

The new CPSS-IOSCO Principles for financial market infrastructures

In April 2012, the Basel Committee on Payment and Settlement Systems (CPSS) and the International Organization of Securities Commissions (IOSCO) published their Principles for financial market infrastructures. These principles are designed to make financial market infrastructures (FMIs) more stable and more resilient to financial crisis in future. In this respect, the principles support the G20 countries' agreements on reforming the financial markets. The principles are targeted at systemically important payment systems, central securities depositories (CSDs), securities settlement systems (SSSs), central counterparties (CCPs) and trade repositories (TRs). From the German perspective, this means above all the TARGET2 payment system, which is operated by the Eurosystem, the central securities depository Clearstream Banking AG and the central counterparty Eurex Clearing AG. The currently valid international standards have been harmonised and tightened considerably and expanded to cover new aspects. The FMIs are expected to implement these principles as soon as possible. Central banks and supervisory authorities are to integrate them into their supervisory regimes by end-2012. FMIs and regulatory bodies are currently looking into the need for adjustment. The investments that will be necessary and the resultant cost increases for FMIs and market participants are the price for the improved safety. Besides the reasons for amending the principles, the present article examines the main elements as well as the supervisory authorities' role. The new principles will further strengthen the role played by the Bundesbank in payment and settlement system oversight.

■ New challenges face FMIs

FMIs are the backbone of national and international financial markets

FMIs play a central role in the settlement of financial transactions, including securities and derivatives, or in payments. They are the backbone of national and international financial markets. FMIs support the real economy and facilitate the monetary policy transmission process. They are systemically important because of the large turnover typically settled via such systems, the monopolistic position these systems often hold and the close interdependencies that exist with market participants and other FMIs. If not properly operated and regulated, they can pose serious risks for the financial system and affect other parties in the event of a crisis. The general public is familiar with institutions such as stock exchanges, whereas those that perform downstream settlement-related tasks often receive less public attention. This article will focus on the latter and look at payment systems, CSDs, SSSs, CCPs and TRs. For a definition of the individual FMIs, see page 35.

Central banks' and supervisory authorities' standards to mitigate risk

Central banks and the supervisors of markets and banks have an outstanding interest in mitigating risks and remedying weaknesses in systemically important FMIs. This is why, several years ago, CPSS and IOSCO drew up their "Core principles for systemically important payment systems", "Recommendations for securities settlement systems" and "Recommendations for central counterparties".¹ Whereas CSDs, SSSs and CCPs are presumed to be systemically important, this is true of payment systems, for instance, only when the payment system is the sole system in a country, or, when a system handles time-critical payments, large-value payments or payments are used to effect settlement for other FMIs. Above all, this applies to the real-time gross settlement (RTGS) systems that the central banks themselves operate, such as TARGET2.

Why the standards have been amended

For the most part, FMIs have functioned smoothly during the latest financial crisis. However, the financial crisis has heightened risk

awareness and highlighted the need to take acute stress situations into consideration. The lessons from the financial crisis and experience gained over the last few years in implementing the existing oversight standards prompted central banks and supervisory authorities to think about more stringent requirements for FMIs. CPSS and IOSCO therefore proceeded to extensively revise the old standards and merge them into a single set of standards. In the process, individual standards were tightened, and new standards were introduced to cover areas of risk that had previously not been addressed. The recommendations ("soft laws"), meanwhile, were developed into (minimum) principles which the institutions involved in drawing them up have committed to observe.

These new CPSS and IOSCO "Principles for financial market infrastructures", referred to in the following as "principles",² support the G20 reform agreements according to which all financial markets must be subjected to regulation and adequate oversight. For instance, the functioning, transparency and oversight of the markets for over-the-counter (OTC) derivatives are to be improved by the end of 2012. Behind these objectives lies the requirement that trading in standardised OTC derivatives be transferred to regulated markets. Moreover, as many standardised OTC derivatives as possible are to be cleared through CCPs in future. Given these requirements for mandatory centralised clearing, it is crucial that CCPs achieve a very high level of safety. This is particularly true when a CCP is used by other national markets. In addition, all OTC derivative contracts are to be reported to TRs so that regulatory authorities can obtain a comprehensive overview of the risk

Principles support G20 recommendations for a more resilient financial system

¹ See Bank for International Settlements, Core principles for systemically important payment systems, January 2001 (CPSS Publication No 43), Bank for International Settlements, Recommendations for securities settlement systems, November 2001 (CPSS Publication No 46) and Bank for International Settlements, Recommendations for central counterparties, November 2004 (CPSS Publication No 64).

² Bank for International Settlements, Principles for financial market infrastructures, April 2012 (CPSS Publication No 101).

Overview of financial market infrastructures included in the principles

Payment systems

Payment systems are procedures used by participants (as a rule banks) to process payments for themselves or for their customers. A distinction is generally made between retail payment systems and large-value payment systems (LVPSs). Retail payment systems normally process a large volume of relatively low-value payments. By contrast, high-priority or large-value payments, along with settlement of the cash leg of transactions processed by other financial market infrastructures, are handled by LVPSs.

Central securities depositories

Today, securities are only in very rare cases held in physical form by the investors themselves or in bank safe deposit boxes. Securities are nowadays more likely to be either immobilised through a central securities depository (for example, as a global certificate in a vault) or kept in dematerialised form (entered in a register with, for example, the German Finance Agency). Investors receive the ownership rights associated with a security through a safe custody account, held by the investor's bank at the respective central securities depository. Central securities depositories thus have a kind of "notary function".

Securities settlement systems

Central securities depositories also generally provide securities settlement systems that enable securities to be processed and settled by book entry. Securities transactions can be settled either "free of payment" or "against payment". In Germany, the central

securities depository and securities settlement system functions are performed by a single institution, Clearstream Banking AG.

Central counterparties

A central counterparty interposes itself between two contractual counterparties to financial market operations transacted either on a stock exchange or over the counter (OTC). It thus becomes the buyer for every seller (and vice versa) and ensures the performance of open contracts. When central counterparties apply effective risk management procedures, such as timely valuation of risk positions and collateralisation, they potentially reduce counterparty risk and systemic risk in the financial markets.

Trade repositories

A trade repository keeps electronic records of financial transactions. Trade repositories are a new type of financial market infrastructure, in particular in the OTC derivatives market. Supervisory authorities, market participants and the public have an interest in reliable trade repositories: through the centralised collection, storage and dissemination of data, they contribute to financial market transparency. In many instances, central counterparties receive their data about the financial market transactions to which they are principals from trade repositories.

Overview of potential risks

Systemic risk

Systemic risk can refer to the inability of individual system participants to meet their contractual obligations, thereby resulting, in turn, in other system participants being unable to meet their obligations when due (domino effect). Such a chain reaction could mean that many or even all of the transactions in a system cannot be settled properly. This can, in turn, have severe adverse effects on financial markets and the economy. However, systemic risk may also be due to infrastructures being linked to one another. If, for example, a securities settlement system is linked to a payment system for the booking of cash flows, a disruption in one system can disrupt the other and vice versa. FMIs are unavoidably exposed to systemic risk, but they should be set up in such a way that this risk is reduced.

Legal risk

Legal risk is the risk of the unexpected application of a law or regulation, meaning, for example, that individual contractual conditions could become illegal or unenforceable. This applies in particular to cross-border contexts, where different bodies of law can apply to a single transaction, activity or market participant.

Credit risk

Credit risk is the risk that a counterparty will be unable to meet its financial obligations when due, or at any time in the future. Credit risks can have various sources and appearances. A credit risk in the narrower sense exists if short-term loans are granted by the infrastructures themselves or among the participants in order to assist a smooth

payment settlement. Settlement risk is the risk that, when settling transactions against payment, one party meets its contractual obligation but the other does not. This risk is generally eliminated by settling transactions on a payment-versus-payment (PVP) basis. Replacement risk is the risk that one counterparty is unable to meet its payment obligation and the other is then unable to deliver on its end of the originally envisaged PVP settlement. Both parties (or possibly a central counterparty that has entered into a bilateral transaction) are then exposed to risk of loss because they must replace the original transaction at a less favourable market price.

Liquidity risk

Liquidity risk is the risk of a counterparty being unable to meet its financial obligations as and when expected, although it may be able to do so in full in the future. In the case of a securities transaction, for example, both the buyer and the seller can be exposed to this risk, albeit in different ways. For the buyer, liquidity risk is the risk that it will not receive the purchased securities when due and will have to borrow the securities on the market in order to complete its own delivery obligations. If a seller does not receive the agreed payment when due, it may have to acquire funds by other means in order to fully meet its payment obligations. Liquidity problems have the potential to create systemic problems, particularly if they occur when markets are tight or illiquid, or if they create concerns about a counterparty's solvency.

General business risk

General business risk comprises all risks related to the business operations of a financial market infrastructure, excluding those related to the default of a counterparty. For example, changes in the market or competition can result in reductions in earnings or increased costs and thus jeopardise an infrastructure's continued existence.

Custody and investment risk

Custody risk is the risk of loss on assets held in custody in the event of a custodian's insolvency, negligence, fraud, poor administration or inadequate recordkeeping. By contrast, investment risk is the risk of loss faced by a financial market infrastructure when it invests its own resources or those of its participants. Both risks can result in

credit and liquidity bottlenecks as well as damage to the infrastructure's reputation.

Operational risk

Operational risk is the risk of disruptions to daily operations due, for example, to IT system errors or failures, human error or external events. These can impair financial market infrastructures' provision of services or even bring operations to a complete standstill. Operational risk can spread and impact on the participants in a financial market infrastructure or associated infrastructures and thereby cause systemic risk.

potential in those markets based on quickly available and accurate data. These measures are intended to help enhance transparency, reduce systemic risk and prevent market abuse. On behalf of the G20 the Financial Stability Board (FSB)³ is monitoring the implementation of the agreed measures by soliciting semi-annual progress reports.

mention best practices which FMIs may additionally use as a guideline should that seem appropriate in their particular situation.

The principles apply to FMIs whether they are owned by the private sector or by central banks. Central banks should ensure that the systems they operate comply with the principles in order to remain competitively neutral. On the other hand, central banks have scope in implementing the principles to take their status as public authorities and their monetary and liquidity policy responsibilities into consideration. Thus, in the Eurosystem, with regard to hedging risks arising from the provision of intraday credit in the TARGET2 payment system, the same collateral framework applies as for

*Equal treatment
of FMIs*

*Formulation
of the principles*

The principles are applicable to all systemically important FMIs. When they were being formulated, considerable attention was paid to the differences between the various types of FMIs with regard to organisation, functions and design; moreover, not all principles can be applied to all types of FMI. In addition, they are flexible in that they can be observed in different ways and by different means. The individual principles follow on from one another logically and are mutually complementary. They represent minimum requirements which may be exceeded both by the FMIs and by their national supervisors. In some cases, the principles also

³ The FSB was set up to coordinate the work of national financial supervisory authorities and standard setters at the international level and to promote the implementation of effective regulation, supervision and other fiscal policy objectives. Its secretariat is located at the Bank for International Settlements.

monetary policy operations. For an explanation of potential risks in connection with FMIs, see pages 36 and 37.

■ The principles: an overview

The 24 principles can be broken down into nine separate categories (see the chart on page 39). The core principles are those that are designed to facilitate the efficient management of the various risks, notably credit and liquidity risk. Moreover, arrangements are to be made to prevent the default of a participant. The principles also deal with questions of transparency, efficiency and access. In the following, those principles which significantly tighten the currently applicable rules or introduce new rules will be examined. In particular, these include the accompanying measures for the obligation to have standardised OTC derivative contracts cleared via CCPs.

General organisation

Principles 1 to 3 deal with the general organisation of FMIs, which, in all of the jurisdictions concerned, ought to have a well-founded, clear and enforceable legal basis. Their governance structure should be clear and transparent, and ought to promote their safety and efficiency. One new and more stringent rule requires that the public interest and the stability of the financial system be supported. A further new principle states that FMIs ought to have a comprehensive framework for managing all individual risks.

Management of credit and liquidity risk

Principles 4 to 7 lay down requirements with regard to managing the credit and liquidity risks that both an FMI and participants may incur during the settlement process.

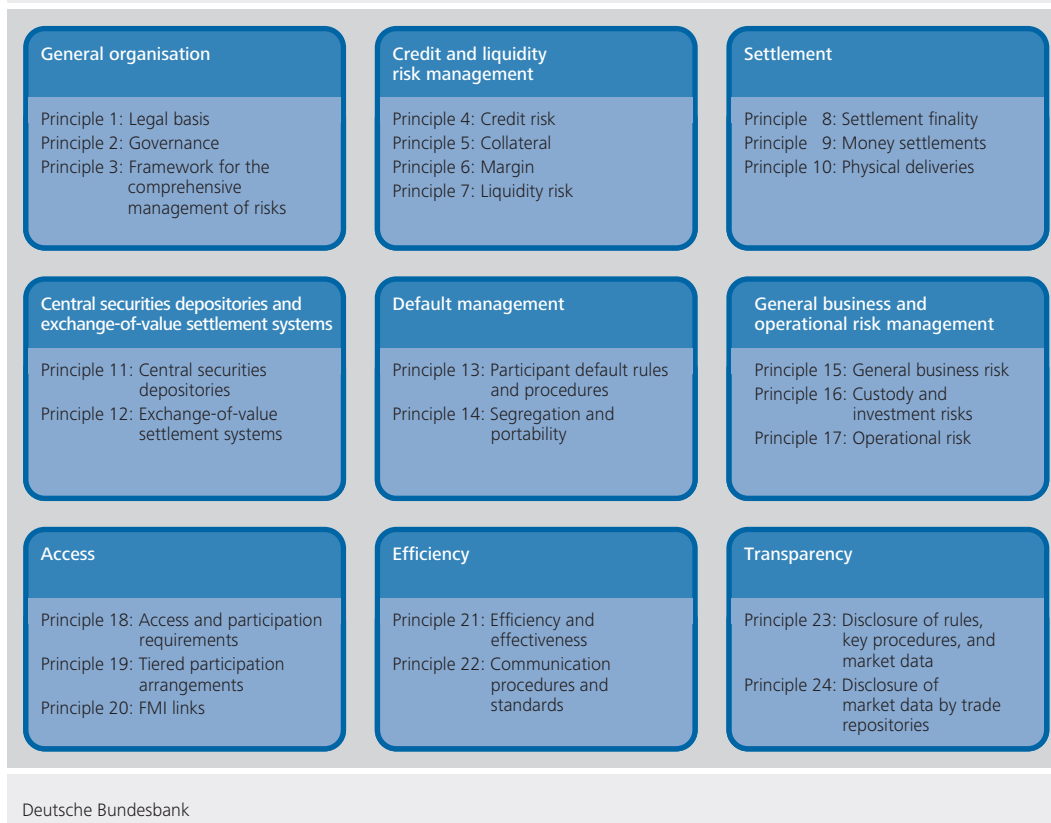
Under principle 4, all FMIs are required to identify, measure, monitor and manage their credit risks. In particular, an FMI should maintain sufficient financial resources in the form of equity and collateral (eg pledged securities) to cover its own exposure to each individual participant with a high degree of confidence. In this con-

text, the old standards have been tightened considerably, as now the entire risk position must be covered in full.

A number of special rules apply to CCPs. Because CCPs act as counterparty towards both buyer and seller, theirs is generally speaking a matched position. As soon as a participant defaults, however, open positions arise, the size of which depends not least on market price developments during the life of a transaction. CCPs are expected to fully cover these exposures to each participant using financial resources with at least a 99% level of confidence. As a rule, contributions by the participants are called for in the form of margins (principle 6). Moreover, CCPs should be able to cover the default of the largest participant – including its affiliates – in the event of extreme (ie with a probability of less than 1%) yet plausible market price changes. For CCPs that have a particularly complex risk profile or are systemically important for a number of countries, this requirement is extended to include the default of the largest two participants (including their affiliates). Stress tests and validation of the mathematical models deployed should be conducted regularly to provide evidence of the appropriateness of the financial resources.

Principle 7 concerns liquidity risk and is designed to ensure that FMIs are able to meet their payment obligations punctually in all relevant currencies. The requirements here are modelled on the corresponding rules for credit risk management; they also take into consideration the default of one or two participants and call for similar stress tests. Not only are the liquidity risks resulting from a possible default of participants to be included, but also the default of banks which perform special functions for the FMI (like the settlement of payments or the binding provision of liquidity, if needed). Moreover, the principles tighten the requirements governing eligible liquid resources and now seek to ensure that the liquid resources are readily available and reliably prearranged.

24 principles by category



Settlement

Principles 8 to 10 address reconciling payment and delivery obligations. FMIs should ensure clear and certain settlement finality by the end of the business day at the latest. Where practical and available, money settlement should be conducted in safe central bank money; otherwise, the credit and liquidity risks stemming from settlement in commercial bank money have to be controlled. The risks associated with obligations to deliver physical instruments or commodities, such as counterfeits, should be monitored and controlled.

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An FMI should have effective and clearly defined rules and procedures to manage a participant's default (principle 13). These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations. The new principle 14 addresses CCPs only and reflects the need to protect indirect clearing participants given the mandatory centralised clearing for OTC derivatives. Since the high access requirements for CCPs in many cases make direct participation economically unattractive, many market participants use another (direct) clearing participant through which they hold their trading positions and the collateral to be posted in respect of the market risk. For this reason, the principle provides that the positions and collateral of the indirect participant should be segregated legally and effectively from those of the direct clearing par-

Procedure in the event of a participant's default

CSDs and exchange-of-value settlement systems

Principles 11 and 12 address CSDs and exchange-of-value settlement systems. CSDs depositories are expected to facilitate electronic securities bookings by immobilising securities or dematerialising securities. Exchange-of-value settlement systems are used to settle two linked performance obligations, for example the delivery of securities against payment. When settling transactions of this kind, FMIs should eliminate the principal risk by con-

participant. In the event of a direct clearing participant's insolvency, this ensures the portability of the positions and collateral to another direct clearing participant.

General business and operational risk management

Principles 15 to 17 concern general business and operational risks. FMIs are to manage their general business risks, which may take the form, for example, of falling demand when major clients are lost or as a result of general market developments. Moreover, they should have sufficient equity and liquid funds so that they can continue providing services as a going concern even under such circumstances. This new principle was added because FMIs have no or very few competitors, meaning they cannot be readily replaced. Furthermore, FMIs should invest their own assets and the assets they hold for their participants safely and in a way that assures high availability and access in order to mitigate custody and investment risks. In future, more stringent requirements will apply to operational risk management as well. Potential internal and external sources of operational risk are to be identified and their impact mitigated through the use of appropriate systems, policies, procedures and controls. The design of the technical systems should ensure a high degree of security and operational reliability and allow scalable capacity. It should be possible to resume operations in a timely fashion in the event of major disruptions.

Access

Principles 18 to 20 address, in the broadest sense, access to FMIs. Principle 18 sets forth objective, risk-based and transparent participation requirements. Under principle 19, which is new, risks that may potentially result from a tiered participation structure with direct and indirect participants are likewise to be managed. Principle 20 concerns links between FMIs.

These three principles are important, too, in light of the mandatory centralised clearing for standardised OTC derivatives and the increasing trend towards globally operating FMIs. Many countries do not have CCPs for their own domestic market nor any plans to establish in-

frastructures of this kind as they would not be economically viable. In such cases, non-discriminatory direct access to foreign CCPs, and therefore the definition of the participation criteria, are essential. Sometimes, a direct link between CCPs can facilitate this access. In such a case, two trading partners in two different countries can use the services of their domestic FMIs without having to join a foreign FMI as a direct participant. Here, the FMIs assume an intermediary function. Principle 20 focuses on managing the risks that such links entail and preventing potential spillover.⁴

Principles 21 and 22 lay down standards for efficient business operations. FMIs should be effective and efficient in meeting the requirements of their participants and the markets they serve. In particular, they should use or accommodate internationally accepted procedures and standards of communication.

Efficiency

The objective of principles 23 and 24 is to improve transparency. FMIs are expected to disclose all relevant rules and important procedures, and enable their participants to precisely evaluate their participation-related risks and costs.

Transparency

Principle 24 is new and addresses solely TRs, which are to make timely and accurate data available to supervisory authorities, central banks and the public. However, the level of detail of the information provided must reflect the confidential nature of trading partners' business data. A joint CPSS-IOSCO working group is currently examining the question as to what data, and to what degree of aggregation, individual supervisors such as banking supervisors or central banks with a macroprudential mandate should have access. The general minimum requirements with regard to reporting

⁴ For details about the different structural arrangements and the advantages and disadvantages they entail, see Bank for International Settlements, The macrofinancial implications of alternative configurations for access to central counterparties in OTC derivatives markets, November 2011 (CGFS Publication No 46).

and data aggregation have already been specified in greater detail.⁵

Responsibilities of central banks, market regulators and other relevant authorities

Guidance for central banks, market regulators and other relevant authorities on implementing the principles

To ensure that all FMIs implement the new principles with maximum consistency, the principles contain five so-called responsibilities (A to E). These take into consideration the fact that the comprehensive implementation of the principles can only be assured by effective regulation, supervision and oversight by the relevant authorities. Thus, they address central banks, market regulators and other relevant authorities. These new rules represent a further step in the standards which previously applied only to systemically important payment systems.

Effective and appropriate regulation, supervision and oversight of FMIs based on understandable criteria

Under responsibility A, central banks, market regulators and other relevant authorities should ensure appropriate and effective regulation, supervision and oversight of FMIs. They are expected to base their decision regarding the FMIs to be regulated, supervised or overseen on clear and publicly disclosed criteria. Responsibility A recognises that the distribution of powers between central banks, market regulators and other relevant authorities may differ according to the applicable national legislation.

Sufficient powers and resources for authorities

According to responsibility B, the authorities charged with the regulation, supervision or oversight of FMIs should have sufficient powers and resources. These include the power to obtain in a timely manner the information needed to assess the FMIs and the authority to induce change or enforce corrective measures, if necessary, as well as to receive the requisite material and personnel resources.

Transparency in the supervision and oversight of FMIs

Responsibility C states that central banks, market regulators and other relevant authorities charged with the regulation, supervision or

oversight of FMIs should clearly define and disclose their policies with regard to the objectives and instruments their activities entail. This public disclosure of their activities makes it clear to the FMIs what requirements they have to meet.

Responsibility D requires the central banks, market regulators and other relevant authorities charged with the regulation, supervision or oversight of FMIs to adopt and apply the principles consistently. The requirements of the principles have been worded in the most general language possible so that the substance of the principles can be applied consistently in all the countries and for all the FMIs concerned. Above all, this is necessary in the global context in order to maintain a level playing field for the various FMIs.

Consistent implementation of the principles

Under responsibility E, the central banks, market regulators and other relevant authorities charged with the regulation, supervision or oversight of FMIs should cooperate with each other domestically and internationally to promote the safety and efficiency of FMIs and to support each other in performing their tasks. Such cooperation is called for in normal circumstances and in crisis situations as well as during the potential recovery or resolution of an FMI. The responsibilities allow for a certain degree of flexibility in the form cooperation may take. For instance, if international cooperation is deemed appropriate, the FMI's home supervisor can assume a coordinating role. Where FMIs settle transactions in several currencies, the respective issuing central banks' views should be considered. Furthermore, the principles explicitly state that the envisaged cooperation does not in any way prejudice the duties and responsibilities assigned to an authority as part of its statutory mandate.

Cooperation among authorities with regard to international or multi-currency FMIs

⁵ See Bank for International Settlements, Report on OTC derivatives data reporting and aggregation requirements, January 2012 (CPSS Publication No 100).

■ Application of the principles

Central banks, market regulators and other relevant authorities have until the end of 2012 to integrate the principles into their legal and regulatory framework. The FMIs are expected to apply the principles as soon as possible.

Assessment methodology for the consistent application of the principles

To ensure the consistent implementation of the principles when assessing FMIs, the CPSS and IOSCO have, in addition, developed an assessment methodology. It comprises the 24 principles, which are aimed at the FMIs, and the five responsibilities of central banks, market regulators and other relevant authorities. This methodology takes the form of an extensive questionnaire and is designed to evaluate individual aspects. It can be used by FMIs to conduct a self-assessment or by national supervisory authorities to assess FMIs. It is left to the supervisory authorities' discretion whether they use the methodology as written or develop an in-depth methodology of their own.

Use by IMF and World Bank

The methodology also encourages international organisations such as the World Bank and the International Monetary Fund (IMF) to apply the principles when assessing the stability of a country's financial sector (Financial Sector Assessment Program).

Disclosure of FMIs' rules and procedures

In addition to the principles, the CPSS and IOSCO have devised a framework along the lines of the principle of transparency, which is intended to promote the rigorous disclosure of information by FMIs themselves. FMIs are to present an explanatory, continuous text containing a coherent and lucid account of the aspects dealt with in the principles. Thus, this framework offers participants, central banks, supervisory authorities and the public greater insight into the organisation and functioning of an individual FMI, and makes it possible to compare FMIs of the same type.

Thought given to restructuring and resolution regime for FMIs

Although the principles aim to ensure the stability of the relevant FMIs, the possibility of an FMI experiencing distress cannot be eliminated

with certainty. For this reason, in the same way as for financial institutions, thought is being given to putting robust recovery and resolution regimes for FMIs into place so that they can perform their main functions even in the event of a crisis. To address this point in particular, in a few weeks' time the CPSS and IOSCO will present the core elements of restructuring and resolution regimes for FMIs for public consultation.

■ Implementation in Europe and the role of the Bundesbank

As part of its statutory mandate and as an integral part of the Eurosystem, the Bundesbank contributes to the stability of payment and settlement systems. The Bank fulfils this mandate by, among other things, engaging in oversight activities which, in line with the relevant European rules, include all FMIs as well as payment instruments, correspondent banking and relevant non-bank service providers.⁶ A key oversight instrument is the assessment of FMIs in accordance with the CPSS-IOSCO principles.

Central banks' oversight function

Both globalisation and integration within the euro area as well as the overall regulatory framework in Germany necessitate close cooperation with other authorities. For instance, within the Eurosystem the Bundesbank plays a part in the cooperative oversight of the systemically important payment systems TARGET2 and EURO1. In this context, the Eurosystem-operated TARGET2 system is subject to the same oversight regime as the EURO1 system, which is run by large European banks. At the international level, the Bundesbank is actively involved in the joint oversight of the Continuous Linked Settlement System, which handles the majority of global foreign exchange transactions.

⁶ See ECB, Eurosystem oversight policy framework, June 2011.

Moreover, the central securities depository Clearstream Banking AG and the central counterparty Eurex Clearing AG are of systemic importance to Germany. Because both FMIs have a banking licence, the Bundesbank cooperates closely with the Federal Financial Supervisory Authority (BaFin) to ensure the effective supervision and oversight of German FMIs. This cooperation allows the Bundesbank as overseer to call on FMIs to change their behaviour, if necessary.

Whereas Eurosystem central banks are still discussing the implementation of the principles at systemically important payment systems, further progress has been made with legislative initiatives regarding their application at CCPs and CSDs in Europe.

In the European Union, the G20 agreement on the mandatory centralised clearing of OTC derivatives and on improving transparency is to be implemented by a legal act, as it has already been in many other countries. The Regulation of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories (European Market Infrastructure Regulation, EMIR) will probably be published in the Official Journal of the European Union in August 2012. The EMIR also reflects the requirements set forth in the principles pertaining to CCPs. In addition, it contains provisions for participation by the central banks as overseers and as issuers of the settlement currencies. The proposal adopted by the Commission for a Regulation on improving securities settlement in the European Union and on central securities depositories seeks to establish a similar framework for CSDs with regard to safety, efficiency and supervision. The Bundesbank has been and still is involved in negotiations at Commission and Council level concerning both regulations.

Implementation of the principles into national and European legal frameworks

■ Outlook

The implementation of the new principles represents a significant step forward in further increasing the resilience of the financial infrastructure. Not least of all, this is also in the interests of market participants. The competent regulatory authorities and the FMIs themselves are currently examining the specific effects the new principles will have and the potential need for adjustments. For FMIs which are both licensed as banks and regulated, some of the principles exceed the supervisory requirements in respect of credit and liquidity risk management. Some of the requirements have been tightened considerably, which means that additional costs are to be expected. What is more, market participants will face higher costs because they will have to furnish more collateral which, in turn, will become scarcer and more expensive. In addition, future banking supervisory requirements will call for higher capital backing for banks' exposures to CCPs.

The new principles do not necessitate a complete overhaul of the oversight of payment and settlement systems. Nevertheless, more complex rules place greater demands on oversight. In the last decade, oversight was already evolving from an initially rather informal, voluntary approach to a formal and more strongly regulation-driven activity. Henceforth, the Bundesbank will have to concern itself much more intensively than in the past with extensive microprudential and macroprudential analyses on the FMIs being overseen. Furthermore, given the advance of integration within Europe and the fact that the structures of many financial market segments are already very globally oriented in any case, the requirements set forth in international cooperation agreements to which the Bundesbank is party are going to rise. This applies both to the participation in the oversight of foreign FMIs, which the Bundesbank wants to see operate safely and efficiently, and to the participation by foreign authorities in the Bundesbank's oversight activities, inasmuch as the respective FMIs in Germany also become systemically important abroad.