FSB FINANCIAL STABILITY BOARD
Basel Committee on Banking Supervision
BANK FOR INTERNATIONAL SETTLEMENTS
Committee on Payments and Market Infrastructures
BANK FOR INTERNATIONAL SETTLEMENTS
OICV-IOSCO

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

22 September 2015

Progress Report on the CCP Workplan

1. Introduction

In 2009, the G20 Leaders committed to ensuring that all standardised OTC derivatives contracts are cleared through central counterparties ("CCPs"). Fully realising the benefits of CCPs requires CCPs to be subject to strong regulatory, oversight and supervisory requirements. First, CCPs must be sufficiently resilient in the sense that risk management standards and financial resources (including stress testing, margin requirements, pre-funded default funds, and liquidity resources) allow CCPs to understand and mitigate risks, and to withstand clearing member failures and other stress events to a very high probability. Second, CCPs must have recovery plans that allow them to allocate excess losses and generate additional liquidity to safeguard their own viability without endangering the stability of clearing members and other financial institutions, many of whom are likely to be systemically important in their own right. And third, there must be credible CCP resolution plans in place.

The Basel Committee on Banking Supervision (BCBS), the Committee on Payments and Markets Infrastructures (CPMI), the Financial Stability Board (FSB), and the International Organization of Securities Commissions (IOSCO), and together with the BCBS, CPMI, and FSB (the "Committees"), agreed a workplan to coordinate their respective international policy work aimed at enhancing the resilience, recovery planning and resolvability of CCPs, and to work in close collaboration. To support these efforts, the Committees also agreed to establish a joint study group to identify, quantify and analyse interdependencies between CCPs and major clearing members and any resulting systemic implications. The agreed workplan focuses on CCPs that are systemic across multiple jurisdictions, consistent with the Istanbul Communiqué of the G20 Finance Ministers and Central Bank Governors.

A detailed timeline for completing this work is set out in Annex A.

2. CCP Resilience

A number of substantive priorities with respect to CCP resilience have been identified. These priorities include reviewing existing stress testing policies and practices of CCPs and considering the need for, and developing as appropriate, a framework for consistent and comparable stress tests of the adequacy of CCPs' financial resources (including capital) and liquidity arrangements. This framework could involve supervisory stress tests. As a complement to the internal stress tests that CCPs currently conduct, such a framework would be intended to promote confidence in the adequacy of the financial resources of CCPs and to support comparison of financial resources across CCPs. A framework for consistent and comparable stress tests could also help authorities better understand the macro-prudential risks that could materialise if one or more CCPs come under stress simultaneously. Further,

the adequacy of existing standards with respect to CCP loss absorption capacity and liquidity should be evaluated, taking into account the implementation of the CPMI-IOSCO Principles for Financial Market Infrastructures (PFMI).[1] This evaluation should, inter alia, assess whether the standards contained in the PFMI for initial margin methodologies are sufficiently granular and robust. The evaluation should also consider the adequacy of the PFMI's Cover 1/Cover 2 standard, given the possibility that multiple clearing members could come under stress during periods of extreme market turbulence.

CPMI-IOSCO serves as the primary forum for this work, regularly interacting with the FSB SRC. To the extent that certain relevant activities were already initiated before the work plan was agreed, the respective focus has been adjusted to fully capture the issues identified in the CCP work plan.

2.1 Stress testing

The work on stress testing policies and practices is well advanced given that this work started as part of the 2014-15 work programme of CPMI-IOSCO. CPMI-IOSCO held an industry workshop on stress testing in March in Frankfurt, with representatives of CCPs, clearing members and representatives from buy-side firms. The purpose of the workshop was to identify the key areas of concern to the industry related to stress testing. This was used as an input into the design of a stock-taking questionnaire by CPMI-IOSCO on CCP stress testing practices.

At the end of April, that questionnaire was sent to over 30 CCPs, including all the major CCPs and a number of smaller CCPs from different regions. The questionnaire covers six main areas related to stress testing by CCPs:

(1) governance arrangements that underpin stress testing for credit and liquidity risk;

(2) how the CCP identifies the credit and liquidity risks to which it would be exposed following the default of one or more members, including the sources of such risks;

(3) how the CCP models extreme but plausible market conditions, including both design of stress scenarios, and translation of stress scenarios into discrete risk factor moves (such as adverse price movements);

(4) how the CCP applies the risk factor moves to member/client portfolios to produce estimates of stressed loss (credit risk) and stressed outflows (liquidity risk);

(5) how the CCP uses these estimates to determine its financial resource requirements and to verify that it maintains adequate coverage against credit and liquidity risks, even in extreme but plausible market conditions; and

(6) additional analysis the CCP performs to evaluate the strengths and weaknesses of its stress-testing framework, including sensitivity analysis and reverse stress tests.

Survey responses were received by mid-June and have been examined with respect to data quality and internal consistency. A detailed analysis of survey responses to establish the range of stress-testing practices is currently in progress. The next steps will include: (i) identification of any critical issues that should be addressed and (ii) drafting of any

[1] http://www.bis.org/cpmi/publ/d101.html.

additional guidance, if needed. Given the very close linkages between stress-testing practices and other areas of financial risk management by CCPs (for example, margin practices), any guidance will be developed after a comprehensive analysis of other resilience topics (discussed below).

A CPMI-IOSCO report for public consultation on all CCP resilience and recovery issues (see section 2.2 and section 3 below) is expected to be published by mid-2016.

2.2 Other resilience topics

Work on the remaining CPMI-IOSCO work plan topics (namely CCP risk management and financial resources) was initiated in March 2015. CPMI-IOSCO conducted a second industry workshop, on 12 May in New York, on margin practices, the adequacy of the PFMI Cover 1/ Cover 2 requirement, and skin-in-the-game. This workshop also addressed CCP recovery (discussed in section 3 below). The workshop benefited from the views of representatives of CCPs, clearing members and representatives from buy-side firms.

The surveys were sent to CCPs on 8 July, with responses due on 4 September for the margin survey, and 21 September for the other surveys. The next steps will include: (i) analysis of survey responses; (ii) identification of critical issues; (iii) proposals to address the issues; and (iv) drafting of the consultation report. Discussion on survey results will be held at the end of 2015 with input from the CPMI-IOSCO implementation monitoring work. Any guidance or standards to be developed, including the consultation report, will follow the same timeline as that for stress testing and recovery.

A CPMI-IOSCO report for public consultation on CCP resilience and recovery issues is expected to be published by mid-2016.

2.3 CPMI-IOSCO Implementation Monitoring

The above work streams are complemented and informed by the ongoing CPMI-IOSCO monitoring of full, timely and consistent implementation of the PFMI by FMIs and relevant authorities. This entails evaluating the completeness and consistency of implementation measures, including whether the outcomes at the level of CCPs are consistent principles contained in the PFMI.

Following the publication of the PFMI in April 2012, the CPMI and IOSCO agreed to monitor their implementation in the 28 CPMI and IOSCO member jurisdictions. They agreed to a three-level monitoring framework that involves: Level 1 assessments of the status of the implementation process; Level 2 assessments of the completeness of the implemented framework and its consistency with the PFMI; and Level 3 assessments of the consistency in outcomes of such frameworks and started the work. [2]

[2] The initial Level 1 assessments were conducted in 2013 and a report was published in August 2013 with update reports published in May 2014 and in June 2015. Alongside the Level 1 assessments, CPMI and IOSCO are monitoring jurisdictions' progress at Level 2. The first detailed evaluations of the completeness and consistency of jurisdictions' implementation measures for the Principles (Level 2) were published in February 2015 for the regulatory frameworks for CCPs and TRs in the European Union, Japan and the United States. The next round of Level 2 assessments covers all FMI types, and assesses a further group of jurisdictions sequentially, beginning with Australia in end-April 2015. The work is in progress and the aim is to publish the assessment results for Australia by year-end 2015. Furthermore, CPMI

In July 2015, CPMI and IOSCO started the Level 3 assessments of the implementation of the PFMI. This review examines consistency in the outcomes of PFMI Principles implementation and is part of the CPMI-IOSCO's monitoring of the implementation of the PFMI.

Beyond the aim of fostering full and consistent implementation of the PFMI, the Level 3 assessment is also expected to inform CPMI and IOSCO about the nature and potential causes of variations in approaches or outcomes.

The first wave of the review is focusing on a subset of requirements under the PFMI that relate to financial risk management by CCPs including certain practices related to governance, stress-testing, margin, liquidity, collateral, and recovery planning. It is considering outcomes achieved in this area by examining a number of globally- and locally-active CCPs that clear derivative products (both exchange traded and OTC).

A survey questionnaire was sent to CCPs in early July, with the deadline for responses as 4 September for governance, credit risk, and margins questions, and 21 September for the rest (on collateral, liquidity risk, and recovery planning). The preliminary findings will be shared with participating CCPs/authorities to get their feedback.

A CPMI-IOSCO report presenting the results of this Level 3 assessment is expected to be published in mid-2016.

3. CCP recovery planning

The PFMI requires all systemically important FMIs to have a comprehensive and effective recovery plan as the disorderly failure of such an FMI could lead to severe systemic disruptions.

Complementing the PFMI, additional guidance for FMIs was issued in 2014 on both the recovery planning process and the content of recovery plans.[3] The guidance provides an overview of some of the tools that an FMI may include in its recovery plan, including a discussion of scenarios that may trigger the use of recovery tools and characteristics of appropriate recovery tools in the context of such scenarios. CCP default waterfalls typically include the initial margin of the defaulting clearing member, guarantee fund contributions provided by the defaulting clearing member, equity funds provided by the CCP and guarantee fund contributions provided by surviving clearing members. Depending on the CCP, additional losses may be allocated through various recovery tools, such as cash calls on clearing members, variation margin haircutting, and, where legally permitted, initial margin

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and IOSCO are currently examining the completeness and consistency of frameworks and outcomes (combined Level 2 and Level 3) arising from jurisdictions' implementation of the Responsibilities for authorities included in the PFMI. This exercise is well progressed and a report is expected to be published later in 2015.

haircutting. Tools for liquidating the positions of the defaulter and re-establishing a matched book include voluntary auctions and juniorisation of contributions of mutualised resources, as well as forced allocation of contracts, and partial or full tear-up of contracts

Recovery plans should be designed to maximise the probability of successful CCP recoveries, while mitigating the risk that recovery actions undertaken by CCPs could result in contagion to other parts of the financial system.

The Workplan includes two substantive priorities with respect to CCP recovery planning. Consistent with Section 2, CPMI-IOSCO is serving as the primary forum for this work, working in close cooperation with the FSB ReSG. First, a stock-take of existing CCP recovery mechanisms, including loss allocation tools, is currently being conducted as part of the survey described in section 2.2 above. The stock take will be used to compare recovery mechanisms across CCPs. Second, CPMI-IOSCO will consider the need for, and develop as appropriate, more granular standards or guidance for CCP recovery planning, taking into account the implementation of the requirements for recovery planning in the CPMI-IOSCO PFMI and the complementing guidance on the recovery of financial market infrastructures.[3]

As mentioned in section 2.2, during the second industry workshop held on 12 May in New York, CPMI-IOSCO also discussed the recovery planning by CCPs, and the stocktaking survey on recovery planning was sent out to CCPs during the same time for a 21 September deadline. The survey focuses on CCP plans for recovery and orderly wind-down, including loss allocation tools. The survey results will be analysed and options considered for any guidance or standard setting in early 2016 together with the stress testing and resilience work streams. A CPMI-IOSCO report for public consultation on CCP resilience and recovery issues is expected to be published by mid-2016.

Further, as mentioned in section 2.3, CPMI and IOSCO started the Level 3 assessment of the implementation of the PFMI. The first part of the review is focusing on a subset of requirements under the PFMI that relate to financial risk management by CCPs, and recovery planning is included in the scope. The deadline for the survey questionnaire on the recovery planning part is 21 September.

A CPMI-IOSCO report presenting the results of this first Level 3 assessment is expected to be published by mid-2016.

4. CCP resolvability

The joint 2015 CCP workplan called for the FSB Resolution Steering Group (ReSG) (i) to conduct a stock-take of existing CCP resolution regimes and resolution planning arrangements; (ii) to consider the need for, and develop as appropriate, more granular standards or guidance for CCP resolution planning, resolution strategies and resolution tools, including cross-border coordination and recognition of resolution actions, taking into account the requirements in the *Key Attributes of Effective Resolution Regimes* and its *FMI Annex*; and

[3] See CPMI-IOSCO, *Recovery of financial market infrastructures*, October 2014 (http://www.bis.org/cpmi/publ/d121.pdf and http://www.iosco.org/library/pubdocs/pdf/IOSCOPD455.pdf.)

(iii) to assess the need for additional prefunded financial resources (including capital) and liquidity arrangements in resolution and to develop a proposal, as needed.

In June 2015 ReSG completed a survey amongst its members[4] on CCP resolution regimes and resolution planning. The survey relied as reference on the *Key Attributes* and its *FMI Annex*, which sets out how the *Key Attributes* should be implemented in relation to resolution regimes for systemically important FMIs. Overall, the survey results indicated that resolution frameworks for CCPs are not well developed. Systematic cross-border resolution planning processes are not yet in place for any of the largest CCPs although efforts are underway to establish such processes. The majority of respondents noted that their jurisdictions intend to develop or are still in the process of developing resolution regimes or policies for CCPs. There was broad agreement amongst respondents on the need for further work on CCP resolution and resolution planning, and for a structured process of implementation monitoring.

To conduct this work, ReSG agreed to establish by end 2015 a working group (Cross-border Crisis Management Group for FMIs, the *fmi*CBCM) to provide a forum for authorities to exchange views, share experiences and discuss challenges and obstacles that arise in relation to the orderly resolution of CCPs, and to carry out further resolution-related work under the joint CCP workplan. More specifically, this group will monitor progress in: (i) the development of resolution strategies and operational resolution plans for CCPs and of institution-specific cross-border cooperation agreements (COAGs) or other appropriate agreements that underpin cooperation, coordination and information sharing for purposes related to resolution planning between members of CMGs or equivalent arrangements; and (ii) the establishment and composition of CMGs (or equivalent arrangements) for CCPs, including the determination of the CCPs that would require such arrangements given their systemic importance in more than one jurisdiction. The group will also liaise with the joint ad hoc study group on interdependencies (see section 5 below) on potential spill-overs related to resolution actions and assess how resolution strategies can be developed to mitigate such spill-overs. It will analyse how the resolution powers specified in the *Key Attributes* and its *FMI Annex* would be exercised in practice in relation to a CCP, and identify obstacles, if any, to the resolvability of CCPs arising from (i) legal structures; (ii) the arrangement of clearing activities or other services; (iii) relationships and interdependencies between the CCP and participants; (iv) links with other FMIs; (v) CCP rules including default management and recovery procedures; and (vi) financial resources including liquidity arrangements. As set out in the joint work plan, the group will also, cooperating closely with CPMI-IOSCO and the ad hoc study group, assess the need for additional prefunded financial resources (including capital) and liquidity arrangements for CCPs in resolution. By end 2016, the group will report on the need for and, as appropriate, develop proposals for further guidance to support CCP resolvability and resolution planning and to enhance prefunded financial resources and liquidity arrangements for CCPs in resolution.

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[4] The following jurisdictions responded to the survey: Australia, Canada, China, European Commission, France, Germany, Hong Kong, India, Italy, Japan, Mexico, The Netherlands, Russia, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, Turkey, UK, and the US.

5. Analysis of interdependencies

A joint BCBS, CPMI, FSB and IOSCO study group was established in July 2015 to identify, quantify and analyse interdependencies between CCPs and major clearing members and any resulting systemic implications. The group will primarily focus on interdependencies that may have implications for global financial stability. This does not necessarily mean that only interdependencies between the largest CCPs and largest banks are all that is in scope, since it is likely that smaller market participants or CCPs will have interdependencies with larger banks or CCPs. However, the aim of the study group is not to comprehensively map all of the central clearing interdependencies around the globe.

In the first instance, the study group will map key interconnections between CCPs (whether clearing cash, derivatives, FX, repo, securities, etc.) and clearing members globally – in terms of both memberships and multiple service provisions (such as reliance on particular banks for lines of credit, etc.).

Interdependencies could include, for instance:

- financial obligations of clearing members, such as default fund contributions, initial and variation margins, assessment rights, etc.
- financial interdependencies with other financial institutions, which can be clearing members, stakeholders, such as investment counterparties, liquidity providers and deposit banks; and
- operational interdependencies, such as links with investment counterparties, custodians, settlement agents, etc.

Interdependencies to be explored include those that pose risks to CCPs and/or that pose risks to participants or other stakeholders.

Once these key interconnections have been mapped, the potential for contagion effects within this landscape will be explored. Contagion effects to be considered will include how any use of default funds and recovery or resolution action taken with respect to one CCP might impact banks and/or reverberate through to other CCPs. Similarly, the impact of the recovery or resolution of a major bank participating in and/or providing services to multiple CCPs will also be considered.

A final report will be prepared for publication by the end of 2016.

Annex A

Timeline for Implementing the CCP Workplan

Action	Expected Deliverable Date
A. CCP Resilience *CPMI-IOSCO serve as the primary forum for this work*	
(i) Received survey responses on stress testing.	Jun 2015 (completed)
(ii) Sent surveys on margin practices, CCP loss absorption capacity and liquidity, and the Cover 1/Cover 2 standard.	Jul 2015 (completed)
(iii) Receive responses to the surveys on margin practices, CCP loss absorption capacity and liquidity, and the Cover 1/ Cover 2 standard.	Sep 2015
(iv) Discuss the need for, and develop as appropriate, more granular standards or guidance for standards for stress testing, margin practices, CCP loss absorption capacity and liquidity, and the Cover 1/Cover 2 standard, as well as comparable stress testing, including possible guidance and standards taking into account the implementation of the requirements in the PFMI.	Fall 2015 – Early 2016
(v) Publish report for public consultation on CCP resilience and recovery issues (same as B (iii)).	Mid-2016
(vi) Publish report of the Level 3 assessment of CCP risk management (same as B (iv)).	Mid-2016
B. CCP Recovery Planning *CPMI-IOSCO serve as the primary forum for this work*	
(i) Receive survey responses on existing CCP recovery mechanisms, including loss allocation tools.	Sep 2015
(ii) Discuss the need for, and develop as appropriate, more granular standards or guidance for CCP recovery planning, taking into account the implementation of the requirements in the PFMI and complementing CPMI-IOSCO guidance on recovery.	Fall 2015 – Early 2016
(iii) Publish report for public consultation on CCP resilience and recovery issues.	Mid-2016
(iv) Publish report of the Level 3 assessment of CCP risk management.	Mid-2016

Action	Expected Deliverable Date
C. CCP Resolvability *FSB ReSG serves as the primary forum for this work*	
(i) Conduct stock-take of existing CCP resolution regimes and resolution planning arrangements.	Jun 2015 (completed)
(ii) Consider the need for, and develop as appropriate, more granular standards or guidance for CCP resolution planning, resolution strategies and resolution tools, including cross-border coordination and recognition of resolution actions, taking into account the requirements in the FSB Key Attributes and complementing the FSB guidance on FMI resolution.	End-2016
(iii) Assess the need for additional prefunded financial resources (including capital) and liquidity arrangements in resolution, and develop a proposal as needed.	End-2016
D. Analysis of interdependencies *Joint BCBS, CPMI, FSB and IOSCO study group*	
(i) Identify the information needed to better understand the interconnections between CCPs and clearing members.	Dec 2015
(ii) Collect and analyse information.	H1 2016
(iii) Finalise and publish report.	Oct 2016