



Basel Committee on Banking Supervision

BANK FOR INTERNATIONAL SETTLEMENTS



Committee on Payments and  
Market Infrastructures

BANK FOR INTERNATIONAL SETTLEMENTS



**OICU-IOSCO**

CHAIRS OF THE FSB SRC, FSB RESG, BCBS,  
CPMI, AND IOSCO

## **CCP Resilience, Recovery and Resolvability**

### **Report on the Implementation of the Joint Workplan for Strengthening the Resilience, Recovery and Resolvability of CCPs**

**30 June 2017**

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# Report on the Implementation of the Joint Workplan for Strengthening the Resilience, Recovery and Resolvability of CCPs

## Overview

In 2009, the G20 Leaders committed to ensuring that all standardised OTC derivatives contracts are cleared through central counterparties (CCPs). Since that time, the share of centrally cleared transactions has increased significantly and the range of banks and other financial institutions that channel their transactions through CCPs has broadened. CCPs' criticality to the overall safety and soundness of the financial system means that authorities must take steps to ensure that CCPs do not themselves become a source of systemic risk.

In 2015, the Chairs of the FSB Standing Committee on Supervisory and Regulatory Cooperation, the FSB Resolution Steering Group, the Committee on Payments and Markets Infrastructures (CPMI), the International Organization of Securities Commissions (IOSCO), and the Basel Committee on Banking Supervision (BCBS) agreed to coordinate their respective international policy work aimed at enhancing the resilience, recovery planning and resolvability of CCPs. They adopted a **joint workplan**<sup>1</sup> which called for the development of further guidance in those areas building on and supporting the implementation of existing standards<sup>2</sup> relating to CCP resilience, recovery planning, resolution and resolution planning, and analysis of central clearing interdependencies. Implementation of the workplan is now largely complete.

The focus of the **next phase of the work** is on:

- continued monitoring of implementation of the principles in the PFMI regarding resilience and recovery of CCPs, the finalisation of the framework on supervisory stress testing for CCPs;
- the implementation of the Key Attributes consistent with the expectations regarding CCP resolution and resolution planning expanded upon in the FSB guidance, supported by (i) the establishment of crisis management groups (CMGs) for CCPs that are systemically important in more than one jurisdiction (including the home jurisdiction) ('SI>1') and adoption of cooperation agreements, and (ii) further work on financial resources in resolution;
- additional analysis of central clearing interdependencies to assess whether the key findings are stable over time; and
- further work to assess incentives to clear centrally arising from the interaction of post-crisis reforms.

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<sup>1</sup> See 2015 CCP Work Plan at <http://www.fsb.org/2015/09/2015-ccp-workplan/>

<sup>2</sup> CPMI and IOSCO *Principles for Financial Market Infrastructures* (PFMI) (2012) at [www.bis.org/cpmi/publ/d121.htm](http://www.bis.org/cpmi/publ/d121.htm) and [www.iosco.org/library/pubdocs/pdf/IOSCOPD455.pdf](http://www.iosco.org/library/pubdocs/pdf/IOSCOPD455.pdf); and the FSB *Key Attributes of Effective Resolution Regimes for Financial Institutions* (KA) (2011) and Annex to the KAs on *Resolution of Financial Market Infrastructures (FMIs) and FMI participants* (2014) at [www.fsb.org/2014/10/key-attributes-of-effective-resolution-regimes-for-financial-institutions-2](http://www.fsb.org/2014/10/key-attributes-of-effective-resolution-regimes-for-financial-institutions-2).

## I. Resilience and recovery

The CPMI and IOSCO PFMI provide a comprehensive framework for the resilience and recovery of CCPs. The CPMI-IOSCO report of the first Level 3 assessment of selected CCPs' implementation of the PFMI<sup>3,4</sup> found that CCPs have made important and meaningful progress in implementing arrangements consistent with the standards. However, the report also identified some gaps and shortcomings with respect to their financial risk management and recovery practices. To address these, the CPMI and IOSCO developed further guidance on CCP resilience and recovery. In particular, the CPMI and IOSCO have published the following reports:

- **Resilience of CCPs – further guidance on the implementation of the PFMI** [link]. The CPMI and IOSCO published on [dd mmmm] further guidance with respect to financial risk management of CCPs, and in particular on governance, credit and liquidity stress testing, coverage of financial resources, margin, and a CCP's contributions of its own financial resources to address losses. The report builds on a consultative report on resilience and recovery that was published in August 2016<sup>5</sup> taking into account the responses to the consultation.
- **Framework for supervisory stress testing** [link]. The CPMI and IOSCO also published on [dd mmmm] a consultative report on a **framework for supervisory stress testing** (SST) of CCPs <footnote will include the full title and link to the report>. The framework is designed to support SST conducted by one or more authorities that examine the potential broad, macro-level impact of a common stress event affecting multiple CCPs. It is expected to be finalised in [2018].
- **Guidance on CCP recovery** [link]. To further improve the recovery planning for CCPs, the CPMI and IOSCO have reviewed the guidance provided in the 2014 Recovery Report<sup>6</sup> taking into account the comments submitted to the consultative report on resilience and recovery that was published in August 2016. The **recovery guidance**, published on [4 July 2017] provides additional clarifications in four areas of recovery planning: (i) operationalisation of the recovery plan; (ii) replenishment of financial resources; (iii) non-default related losses; and (iv) transparency with respect to recovery tools and how they work.

### Priorities for 2017/18

The CPMI and IOSCO will **continue work regarding the PFMI and related guidance**. Further work underway or planned includes:

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<sup>3</sup> The Level 3 assessment examines consistency in the outcomes of implementation of the PFMI.

<sup>4</sup> CPMI and IOSCO, *Implementation monitoring of PFMI: Level 3 assessment – Report on the financial risk management and recovery practices of 10 derivatives CCPs* (2016), at [www.bis.org/cpmi/publ/d148.htm](http://www.bis.org/cpmi/publ/d148.htm) and [www.iosco.org/library/pubdocs/pdf/IOSCOPD538.pdf](http://www.iosco.org/library/pubdocs/pdf/IOSCOPD538.pdf).

<sup>5</sup> CPMI and IOSCO, *Resilience and recovery of central counterparties (CCPs): Further guidance on the PFMI - consultative report* (2016) at [www.bis.org/cpmi/publ/d149.htm](http://www.bis.org/cpmi/publ/d149.htm) and [www.iosco.org/library/pubdocs/pdf/IOSCOPD539-portfolio.pdf](http://www.iosco.org/library/pubdocs/pdf/IOSCOPD539-portfolio.pdf)

<sup>6</sup> CPMI and IOSCO, *Recovery of financial market infrastructures* (2014) at [www.bis.org/cpmi/publ/d121.htm](http://www.bis.org/cpmi/publ/d121.htm) and [www.iosco.org/library/pubdocs/pdf/IOSCOPD455.pdf](http://www.iosco.org/library/pubdocs/pdf/IOSCOPD455.pdf).

- A review of CCPs' progress in addressing the issues of concern in the areas of practice related to recovery planning, coverage of financial resources and liquidity stress testing that were identified in the first Level 3 assessment report of August 2016. The findings of the review are expected to be published by the end of 2017.
- The finalisation of the framework for CCP SST over the next twelve months.
- Follow-up work in the area of good practices for auctions of defaulting clearing member positions in CCP default management processes and recovery.

## II. Interaction between recovery and resolution

The CPMI, IOSCO and the FSB have cooperated closely in developing their respective sets of standards and guidance for CCP recovery and resolution paying particular attention to **several points of interaction between CCP recovery and resolution** in order to ensure the consistency between their respective policies. A CCP's recovery plan, including the full allocation of financial losses and replenishment of the CCP's financial resources and capital, is important not only in recovery but also in resolution, e.g. when designing an effective CCP resolution plan as well as in relation to the "no creditor worse off than in liquidation" (NCWOL) safeguard in resolution, which assumes the full application of the CCP's rules and procedures for loss allocation. Resolution starts when relevant authorities determine that the conditions for entry into resolution are met, which could occur before the CCP's recovery tools have been fully exhausted. Recovery and resolution both share common objectives, in particular the objective of preserving financial stability and ensuring the continuity of critical CCP functions. Further common considerations between recovery and resolution include: the need for participants to be able to measure, manage and control their exposures to losses or liquidity shortfalls while preserving some flexibility in extreme scenarios; the need for recovery and resolution plans to be designed so that they do not disincentivise relevant stakeholders from engaging in and supporting the CCP's risk management in and throughout normal and stress times, and the need for cooperation among supervisors, overseers and resolution authorities throughout recovery and resolution. The difference is that recovery is carried out by the CCP under the oversight of the relevant regulatory, supervisory and/or oversight authorities, consistent with their respective responsibilities, while resolution is carried out by a resolution authority either directly or through a special administrator, conservator, receiver or other official with similar functions.

The FSB *Key Attributes of Effective Resolution Regimes for Financial Institutions* ('*Key Attributes*') and guidance on financial market infrastructure (FMI) resolution in II-Annex 1 to the *Key Attributes* ('*FMI Annex*') set out a framework for CCP resolution which sits alongside the standards on resilience and recovery established in CPMI-IOSCO's *Principles for financial market infrastructures* and its additional guidance.

### III. Resolution and Resolution Planning

On [4 July 2017], the FSB released **Guidance on CCP Resolution and Resolution Planning**. The guidance was developed on the basis of a discussion paper<sup>7</sup> published in August 2016 and a consultative document<sup>8</sup> published on 1 February 2017. It is intended to assist authorities in their resolution planning and promote international consistency. It complements the *Key Attributes* and FMI Annex by providing guidance on implementing the *Key Attributes* and the FMI Annex for CCPs, in particular on:

- the overall objectives of CCP resolution and resolution planning and the powers that resolution authorities should have to maintain or restore the continuity of critical CCP functions, return the CCP to a matched book where losses arise from clearing member defaults, and address default and non-default losses;
- potential indicators of circumstances that could lead to a determination to trigger entry into resolution;
- the application of the “no creditor worse off than in liquidation” (NCWOL) safeguard and determination of the liquidation counterfactual for purposes of determining whether NCWOL compensation is due;
- issues to consider in developing resolution plans and conducting resolvability assessments;
- the establishment and operation of CMGs;
- cross-border cooperation and information sharing within CMGs as well as with authorities not represented on CMGs; and
- the cross-border effectiveness and enforcement of resolution actions.

#### CMGs for CCPs that are systemically important in more than one jurisdiction

For CCPs that are systemically important in more than one jurisdiction (‘SI>1’), resolution plans should be developed by the home resolution authority and coordinated within the CMG or equivalent arrangement. The CPMI and IOSCO facilitated the process of identifying such CCPs and developed a set of factors to guide relevant national authorities in their determinations as to whether a CCP is SI>1 for the purpose of establishing a CMG. The sole consequence of being identified as SI>1, as provided in the FSB *Key Attributes* and FMI-Annex, is the establishment of a CMG, such that a resolvability assessment and resolution planning will be carried out within a CMG.

CMGs have been established or are planned for the following 12 CCPs (listed alphabetically by name of CCP) which have been considered SI>1 by agreement of their home and some of their host authorities: BME Clearing (Spain); Cassa di Compensazione e Garanzia (CC&G) (Italy); CME Inc (US); Eurex Clearing (Germany); EuroCCP (Netherlands); HKFE Clearing

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<sup>7</sup> FSB, *Discussion Note on Essential Aspects of CCP Resolution Planning* (2016) at [www.fsb.org/2016/08/essential-aspects-of-ccp-resolution-planning/](http://www.fsb.org/2016/08/essential-aspects-of-ccp-resolution-planning/).

<sup>8</sup> FSB, *Consultation on guidance for CCP resolution and resolution planning* (2017) at [www.fsb.org/2017/02/guidance-on-central-counterparty-resolution-and-resolution-planning/](http://www.fsb.org/2017/02/guidance-on-central-counterparty-resolution-and-resolution-planning/)

Corporation (Hong Kong SAR); ICE Clear Europe (UK); ICE Clear Credit (US); LCH.Clearnet SA (France); LCH Ltd (UK); Nasdaq Clearing AB (Sweden); and SIX x-clear (Switzerland).

Discussions between host and home authorities regarding systemic importance are still ongoing for a limited number of other CCPs. Home and relevant host authorities, including both oversight/supervisory and resolution authorities, assess on an ongoing basis CCP systemic importance, and it is possible that additional CMGs will be set up in the future.

Several CCP CMGs have already held meetings and started to elaborate CCP-specific cooperation agreements.

### **Priorities for 2017/18**

The FSB will:

- monitor the implementation of the Key Attributes consistent with the expectations regarding CCP resolution and resolution planning expanded upon in the FSB Guidance, supported by the establishment of CMGs for CCPs that are systemically important in more than one jurisdiction (including the home jurisdiction) which are underpinned by institution-specific cooperation agreements. This includes a the launch of resolution planning and resolvability assessments.
- Continue further work on financial resources to support CCP resolution to determine, based on further analysis and experience gained in resolution planning, by end-2018 whether there is need for any additional guidance; and
- Consider the need for and develop as appropriate further guidance on the treatment of CCP equity in resolution.

Consistent with the principles for coordination set out in the joint workplan, the FSB will continue to work in close cooperation with the CPMI and IOSCO in undertaking this further work.

## **IV. Interdependencies in central clearing**

The joint workplan also identified the need to better understand the interdependencies of CCPs within the financial system and established a study group to undertake analyses and mapping of the interconnections between CCPs and their major clearing members and resulting systemic implications. The key findings from the report were published on 4 July 2017.

The study covered CCPs representing a broad cross-section of the clearing landscape, varying significantly in terms of the products that they clear as well as their overall size and level of activity. The data collection was designed to capture a broad array of information ranging from data on CCP members, to information on the relationship between CCPs and their custodian and settlement banks, their credit and liquidity providers, their investment counterparties as well as other important service providers such as those entities providing default management services. Some key findings of the study are:

- Financial resources (initial margin and default fund) are relatively concentrated at a small number of CCPs and exposures to CCPs tend to be concentrated among a small number of institutions.



- The mapped relationships are characterised, albeit to varying degrees, by a core of highly connected CCPs and financial institutions and a periphery of less highly connected CCPs and financial institutions.
- Even these less highly connected CCPs often maintain connections to at least one highly connected financial institution that ultimately connects the CCP to the central (more interconnected) part of the network structure.
- Clearing members and clearing member affiliates are also important providers of other critical services required by CCPs and can maintain a significant number of relationships with several CCPs. There is generally no strong relationship between the size of an institution's activity as a clearing member and size of its activity as a service provider.
- Among each of the different types of relationships between CCPs and other entities, a small number of entities tend to dominate each resulting network. These concentrations suggest that shocks to one central element of each CCP network would likely have significant consequences for the rest of the network.

### **Priorities for 2017/18**

An additional streamlined CCP data collection will be undertaken later this year to attempt to quantify changes in central clearing interdependencies. This extension of the study group's work may support authorities' understanding of the dynamics of central clearing interdependencies and could help the parent committees of the FSB, CPMI, IOSCO and BCBS to assess the value of future and regular data collections from CCPs.

## **V. Impact of other regulatory initiatives on incentives to centrally clear**

Given the suite of reforms supporting the G20 goal of increasing the resilience and loss-absorbing capacity of the banking sector and reforming OTC derivatives markets, it is important to carefully weigh the benefits of these reforms with their potential costs and impact. One such example relates to the need to examine the incentives to centrally clear, and the extent to which they are effected by reforms including the Basel III leverage ratio, margin requirements for non-centrally cleared derivatives, capital requirements for banks' exposures to CCPs and obligations arising from participation in CCPs (including those arising from recovery or resolution planning for CCPs).

### **Priorities for 2017/18**

The chairs of the BCBS, CGFS, CPMI, FSB IOSCO and ODRF agreed to convene a Derivatives Assessment Team (DAT) to assess incentives to clear centrally arising from the interaction of post-crisis reforms. A report will be completed by end-2018.<sup>9</sup>

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<sup>9</sup> A previous study was carried out in 2014; see BIS, *Regulatory reform of over-the-counter derivatives: an assessment of incentives to clear centrally; A report by the OTC Derivatives Assessment Team, established by the OTC Derivatives Coordination Group* (2014) at [www.bis.org/publ/othp21.pdf](http://www.bis.org/publ/othp21.pdf)

## VI. Actions and timelines for 2017/18

| Area                                                                       | Action                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Responsible                                                       | Completion by             |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------|
| <b>Resilience</b>                                                          | Continue monitoring implementation of the PFMI requirements regarding CCP resilience.                                                                                                                                                                                                                                                                                                                                                                        | CPMI-IOSCO                                                        | Ongoing                   |
|                                                                            | Finalise the framework on CCP supervisory stress testing.                                                                                                                                                                                                                                                                                                                                                                                                    | CPMI-IOSCO                                                        | H1 2018                   |
| <b>Recovery</b>                                                            | Continue monitoring implementation of the PFMI requirements regarding CCP recovery.                                                                                                                                                                                                                                                                                                                                                                          | CPMI-IOSCO                                                        | Ongoing                   |
|                                                                            | Follow-up work in the area of good practices for auctions                                                                                                                                                                                                                                                                                                                                                                                                    | CPMI-IOSCO                                                        | Status report by end-2018 |
| <b>Resolution</b>                                                          | Monitor implement the Key Attributes consistent with the expectations regarding CCP resolution and resolution planning expanded upon in the FSB guidance supported by the establishment of CMGs for CCPs that are systemically important in more than one jurisdiction (including the home jurisdiction) which are underpinned by institution-specific cooperation agreements. This includes the launch of resolution planning and resolvability assessments | FSB                                                               | Status report by end-2018 |
|                                                                            | Assess the adequacy of financial resources to support resolution and assess the need for additional (prefunded or committed) financial resources, including capital, and consider the need for further guidance (with development of draft guidance if determined necessary).<br>Consider the need for, and develop as appropriate, further guidance on the treatment of CCP equity in resolution.                                                           | FSB in consultation with CPMI-IOSCO                               | End-2018                  |
| <b>Analysis of inter-dependencies</b>                                      | Assess the value of future and regular data collections from CCPs to support authorities' understanding of the dynamics of central clearing interdependencies.                                                                                                                                                                                                                                                                                               | Joint BCBS–CPMI–FSB–IOSCO study group                             | Mid-2018                  |
| <b>Impact of other regulatory reforms on incentives to centrally clear</b> | Assess incentives to clear centrally arising from the interaction of post-crisis reforms.                                                                                                                                                                                                                                                                                                                                                                    | BCBS, CGFS, CPMI, FSB and IOSCO Derivatives Assessment Team (DAT) | Final report by end-2018  |