

OTC derivatives: financial stability challenges and responses from authorities

DANIELA RUSSO

*Director General of the Directorate General Payments and Market Infrastructure
European Central Bank*

The importance of well-functioning over-the-counter (OTC) derivatives markets for financial stability was highlighted during the financial market turmoil, when significant shortcomings in risk management and market transparency were exposed. In response to these experiences, public authorities have launched a series of measures to strengthen OTC derivatives markets. This article provides an overview of this work. It explains the significance of well-functioning OTC derivatives markets and discusses the main lessons from the financial crisis regarding the need to strengthen their resiliency and transparency. Then, we describe the main tools under consideration, relating to the use of sound market infrastructures – central counterparties and trade repositories –, enhanced bilateral risk management as well as to cooperation between regulators and overseers of infrastructures and banking supervisors. We finally describe the state of play of the main initiatives within these areas.

The importance of well-functioning over-the-counter (OTC) derivatives markets for financial stability was highlighted during the financial market turmoil, when significant shortcomings in risk management and market transparency were exposed. In response to these experiences, public authorities have launched a series of measures to strengthen OTC derivatives markets. This article provides an overview of this work. Section 1 explains the significance of well-functioning OTC derivatives markets, while section 2 discusses the main lessons from the financial crisis regarding the need to strengthen their resiliency and transparency. Section 3 describes the main tools under consideration, relating to the use of sound market infrastructures, enhanced bilateral risk management as well as to cooperation between regulators and overseers of infrastructures and banking supervisors. Section 4 describes the state of play of the main initiatives within these areas.

1 | THE IMPORTANT ROLE OF OTC DERIVATIVES MARKETS

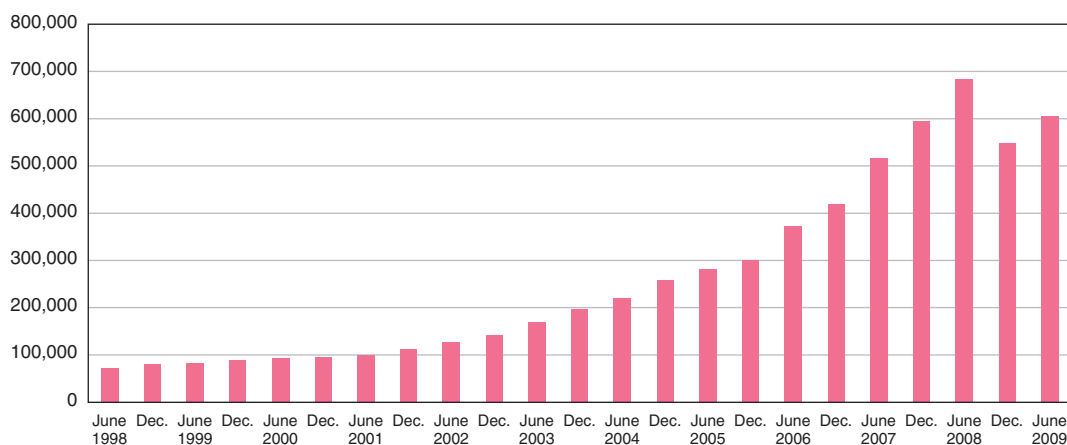
Derivatives have an important function for the economy and the financial system. On the one hand, derivatives can have a welfare improving effect. In particular, they can contribute to enhanced risk management, e.g. by redistributing risks to those market participants who are most willing and able

to deal with them, by enabling the transfer of the economic risks of assets without the transfer of the legal rights and obligations pertaining to the underlying assets, and by facilitating the targeted hedging of risk exposures. Derivatives can also broaden investment opportunities by enabling participation in financial markets with only small financial investments and at higher speed and lower transactions costs than for direct investments in the underlying. Finally, they can support overall market efficiency by exploiting price differences between derivatives and cash markets. On the other hand, however, derivatives may also be a source of systemic risk. For instance, they enable the increased leveraging of market participant's portfolios and may, in case that the resulting exposures are not matched by appropriate risk management, imply higher net risks for the financial system. Given that derivatives are largely traded between major financial institutions through bilateral contracts, they can also raise contagion risk in the financial sector, with potential financial stability implications. Finally, by taking advantage of arbitrage opportunities between financial markets, they also render the stability of these markets much more interdependent.

Derivatives that are traded OTC have some characteristics that make them even more critical from a systemic risk perspective. First, given the bilateral nature of trading, there is no central place where OTC trades are captured and handled. The effective monitoring of market activities is therefore more difficult and effective risk management may

Chart 1
OTC derivatives: notional amounts outstanding

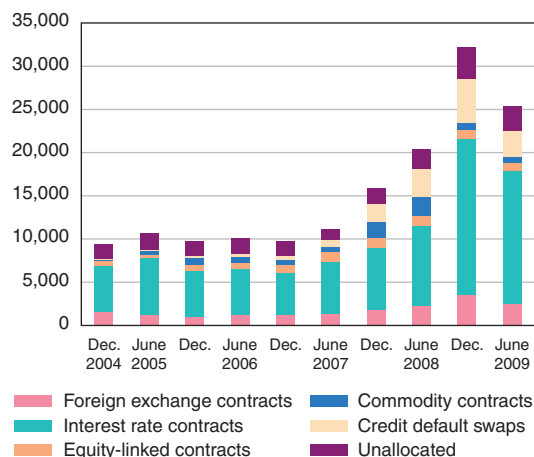
(USD billions)



Source: BIS

Chart 2
OTC derivatives: gross market values

(USD billions)



Source: BIS

be hampered by different or even inconsistent practices. Second, OTC derivatives are instruments tailored to the needs of the relevant counterparties. Accordingly, their risk profile can be very unique and their implications for the overall distribution of risks across the financial system can be difficult to determine. Third, trading volumes have reached very large levels, with an enormous growth rate especially during recent years. For example, between June 2005 and June 2008 the overall market size doubled, reaching approximately USD 684 trillion in June 2008. In some market segments, growth was even more pronounced. For example, during the same period the nominal amounts outstanding of credit default swaps (CDSs) more than quintupled, from about USD 10 trillion to about USD 57 trillion. The turmoil brought about a first period of decline in market volumes since 1998, although they stabilised at high levels: in June 2009 total market volumes and CDS volumes stood at USD 600 trillion and USD 36 trillion respectively. While the actual payment flows at risk, approximated by gross market values,¹ amounted to only USD 25 trillion for all OTC derivatives and USD 3 trillion for CDS, these are still very substantial figures especially in view of the particularly high degree of market concentration and interconnectedness.² Charts 1 and 2 illustrate the development of OTC derivatives markets.

2 | POLICY PRIORITIES: STRENGTHENED RESILIENCY AND TRANSPARENCY

The financial crisis has brought OTC derivatives to the forefront of regulatory attention. The near-collapse of Bear Stearns in March 2008, the default of Lehman Brothers on 15 September 2008 and the bail-out of the American International Group (AIG) on 16 September 2008 highlighted the significant financial stability implications of OTC derivatives markets in general and CDS markets in particular.

In particular, the case of Lehman Brothers allows to clearly illustrating the relevance of adequate and resilient infrastructure. Lehman was a global company with business in a large number of markets across the globe. However the effects of the Lehman default were not the same in the different markets where the group was an active player.

In *OTC derivatives markets*, Lehman Investment Bank was both a major player and a reference entity. At the occurrence of the default, no precise information was available about the volumes of the concerned trades and the net amounts that would be lost on Lehman's own CDS obligations or be required to settle contracts referencing Lehman's debt. Given the high degree of market concentration and the corresponding size of the potential exposures of some major financial institutions, the possible repercussions for the already troubled banking system and strained market liquidity were deemed to be significant. The absence of established cash settlement procedures in the event of the failure of a major market player and reference entity further exacerbated the situation. Indeed, there were strong indications that this uncertainty, originating in a relatively small market segment, affected financial markets more broadly, including the money market where it contributed to precautionary hoarding behaviour of market participants. The corresponding market turbulences only abated once the main CDS dealers had netted their outstanding positions relating to CDS contracts to which Lehman had been counterparty and had determined in a joint

¹ Gross market values represent the replacement costs of existing OTC derivatives contracts, without taking into account existing legally enforceable bilateral netting agreements or the collateralisation of positions.

² See ECB (August 2009).

auction the recovery rate for the cash settlement of CDS contracts referencing Lehman. More than one month after Lehman's default a total of about USD 5 billion in net payments were made in settling these positions.³ The market data presented in the above charts 1 and 2, highlighting declining overall market volumes accompanied with higher risk metrics in terms of gross market values during the second half of 2008, provide an indication of the relevance of the Lehman's default for OTC derivatives markets.

In *foreign exchange and repo markets*, Lehman was also major counterparty, acted as issuer of financial instruments (including of various structured products), as well as a settlement agent, custodian and/or collateral provider. However, contrary to the situation on CDS markets, on these other affected financial markets, financial infrastructures were available to manage the Lehman default. While central counterparties (CCPs) needed to carefully assess and disentangle a large number of positions of Lehman (not uncommonly intra-group in nature) and to unwind, hedge, liquidate and transfer millions of positions of their participants and clients at a scale of complexity never experienced before, they were generally able to complete these operations largely without losses.⁴ The benefits of financial market infrastructures in dealing with the Lehman case also were apparent in the foreign exchange market, where the ability of Continuous Linked Settlement System – CLS – to continue to settle the positions of Lehman effectively limited the impact of the insolvency. Overall, the solid performance of financial market infrastructures in managing Lehman's default contrasted starkly with the respective disruptive bilateral processes in CDS markets, notably due to the absence of adequate market infrastructures for these products.

In the light of these events, there is a need to address two main weaknesses of OTC derivatives markets. While during the financial crisis these were most evident with regard to CDS, there is broad agreement that the underlying structural deficiencies affect OTC derivatives markets in general and therefore need to be tackled across asset classes.

First, the transparency of OTC derivatives markets must be enhanced. Given the bilateral nature of OTC derivatives transactions, it is much more difficult for

both public authorities (such as central banks, market surveillance authorities and banking supervisors) and market participants to adequately monitor the building up of exposures and to assess potential risks for financial stability and market integrity than it is the case for exchange-traded and/or centrally-cleared financial transactions. This hampers the ability of both public authorities and market participants to take timely action in response to emerging financial vulnerabilities. Furthermore, the opaque nature of OTC derivatives markets hampers effective risk management and also gives rise to uncertainty, with a significant potential for an erosion of market confidence namely during distressed market conditions.

Second, risk management for OTC derivatives must be improved. The financial turbulences highlighted that market participants had insufficient capabilities for measuring and monitoring counterparty and liquidity risks, especially in view of the particular complexity of OTC derivatives products, the high degree of interconnectedness among major financial institutions, and the more limited liquidity of these markets, as evidenced in the sizable losses incurred during the Lehman default. Differences in risk management across financial institutions created additional difficulties. Furthermore, lack of standardisation and automation of processes created significant operational risks and processing backlogs, adding to market uncertainty.

3| TOOLS: SOUND MARKET INFRASTRUCTURES, IMPROVED BILATERAL RISK MANAGEMENT AND COOPERATION AMONG AUTHORITIES

3|1 Sound market infrastructures

CENTRAL COUNTERPARTIES

The use of central counterparties (CCPs) for OTC derivatives brings a number of significant benefits

³ See Feder (I.), Frankel (A.) and Gyntelberg (J.) (2008).

⁴ See CCP12 (2009).

as compared to the settlement of gross transactions or bilateral clearing. First, CCPs' risk management is particularly robust, based on several highly sophisticated and technically advanced tools to monitor and manage risks (e.g. membership, margining and collateral requirements), including tools for loss sharing in case of the potential default of one its members, which are obviously not available in case of risk management by banks. Second, by interposing itself as buyer to every seller and seller to every buyer among its members, CCPs reduce the direct bilateral interconnectedness between major financial institutions, thereby providing an important contribution to limiting contagion risk in the financial system. Third, central clearing has a positive effect on market liquidity as a result of multilateral netting which reduces the number of settlements as well as associated risks and costs. Fourth, using a CCP increases operational efficiency as it centralises critical functions such as the calculation of positions, risk management, and settlement of margins and other form of collateral and payments. Finally, central clearing can help to solve some of the problems resulting from information gaps that may impede fully informed risk management and may undermine market confidence.

Despite the pronounced benefits of CCPs for all stakeholders, their services do come at a cost for their users. Private sector efforts alone are therefore insufficient to ensure the adequate use of these infrastructures, but need be complemented by regulatory requirements and incentives. Public sector action is also needed to ensure the safety and soundness of CCPs, given the nature these entities to concentrate counterparty risk and their according systemic relevance. This requires the establishment of robust legal frameworks and close regulation and oversight. The respective measures should be consistent on a cross-border basis to pre-empt scope for regulatory arbitrage and a potential erosion of CCP risk management standards through a competitive race to the bottom among providers. Finally, the various authorities with competence for CCPs, namely securities regulators and central banking overseers, should cooperate very closely in order to fulfil their responsibilities in an effective and consistent manner.

In view of the systemic relevance of CCPs, another important point is to ensure that their operation is fully embedded within the wider financial stability setting, which is still organised predominantly along national lines. In this context the Eurosystem attaches great importance to its long-standing position, as first formulated in its September 2001 Policy line on the consolidation of central counterparty clearing and subsequently reaffirmed by the Eurosystem's Governing Council,⁵ that the infrastructure for the clearing of euro-denominated securities and derivatives should be located in the euro area. This requirement is critical to ensure effective Eurosystem oversight of euro CCPs as well as to monitor and address the potentially pronounced implications of such CCPs for euro area market liquidity especially during distressed market conditions, particularly in view of the corresponding repercussions for the effective exercise of the Eurosystem's core responsibilities for monetary policy and financial stability. It is even more important in view of the role of the euro as a major currency of denomination of OTC derivatives contracts.⁶ The importance of monetary policy concerns relating to CCPs were also recognised by the Ecofin Council in December 2009.

Against this background, the case of the UK-based ICE Clear Europe raises some issues. Since its launch in July 2009, this CCP has cleared the vast majority of euro-denominated CDSs. Moreover, only one of its direct participants is incorporated in the euro area, which implies that for the clearing of euro-denominated CDS euro area banks need to get access to a CCP located outside the euro area through clearing members who are also located offshore. This situation gives rise to Eurosystem concerns as the Eurosystem does not have any direct tools either to access the information necessary to determine whether ICE Clear Europe poses financial stability risks to the euro area or to ensure that the CCP would take appropriate measures to address possible Eurosystem's concerns in this regard. For example it is currently unclear whether ICE Clear Europe has appropriate arrangements to address its potential liquidity needs in extreme but plausible situations, notably in view of its predominantly euro-denominated business and its offshore location.

⁵ See the related Governing Council decisions of 19 December 2008 and 16 July 2009.

⁶ See ECB (September 2009).

TRADE REPOSITORIES

Trade repositories (TRs), registries of OTC derivatives trades, provide an effective tool to mitigate the inherent opacity of OTC derivatives markets through the centralised storage of information on trading transactions, dealer positions and prices. To the extent that TRs achieve comprehensive coverage of certain products, they can provide a timely overview of the build-up and distribution of exposures in the relevant markets. In this way, TRs support enhanced risk management of financial institutions and market infrastructures active in the field of OTC derivatives, facilitate the effective supervision and oversight of these entities, and support strengthened market discipline. They also enable central banks to establish early-warning mechanisms for emerging risks to financial stability and facilitate the work of market surveillance authorities to safeguard market integrity.

Given the importance of comprehensive data coverage, reporting of all trades to TRs should be mandatory. Furthermore, as in the case of CCPs, globally consistent measures are needed to ensure the safety and soundness of TRs, given the growing reliance of market participants, infrastructures and public authorities (such as central banks, securities regulators, market regulators and banking supervisors) on the accuracy and availability of these data. At the same time, it is critical to ensure the unfettered access of all stakeholders to the information stored in TRs, in line with their responsibilities and information needs. Possible global contract coverage of TRs could only be acceptable if the effectiveness of such information-sharing is ensured on a global basis; any possible remaining obstacles in this regard should be removed as a matter of urgency. An important further requirement for global trade repositories is the establishment of appropriate cooperative oversight arrangements⁷ in order to provide sufficient assurance to the concerned foreign central banks of issue, overseers and regulators regarding the well-functioning and resilience of the concerned TR and to enable them to address possible concerns in this regard.

3|2 Improved bilateral risk management

Careful attention also needs to be assigned to risk management requirements for OTC derivatives that will continue to be cleared bilaterally. While the Eurosystem shares the widely held view that OTC derivatives should be centrally cleared to the greatest extent possible, it has to be acknowledged that certain products are not suitable for central clearing, e.g. owing to insufficient product standardisation, market liquidity or availability of robust prices. In fact, from a financial stability perspective it may not even be desirable to submit 100% of clearing-eligible trades to central clearing. In particular, a CCP may assess that it is not in a position to manage the resulting risks appropriately, for example if it has not sufficient expertise in a certain product or it may not wish to accept the concerned counterparties to the transaction as participants because they do not comply with the CCPs' membership requirements. Furthermore, the introduction of a clearing obligation should not expose the CCP to a sudden and abrupt increase in volumes to clear that it cannot adequately handle with its existing capacities.

COLLATERALISATION AND CAPITAL CHARGES

Due to the more bespoke and opaque nature of non-CCP suitable trades, it is more difficult to determine, monitor and manage the corresponding risks and bilateral risk management must therefore be highly robust. Stringent risk controls for bilaterally cleared trades will also provide incentives for counterparties to use CCP services whenever available and feasible.

Against this background, bilaterally cleared trades should be subject to collateral requirements that are at least as sound as the risk controls typically applied by CCPs. While the use of collateral agreements – largely based on the ISDA Master Agreement and its Credit Support annex – increased during the past decade, it is still not comprehensive. According to industry estimates,⁸ 70% of all OTC transactions were

⁷ The main references are the principles for international cooperative oversight, set forth in Committee on Payment and Settlement Systems, *Central bank oversight of payment and settlement systems*, May 2005.

⁸ ISDA (2010).

subject to collateral agreements in 2009. One key objective will therefore be to further enhance the coverage of bilateral collateralisation. In addition, the effectiveness of the respective arrangements needs to be stepped up. The financial crisis highlighted for example deficiencies in the frequency of collateral (re-)valuation, the timeliness of margin settlements, and the stringency of the underlying risk assumptions (e.g. regarding the liquidity of collateral under stressed market conditions). Similarly, owing to different collateral management practices and divergent interpretations of the ISDA Master Agreement, disputes among counterparties are not uncommon, leading to uncertainty regarding the reliability of bilateral agreements. There are also operational challenges relating to limits in the automation and scalability of collateral management processes.

Appropriate capital charges for counterparty credit risk exposures are an important complement to adequate bilateral collateralisation. Given their higher inherent risk, bilaterally cleared OTC derivatives should generally be subject to higher capital requirements than centrally cleared transactions.

REPORTING

As centrally cleared trades, all bilaterally cleared trades should be reported to trade repositories to provide enhanced transparency on these exposures. In line with existing reporting requirements for securities, it would also seem useful to enhance post-trade reporting to regulators to facilitate an in-depth assessment of prudential supervisors and market surveillance authorities.

PORTFOLIO COMPRESSION, OPERATIONAL IMPROVEMENTS AND STANDARDISATION

Additional important measures to strengthen bilateral risk management relate to portfolio compression. Portfolio compression refers to the multilateral termination of economically redundant trades, while maintaining participants' net positions. In this way, it is possible to reduce the number of outstanding trades and the associated counterparty and operational risk as well as to limit the overall complexity of OTC derivatives portfolios for the benefits of both market

participants and public authorities. Furthermore, improvements of operational processes are needed to further expand the automated trading and post-trading of OTC derivatives to enhance the efficiency and safety of the respective processes and to address the possible risk of the emergence of processing backlogs and the resulting uncertainties as they emerged during the financial crisis.

A final important strand of work relates to initiatives to foster the standardisation of product and contract terms. Increased standardisation is not only a prerequisite for further progress in bilateral risk management through portfolio compression and more automated processing, but is also a key measure with a view to extending the population of potentially centrally clearable trades.

3|3 Cooperation between CCP regulators and overseers and banking supervisors

For three main reasons, regulators and overseers of CCPs for OTC derivatives should closely cooperate with prudential supervisors of the financial institutions – notably the large cross-border banks – that deal with these financial instruments.

First, the major OTC derivatives dealers are typically the largest participants of OTC derivatives CCPs. Adequate prudential requirements for the OTC derivatives business of banks are therefore essential not only to ensure the safety and soundness of the banks on a stand-alone basis, but also to rule out possible risks for the stability of the CCP. It should also be noted that such risks would most likely have implications for more than one CCP given that the major OTC derivatives dealers are typically members of several CCPs, owing to the limitations in inter-CCP interoperability.

Second, based on their status as general clearing members of OTC derivatives CCPs, banks may provide CCP-like services to smaller financial institutions which cannot or do not wish to access the CCP directly (e.g. because of the stringent nature of the CCP's membership requirements). Indeed, this is frequently the case in OTC derivatives markets given their high degree of market concentration and their correspondingly tiered nature. It is therefore

critical to ensure the functional equivalence of risk management requirements for centrally and bilaterally cleared transactions in order to pre-empt possible scope for regulatory arbitrage. For instance, if prudential rules for banks were less stringent than the rules for CCPs, there would be a risk that most of the clearing would be done by general clearing members rather than by CCPs, on the basis of lower risk management standards. More in general, functional equivalence is indispensable to foster the use of CCPs for the clearing of OTC derivatives and to reduce in this way also the direct exposures between major financial institutions.

Third, coordination and information-sharing between CCP regulators and overseers and banking supervisors is needed to ensure a comprehensive mitigation of systemic risk arising from OTC derivatives without possible regulatory gaps and loopholes as well as to appropriately reflect the specific risks arising from different clearing arrangements. As set out above, bilaterally cleared contracts are more likely to generate considerable frictions in OTC derivatives markets, namely in case of wider financial market turbulences. Indeed, such frictions could be larger than the share of the involved contract volumes may suggest and could also affect CCPs active in this field.

4| CURRENT INITIATIVES

In line with the respective G20 mandate to urgently strengthen the robustness of OTC derivatives markets⁹ several public sector initiatives are underway to foster the use of sound CCPs and TRs, to enhance bilateral risk management, and to step up cooperation between CCP regulators and overseers and central bank supervisors.

4|1 CPSS-IOSCO international standards

International standards, jointly formulated by central banking overseers and securities regulators,

provide a key reference point for efforts to ensure the soundness of OTC derivatives CCPs and TRs.

Many complex risk characteristics are unique for OTC derivatives products and were not fully discussed in the 2004 report of the existing Committee on Payment and Settlement Systems – International Organization of Securities Commissions (CPSS-IOSCO) Recommendations for CCPs (RCCP). Consequently, applying the RCCP to newly established OTC derivatives CCPs has involved a considerable degree of interpretation and judgment. Similarly, for TRs no international guidance currently exists at all, although these novel infrastructures are gaining an increasingly prominent role. The CPSS and IOSCO therefore recently published draft guidance on the application of the RCCP to CCPs clearing OTC derivatives as well as a set of factors that should be considered by trade repositories in designing and operating their services and by relevant authorities in regulating and overseeing them.¹⁰

Key issues highlighted in draft guidance for CCPs relate for example to the need for risk measurement and management tools and default management arrangements that are commensurate with the inherently more complex nature of OTC derivatives products and the more limited liquidity and transparency of OTC derivatives markets as well as for appropriate arrangements to ensure that decisions regarding the determination of the clearing eligibility of products is made on risk-based considerations only and may not be compromised by potential conflicts of interest at the CCP.

The CPSS-IOSCO report also proposes for the first time a set of objectives for ensuring resilience of trade repositories. In particular, the CPSS and IOSCO underline the importance of measures to ensure the operational reliability and resiliency of TRs as well as for the safeguarding and timely record keeping of data to ensure the continuous availability and accuracy of information stored in TRs. Other major concerns include the need for open access to the information and for well-founded legal frameworks and adequate regulatory and oversight arrangements for TRs.

⁹ The G20 leaders, at their September 2009 summit in Pittsburgh, concluded: "All standardised OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at the latest. OTC derivative contracts should be reported to trade repositories. Non-centrally cleared contracts should be subject to higher capital requirements. We ask the FSB and its relevant members to assess regularly implementation and whether it is sufficient to improve transparency in the derivatives markets, mitigate systemic risk, and protect against market abuse."

¹⁰ See <http://www.bis.org/publ/cpss89.htm> and <http://www.bis.org/publ/cpss90.htm>.

The proposed guidance for OTC derivatives CCPs and trade repositories forms part of a more comprehensive review of the existing international standards for payment, clearing and settlement systems.¹¹ This review, launched by the CPSS and IOSCO in February 2010,¹² aims to update the standards in the light of the experiences since their adoption and some specific lessons relating to the functioning of market infrastructures during the financial market turmoil.¹³

The general review of the standards will address a number of issues that are highly relevant not only for OTC derivatives market infrastructures but for all critical market infrastructure. In principle, all financial market infrastructure (and not only CCPs and TRs) should be subject to the same requirements to the extent that they have to properly manage the same risks. For instance, the CPSS and IOSCO intend to propose a new standard for liquidity risk management. While this is an important issue for markets of comparatively less depth and liquidity, such as OTC derivatives markets, the financial crisis highlighted that liquidity resilience is key also for infrastructure serving "liquid" markets, partly because of potential spill-over effects from one market to the other and partly because unexpected behavior of critical players or lack of adequate infrastructure can create artificial liquidity problems. Similarly, the CPSS and IOSCO intend to strengthen the requirements for adapting risk management measures and regulatory and oversight arrangements to the cross-border nature and financial stability implications of financial market infrastructures.

4|2 European market infrastructure legislation (EMIL)

In line with the G20 mandate, and as other major jurisdictions, the European Union is currently in the process of developing legislation to (i) ensure that the vast majority of CCP-eligible OTC derivatives

contracts will be cleared via authorised CCPs; (ii) specify reporting obligations to trade repositories and as well as safeguards for access to relevant information held by trade repositories; and (iii) establish common regulatory requirements for these infrastructures. Concrete measures will be set forth in the European Market Infrastructure Legislation (EMIL)¹⁴ for which the European Commission intends to issue a draft proposal by mid 2010.

One of the main elements of EMIL will be to determine the appropriate scope for mandatory central clearing. It will be important to strike an appropriate balance between two main considerations in this regard. On the one hand, as mentioned above, any such requirements should not impact on the ability of CCPs to appropriately manage the corresponding risks. Any central clearing obligation should also be applied with a fair degree of reason and flexibility so as to avoid costs which are not justified by systemic risk mitigation. On the other hand, processes must be in place to ensure that CCP's decisions regarding the eligibility for clearing of products are grounded on risk-based considerations only and may not be compromised by potential conflicts of interest at the CCP, including for example through close scrutiny of the respective decisions by regulators and overseers and appropriate corporate governance arrangements.

There are strong indications that the progress towards the use central clearing for central clearing has been excessively slow so far and that regulatory requirements are needed to speed up the process. According to some industry estimates, only around 5% of outstanding OTC credit derivatives, 35% of interest rate derivatives and 15-20% of equity derivatives are currently centrally cleared, although a further 80-90% of OTC credit derivatives, 50% of interest rate derivatives and 55-60% of equity derivatives would be sufficiently standardised to allow for their central clearing. While it is clear that such estimates should be interpreted with some caution, given existing data limitations and considering also that

11 Three sets of standards are involved, namely the 2001 Core principles for systemically important payment systems, the 2001 Recommendations for securities settlement systems, and the 2004 Recommendations for central counterparties.

12 <http://www.bis.org/press/p100202.htm>.

13 For a European perspective on these lessons, see ECB (2010).

14 In addition, EMIL aims to promote progress towards a more integrated CCP interface for the single financial market through the adoption of common rules for CCPs for all financial instruments they deal with and through the removal of barriers preventing links between market infrastructures, subject to the appropriate management of risks arising from these arrangements. Up to now, there has been no legislation or binding regulation in place for financial market infrastructures at European level to address financial stability concerns. There are only initiatives and recommendations that are non-binding such as the ESCB-CESR recommendations for Securities Settlement Systems and CCPs as endorsed last year aimed at promoting the safety and soundness of clearing and settlement systems in the European Union. While all relevant authorities have expressed the intention to apply the recommendations in principle, there is no formalised institutional framework for their consistent implementation in practice. Regulatory arbitrage can still not be ruled out.

central clearing depends not only on sufficient product standardisation, there is clearly scope for improvement.

EMIL also aims to promote progress towards a more integrated CCP interface for the single financial market in the European Union through the first-time adoption of a common EU passport for CCPs for all financial instruments they deal with.¹⁵ Against this background, and in light of the Eurosystem's concerns regarding the implied risks of the use of offshore CCPs highlighted earlier, EMIL should also ensure the effective involvement of central banks of issue in the authorisation of CCPs that may wish expand their activities across the European Union.

4|3 Coordination between EMIL and the work of CPSS-IOSCO

The work on international standards for OTC derivatives CCPs and TRs and the development of EMIL are closely interrelated. The two initiatives address the same type of infrastructures and risks and should therefore be closely aligned to ensure the overall congruence of public authorities' approaches vis-à-vis the concerned infrastructures, particularly in view of the global nature of OTC derivatives markets. However, the two initiatives differ in terms of the legal enforcement and level of granularity of the respective requirements. The CPSS-IOSCO recommendations could provide a useful tool through which legislation is enforced in a globally consistent way across jurisdictions. Indeed, requirements with a higher level of granularity would require higher flexibility to quickly adapt or change them over time.

The CPSS-IOSCO standards should therefore serve as a reference point for legislators around the globe when defining requirements for OTC derivatives CCPs and TRs to ensure broad congruence of their frameworks. In particular, in view of the overlapping timetables for the finalisation of the revised international standards (scheduled for the first half of 2011) and the legislative reforms (with possible adoption in some major jurisdictions such as the United States already by the end of 2010) and considering also the rapidly

evolving nature and ongoing structural changes in OTC derivatives markets, national legislation should be also sufficiently flexible to allow for further global coordination in the specification of the main technical requirements during the implementation phase, which could again be supported by the CPSS and IOSCO. Against this background, the proposal in current US draft bills to explicitly allow the competent authorities (SEC and CFTC) to use the CPSS-IOSCO recommendations in implementing the forthcoming US OTC derivatives legislation would seem to go into the appropriate direction.

4|4 Cooperation between CCP regulators and overseers and banking supervisors

As set out above, regulators and overseers of CCPs should cooperate with banking supervisors to safeguard consistently high standards for the management of risks arising from OTC derivatives and to achieve a comprehensive overview and mitigation of systemic risk in OTC derivatives markets. To this avail, the competent standard-setting bodies – the CPSS, IOSCO and the Basel Committee on Banking Supervision (BCBS) – are engaged in a close dialogue to align their requirements. In parallel, competent central banks, regulators and banking supervisors are cooperating in the global OTC Derivatives Regulators' Forum to promote convergent approaches and information-sharing.

COOPERATION BETWEEN THE CPSS, IOSCO AND BASEL COMMITTEE

A first strand of work relates to the provisions in draft banking rules to apply a zero risk weight and capital charges for trades that are cleared through CCPs, provided that the CCPs comply with certain requirements. The CPSS, IOSCO and Basel Committee are discussing how to ensure consistency between the respective requirements imposed by banking supervisors and the approach and logic taken by the CPSS-IOSCO recommendations with regard to CCPs.

¹⁵ At present, only the non-binding ESCB-CESR recommendations for securities clearing and settlement systems are in place.

In this context, it is important to note that the CPSS-IOSCO's philosophy and actual approach allow for a nuanced assessment of CCPs by distinguishing between full compliance, broad compliance and partial compliance. An oversimplified translation of a CCP's compliance with any regulatory standards into capital requirements should therefore be avoided. Moreover, CPSS-IOSCO underlines that the safety of a CCP should not be assessed on the basis of individual risk controls, but of the right mix of all risk mitigation measures. Finally, when calculating the exposure of banks vis-à-vis CCPs, it is important to carefully consider the specific loss-sharing rules that the CCP has in place. In this context it may not be desirable from a financial stability perspective to consider margins more favourably than default fund arrangements. Indeed, the absence of default funds or other mutualisation instruments might result, in the event of a serious crisis, in a higher impact of adverse events and concentrated losses in a smaller number of participants, possibly reducing the ability of the CCP to act as a circuit-breaker for transmission of contagion.

A second strand of work relates to identifying appropriate and globally consistent measures to promote greater use of standardised OTC derivatives, implement mandatory central clearing as well as, where appropriate, exchange or electronic trading requirements. This assessment is conducted by a joint working group mandated by the Financial Stability Board. In addition to the CPSS, IOSCO, and the Basel Committee, the group also includes a number of national securities regulators, central

banks, and banking supervisors and the European Central Bank. The group is expected to conclude its work in the fourth quarter of 2010.

OTC DERIVATIVES REGULATORS' FORUM

Since January 2009, central banks, securities regulators, banking supervisors and market surveillance authorities have met periodically at global level to exchange views and share information on developments related to CCPs and TRs for OTC derivatives, initially focusing on CDS. Based on this work, in September 2009 the OTC Derivatives Regulators' Forum was formed to provide regulators with a means to regularly cooperate, exchange views and share information on CCPs and TRs for all OTC derivatives. The Forum has also worked to articulate the information needs of public authorities and market participants from OTC derivatives CCPs and TRs and to develop common reporting templates and formats in this regard. In addition, the Forum has assisted the establishment of cooperative oversight arrangements with regard to individual OTC derivatives infrastructures.

The Forum is a purely informal body without any binding decision-making capacity or authority for the regulation and oversight of individual infrastructures of its own. Instead, it derives its strength from each participant's independent and voluntary decision to participate in and support the work of the Forum and from promoting common awareness of issues and possible approaches to manage them.

BIBLIOGRAPHY**CCP12 (2009)**

"Central counterparty default management and the collapse of Lehman Brothers", CCP12 paper, April, www.CCP12.org

European Central Bank (2009)

"Credit default swaps and counterparty risk", August

European Central Bank (2009)

"OTC derivatives and post-trading infrastructures", September

European Central Bank (2010)

"Report on the lessons learned from the financial crisis with regard to the functioning of European financial market infrastructures", April

Feder (I.), Frankel (A.) and Gyntelberg (J.) (2008)

"Three market implications of the Lehman bankruptcy", BIS Quarterly Review, December

International Swaps and Derivatives Association (ISDA) (2009)

"ISDA Margin Survey 2010, Preliminary Results", 22 April