will be crucial. Therefore, the home resolution authority should be empowered to consult with members of the CMG *"as*



necessary and appropriate". This wording is already included for instances where the home resolution authority is dealing with non-CMG authorities during a crisis situation (paragraph 9.7); we believe that equivalent wording should also be included in relation to dealings with the CMG and have included proposed wording as a new paragraph 9.4A. During a crisis situation, a home resolution authority should not be constrained from acting due to prescriptive requirements to consult, and reach agreement with, the CMG.

- 8.2 The Draft Guidance does not contain detailed guidance on the role, if any, of the suspension of clearing mandates in a CCP resolution. Paragraph 10.3 of the Draft Guidance, however, provides that "*resolution authorities should ensure that they have in place appropriate communication and information sharing arrangements with the relevant domestic and foreign authorities that are competent for setting and suspending clearing mandates*". As with all resolution tools, a potential suspension of a clearing mandate could create the risk that clearing members would be encouraged to limit their participation in the processes necessary to ensure a successful CCP recovery. Any change to the mandates must balance this risk with the potential benefits of a suspension of the mandate. If it is envisaged that a clearing mandate could be suspended, ICE would suggest further clarification is provided on the exercise of this power.

* * *

ICE greatly appreciates the opportunity to comment on the questions raised in the Draft Guidance. ICE looks forward to continuing to work with the Financial Stability Board, its members, and other interested market participants to develop and refine the approaches to be taken by national resolution authorities to the potential resolution of a CCP, as part of the broader regulatory and industry focus on CCP recovery and resilience.

If the Financial Stability Board or its staff has any questions concerning our responses, or wishes to discuss them further, please do not hesitate to contact ICE.

Sincerely,

A handwritten signature in black ink that reads "Kevin R. McClear".

Kevin R. McClear
VP, Corporate Risk Officer



Annex

ICE's proposed textual amendments to the Draft Guidance

ICE Comments

Guidance on Central Counterparty Resolution and Resolution Planning

Consultative Document

1 February 2017

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1. Objectives of CCP resolution and resolution planning

(Key Attributes Preamble; FMI Annex 1.1, 3.1)

CCP resolution should have as its objective the pursuit of financial stability and ensure the continuity of critical CCP functions in all jurisdictions where those functions are critical and without exposing taxpayers to risk of loss.

Effective CCP resolution planning should have regard to maintaining incentives for CCPs, clearing members, and market participants to centrally clear and to engage constructively in efforts to achieve a successful default management or recovery and so reduce the likelihood of resolution.

1.1 The objectives of CCP resolution can be achieved either by:

- (i) restoring the ability of the CCP to continue to perform its critical functions as a going concern;
- (ii) or ensuring continued performance of those functions by another entity or arrangement (including a bridge entity established by the resolution authority) coupled with the orderly wind-down of the residual CCP in resolution

1.2 CCP resolution should seek to:

- (i) maintain market and public confidence while minimising contagion to the CCP's participants, any entities affiliated to the CCP and to other FMIs;
- (ii) avoid any disruption in the operation of links between the CCP in resolution and other FMIs where such disruptions would have a material negative effect on financial stability or the functioning of markets; and
- (iii) maintain continuous access by participants to securities or cash collateral posted to and held by the CCP in accordance with its rules and that is owed to such participants.

2. Resolution authority and resolution powers

(Key Attributes 2, 3 and 6.5; FMI Annex 3, 4.1-4.2, 4.4-4.16 and 7.2)

A designated authority ('resolution authority')⁷¹ should have all the powers that are necessary to carry out an orderly resolution of a CCP, in particular powers and tools to:

- (i) enforce any outstanding contractual obligations, including under the CCP's rules and arrangements;
- (ii) continue to operate temporarily the CCP;

⁷¹ Consistent with Key Attribute 2.1, references in this Guidance to 'resolution authority' include references to more than one authority where two or more authorities are responsible for exercising resolution powers under the resolution regime.

- (iii) return the CCP to a matched book where losses arise from clearing member default(s);
- (iv) address any outstanding default losses and non-default losses;
- (v) replenish financial resources within an appropriate timeframe to a level sufficient to maintain regulatory approval;
- (vi) write down (fully or partially) the equity of the CCP and, where appropriate, unsecured liabilities; and, if appropriate, convert unsecured liabilities into equity or other instruments of ownership of the CCP or of a successor entity ('bail-in')
- (vii) transfer critical functions to a solvent third party or bridge CCP; and
- (viii) wind down operations not judged to be critical functions.

The resolution authority's powers should be set out in the jurisdiction's legal framework. ~~They should, to the extent appropriate,~~ Powers which may be exercised by the CCP or resolution authority during the recovery process must be reflected in the CCP's rules and arrangements.

Enforcing contractual obligations

- 2.1 Upon entry of the CCP into resolution, the resolution authority should have the power to enforce any outstanding contractual rights and obligations of the CCP, including any existing and outstanding or uncalled contractual obligations of the CCP's participants to meet cash calls or make further contributions to a default fund, or any other rules and arrangements of the CCP for the allocation of both default and non-default losses (including for the repayment of liquidity providers) where they have not been already applied exhaustively by the CCP prior to resolution.
- 2.2 ~~There should be a presumption that the~~ The resolution authority ~~continues~~ shall continue to follow the steps and processes under the CCP's rules and arrangements where it intervenes before these have been exhausted, as these will be known to the CCP, its participants and the markets served by the CCP. If necessary to achieve the resolution objectives and avoid significant adverse effects on the financial system, the resolution authority should be able to refrain from enforcing certain contractual rights and obligations under the CCP's rules and arrangements or otherwise depart from the CCP's rules and arrangements. This should be subject to explicit limits and safeguards consistent with the Key Attributes, the FMI Annex and in particular paragraphs 2.7 (forced allocation), 2.9 and 2.14 (cash call procedures), ~~2.11 (initial margin)~~, 2.13 (write-downs), and Section 5 (no creditor worse off safeguard) of this Guidance. If the resolution authority refrains from enforcing certain contractual rights and obligations under the CCP's rules and arrangements or otherwise departs from the CCP's rules and arrangements, it should do so in a manner that does not discriminate on the basis of nationality (consistent with Key Attribute 7.4).

Powers to return to a matched book

2.3 The resolution authority should have the power to restore the CCP to a matched book by soliciting voluntary actions, conducting auctions or by tearing up or otherwise terminating contracts based on the CCP's existing rules and arrangements.

2.3A Default auctions should serve as the primary recovery tool for restoring a matched book. Default auctions should be designed to incentivise participation and robust bidding, by members and end-users. Such auctions shall provide members and end-users an opportunity to participate in default management. Unless necessary to achieve the resolution objectives and avoid significant adverse effects on the financial system, the resolution tools described herein should not be used until there has been a failed auction.

Partial tear up

2.4 The resolution authority should only consider applying a partial tear up if market-based actions to return to a matched book (e.g. ~~auctions~~an auction or direct liquidation of positions into the market) have failed or are expected to fail, or would likely result in losses that exceed the prefunded and committed financial resources that are available under the CCP's rules and arrangements to cover those losses, or would otherwise compromise financial stability.

2.5 As part of its resolution planning, the resolution authority should establish in advance the general approach it would apply in determining any contracts to be torn up. It should consider the systemic impact of tear up actions and be guided by the following:

- (i) ~~Fear~~tear up should be used for the purpose of returning the CCP to a matched book, not to allocate losses;⁸² and
- (ii) the price of the tear up should be based, ~~as far as possible,~~ on a fair market price determined on the basis of the CCP's own rules and arrangements ~~or other~~ which should establish an appropriate price discovery method.

The resolution authority should ~~also have regard to~~ act in accordance with any provisions in the CCP's rules and arrangements regarding the use of partial tear up by the CCP as part of recovery.

Full tear up

2.6 Full tear up of all contracts, whether (a) of a particular, fungible set of contracts within an individual clearing service, (b) in an individual clearing service, or (c) in a whole CCP, is a last resort tool and should only be applied if:

- (i) the clearing service in question or the CCP is not critical and the full tear up will not, in the opinion of the relevant authorities, have systemic consequences for the market or participants; or

⁸² This is without prejudice of the ability to allocate losses e.g. by gains-based haircutting, where gains are the result of partial tear up.

- (ii) no other option would result in a better outcome for financial stability.

The price of the tear up should be based, ~~as far as possible,~~ on a fair market price determined on the basis of the CCP's own rules and arrangements ~~or other~~which establish an appropriate price discovery method.

Forced allocation

- 2.7 Where the resolution authority has the explicit power to impose a forced allocation of open contracts under the ~~legal framework and/or CCP~~CCP's rules and arrangements, it should, when considering its use, take into due account the impact on financial stability and use such a power only as a last-resort-tool.

Powers to address outstanding default losses and replenish financial resources in a member-default loss scenario

- 2.8 The resolution authority should have the power to enforce any outstanding (unexhausted) or uncalled obligations of non-defaulting participants under the CCP's rules and arrangements to honour their commitments to the CCP, including honouring cash calls or making any other contributions to the CCP.
- 2.9 Jurisdictions may confer on the resolution authority an explicit statutory power to require non-defaulting clearing members to make contributions in cash to the CCP up to a specific limit. Any such explicit statutory power should be subject to the presumption that it would be exercised only after at least the pre-funded waterfall is exhausted (i.e. that the statutory cash call is reserved for resolution). Any statutory cash calls and the limit up to which they may be exercised by the resolution authority should, ~~where needed,~~ be reflected in the CCP's rules and arrangements.⁹³ Clearing members should be able to assess at all times the maximum amount that they may be required to contribute under any such cash calls.
- 2.10 Where relevant,¹⁰⁴ the resolution authority should have an explicit power to reduce the value of gains payable by the CCP to non-defaulting participants (variation margin gains haircutting (VMGH)). The power should, ~~where needed, be set out in~~ be applied for a specified period, in accordance with the CCP's rules and arrangements where it is relevant to the particular CCP or clearing service and should only be used after the application of the default waterfall.

~~2.11 Where a resolution authority has under its legal framework or the CCP's rules and arrangements the power to write down initial margin, such a power should only be applied to initial margin that is not bankruptcy remote and be limited to use as a last resort tool. In considering including such a power in their legal framework, jurisdictions should take into due account the impact on financial stability and on incentives to centrally clear.~~

2.11 [Not Used.]

⁹³ Consistent with Section 10 of this Guidance, the reflection of statutory powers in the CCP's rules and procedures may support the cross-border effectiveness and cross-border enforcement of resolution actions.

¹⁰⁴ Some clearing services do not operate cash settled variation margin and close-out sums or similar provisions in their arrangements, therefore gains based haircutting tools may not be applicable.

- 2.12 The resolution authority should be able, consistent with the rules and arrangements of the CCP, to replenish the CCP's financial resources including default fund and capital as soon as practicable.

Powers for non-default losses

- 2.13 The resolution authority should have the power to write down, where appropriate, unsecured liabilities in accordance with the creditor hierarchy in insolvency and, if appropriate, convert them into equity or other instruments of ownership of the CCP or of a successor entity to absorb losses and to replenish the capital of the CCP or a successor entity. It should be able to exercise this power ~~where~~once (in the following order) all of the following conditions are satisfied:

- (i) ~~non-default losses are not absorbed by writing down the CCP's equity, by applying any other~~all loss allocation measures available under the CCP's rules and arrangements for non-default losses, and ~~by applying~~ recoveries from defaulting counterparties have been applied; ~~and~~
- (ii) ~~where~~ the current owners of the CCP are unwilling or unable to recapitalise the CCP to a level necessary for its continued authorisation; and
- (iii) any remaining non-default losses are not absorbed by writing down the CCP's equity.

- 2.14 Jurisdictions may confer to the resolution authority an explicit statutory power to require clearing members to make contributions in cash to the CCP up to a specific limit which may be exercised if the non-default losses are not fully absorbed by writing down the CCP's equity and by applying any other loss allocation measures available under the CCP's rules and arrangements for non-default losses. Any statutory cash calls, the points in time at which they may be called and the limit up to which they may be exercised by the resolution authority should, ~~where needed,~~ be reflected in the CCP's rules and arrangements. Clearing members should be able to assess at all times the maximum amount that they may be required to contribute under any such cash calls.

Equity in return for contributions to the CCP resolution

- 2.15 ~~The~~Upon the write-down of unsecured liabilities, the resolution authority should have the power to award appropriate amounts of equity or other instruments of ownership (or debt instruments convertible into equity) to clearing members that contributed financial resources to a resolution in excess of their called or uncalled obligations under the CCP's rules and arrangements, for both default-related and non-default related loss scenarios. Alternatively, the resolution authority may have the power to award to participants claims on the parent of the group to which the CCP is affiliated, where appropriate and subject to the consent of the parent.

3. Entry into resolution

(Key Attribute 3.1, 12; FMI Annex 3.4-3.5, 4.3, 12)

Entry into resolution should be possible when a CCP is, or is likely to be, no longer viable or

no longer able to meet applicable legal or regulatory requirements on a continuing basis, and has no reasonable prospect of returning to viability within a reasonable timeframe through other actions that could be taken by the CCP (that do not themselves compromise financial stability). The resolution authority, in consultation with other relevant authorities, should have the power and practical arrangements to place a CCP into resolution promptly and if necessary prior to the end of the CCP's existing recovery and loss allocation arrangements where:

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

Once a CCP enters resolution, decision making authority over, and responsibility for, the CCP should pass to the resolution authority. The resolution authority and other relevant authorities, including the supervisory and oversight authorities and authorities involved in cooperative arrangements or CMGs, should cooperate and communicate effectively in recovery to enable the resolution authority to act in a timely manner.

- 3.1 A CCP's recovery plan should be designed to address comprehensively any uncovered credit losses and liquidity shortfalls. The resolution authority, in consultation with other relevant authorities, should in principle allow for recovery measures to proceed where they are reasonably likely to be effective within the timeframe required. However, it is possible that the CCP's implementation of the recovery measures will not be sufficient to return the CCP to viability in a timely manner; or the CCP will be unable to apply recovery measures in a manner that does not give rise to significant risks to financial stability; ~~or that confidence in the CCP is failing and participants will be unwilling to participate fully in recovery in a way that maintains continuity of critical functions.~~
- 3.2 In determining whether to place a CCP into resolution, the resolution authority, in consultation with other relevant authorities, should take into account the particular circumstances prevailing at the time of the member default(s), non-default loss or other stress event and a broad range of factors, including the potential impact of the CCP's recovery actions on the markets served and financial system and potential availability of new resources or options in resolution to support critical functions and maintain financial stability.
- 3.3 Resolution authorities should consider communicating publicly some of the indicators that would inform their determination to trigger resolution. The potential indicators set out below for default losses and non-default losses are factors that may inform a determination of whether to place a CCP into resolution and should not be regarded as exhaustive or as fixed or automatic triggers.

Potential indicators relating to default losses

3.4 In the case of default losses, potential indicators of circumstances that could lead to a determination to trigger resolution might include that, in the judgement of the relevant authorities:

- (i) the CCP is or will likely be unable to return to a matched book, or can only do so by actions that would require resources in excess of its available prefunded and committed financial resources, compromise financial stability or by actions that create significant, unpredictable exposures for the CCP's participants;
- (ii) the CCP is or is likely to be unable to cover losses, or exhausts or is likely to exhaust its loss allocation tools and arrangements or can only cover losses with actions that would create significant, unpredictable losses for the CCP's participants;
- (iii) the CCP is unable or likely to be unable to replenish its financial resources within a reasonable time frame to a level that can deliver continuity of critical functions and meet regulatory compliance; or

~~(iv) the CCP's participants no longer have confidence in its ability to manage risks effectively; or~~

- (iv) ~~(v)~~ the management of the CCP is not implementing in a timely manner the default management processes or recovery actions creating material risk to the continuity of the critical functions.

Potential indicators relating to non-default losses

3.5 In the case of non-default losses, potential indicators of circumstances that could lead to a determination to trigger resolution might include that, in the judgement of the relevant authorities:

- (i) the CCP's capital is or is likely to be exhausted or severely depleted below regulatory requirements, notwithstanding any loss allocation rules and arrangements for the type of loss, and the current owners of the CCP are unwilling or unable to recapitalise the CCP;
- (ii) the CCP can only cover losses with actions that would create significant, unpredictable losses for the CCP's participants; or
- (iii) the CCP fails or is expected to fail to comply with other regulatory requirements for authorisation and such failure or expected failure results in a significant threat to the continuity of the CCP and cannot be addressed by supervisory actions or threatens financial stability.

Cooperation between relevant authorities in the lead up to resolution

3.6 In order to enable resolution authorities to act promptly, relevant authorities, including the supervisory authorities, central banks, resolution authorities, finance ministries and the public authorities responsible for guarantee schemes, if any,

involved in cooperative arrangements and Crisis Management Groups (CMGs) for the CCPs concerned, should cooperate and keep each other appropriately informed. Timely and frequent communication among supervisory, oversight and resolution authorities about a CCP's condition and risks should facilitate effective crisis preparedness well in advance of any specific issues the CCP may encounter. Cooperation and communication should intensify when a CCP's recovery process is initiated.

- 3.7 Authorities should ensure that CCPs have in place adequate processes and real-time risk management capabilities to capture, monitor and report data that is necessary to determine whether to place a CCP into resolution to the relevant authorities.
- 3.8 Jurisdictions should ensure that the relevant authorities can share information, in particular where the resolution authority is different from the supervisor or overseer.

4. Allocating losses to equity holders in resolution

(Key Attribute 5.1)

Existing owners' equity in the CCP should absorb losses in resolution after all other available resources and tools in the CCP's rulebook have been applied, to the extent not already written down upon enforcement of the CCP's rules and contractual arrangements. The power to write down equity of the CCP in resolution should be set out in the legal framework and, where needed, reflected in the CCP's rules and arrangements, and its constitutive arrangements (e.g. articles of incorporation).

Default losses

- 4.1 In resolution, equity should be fully loss absorbing.⁺⁺⁵ It should be clear and transparent at which point in resolution any remaining equity would be written down, for example, no later than at the point at which the last of all available funds and resources in the CCPs rulebook (including cash calls available under the CCP's rules and arrangements, VMGH, or tear-ups) have been exhausted.

Non-default losses

- 4.2 In resolution, equity should absorb non-default losses no later than at the point at which any applicable loss allocation arrangements available under the CCP's rules and arrangements for non-default losses have been exhausted. Moreover, equity should be written down before losses are allocated to creditors in accordance with the creditor hierarchy under the applicable legal framework.

⁺⁺⁵ In recovery, under current arrangements equity holders may absorb default losses only to the limited extent provided for contractually in the CCP rules and arrangements (skin-in-the-game). The general principle set out in the Key Attributes is that equity should absorb losses first in resolution, consistent with the ranking of equity holders in insolvency. Key Attribute 5.1 "...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)".

Alternative approaches

- 4.3 Resolution authorities may consider alternative approaches to allocating losses to existing equity holders and recapitalising the CCP once all other tools and resources under the CCP's rulebook have been applied, such as writing down the equity and recapitalising the CCP by selling new equity in the CCP and using the proceeds to recapitalise the CCP and replenish its financial resources. The approach chosen may vary depending on the structure of the CCP (for example, single or multi-service), the value of the clearing service in which the default has taken place relative to the equity of the CCP, and constraints under applicable law.

5. No creditor worse off safeguard

(Key Attributes 5.1-5.2; FMI Annex 6.1)

CCP participants (if and to the extent that the resolution authority departs in resolution from the loss allocation under the CCP's rules and arrangements), equity holders and creditors should have a right to compensation where they do not receive in resolution at a minimum what they would have received if, instead of resolution, the CCP or relevant clearing service had been liquidated or terminated under the applicable insolvency law ("no creditor worse off" (NCWO) safeguard).

For the purposes of determining whether a participant, equity holder or creditor is worse off as a result of resolution measures than in liquidation or termination of the CCP or relevant clearing service under applicable insolvency law, the assessment of the losses that would have been incurred or the recoveries that would have been made if the CCP had been subject to liquidation or termination should assume the full application of the CCP's rules and arrangements for loss allocation.

The counterfactual underlying the NCWO safeguard should be clear and transparent for both default and non-default loss scenarios.

- 5.1 For the purposes of determining the NCWO counterfactual, the assessment of the losses that would have been incurred and of the recoveries that would have been made by CCP participants, equity holders and creditors if the CCP or relevant clearing service had been liquidated or terminated should assume the full application of the CCP's rules and arrangements and any other contractual agreements subject to the applicable insolvency law.¹²⁶ Where the CCP's rules and arrangements reserve powers to be exercised by the resolution authority it should be made clear and transparent whether these powers should be assumed to be applied in the NCWO counterfactual.

5.2 [Not Used].

5.3 [Not Used].

¹²⁶ Insolvency law establishes a creditor hierarchy that determines the order in which losses are allocated in liquidation. In many jurisdictions that order also takes into account contractual agreements between the insolvent legal entity and its obligors and creditors regarding the calling in of outstanding obligations and the order in which creditors receive recoveries from the insolvency.

~~5.2 If and to the extent that the resolution authority departs from the CCP's rules and arrangements, CCP participants to whom losses are allocated should be covered by the safeguard where the losses incurred in resolution exceed the losses that would have been incurred in liquidation or termination from the full application of the CCP's loss allocation arrangements consistent with applicable insolvency law.~~

~~5.3 In specific circumstances, the resolution authority may need to depart from the general principle of equal (*pari passu*) treatment of creditors within the same class and order of loss allocation in accordance with the CCP's rules and arrangements, if necessary to achieve the resolution objectives or maximise value for all creditors. The resolution authority should not be prohibited from doing so, if necessary, to achieve the resolution objectives (see Section 2.2).~~

5.4 Statutory or contractual subordination of liabilities may be used to shield operationally critical liabilities that are important to support resolution objectives (for example, relating to the provision of liquidity to the CCP) from loss.

5.4A If both a default loss and a non-default loss occur simultaneously, the tools and arrangements, as defined in the CCP's rulebook, to address each event would remain independent. For the purposes of the no creditor worse off counterfactual, any default and non-default losses would be assessed separately, on the basis of the distinct counterfactuals described in 5.6 and 5.7.

No creditor worse off counterfactual for default losses

5.5 For resolution triggered by member default losses, the relevant counterfactual is the liquidation or termination of the CCP or relevant clearing service in accordance with the applicable insolvency laws, assuming full application of the CCP's rules and arrangements and any other contractual agreements in accordance with the applicable insolvency law, including cash calls, VMGH and tear up of contracts in accordance with the rulebook, and where possible utilising the CCP's pricing methodology or other appropriate price discovery method. Where consistent with the legal framework, the counterfactual should respect segregation and limited recourse provisions between different clearing services within the CCP. When assessing what treatment creditors (including equity holders and participants) would have received under the NCWO counterfactual, the resolution authority (or other relevant authority) should take into consideration the following:

- (i) any uncalled but available rights of assessment of the CCP, VMGH rights or cash calls as at the date of entry into resolution;
- (ii) where actual payment obligations (including cash calls) are not met in full by members in the resolution, the amounts actually received as well as the value of claims against clearing members and other creditors who may have defaulted on such obligations;
- (iii) any limited recourse provisions in the CCP's rules, and the CCP's rules and arrangements for loss allocation, including for the tear up of contracts;
- (iv) the assumption that tear up occurs at the same point in time as any tear up in resolution;

- (v) the price of any torn-up contracts as determined in accordance with the rules of the CCP and where possible utilising the CCP's pricing methodology or other appropriate price discovery method, and consistent with applicable insolvency law.

No creditor worse off counterfactual for non-default losses

- 5.6 For non-default losses, the relevant counterfactual is the liquidation of the CCP ~~in accordance with~~under the applicable insolvency laws, assuming full application of any loss sharing arrangements by the CCP relevant to the type of loss incurred and full application of any cash calls, in accordance with the relevant applicable ~~insolvency law~~CCP rules.

6. Financial resources

(Key Attributes 6.2-6.4; FMI Annex 4.11, 7.1-7.2)

As part of resolution planning, the resolution authority should make appropriately prudent assumptions about the financial resources that may be required to achieve the resolution objectives and the resources that it expects to remain available under the CCP's rules and arrangements at the time of entry into resolution to:

- (i) address uncovered losses;
- (ii) replenish resources in line with regulatory requirements within an appropriate timeframe;
- (iii) meet costs associated with maintaining and operating the critical functions of the CCP until exit from resolution, including the costs for critical dependencies such as service-level agreements, third-party service providers, or other key dependencies; and
- (iv) meet temporary liquidity needs.

For CCPs that are systemically important in more than one jurisdiction, the resolution authority should duly consider the views of the CMG in its assessment.

Jurisdictions should have effective resolution regimes and policies in place so that authorities are not constrained to rely on public bail-out funds to resolve a CCP. If, as a last resort and for the overarching purpose of maintaining financial stability, a jurisdiction determines that temporary public funding is necessary to achieve an orderly resolution, the resolution authority should have the power to recover such funding from the CCP or any successor entity, or any recoveries made against a defaulting counterparty of the CCP, or from CCP participants or other market participants, in order to minimise the risk of losses to taxpayers and in a way that maintains incentives to support recovery.

This power should be supported by credible and effective enforcement mechanisms and sufficient transparency in advance as to how it would operate and to whom it would apply.

- 6.1 As part of resolution planning, the resolution authority should assess regularly what financial resources and tools can reasonably be expected to be available to it under the

resolution regime and the CCP's rules and arrangements at the time of entry into resolution, and whether those resources would be sufficient to achieve the resolution objectives in the case of both default and non-default losses.

- 6.2 For default losses, the resolution authority should consider the following aspects in its assessment:
- (i) the risk characteristics, complexity and pricing uncertainties of the products cleared, and the related potential margin of error in initial and variation margin calculations;
 - (ii) the size, structure and liquidity of the underlying market in stressed conditions;
 - (iii) the number of clearing member defaults that would be covered by available prefunded and committed resources under extreme but plausible conditions;
 - (iv) the availability, and potential impact on affected participants, of tools such as partial tear up and variation margin gains haircutting; and
 - (v) the credibility of unfunded arrangements in meeting the CCP's potential needs.
- 6.3 In addition, and for all types of loss, the resolution authority should assess the substitutability of the CCP in the markets it serves, and the credibility and viability of any additional arrangements, such as insurance agreements or parental guarantees, that may be available to address uncovered credit losses.
- 6.4 Authorities should ensure that CCPs have in place adequate processes and information management processes to provide the authorities with the necessary data and information required for undertaking the assessment.

Provision and recovery of temporary funding

- 6.5 In jurisdictions where temporary public funding arrangements are available for CCP resolution,¹³⁷ any public funding provided by the authorities should be relied on only as last resort, be limited in time, and be recoverable over an appropriate time period from the assets of the CCP (including any claims against defaulting counterparties' estates or recoveries thereon), its participants and/or other market participants.
- 6.6 In determining the amounts to be recovered, the resolution authority should take into consideration the amounts that CCP participants would otherwise have been required to contribute under the CCP's rules and arrangements and in resolution, had temporary public funds not been provided by the authorities, and, if appropriate, the costs of providing those funds.
- 6.7 Any recoveries by the CCP from the estate of a defaulting counterparty (including defaulting clearing members) should first be used to pay back temporary public funds. If the recoveries from the estate of the defaulter(s) exceed the amount of funding

¹³⁷ Potential arrangements are described in Key Attribute 6 and FMI Annex section 7.

provided by authorities, the excess should be treated in accordance with the CCP's rules and arrangements ~~or otherwise~~ and be redistributed to CCP equity owners, clearing participants and/or other market participants who contributed to the loss allocation arrangements of the CCP in the reverse hierarchy to that in which they were applied to meet a loss.

- 6.8 Arrangements for the recovery of temporary public funding should be publicly disclosed as appropriate. Where appropriate they should be written into the legal framework and the CCP's rules and arrangements in order to help provide clarity and transparency regarding how authorities would recover funds and to provide a legal basis to collect from both domestic and foreign participants of the CCP.
- 6.9 Other recovery methods of temporary public funding, such as selling an equity stake in the CCP or imposing transaction levies to recoup temporary public funds from a broader base, may also be considered.

7. Resolution Planning

(Key Attributes 11.1-11.4, 11.6-11.8; FMI Annex 11)

For all systemically important CCPs, the home resolution authority should develop, in cooperation with the CCP's oversight or supervisory authorities (where distinct from the resolution authority), a resolution plan that takes into account the CCP's unique features and risks and its recovery plan, and addresses default and non-default scenarios and a combination of both.

In the case of a CCP that is systemically important in more than one jurisdiction, the home resolution authority should develop the resolution plan in cooperation with the CMG.

- 7.1 The resolution authority should develop and update regularly resolution plans that address resolution scenarios with default losses and non-default losses and a combination of both, distinguishing between different types of non-default loss where relevant.
- 7.2 Given the close relationship between resolution and recovery, the development of the resolution plan should start with the CCP's recovery plan.
- 7.3 The resolution plan should consider different scenarios and identify appropriate tools and actions to:
- (i) fully address any outstanding losses;
 - (ii) replenish the financial resources of the CCP to a level sufficient to meet regulatory requirements and support the continued and timely operation of the critical functions of the CCP; and
 - (iii) wind down those functions not judged to be critical for financial stability, where necessary or appropriate.
- 7.4 For losses arising from member default, the resolution plan should, in addition to 7.3, identify appropriate tools and actions to return the CCP to a matched book.

7.5 The resolution plan should include a description of the following aspects:

- (i) the decision-making process for triggering resolution including, if applicable, a general description of any indicators that the resolution authority is required to take into account when deciding whether to put the CCP into resolution, or that it would expect to be material to that decision. In the case of non-default losses in particular, it should have regard to the different sources of losses and the speed with which such losses can crystallise;
- (ii) the critical services and functions that are likely to be continued in resolution;
- (iii) in the case of a member default, the tool(s) that the resolution authority would expect to use to return to a matched book and the arrangements for allocating the financial losses associated with these measures;
- (iv) the general process or approach the resolution authority would expect to follow in determining the scope and price of any tear up of cleared contracts;
- (v) to the extent that the resolution authority would need to depart from the CCP's rules and arrangements, the general process or approach the resolution authority would expect to follow in calculating and allocating losses, including the choice and sequencing of different loss allocation tools, and how the resolution authority would apply the NCWO safeguard and assess losses under the counterfactual for these purposes. Where relevant, the plan should also clarify whether the general process or approach would differ depending on the specific resolution scenario, including different types of non-default risks;
- (vi) the resolution authority's general expectations as to how and in what time frame the financial resources of the CCP, i.e. default fund and regulatory capital including own contributions to default funds, would be replenished, and any considerations relevant to that expectation;
- (vii) any ancillary actions that the resolution authority would generally expect to take or consider when implementing the resolution strategy, for example stays on early termination rights;
- (viii) how the plan would address intra-group dependencies, interoperability arrangements and links with other FMIs, such as [other CCPs](#), exchanges and central securities depositories (CSDs), whether in the same group as the CCP in question or not;
- (ix) how the plan would support operational continuity, including where threats to the viability of the CCP arise from an interruption or loss of critical third party services, for example arising from the failure of a CSD;
- (x) how the resolution authority would address in a timely manner any need for consents or change of control or other approvals;

- (xi) any steps necessary for the CCP to maintain status as a Qualifying CCP;¹⁴⁸
- (xii) the wind down of those functions judged not to be critical for financial stability, where necessary or appropriate;
- (xiii) the approach that the resolution authority would expect to take to coordination with other authorities during the resolution, including with authorities within the CMG; any authorities overseeing concurrent default management procedures or resolutions of other relevant CCPs; the supervisory and resolution authorities of clearing members or, where relevant, authorities responsible for setting clearing mandates for specific products, if different from the resolution authority, macroprudential authorities or authorities for financial stability oversight, as well as other relevant authorities not participating in the CMG; and
- (xiv) in jurisdictions where temporary funding arrangements are available, the conditions and processes for considering the provision of temporary public funding in resolution for the CCP and the arrangements for recovering these funds.

7.6 The resolution plan should also take into account the following:

- (i) the ownership, legal and organisational structure of the CCP, including whether it is part of a larger group of FMIs or other financial institutions;
- (ii) the availability of other CCPs that could credibly and feasibly act as a substitute for the critical functions of the CCP;
- (iii) the nature and diversity of the CCP's membership as well as its indirect users; and
- (iv) whether the CCP clears any products or classes that are subject to central clearing mandates.

7.7 Resolution authorities should consider the merits of publicly disclosing some elements of the resolution plan. They should take into account the effects of doing so on incentives of CCP clearing members, CCP owners, and market participants to participate in a CCP's default management process and recovery procedures. [The resolution authority should make publicly available details of the default waterfall it intends to apply upon resolution including, if any deviations from the CCP's agreed rules and arrangements are proposed.](#)

8. Resolvability assessments and addressing impediments to resolvability

(Key Attributes 10.1-10.2, 10.5, 11.1-11.4, 11.6-11.8; FMI Annex 10, 11)

The resolution authority should, in coordination with the CCP's oversight or supervisory authorities, conduct regular resolvability assessments to evaluate the feasibility and

¹⁴⁸ See Bank for International Settlements, *Capital requirements for bank exposures to central counterparties*, April 2014 (www.bis.org/publ/bcbs282.htm).

credibility of the resolution plan and to identify any legal or operational impediments to resolvability.

The oversight, supervisory or resolution authorities for CCPs should have powers to require the CCPs, where necessary, to address material impediments to resolvability, and be able to require the CCP to arrange for additional financial resources if that would be deemed necessary to achieve effective resolution.

- 8.1 The oversight, supervisory or resolution authorities for CCPs should have powers to require a CCP to adopt measures to improve the resolvability of the CCP including, where necessary and appropriate:
- (i) changes to the rules and arrangements of the CCP, including changes to delivery, segregation or portability arrangements of participants' positions or related collateral;
 - (ii) operational, structural or legal changes, for example so that different CCP functions or services, such as the clearing of different products, can be dealt with separately in resolution;
 - (iii) changes to the terms or operation of its links with other FMIs.

In requiring any such measures the authorities should take due account of the likely effects of such changes on the soundness of operations of the CCP, including its risk management, the functioning of markets, the provision of liquidity, and the incentives of direct and indirect participants to use the CCP.

- 8.2 As part of the resolvability assessments, resolution authorities should, in coordination with the CCP's oversight or supervisory authorities, carry out periodic crisis management exercises and assess the adequacy of financial resources and of any funding arrangements and accordingly adopt measures to improve the resolvability of the CCP and adjust the resolution plans, where necessary.

9. Crisis Management Groups

(Key Attributes 7, 8; FMI Annex 8, 9)

For CCPs that are systemically important in more than one jurisdiction, the home resolution authority should establish a Crisis Management Group (CMG)⁴⁵⁹ to coordinate the resolution planning and resolvability assessments.

Processes for cooperation and information sharing during a crisis and for purposes of resolution planning and resolvability assessment within the CMG should be set out in a CCP-specific cooperation agreement (CoAg).

Resolution authorities should also cooperate and share relevant information with authorities

⁴⁵⁹References in this Guidance to 'CMG' should be read as including other equivalent arrangements based on Responsibility E of the *Principles for financial market infrastructures* that are consistent with the *Key Attributes*.

in host jurisdictions that are not represented on a CMG.

- 9.1 The home resolution authority is responsible for establishing CMGs for its domestic CCPs. Home and host oversight or supervisory authorities and resolution authorities should consider some or all of the following when assessing whether a CCP may be of systemic importance in more than one jurisdiction and thus a CMG should be established:
- (i) the extent to which the offshore CCP's participants (or participants' parent company or group, where that relationship may create systemic effects) are located in the host's jurisdiction;
 - (ii) the CCP's share of the aggregate volume and value of cleared transactions that originate in the host jurisdiction;
 - (iii) the proportion of total volume and value of transactions cleared by the CCP that originate in the host jurisdiction;
 - (iv) the extent to which instruments cleared by the CCP are cleared or settled in the host jurisdiction's currency;
 - (v) any links the off-shore CCP has with FMIs located in the host jurisdiction;
 - (vi) the extent to which the offshore CCP clears instruments that are subject to mandatory clearing obligations in the host jurisdiction;
 - (vii) *substitutability*: the extent to which there is no readily available substitute to the offshore CCP that is a major provider of clearing services to the host jurisdiction. Consideration should be given to the degree of overlap in products cleared and critical clearing services offered, among other factors, when evaluating the availability of alternate providers in the host, or another, jurisdiction;
 - (viii) *interconnectedness*: the extent to which the offshore CCP is connected to the host jurisdiction by providing services that are important to the real economy in the host jurisdiction, such that its failure could create, or increase, the risk of significant liquidity or credit problems spreading among financial institutions or markets, in that jurisdiction and threaten its financial stability; and interdependencies between CCPs other than links (e.g. cross-margining arrangements, provision of critical functions from one CCP to the other, and guarantees provided by a common parent company), where relevant, and in cases where the off-shore CCP is part of a financial group, any relevant interconnections resulting from the location of the parent company.
- 9.2 In determining the composition of the CMG of a CCP, the home resolution authority should be guided by the *Key Attributes* and the FMI Annex with a focus on the materiality of the CCP's operations and activities in jurisdictions for resolution planning and for executing a resolution. Consistent with the *Key Attributes* and the FMI Annex, the home resolution authority should consider including in the CMG, in addition to the relevant CCP home authorities (which are the supervisory and

resolution authorities, central bank, finance ministry and the public authority responsible for guarantee schemes, if any) the following:

- (i) host country supervisors where the CCP is authorised/licenced to provide clearing services;
- (ii) supervisors and resolution authorities of major clearing members (e.g. jurisdictions where members accounting for a significant share of the CCP's default fund);
- (iii) central banks of issue of major currencies cleared (i.e. currencies accounting for a significant share of the CCP's business);
- (iv) in the case of CCPs belonging to a wider financial group, supervisors and resolution authorities of affiliated entities, that would play a significant role in the execution of the CCP's resolution plan; and
- (v) if relevant, supervisors and resolution authorities of significant FMIs and trading venues operating with the CCP.

The home resolution authority may consider inviting other authorities to join the CMG or to participate on an ad hoc basis where appropriate.

Information sharing within the CMG

9.3 CCP-specific cooperation agreements (CoAgs)⁴⁶¹⁰ should support information sharing for purposes of resolution and resolution planning on a multilateral basis among all CMG members, including by setting out dedicated arrangements for data confidentiality and professional secrecy.

9.4 Information to be shared should at a minimum encompass the information necessary for assessing the credibility and feasibility of the resolution plan in terms of maintaining the continuity of critical functions in a resolution and minimising systemic risk in jurisdictions where the CCP is systemically important. It may also include information about cleared markets, linked FMIs or clearing members.

9.4A The home resolution authority should communicate with the CMG during a crisis and consider information provided by the CMG, as necessary and appropriate. Such information sharing may be carried out through existing CoAgs. CMG consultations shall not preclude any emergency action considered by the home resolution authority to be necessary.

Cooperation and information sharing with non-CMG authorities

9.5 The home resolution authority should establish effective arrangements for cooperation and information sharing with relevant host authorities from jurisdictions where the

⁴⁶¹⁰ Consistent with FMI Annex 9.3, the requirement for CoAgs may be met by crisis coordination and communication agreements, protocols or memoranda of understanding adopted in accordance with Responsibility E of the *Principles for Financial Market Infrastructures*, provided that those arrangements are adapted, amended or supplemented as necessary to support the cooperation, coordination, and information sharing for purposes of resolution and resolution planning within the CMG.

CCP is systemically important but that are not represented on the CMG ('relevant non-CMG authorities'), taking as a starting point for those arrangements the FSB guidance on cooperation with non-CMG hosts and using, where possible and appropriate, existing cooperative arrangements between authorities.⁴⁷¹

- 9.6 During resolution planning, the home resolution authority should share relevant information on the resolution plan with relevant non-CMG host authorities to enable them to understand the key elements of the resolution plan and the impact of contemplated resolution actions on their jurisdictions. It should seek input from these authorities as appropriate. The home resolution authority should consider any information or feedback provided by relevant non-CMG host authorities.
- 9.7 The home resolution authority should communicate with relevant non-CMG authorities during a crisis and consider information provided by those authorities, as necessary and appropriate. Such information sharing could be done through existing cooperation arrangements between authorities.

10. Cross-border effectiveness and enforcement of resolution actions

(Key Attribute 7; FMI Annex 8, 9)

As part of resolution planning and resolvability assessments, authorities should analyse the CCP's cross-border contractual, operational and organisational arrangements and assess the effectiveness of resolution actions in relation to those cross-border arrangements.

To support their effectiveness and enforceability on a cross-border basis resolution tools and actions should be set out in the legal framework and, where needed, be incorporated in the CCP's rules and arrangements.

Effectiveness of cross-border resolution

- 10.1 As part of resolution planning and resolvability assessments, the home resolution authority and CMG should identify and address any challenges to the enforceability or effectiveness of resolution actions that may arise in a cross-border context, in particular in relation to:
- (i) interoperating arrangements and cross-margining with CCPs in other jurisdictions;
 - (ii) critical services and functions provided by entities that are located in other jurisdictions;
 - (iii) participants that are incorporated in other jurisdictions;
 - (iv) the use of foreign custodians, payment banks or settlement banks; and

⁴⁷¹ Financial Stability Board, Guidance on Cooperation and Information Sharing with Host Authorities of Jurisdictions where a G-SIFI has a Systemic Presence that are Not Represented on its CMG, 3 November 2015 (www.fsb.org/2015/11/guidance-on-cooperation-and-information-sharing-with-host-authorities-of-jurisdictions-where-a-g-sifi-has-a-systemic-presence-that-are-not-represented-on-its-cmg/)

- (v) custodian relationships or collateral arrangements governed by foreign law.
- 10.2 To address any identified challenges the relevant authorities should consider as appropriate:
- (i) agreeing to arrangements for cooperation and coordination of resolution proceedings taking place in other jurisdictions in relation to the CCP, any of its affiliated entities or CCP participants;
 - (ii) agreeing to procedures for supportive actions from relevant authorities in other jurisdictions, including processes to obtain new licenses, recognitions or authorisations that may be necessary as a result of resolution actions contemplated under the resolution plan; or
 - (iii) ensuring that, where needed, resolution actions are incorporated in the CCP's rules and arrangements or in other contractual agreements to give effect to or support the enforceability of such actions on a cross-border basis.
- 10.3 Where relevant, resolution authorities should ensure that they have in place appropriate communication and information sharing arrangements with the relevant domestic and foreign authorities that are competent for setting and suspending clearing mandates.

Key Terms

<i>Cash call</i>	A requirement for clearing members to pay an amount in cash to the CCP upon demand as set out in its rules.
<i>Central counterparty</i>	An entity that interposes itself between counterparties to contracts traded in one or more financial markets, becoming the buyer to every seller and the seller to every buyer and thereby ensuring the performance of open contracts.
<i>Critical function</i>	Systemically important activities of CCPs, i.e. functions that are vital for the real economy or for financial markets and financial stability in a jurisdiction due to the size or market share of the CCP, its external and internal interconnectedness, complexity and cross-border activities. The availability of substitutes for the CCP in providing the function is also relevant to the analysis. ⁴⁸¹²
<i>Initial margin haircut</i>	A reduction in the value of initial margin that a non-defaulting participant of the CCP is entitled to return of, with no recourse to the CCP for that reduction.
<i>Non-default loss</i>	A loss incurred by a CCP for any reason other than the default of a clearing participant. Examples include losses on investments or due to operational failures or fraud.
<i>Participant</i>	A user of the CCP's clearing services, whether directly as a clearing member of the CCP, or indirectly as a client of a clearing member.
<i>Recovery</i>	The ability of a CCP to recover from a threat to its viability and financial strength so that it can continue to provide its critical functions without requiring the use of resolution powers by authorities.
<i>Resolution authority</i>	Designated administrative authority or authorities responsible for exercising the resolution powers over firms within the scope of the resolution regime. As used in this document, this term should be read to include references to more than one authority where two or more authorities are responsible for exercising resolution powers under the resolution regime. ⁴⁹¹³
<i>Tear up</i>	The action of settling and cancelling (without reopening) a contract. This could be applied to <u>some contracts opposite to those of a defaulter</u> (partial tear up) or all (full tear up) <u>of a particular fungible set of</u> contracts within a CCP or <u>of a particular</u> clearing

⁴⁸¹² This is consistent with the definition of critical functions in the FSB's *Recovery and Resolution Planning for Systemically Important Financial Institutions: Guidance on Identification of Critical Functions and Critical Shared Services*, July 2013 (www.fsb.org/2013/07/r_130716a/)

⁴⁹¹³ Key Attribute 2.1

service.

Variation margin Funds that are collected and paid out to reflect current exposures resulting from actual changes in market prices.

Variation margin gains haircutting The reduction of variation margin payments that a CCP is due to make to participants whose positions (in the relevant clearing services) have increased in value since a specified point in time, e.g. since the issuance of a default notice by the CCP or the last margin call by the CCP. (Participants whose positions have decreased in value are still required to pay variation margin in full.)