COMMITTEE ON PAYMENT AND SETTLEMENT SYSTEMS

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Co-chairs' summary note for the CPSS-IOSCO *Principles for financial market infrastructures*

The Committee on Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organization of Securities Commissions (IOSCO) are publishing today the CPSS-IOSCO *Principles for financial market infrastructures*.

- The report contains new international standards for financial market infrastructures (FMIs), including systemically important payment systems, central securities depositories, securities settlement systems, central counterparties and trade repositories. It replaces the existing standards for these FMIs.[1]
- Compared to the three sets of standards they are replacing, the new standards are updated, harmonised and strengthened. These stronger standards are designed to make FMIs more resilient to financial crises and, in particular, participant defaults.
- The report also includes revised responsibilities of relevant authorities in regulating, supervising and overseeing FMIs.
- CPSS and IOSCO members will strive to adopt the new standards by the end of 2012 and put them into effect as soon as possible. FMIs are expected to observe the standards as soon as possible.

This report incorporates more than a decade of experience with international standards for FMIs, important lessons from the financial crisis and recent policy work by the CPSS, IOSCO and other international standard-setting bodies. The report also incorporates feedback from extensive formal and informal market consultation. In addition, the report supports the initiatives of the Group of Twenty Finance Ministers and Central Bank Governors (G20) and the Financial Stability Board (FSB) to strengthen core financial infrastructures and markets.

The standards in this report are addressed to systemically important payment systems, central securities depositories (CSDs), securities settlement systems (SSSs), central counterparties (CCPs) and trade repositories (TRs). The standards incorporate CPSS and IOSCO guidance for CCPs that clear over-the-counter (OTC) derivatives.

In general, the standards are principles-based in recognition that different FMIs may have different approaches to achieve a particular result. In some cases, however, the standards set out a specific minimum requirement to ensure a common minimum level of risk-management across FMIs and countries.

[1] The existing standards are published in *Core principles for systemically important payment systems* (CPSS, 2001), *Recommendations for securities settlement systems* (CPSS-IOSCO, 2001) and *Recommendations for central counterparties* (CPSS-IOSCO, 2004).

Although, as noted above, this report replaces the existing international standards for individual FMIs, select marketwide recommendations from the *Recommendations for securities settlement systems* remain in effect (see Annex C of the report). The CPSS and IOSCO may conduct a full review of these marketwide recommendations in the future.

Overall, the new standards (hereafter called "the principles") have strengthened risk-management guidance, provided new requirements and broadened the scope and applicability of principles to different types of FMIs, such as TRs. For example, the principles require that certain FMIs maintain a higher level of financial resources to address credit, liquidity and general business risk than in the past. Equally important, the principles provide greater guidance on governance for an FMI’s operations. Further, the principles provide more-detailed guidance on the risks associated with tiered participation in FMIs and place new emphasis on transparency. The principles are complemented by five responsibilities of authorities to provide for the effective regulation, supervision and oversight of FMIs. These principles and responsibilities are consistent with G20 and FSB strategies of cooperation, access and resolution for CCPs.

This report is accompanied by the *Disclosure framework for financial market infrastructures* and the *Assessment methodology for the principles for FMIs and the responsibilities of authorities*. The disclosure framework and assessment methodology are being published for public comment until 15 June. These companion reports will be finalised and published following the public comment period.

Background

In 2010, the CPSS and IOSCO began an initiative to review and update the international standards for FMIs. This initiative was primarily the result of the increasing risk and uncertainty in financial markets evident during the financial crisis and the increasing role and importance of FMIs in these markets. FMIs were a source of strength during the recent financial crisis; they were generally able to settle obligations when due and gave market participants the confidence to continue transacting. However, the financial crisis highlighted important lessons for effective risk management and the need for strong governance and oversight of FMIs to handle even more-severe stress conditions.

The review of the international standards for FMIs also was undertaken to support the goals of the G20 and FSB to strengthen the safety and soundness of the financial markets, including critical market infrastructures. In particular, the G20 has mandated the central clearing of standardised OTC derivatives products and the reporting of trade data on OTC derivatives to trade repositories. Moreover, central clearing is becoming increasingly prominent in the settlement of money market transactions such as repos and may expand its role even further in coming years. It is therefore vital that FMIs have risk-management practices that are consistent with their enhanced role in global and national financial markets. The early implementation of the new principles is crucial to meeting the G20 commitment for centralised clearing and data reporting by the end of 2012.

Support for the G20 and FSB strategies on cooperation, access and resolution

Importantly, this report supports the G20 and FSB strategies with respect to cooperation, access and resolution.

CPSS and IOSCO recognise the need for effective cooperation and coordination among central banks, market regulators and other relevant authorities, both domestically and internationally, due to the rising importance of global FMIs that serve multiple jurisdictions and markets as well as the increasing interconnectedness of FMIs. The report builds on the existing cooperative frameworks of central banks and of securities regulators and establishes a new framework for consultation and cooperation among central banks and market regulators (see Responsibility E) to promote the safety and efficiency of FMIs that are overseen by multiple authorities.

The report also addresses access to FMIs. FMIs should establish access policies that provide fair and open access, while ensuring their own safety and efficiency. Access to CCPs, in particular, is even more important in light of the G20 commitment to centrally clear all standardised OTC derivatives by the end of 2012. In its November 2011 report, the Committee on the Global Financial System (CGFS) considered potential implications of alternative access arrangements, such as access through direct participation in global CCPs, tiered participation arrangements, establishment of local CCPs and links between CCPs.[2] The principles in this current report reflect the work of the CGFS and address the identification, monitoring, mitigation and management of risks posed to FMIs in light of these various arrangements.

The report also addresses resolution in several principles, consistent with the FSB objective to develop effective FMI resolution frameworks. While the focus of the principles is on ensuring that FMIs operate as smoothly as possible in normal circumstances and in times of extreme but plausible market conditions, it is possible that in certain extreme circumstances, and all preventive measures notwithstanding, an FMI may face such an extreme level of stress that it might have difficulty satisfying its obligations and responsibilities. In the limit, it could even become non-viable as a going concern or insolvent. Depending on the specific situation and the powers available to authorities in relevant jurisdictions, in such cases actions may be implemented by the FMI, relevant authorities, or both to ensure the continuation of essential services and to mitigate any disruption of the financial system. The principles identify a number of measures that FMIs should take to prepare for and facilitate the implementation of their own recovery or orderly wind-down plans. FMIs should also consider applicable resolution regimes in their design and operations. Forthcoming CPSS-IOSCO work will focus specifically on the resolution of FMIs.

Strengthening and harmonising international standards for FMIs

CPSS and IOSCO have strengthened and harmonised the international standards for FMIs by raising minimum requirements, by providing more-detailed guidance and by broadening the scope of the standards to cover new risk-management topics and new types of FMIs. The twenty-four principles outlined in this report are categorised into nine broad categories: (a) general organisation, (b) credit and liquidity risk management, (c) settlement, (d) CSDs and exchange-of-value settlement systems, (e) default management, (f) general business and operational risk management, (g) access, (h) efficiency, and (i) transparency. These broad categories encompass the major elements critical to the safe and efficient design and operation of FMIs.

General organisation

The first three principles in the report provide guidance on the general organisation of an FMI to help establish a strong foundation for an FMI's risk management. Principle 1 on legal basis requires that an FMI have a strong legal basis for its activities. Principle 2 on governance requires that an FMI have robust governance arrangements that focus on the safety and efficiency of the FMI and that support the stability of the broader financial system, other

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2 See *The macrofinancial implications of alternative configurations for access to central counterparties in OTC derivatives markets* (CGFS, 2011).

public interest considerations and objectives of relevant stakeholders.[3] The principle also provides greater guidance than the previous standards on the roles, responsibilities and composition of boards of directors. Principle 3 on the framework for the comprehensive management of risks is a new principle that requires an FMI to take an integrated and comprehensive view of its risks, including those it bears from and poses to its participants, their customers and other entities.

Credit and liquidity risk management

Principles 4 through 7 address the management of the credit and liquidity risks that arise from an FMI's payment, clearing and settlement processes. Unlike previous international standards, this report distinguishes between credit and liquidity risks and provides separate principles to address the management of these risks. Principle 4 on credit risk and Principle 7 on liquidity risk are complemented by Principle 5 on collateral and Principle 6 on margin. Taken together, these four principles are designed to provide a high degree of confidence that an FMI will be able to operate and serve as a source of financial stability during times of stress even in extreme but plausible market conditions.

Principle 4 addresses credit risk management and requires that a systemically important payment system, SSS or CCP fully collateralise its credit exposure to each participant with a high degree of confidence. Furthermore, the principle requires that a CCP involved in activities with more complex risk profiles or that is systemically important in multiple jurisdictions should maintain *additional* financial resources sufficient to withstand at least the default of the two participants *and their affiliates* that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions. Other CCPs are required to maintain *additional* financial resources sufficient to withstand at least the default of the participant *and its affiliates* that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions. Principle 4 also contains a new requirement for an FMI to establish explicit rules and procedures to address potentially uncovered credit losses and the replenishment of financial resources when needed.

Principles 5 on collateral and 6 on margin address the issue of the collateral that an FMI should hold to cover its credit exposures. Principle 5 addresses the quality, form and management of collateral that an FMI collects to manage its credit exposure. The principle requires that collateral accepted by an FMI has low credit, liquidity and market risks. Further, the principle requires that an FMI set and enforce appropriately conservative haircuts and concentration limits. Principle 6 applies specifically to CCPs and addresses margin requirements and models. In order to have a strong buffer against its potential future exposure to participants, a CCP should set initial margin levels at an established single-tailed confidence level of at least 99 per cent with respect to the estimated distribution of this future exposure. The principle also requires a CCP to analyse and monitor its model performance and overall margin coverage by conducting rigorous daily backtesting and at least monthly sensitivity analyses for the model. Principles 5 and 6 both contain new guidance regarding the management of procyclicality and of wrong-way risk.

Principle 7 on liquidity risk increases minimum requirements for liquidity risk management. The principle requires an FMI to maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios. These scenarios should include the default of the participant *and its affiliates* that

[3] Further, certain governance issues are addressed more specifically in several other principles in the report to provide additional guidance, such as in the financial resources principles.

would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions. A CCP that is involved in activities with a more complex risk profile or that is systemically important in multiple jurisdictions should take into account scenarios involving the default of the two participants and their affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions. Similar to the credit risk principle, Principle 7 requires an FMI to have explicit rules and procedures that address potentially uncovered liquidity shortfalls and the replenishment of financial resources when needed.

To determine the amount and to test the sufficiency of financial resources held according to the quantitative requirements in Principles 4 and 7, an FMI should perform regular and rigorous stress testing. In particular, Principle 4 requires a CCP to test the sufficiency of its total financial resources, and Principle 7 requires payment systems, SSSs and CCPs to test the sufficiency of their liquid resources. These principles require stress tests to be performed daily using standard and predetermined parameters and assumptions. On at least a monthly basis, relevant FMIs are required to perform a comprehensive and thorough analysis of stress testing scenarios, models and underlying parameters and assumptions used to ensure they are appropriate in light of current and evolving market conditions. An FMI is also required to perform a full validation of its risk-management model at least annually. Importantly, an FMI should use the results of these stress tests to evaluate the adequacy of its resources and to adjust its resources as appropriate.

Settlement

Settlement risk, which is the risk that settlement will not take place as expected, is addressed in Principles 8 through 10. An FMI faces settlement risk whether settlement of a transaction occurs on the FMI's books, on the books of another FMI or on the books of an external party (for example, a central bank or a commercial bank). Principle 8 on settlement finality addresses the fundamental issue of the finality of transactions processed by an FMI. An FMI should be designed to provide clear and certain final settlement. Where necessary or preferable, an FMI should provide final settlement intraday or in real time. Principle 9 strengthens the former guidance on money settlements and strongly encourages an FMI to conduct money settlements using central bank money. Where central bank money is impractical or unavailable, the FMI should mitigate its risks arising from the use of commercial bank money. In addition, Principle 10 provides guidance to FMIs that provide physical deliveries. In particular, an FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities.

CSDs and exchange-of-value settlement systems

Principle 11 on CSDs and Principle 12 on exchange-of-value settlement systems consolidate and harmonise previous guidance regarding the unique risks faced by these types of FMIs associated with their function and design. While the nature and scope of activities performed by CSDs vary based on jurisdiction and market practices, CSDs play a critical role in the protection of securities and help ensure the integrity of securities issues and transactions. Principle 11 requires that a CSD maintain securities in an immobilised or dematerialised form for their transfer by book entry. Similarly, exchange-of-value settlement systems play a critical role in mitigating principal risk. Principle 12 requires these systems to eliminate principal risk by ensuring that the final settlement of one obligation occurs if and only if the final settlement of the linked obligation also occurs.

Default management

The principles also require that an FMI have appropriate policies and procedures to handle participant defaults. Principle 13 on participant-default rules and procedures requires all FMIs to have effective and clearly defined rules and procedures to manage the default of a participant. These rules and procedures should enable an FMI to continue to meet its obligations in the event of a participant default. Principle 14 on segregation and portability is a new principle specific to CCPs. The principle requires that a CCP have rules and procedures that enable the segregation and portability of the positions of a participant's customers and the collateral provided to the CCP with respect to those positions. Appropriate segregation and portability within a CCP is especially important in light of the G20 mandate for the central clearing of standardised OTC derivatives products.

General business risk and operational risk management

General business risk, custody and investment risks and operational risk are addressed in Principles 15, 16 and 17, respectively. Principle 15 on general business risk is a new principle designed to protect participants and the financial system from the risk that an FMI could cease operations suddenly as a result of business losses that are unrelated to participant defaults. Specifically, Principle 15 requires an FMI to hold liquid net assets funded by equity equal to at least six months of current operating expenses so that it can continue providing operations and services, either as a going concern or during its recovery or orderly wind-down, if it incurs general business losses. These assets are in addition to resources held to cover participant defaults or other risks covered under the financial resource principles. Principle 16 on custody and investment risks requires an FMI to safeguard its own assets as well as those of its participants and to maintain investment policies that are consistent with the FMI's overall risk-management strategy. Principle 17 on operational risk strengthens the requirements on operational reliability and resilience. For example, business continuity management should aim for timely recovery of operations and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption. Business continuity plans should be designed to enable an FMI to complete settlement by the end of the day of the disruption even in extreme circumstances, and critical systems should be designed so that operations can be restored within two hours of a disruption.

Access

Principles 18, 19 and 20 address the need for fair and open access to an FMI as well as management of risks posed by alternative access arrangements. Principle 18 on access and participation requirements provides guidance to an FMI for establishing appropriate access policies that provide fair and open access, while ensuring the FMI's own safety and efficiency. Principle 19 on tiered participation arrangements is a new principle that requires an FMI to identify, monitor, and manage the material risks it faces from indirect participants. Principle 20 on FMI links contains more detailed and specific requirements for FMIs that participate in link arrangements. Specifically, FMIs that are linked to other FMIs, either directly or indirectly, should identify, monitor and manage the risks arising from these types of arrangements.

Efficiency

Issues related to efficiency are addressed in Principles 21 and 22. Principle 21 addresses general efficiency and effectiveness. An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves. Efficiency is a broad concept that encompasses what an FMI does, how it does it and the resources required. Effectiveness relates to how the FMI meets its core objectives and goals. Principle 22 addresses one traditional aspect of efficiency, which is the use of communication procedures and standards. An FMI should use, or at a minimum accommodate, internationally accepted communication procedures and standards to enhance efficiency. For an FMI that maintains cross-border operations or provides cross-border services, the use of internationally accepted communication procedures and standards is particularly important.

Transparency

Finally, Principles 23 and 24 address transparency and require that relevant information be provided to an FMI's participants, authorities and the public to inform sound decision making and foster confidence in the markets the FMI serves. Principle 23 on disclosure of rules, key procedures and market data requires sufficient disclosure by an FMI to allow participants and prospective participants to have an accurate understanding of the risks, fees and other material costs they incur by participating in the FMI. Further, an FMI is required to publicly disclose and review regularly its responses to the *Disclosure framework for FMIs*. Principle 24 on disclosure of market data by trade repositories is a new principle specific to TRs, which was developed to require a TR to disclose market data and to allow participants, authorities and the public to make timely assessments of OTC derivatives markets and, if relevant, other markets served by the TR.

Consistent global use and observance

To promote consistent global use and observance of the principles, the report contains a section on the responsibilities of central banks, market regulators and other relevant authorities for FMIs with respect to the oversight, supervision and regulation of FMIs. In addition, the CPSS and IOSCO are developing the *Disclosure framework for financial market infrastructures* and the *Assessment methodology for the principles for FMIs and the responsibilities of authorities* to promote consistent disclosures of information by FMIs and assessments of FMIs by international financial institutions and national authorities.

Responsibilities of relevant authorities for FMIs

The report outlines five responsibilities for central banks, market regulators and other relevant authorities for FMIs in the effective regulation, supervision and oversight of FMIs. Responsibility A requires that FMIs be subject to appropriate regulation, supervision and oversight by a central bank, market regulator or other relevant authority. Responsibility B requires that these authorities have the powers and resources to carry out their responsibilities in regulating, supervising and overseeing FMIs. Responsibility C requires that authorities clearly define and disclose their policies with respect to FMIs. Responsibility D requires relevant authorities to adopt the CPSS-IOSCO principles for FMIs and apply them consistently. Responsibility E requires central banks, market regulators and other relevant authorities to cooperate with each other, both domestically and internationally, as appropriate, in promoting the safety and efficiency of FMIs. Authorities for FMIs are expected to accept and be guided by the responsibilities in this report.

Disclosure framework and assessment methodology

In addition, CPSS-IOSCO will publish the *Disclosure framework for financial market infrastructures* and the *Assessment methodology for the principles for FMIs and the responsibilities of authorities*. The disclosure framework is intended to promote consistent disclosures of information by FMIs in fulfilling Principle 23. The assessment methodology provides guidance for assessing and monitoring observance with the principles and responsibilities. The assessment methodology is primarily intended for external assessors at the international level, in particular the International Monetary Fund and the World Bank. It also provides a baseline for national authorities to assess observance of the principles by the FMIs under their oversight or supervision or to self-assess the way they discharge their own responsibilities as regulators, supervisors, and overseers. National authorities may use this assessment methodology as written or use it to develop equally effective methodologies for their national oversight or supervision processes. The assessment methodology may also be used by FMIs for purposes of self-assessments of observance of the principles. Public consultation drafts of these two documents accompany this report.

Next steps

The publication of this report is the first step in the efforts of the CPSS and IOSCO to enhance the safety and efficiency of FMIs. The committees, as noted above, are also publishing the disclosure framework and the assessment methodology for public consultation. These documents will be finalised promptly. The documents will be used to enhance market transparency and promote a common level of observance of the international standards.

Furthermore, as also noted above, the CPSS and IOSCO are engaged in additional work on the resolution of FMIs. This work will aim to provide guidance for designing recovery and resolution regimes for FMIs consistent with the FSB's *Key attributes of effective resolution regimes for financial institutions* while taking account of the special characteristics of FMIs.

Finally, CPSS and IOSCO members will strive to adopt the new principles by the end of the 2012 and put them into effect as soon as possible. FMIs are also expected to observe the principles as soon as possible. In the coming months, the CPSS and IOSCO will conduct outreach activities to inform FMIs, authorities and the general public about the principles.

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