

OTC Derivatives Market Reforms

Progress report on Implementation

11 October 2011

Foreword

This is the second progress report by the FSB on OTC derivatives markets reform implementation.

In September 2009, G-20 Leaders agreed in Pittsburgh that:

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.

In June 2010, G-20 Leaders reaffirmed their commitment to achieve these goals. In its October 2010 report on [Implementing OTC Derivatives Market Reforms](#) (the October 2010 Report), the FSB made 21 recommendations addressing practical issues that authorities may encounter in implementing the G-20 Leaders' commitments.

The FSB's [first implementation progress report](#) published in April 2011, while recognising that it was still early in the process of implementation, nevertheless expressed concern regarding many jurisdictions' likelihood of meeting the end-2012 deadline set by the G-20. In this first progress report, the FSB warned that in order for this target to be achieved, jurisdictions needed to take substantial, concrete steps toward implementation immediately.

This current progress report, coming nearly two years after the Pittsburgh G-20 Leaders Summit and just over one year from the end-2012 deadline, delivers a more detailed assessment of progress toward meeting the G-20 commitments relating to central clearing, exchange and electronic platform trading, reporting to trade repositories, capital requirements, and standardisation.

The FSB's OTC Derivatives Working Group (ODWG) will continue to monitor implementation of OTC derivatives reforms. With the end-2012 deadline rapidly approaching, the FSB is committed to maintaining its intense focus on monitoring and assessing the adequacy of progress being made to fully and consistently implement the G-20 commitments through the development of international standards, the adoption of legislative and regulatory frameworks, and actual changes in market structures and activities.

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Executive summary

As of now, with only just over one year until the end-2012 deadline for implementing the G-20 commitments, few FSB members have the legislation or regulations in place to provide the framework for operationalising the commitments. The needed laws and regulations are complex and have the potential to result in significant changes in market structure. They must be developed with due care and analysis so as not to compromise the objectives for derivatives market reform set by the G-20 of improving transparency in the derivatives markets, mitigating systemic risk, and protecting against market abuse. Nonetheless, legislative and regulatory frameworks need to be put in place expeditiously to establish the parameters and requirements for the full set of practical actions that firms, markets, infrastructures, and authorities need to take. In the interim, it is critical that market participants continue efforts to reform the trading, clearing and reporting of OTC derivatives.

This report concludes that jurisdictions should aggressively push forward to meet the end-2012 deadline in as many reform areas as possible.

Central clearing

Members remain committed to changing legislative and regulatory frameworks, as needed, by end-2012 to achieve the G-20 commitment to central clearing. Some jurisdictions have indicated that they are waiting for the US and EU regulatory frameworks to be finalised before acting. Consistency in implementation across jurisdictions is critical, and it is understandable that smaller markets want to see what frameworks the United States and European Union put in place when developing their own frameworks. For instance, some smaller markets want to consider factors such as oversight arrangements and the availability of infrastructure for indirect clearing (i.e. clearing for market participants who are not members of the CCP) before deciding whether to rely on global infrastructure or promote local clearing infrastructure. Nevertheless, it is important that all jurisdictions advance development of needed legislative and regulatory frameworks as far as they are able even before finalisation of the US and EU regimes, to be in a position to act expeditiously once rules are finalised in these two largest OTC derivatives markets.

Increasing the central clearing of OTC derivatives in practice is showing some progress both in higher volumes and expanded products, particularly in the interest rate and credit asset classes. Nevertheless, taking this into account together with the pace at which various jurisdictions are implementing central clearing mandates, the FSB believes that the target of having all standardised OTC derivatives contracts centrally cleared will not be fully met by end-2012 in all FSB member jurisdictions. Therefore, the FSB believes that jurisdictions should aggressively push forward to meet the central clearing deadline for as many standardised OTC derivatives contracts as practicable.

Exchange and electronic platform trading

The establishment of legislative and regulatory frameworks to implement the commitment to trading standardised derivatives on exchanges and electronic platforms, where appropriate, is markedly behind the progress made toward other commitments. Only the United States has enacted legislation and is actively working on the detail of the implementing regulations.

While the European Union (through pre-legislative consultation) has set out the direction of its regulatory framework, it does not anticipate having legislation in place before 2013. Most other jurisdictions have not yet made basic decisions about regulatory measures, including whether any regulatory action will be taken.

Efforts to set an international standard for what the organised platform trading commitment means in terms of policy recommendations culminated in the IOSCO *Report on Trading of OTC Derivatives* (Trading Report), which was published in February 2011.¹ Although IOSCO is conducting a further detailed stock-take on market use of multi-dealer versus single-dealer platforms, no further international policy guidance is anticipated.

Until more is known, the FSB is unable to assess whether the G-20 commitment to organised platform trading will be fully achieved in practice in all FSB member jurisdictions. Based on the slower pace of basic decision-making in most jurisdictions, progress certainly does not appear to be on track across jurisdictions to meet the G-20 commitment to exchange or electronic platform trading, where appropriate, of all standardised OTC derivatives by end-2012. Jurisdictions therefore should accelerate decision-making in this area.

Reporting to trade repositories

Members remain committed to putting in place by end-2012 the legislative and regulatory frameworks for achieving the G-20 commitment to reporting to trade repositories (TRs). However, there are a number of implementation issues that need to be resolved around ensuring the suitability of the data collected in TRs for meeting different regulatory mandates (including financial stability) and authorities' effective access to data stored in TRs relevant to their respective mandates.

Actual reporting of OTC derivatives contracts to TRs is showing progress in the interest rate, credit, and equity derivatives asset classes. Currently, TRs are not operational for the commodity and foreign exchange asset classes, although infrastructure is under development. Based on the current state of implementation, the FSB believes that, as is the case with central clearing, the target of having all OTC derivatives contracts reported to TRs will not be fully met by end-2012 in all FSB member jurisdictions. Nonetheless, the FSB believes that jurisdictions should aggressively push forward to meet the TR reporting deadline for as many OTC derivatives contracts as practicable.

Capital requirements

Members remain committed to putting in place by end-2012 the legislative and regulatory frameworks to achieve the G-20 commitment to higher capital requirements for non-centrally cleared derivatives.

The Basel III capital framework, which strengthens the requirements for counterparty credit risk exposures, will take effect on 1 January 2013. Some aspects of that framework, in particular as it relates to banks' exposures to CCPs, are still being finalised. BCBS is consulting with CPSS and IOSCO in refining these rules, and shortly will publish a second public consultation paper. To ensure that capital charges appropriately reflect the higher risk

¹ The Trading Report is available at: <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD345.pdf>.

of non-centrally cleared transactions, the BCBS also intends to undertake an impact study to compare the costs of non-centrally cleared and centrally-cleared trades. Final BCBS rules are expected to be released by end-2011, to permit implementation by end-2012. Additionally, BCBS, CPSS, IOSCO and CGFS are participating in a working group to set margining standards for non-centrally cleared derivatives, with a consultative report expected in June 2012.

At present, the FSB lacks information on capital requirements for non-bank regulated entities. Going forward, the FSB intends to focus on gathering this information.

Once the BCBS work is closer to conclusion, and information regarding capital and other requirements for non-bank regulated entities has been collected, the FSB should be better placed to take a view on actual progress in achieving the G-20 commitment to higher capital requirements for non-centrally cleared derivatives.

Standardisation

Standardisation is a core element for meeting the G-20 commitments relating to central clearing, organised trading, and reporting to TRs. To date, coordinated industry action led by the OTC Derivatives Supervisors Group (ODSG) has been the main driver of increased standardisation through a series of quantitative and qualitative commitments. The industry's strategic roadmap delivered to the ODSG as part of the commitment letter published in March 2011 (Strategic Roadmap) establishes a framework for managing continued improvements in process and product standardisation by the G-14 dealers and other major market participants.² As establishment of legislative and regulatory frameworks to implement the G-20 commitments progresses, authorities expect the industry to continue to increase standardisation of OTC derivatives products.

Most jurisdictions believe that the proportion of OTC derivatives that are standardised will have substantially increased from pre-2009 levels by end-2012. Approximately half the jurisdictions surveyed have adopted or plan to adopt legislative and regulatory measures to increase the use of standardised products and processes, while some other jurisdictions with markets that are already highly standardised expect to maintain these levels.

Issues raised in implementation

The FSB has been aware from the outset that there is a risk that overlaps, gaps, or conflicts in legislative and regulatory frameworks, if not addressed, could compromise achievement of the G-20 objectives. This could occur if an overlap, gap, or conflict leads to an increase in systemic risk, or places inconsistent requirements on market participants that cannot be effectively implemented in practice. A number of potential overlaps, gaps, or conflicts have been identified and authorities are working on solutions. Examples, described in more detail in this report, include issues concerning legislative and regulatory frameworks for regulation and oversight of CCPs and TRs, the application of central clearing requirements, and requirements by some jurisdictions that clearing occur in their respective domestic (or

² The commitment letter is available at <http://www.newyorkfed.org/newsevents/news/markets/2011/an110405.htm>.

domestic-registered) CCPs. Work is needed to assess whether the issues that have been identified imply material problems for implementation at a global, systemic level.

As a matter of priority, specific overlaps, gaps, and conflicts should continue to be discussed bilaterally between or multilaterally among jurisdictions. Solutions also should come through adherence to international standards. For example, when finalised, the principles for financial market infrastructures (FMIs), including CCPs and TRs, which have been issued for consultation by CPSS and IOSCO, are expected to ensure a robust global level of consistency across the jurisdictions that implement them. International standards can also address these issues by setting out processes and expectations for international cooperation between authorities. In this regard, the FSB welcomes the continuing work in CPSS and IOSCO to address cross-border cooperation and oversight issues, and looks forward to the IOSCO report addressing coordination of central clearing requirements across jurisdictions expected in January 2012.

As a key element of its work going forward, the ODWG will continue to actively monitor the consistency of implementation across jurisdictions and bring any overlaps, gaps, or conflicts that may prove detrimental to the G-20 objectives of OTC derivatives reforms to the attention of the FSB, particularly if there seems to be a risk that such overlaps, gaps or conflicts will not be satisfactorily resolved through existing bilateral or multilateral channels.

Next steps

A clear challenge for the FSB going forward is to effectively monitor implementation through changes in actual market practice toward achieving the G-20 commitments. Although improvements already can be seen, the scale of improvements is difficult to measure because today's OTC derivatives markets have not yet reached the substantially increased levels of transparency envisioned by the G-20. In the interim, until reporting to TRs and other reforms have been fully implemented, the FSB needs to identify alternative sources of data and metrics for tracking progress toward achieving the G-20 commitments. Presenting useful and comparable data tracking actual market changes is a priority for the FSB monitoring efforts going forward.

1. Detailed assessment of progress in meeting specific commitments

Progress in meeting the G-20 commitments relating to central clearing, organised platform trading, reporting to TRs, capital requirements, and standardisation varies across markets, asset classes, and the particular commitment concerned. Set out in the main text below is an assessment of progress in the development of international standards and policy, the adoption of legislative and regulatory frameworks, and actual implementation through changes in market practices for each of the G-20 commitments. This detailed section begins with an assessment of progress in standardisation, which is a core element for meeting the G-20 commitments.

This report also attaches a number of appendices and tables providing greater detail. **Appendix I** to this report sets out a list of the international standard-setting and other workstreams relating to OTC derivatives reforms, identifying the responsible organisation and expected completion date. **Appendices II** through **VI** set out proposed metrics and other indicators for measuring progress in actual implementation of the commitments, and where possible, applies these metrics and indicators using actual data. **Appendices VII** sets out the questionnaire for the survey of FSB members conducted in the second half of 2011 and **Appendix VIII - Tables 1** through **7** summarise jurisdictional responses to the survey.

For this progress report, the FSB surveyed FSB members and received progress reports from each of the standard setters and other international groups involved in OTC derivatives market reforms. The FSB concluded that in assessing progress, it is useful to draw a distinction between adopting legislative and regulatory reforms and the “facts on the ground” with regard to achieving in practice the G-20 commitments through changes in market practices (*e.g.*, actually clearing all standardised OTC derivatives contracts through central counterparties).

There are significant challenges in collecting complete data necessary for assessing actual implementation of the G-20 commitments. Interim solutions need to be found until centralised infrastructure provides access to data that can be readily aggregated across jurisdictions. For future progress reports, the FSB will endeavour to improve its reporting by identifying sources of more detailed and comprehensive data to be collected and used in applying the metrics described in this report to measure implementation progress. One source of data will likely be enhanced reporting by FSB members in future FSB surveys.

1.1 Standardisation

The October 2010 Report set out four recommendations for implementing the G-20 commitment to increasing standardisation.³ To date, coordinated industry action led by the ODSG has been the main driver of increased standardisation. The Strategic Roadmap establishes a framework for managing continued improvements in process and product standardisation by the G-14 dealers and other major market participants.⁴ As establishment of legislative and regulatory frameworks to implement the G-20 commitments progresses,

³ Recommendations 1 through 4 in the October 2010 Report.

⁴ The Strategic Roadmap is available at: <http://www.newyorkfed.org/newsevents/news/markets/2011/SCL0331.pdf>.

authorities expect the industry to continue to increase operational and contractual standardisation of OTC derivatives products.

Measuring standardisation progress

FSB survey responses indicate that most jurisdictions believe that the proportion of OTC derivatives that are standardised will have substantially increased from pre-2009 levels by end-2012. Approximately half the jurisdictions surveyed have indicated that they have adopted or plan to adopt legislative and regulatory measures to increase the use of standardised products and processes, while some other jurisdictions with markets that are already highly standardised expect to maintain these levels. **Table 1** sets out a compilation of survey responses with regard to standardisation.

Metrics to measure levels of process standardisation in the OTC derivatives market are set out in **Appendix II**. **Appendix II.a** applies these metrics to aggregate data reported by G-14 dealers as of June 2010 and June 2011. As set out in Recommendation 5 of the October 2010 Report, the degree of standardisation of a product's contractual terms and operational processes should be taken into account in determining whether a product is suitable for clearing. Year-over-year increases in electronically processed volume, one indicator of operational process standardisation, can be seen in the interest rate, equity and foreign exchange asset classes as of June 2011. No change was seen in the credit asset class where electronically processed volume already is at a very high level.

In line with the Strategic Roadmap, G-14 dealers and other major market participants also continue to develop and enhance a standardisation matrix for each major asset class (Standardisation Matrix) for benchmarking existing levels of standardisation, identifying areas for further progress, and monitoring how levels of standardisation evolve over time. A Standardisation Matrix template for three derivatives asset classes (credit, equity, and interest rates) has been published by ISDA; two other asset classes (commodities and foreign exchange) are currently under development. In its current form, the Standardisation Matrix employs high-level numerical data (in general, percentage ranges) to measure levels of standardisation by product and process, rather than absolute numbers. To increase the usefulness of this tool for monitoring, absolute numbers of contracts will be provided as part of agreed improvements to the Standardisation Matrix going forward. More detail on the Standardisation Matrix is set out in **Appendix III**.

The main limitation to currently available data (including the data set out in Appendix II.a as well as the Standardisation Matrices) is its coverage of market participants. Currently, data to calculate metrics on process standardisation are reported by the G-14 dealers on an aggregate basis to their primary supervisors. While G-14 dealers are understood to dominate trading in credit derivatives and interest rate derivatives for the four most-traded currencies, a broader group of market participants are understood to represent a greater proportion of trading volume in the commodity and foreign exchange derivatives asset classes, as well as interest rate derivatives in other currencies. Thus, data reported by the G-14 is of more limited value when analysing progress in increasing standardisation in these asset classes and products.

The FSB welcomes the ongoing publication by the G-14 dealers and other major market participants of the Standardisation Matrix with supporting asset class-specific narratives and

aggregate data reported by market participants to better inform authorities and market participants of developments in market practice.

1.2 Central clearing

The FSB's October 2010 Report sets out eight recommendations⁵ for implementing the G-20 commitment to central clearing, including the need to address bilateral risk management of OTC derivatives that are not centrally cleared.

Development of international standards and policy for central clearing and for risk management of non-centrally cleared derivatives

A number of international workstreams, as noted in **Appendix I**, are focused on implementation of mandatory clearing.

A recent development in the establishment of international standards concerns margining requirements. In July, the FSB called for international consistency in margin requirements for non-centrally cleared derivatives. A group composed of representatives of the BCBS, CGFS, CPSS, and IOSCO has been formed to take this work forward. A consultative report is expected to be published by June 2012 that will focus on margining standards; additional work on developing standards for more general risk management of non-centrally cleared derivatives will be considered at a later stage.

Recommendation 7 of the October 2010 Report addresses access to CCPs, recognising the importance of a safe and sound environment for both direct and indirect access in order for market participants to satisfy mandatory clearing requirements. Current work by a CGFS study group on the macro-financial implications of alternative CCP access configurations – including whether greater reliance will be placed on global CCPs and indirect clearing or on local CCPs with wider domestic direct access – suggests that different infrastructure configurations will have different impacts on efficiency and stability. The FSB will continue to monitor developments concerning alternative configurations in light of the G-20 objective of mitigating systemic risk.

Legislative and regulatory framework for central clearing

Japan and the United States are the only jurisdictions that have adopted legislation mandating central clearing of standardised OTC derivatives.⁶ FSB survey responses indicate that most jurisdictions, including the European Union, which expects legislation to be adopted by end-2011, intend to have a legislative and regulatory framework providing for mandatory clearing in place as of end-2012. In many jurisdictions, including Japan, the United States, and the European Union, legislative changes must be followed up with more technical implementing regulation for the requirements to be fully effective. A few jurisdictions whose markets are

⁵ Recommendations 5 through 12 of the October 2010 Report.

⁶ Neither Japan nor the United States is expected to mandate central clearing for *all* OTC standardised derivatives. In the case of Japan, only OTC standardised derivatives with significant volumes that it is determined would reduce settlement risk in the domestic market if centrally cleared will be required to be centrally cleared. In the case of the United States, the Commodity Futures Trading Commission and Securities and Exchange Commission will make determinations as to whether mandatory clearing applies to a particular product. In addition, the US Treasury has proposed exempting foreign exchange swaps and forwards from clearing and trading requirements. See **Table 2** for additional detail.

currently dominated by standardised, exchange-traded, and centrally-cleared derivatives have indicated they do not plan to implement mandatory clearing requirements for OTC derivatives because, in their view, this is not needed to achieve the G-20 commitments; other jurisdictions with nascent derivatives markets have indicated that they continue to consider whether legislation is needed. Several jurisdictions have expressed intentions to propose legislation in late 2011 or early 2012. **Table 2** sets out in detail the survey responses indicating the legislative and regulatory steps that have been taken in each jurisdiction to implement mandatory clearing and the steps that remain to be taken for mandatory clearing to become effective.

Implementation of central clearing

Central clearing of OTC derivatives has increased, particularly in the interest rate and credit asset classes. However, the pace at which various jurisdictions are implementing central clearing mandates and actual levels of central clearing currently seen do not support a conclusion that progress is on track to fully meet the G-20 commitment, which calls for central clearing of *all* standardised OTC derivatives by end-2012. In addition, in some markets, the infrastructure for indirect clearing (*i.e.* clearing for market participants who are not members of the CCP) is still under development. It is thus unclear to what extent indirect clearing will extend the risk-reducing and efficiency benefits of central clearing to a wider range of market participants, including the buy side.

Appendix IV sets out two metrics to measure and monitor the extent to which standardised derivatives are being centrally cleared. The first metric would measure the number of transactions (in an asset class) cleared versus the number of transactions in “clearable” instruments in that asset class. The second metric would measure the number of transactions (in an asset class) cleared versus the number of transactions in all instruments in that asset class. In order to utilise these metrics, however, several data challenges will need to be addressed, the keys to which are sourcing needed data from market infrastructure such as CCPs and TRs and resolving definitional issues. The Standardisation Matrix may serve as a tool that can be used by individual authorities and the FSB in estimating the population of standardised OTC derivatives contracts. However, the Standardisation Matrix does not contain all the information that authorities may need. Authorities need better data on liquidity to facilitate the evaluation of suitability of products for central clearing. A measure of trading liquidity of standardised products is not captured in the Standardisation Matrix. Identifying a source of comprehensive information on liquidity also would be useful for authorities in implementing organised platform trading.

Appendix IV.a sets out indicators of central clearing implementation applied to recent data. One indicator is the percentage of notional amount outstanding that is centrally cleared (*i.e.*, for which a CCP is a counterparty) by asset class and product type. Appendix IV.a also sets out more detailed data that contains both the percentage of outstanding notional as well as recent transaction data. Data on transactions in the six month period ending June 2011 show increasing percentages of clearing, indicating that more new products are being centrally cleared than were previously. Second, the data indicate that there is significant work to be done in the single name credit derivatives asset class as well as in increasing buy side participation in central clearing. The FSB intends to use the information set out in

Appendix IV.a as a benchmark and will continue to solicit information from CCPs and TRs to update these tables in future progress reports.

1.3 Exchange and electronic platform trading

The FSB's October 2010 Report sets out two recommendations⁷ for implementing the G-20 commitment to exchange and electronic platform trading of derivatives contracts.

Development of international standards and policy for organised platform trading

The Trading Report, published in February 2011, identified characteristics that organised platforms should have in order to fulfil the G-20 Leaders' objectives of improving transparency, mitigating systemic risk, and protecting against market abuse. As explained in the FSB's first progress report on OTC derivatives market implementation, a difference of views remains on whether multi-dealer functionality is essential for an organised platform to meet the G-20 commitment objectives. IOSCO is currently undertaking additional analysis on market use of multi-dealer versus single-dealer platforms. This analysis is not expected to resolve the difference of views, nor is it expected to provide further implementation guidance. It may be useful, however, in defining a "point-in-time" benchmark for current market use of organised trading platforms to measure progress in market practices going forward.

Legislative and regulatory framework for organised platform trading

Legislative and regulatory framework implementation is markedly behind the progress made toward other commitments. The United States is the only jurisdiction that has adopted legislation requiring exchange and electronic platform trading of standardised derivatives, and it is working toward putting in place implementing regulation.⁸ The European Commission has indicated that it expects, as part of amendments to MiFID, to require all OTC derivatives that are subject to the mandatory clearing obligation and that are sufficiently liquid (as determined by ESMA), to be executed on regulated markets, multilateral trading facilities (MTFs), or organised trading facilities (OTFs). The European Commission plans to propose the MiFID amendments in the second half of 2011 with the expectation they will be adopted in 2013. With the exceptions of Argentina and Brazil, whose derivatives markets already are dominated by exchange-traded derivatives trading and who do not plan to implement trading requirements, most jurisdictions have not yet determined the shape of any mandatory organised trading platform requirements, or whether there will be such a requirement. Several jurisdictions indicate that they will look to the regulatory frameworks adopted in the European Union and United States as well as the recommendations contained in the Trading Report. **Table 3** summarises the survey responses indicating the legislative and regulatory steps that have been taken in each jurisdiction to implement exchange and electronic platform trading, and the steps that remain to be taken.

⁷ Recommendations 13 and 14 of the October 2010 Report.

⁸ The United States will not require exchange or electronic platform trading of all OTC standardised derivatives. Swaps that are required to be cleared are required to be traded on an exchange or swap execution facility (SEF) if an exchange or SEF makes such swap available to trade. As mentioned above, the US Treasury has proposed exempting foreign exchange swaps and forwards from trading as well as clearing requirements.

Recommendation 14 of the October 2010 Report called on authorities to explore the benefits and costs of requiring public price and volume transparency of all trades, including for non-standardised or non-centrally cleared products that continue to be traded OTC. **Table 4** summarises FSB member responses regarding pre- and post-trade transparency for exchange or electronic platform-traded and OTC derivatives.

Implementation of organised platform trading

Given the lack of progress toward legislative and regulatory frameworks, implementation of organised platform trading is not as advanced as progress toward the other commitments. Until more is known, the FSB is unable to assess whether the G-20 commitment to organised platform trading will be fully achieved in practice in all FSB member jurisdictions. Based on survey responses that indicate basic decision-making is yet to be made in most jurisdictions, and what is known about current levels of organised platform trading, progress does not appear to be on track across jurisdictions to meet the G-20 commitment to exchange or electronic platform trading, where appropriate, of all standardised OTC derivatives by end-2012.

One metric to measure implementation of organised platform trading is set out in **Appendix V**. This metric measures the volume of standardised products traded on organised platforms versus the total volume of such standardised products. Currently, however, there is not a comprehensive source of data indicating how transactions are executed (*e.g.*, electronic or voice trading, or on multilateral or single dealer platform). Once fully implemented, TRs can serve as the source of this type of data if market participants are required to indicate the venue and nature of the transactions reported to TRs.

In the interim, the Standardisation Matrix may be a useful tool to evaluate the availability and take-up of organised platform trading. It highlights where exchanges or electronic platforms are available on which to trade, by product, and the percentage range of trades within the G-14 group of dealers executed on those platforms. While this information does not necessarily measure implementation of the G-20 commitment itself, it is a mechanism for authorities to begin to monitor usage of such platforms.

Monitoring the impact of any regulatory measures taken to require public price and volume transparency of OTC derivatives transactions also would be valuable to inform decisions on regulatory action in relation to mandatory organised platform trading. Potential monitoring could include, for example, an evaluation of the liquidity in products that are subject to such requirements, and the volumes trading in different locations, to evaluate whether market participants may be relocating their trading operations to avoid price and volume disclosure requirements.

1.4 Reporting to trade repositories

The FSB's October 2010 Report sets out five recommendations⁹ for implementing the G-20 commitment to reporting OTC derivatives contracts to TRs.

⁹ Recommendations 15 through 19 of the October 2010 Report.

Development of international standards and policy for TR reporting

CPSS and IOSCO published their *Report on OTC derivatives data reporting and aggregation requirements* for public consultation in August 2011 (Data Report).¹⁰ Among the Data Report's recommendations is the establishment of a universal Legal Entity Identifier (LEI) as well as the development of a standard product classification system for OTC derivatives, as key to supporting data aggregation on a global basis. The Data Report also identifies challenges faced in designing reporting requirements so that TRs can improve the availability of information to serve multiple official sector objectives, and calls on the FSB to explore viable options for addressing these challenges. It also calls for the FSB to assign responsibility for defining principles or guidance on authorities' access to the data held by TRs. These issues and the FSB's recommendations in relation to them are further discussed below (see page 18).

Legislative and regulatory framework for TR reporting

Brazil, Japan, and the United States have legislation requiring reporting of OTC derivatives transactions to a TR, which is an entity specifically defined in legislation.¹¹ The European Union expects legislation to be adopted by end-2011 putting in place a requirement to report OTC derivatives transactions to a legislatively-defined TR. Argentina, China and India have rules in effect requiring reporting of certain derivatives transactions to a TR-like platform.¹² A number of jurisdictions indicated in their survey responses that they would interpret derivatives transaction reporting to the central bank or other authority to fulfil the G-20 commitment to reporting to TRs. **Table 5** summarises the survey responses indicating the legislative and regulatory steps that have been taken in each jurisdiction to implement TR reporting requirements, and the steps that remain to be taken.

Implementation of TR reporting

Reporting of interest rate and credit derivatives to TRs is well advanced. DTCC has been selected by the industry to create a next generation TR for interest rate swaps. (TriOptima currently operates a TR for interest rate swaps.) DTCC also operates the TR for credit derivatives. The Equity Derivatives Reporting Repository (EDRR), operated by DTCC, was established in August 2010 and currently holds position level data. Going forward, EDRR is expected to be built out to support transaction level data in addition to position level data. Progress is also being made in the commodities asset class with the industry's June 2011 selection of EFETnet and DTCC Deriv/SERV LLC to jointly establish a global commodity derivatives TR. The initial phase, anticipated to be launched in the first quarter of 2012, will cover OTC financial oil contracts. DTCC and SWIFT were selected by industry in July 2011

¹⁰ The Data Report is available at: <http://www.bis.org/publ/cpss96.htm> and <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD356.pdf>.

¹¹ Japan and the United States also must adopt regulation for the reporting requirement to become effective. In Japan, non-standardised OTC derivatives transactions that are not accepted by a TR must be reported to the Japanese Financial Services Agency.

¹² The reporting requirements to TR-like platforms concern: in Argentina, OTC derivatives traded on the MAE electronic platform; in China, interest rate and foreign exchange derivatives reported to the Chinese electronic trading platform [and credit derivatives reported to the National Association of Financial Market Institutional Investors (NAFMII) if not executed on the Chinese electronic trading platform]; and in India, interest rate swaps and forward rate agreements reported on the CCIL platform.

to develop a TR for foreign exchange derivatives. Annex 1 to the Data Report provides detail on the current state of OTC derivatives reporting and access to information for the major existing TRs.

To assess the reporting of trades to a TR, the proposed metric set out in **Appendix VI** would measure the number of trades reported to a TR versus all trades. The inherent challenge in calculating this metric is ascertaining the number of all trades. Thus, in practice, this metric is unlikely to be able to be constructed, and the other measurements discussed in Appendix VI may prove more practicable. The FSB intends to examine which alternative measures usefully can be reported in the next progress report.

The FSB believes that a useful indicator of the comprehensiveness of TR reporting can be calculating by comparing the notional amounts outstanding by asset class reported in the BIS data with the amounts reported to TRs, as set out in **Appendix VI.a**. As applied to end December 2010 data, this indicator shows that reporting of interest rate and credit default swaps is very comprehensive. This indicator cannot be calculated for equity, commodity, and foreign exchange derivatives because TRs are only in the developmental phases for these asset classes. The FSB intends to use this indicator going forward to measure progress in levels of TR reporting.

1.5 Capital requirements

Recommendation 10 of the FSB's October 2010 Report addresses prudential requirements for non-centrally cleared OTC derivatives.

Development of international standards and policy for capital requirements

BCBS has agreed on a number of reforms of international standards to ensure appropriate risk coverage of banks' counterparty credit risk (CCR) exposures arising from OTC derivatives transactions as part of the Basel III capital framework published in December 2010. These revised capital requirements will take effect on 1 January 2013.

Basel III reforms concerning OTC derivatives strengthen the capital requirements for CCR exposures, including requiring banks to capture the market risk component of CCR, which was not previously required under Basel II. For non-centrally cleared OTC derivatives, banks will be subject to a credit valuation adjustment (CVA) charge. CVA is the mark-to-market value of CCR, *i.e.*, the adjustment that quantifies the potential loss caused by changes in the credit quality of the counterparty. Banks will not be required to hold capital for CVA risk for derivatives that are centrally cleared.

BCBS also proposed rules for capital requirements on bank exposures to CCPs in December 2010 for public consultation, and is undertaking a series of quantitative impact studies involving banks and CCPs. The rules are being refined, in consultation with CPSS and IOSCO, and BCBS will publish a second public consultation paper shortly. To ensure that capital charges appropriately reflect the higher risk of non-centrally cleared transactions, the BCBS also intends to conduct an impact study to compare the costs of non-centrally cleared and centrally-cleared trades. Final BCBS rules are expected to be released by end-2011 to permit implementation by end-2012 together with the other rules for CCR capital requirements. Additionally, BCBS, CPSS, IOSCO and CGFS are participating in a working

group to set margining standards for non-centrally cleared derivatives, with a consultative report expected in June 2012.

Legislative and regulatory framework for capital requirements

Nearly all FSB survey responses indicate that regulation will be in place applying higher bank capital requirements on non-centrally cleared derivatives. Many jurisdictions have also indicated that capital requirements for non-bank regulated entities will be changed to be higher for non-centrally cleared derivatives than for centrally cleared derivatives.

Implementation of higher capital requirements

As the BCBS framework is still being refined, it is too early for the FSB to assess whether further action might be needed to meet the reform objectives in this area and observe the impact of the rules on market behaviour. Furthermore, at present the FSB lacks information on whether timetables have been set to design and amend capital rules for non-centrally cleared derivatives applicable to non-bank regulated entities.

Once the Basel III rules on banks' exposures to CCPs are finalised, and information regarding capital and other requirements for non-bank regulated entities has been collected, the FSB should be better placed to take a view on actual progress in achieving the G-20 commitment to higher capital requirements for non-centrally cleared derivatives.

2. Issues raised in implementation

The FSB's first progress report in April 2011 stated: "Recognising that ultimately there will likely be a range of jurisdictional approaches taken, the FSB recommends that the focus in assessing progress going forward should be on: (i) assessing the degree to which commitment and objectives set by the G-20 are being met; (ii) highlighting areas where coordination of future steps toward achieving G-20 objectives are needed; and (iii) flagging where differences in approaches may foster or facilitate opportunities for regulatory arbitrage or subject market participants and infrastructures to conflicting regulatory requirements."

The FSB believes that any doubt should be removed over the applicability of the G-20 commitments relating to central clearing and reporting to TRs for standardised derivatives that are moved onto organised platforms (and therefore no longer traded "OTC"). Survey responses indicate some jurisdictions continue to review whether to mandate central clearing for these standardised derivatives. The FSB believes that any interpretation of the language of the G-20 commitment, which refers only to standardised "OTC" derivatives, to create a loophole so that such derivatives once moved onto organised platforms do not need to be centrally cleared or reported to trade repositories is clearly contrary to the spirit of the OTC derivatives reforms which are aimed at mitigating systemic risk. Such an interpretation also is contrary to the plain text of the G-20 statement ("[a]ll standardised OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, *and* cleared through central counterparties") (*emphasis added*). Furthermore, such an interpretation would create opportunity for regulatory arbitrage. The FSB recommends that all jurisdictions should confirm that standardised derivatives of the types which used to trade OTC should be centrally cleared and reported to TRs, irrespective of whether they continue to trade OTC or are moved onto organised platforms.

In addition, the FSB identifies below a number of specific issues related to the implementation of the G-20 commitments. The FSB has been aware from the outset that there is a risk that overlaps, gaps, or conflicts in legislative and regulatory frameworks, if not addressed, could compromise the achievement of the G20 objectives. The FSB will keep the issues that have been identified under review, and bring any overlaps, gaps, or conflicts which may prove detrimental to the G-20 objectives of OTC derivatives reforms to the attention of the FSB if there seems to be a risk that they will not be satisfactorily resolved through existing bilateral or multilateral channels.

2.1 Issues raised in implementation of central clearing

While most jurisdictions do not have legislation in place, the FSB has identified a number of potential inconsistencies across jurisdictions' implementation of central clearing. There are indications from survey responses of potential differences in the scope and application of central clearing requirements and exemptions. The FSB also has noted the potential for overlaps or conflicts in legislative and regulatory frameworks for the supervision and oversight of market infrastructure, and likely divergences in approach regarding the establishment of CCP location requirements. Due to the specific features of particular markets, complete consistency in all details of implementation of central clearing requirements is unlikely; work is needed to assess whether potential overlaps or conflicts

create opportunities for regulatory arbitrage or otherwise compromise the objective of mitigating systemic risk.

Scope of application of clearing requirements

Survey responses indicate that several jurisdictions intend to mandate central clearing only for certain asset class of OTC derivatives (for example, only interest rate and credit) or to exempt large portions of certain asset classes; however, as many jurisdictions have not made formal legislative or regulatory proposals, in many cases information about the shape of their requirements, and motivations for not covering all asset classes, is not yet known. **Table 6** sets out jurisdictions' survey responses regarding the applicability of central clearing requirements to asset classes, types of financial entities, and intra-group transactions.

Recommendation 8 of the October 2010 Report calls on authorities to appropriately tailor exemptions to mandatory clearing and not to grant exemptions where doing so could create systemic risk. Work is needed to assess whether the potential divergences identified in the scope of application of central clearing requirements are problematic from a systemic risk standpoint. In this regard, the FSB will look to the IOSCO report addressing coordination of central clearing requirements across jurisdictions expected in January 2012. As a key element of its work going forward, the ODWG will continue to actively monitor developments across jurisdictions and flag where these may be leading to opportunities for regulatory arbitrage or may have an impact on the effectiveness of central clearing implementation such that the objective of mitigating systemic risk is compromised.

Following is a description of proposed limitations in the scope of clearing requirements that have been identified, accompanied by the rationale provided by the proposing authority.

Foreign exchange swaps and forwards

Although most jurisdictions have not enacted legislative or regulatory frameworks mandating central clearing, some jurisdictions have indicated that they will mandate central clearing for all foreign exchange derivatives. Other jurisdictions have indicated that central clearing requirements are not likely to apply to foreign exchange swaps and forwards. For example, the US Treasury has proposed a determination under the Dodd-Frank Act that the central clearing and exchange trading requirements would not apply to foreign exchange swaps and forwards. Under the proposed determination, foreign exchange swaps and forwards will remain subject to the Dodd-Frank Act's TR reporting requirements and business conduct standards. In the proposed determination, the US Treasury noted that the foreign exchange swaps and forwards market operates with high levels of transparency: these instruments are heavily traded on electronic platforms, and market pricing information is readily available from a number of sources. Additionally, the US Treasury has cited a number of unique factors that limit the risk profile of foreign exchange swaps and forwards as compared to other derivatives: both parties are required to physically exchange the full amount of currency on fixed terms that are set at the outset of the contract; strong, internationally coordinated oversight has led to the establishment of a well-functioning settlement process that effectively addresses settlement risk, the predominant risk in the foreign exchange market; and foreign exchange swaps and forwards are predominantly short-term transactions. In the proposed determination, the US Treasury stated that mandatory central clearing for foreign exchange swaps and forwards could actually jeopardise current market practices that help limit risk and

ensure that the market functions effectively. The proposed determination does not extend to other foreign exchange derivatives, such as foreign exchange options, currency swaps, and non-deliverable forwards, which will be subject to clearing and organised platform trading requirements.

Intra-group transactions

Another area where some jurisdictions propose to limit mandatory clearing requirements concerns intra-group transactions. Intra-group transactions may be used for centralised group risk management. Proposed EU legislation envisages that derivatives transactions entered within a group of financial firms, non-financial firms or a mix of financial and non-financial firms would be exempt from the central clearing obligation. This is because requiring clearing of intra-group transactions could substantially increase the capital and liquidity required by firms that centralise risk management in certain entities as well as increase operational complexity. However, the proposed EU legislation envisages that intra-group exempted transactions will be subject to bilateral collateralisation unless two conditions are met: there is no current or foreseen practical or legal impediment to the prompt transfer of own funds and repayment of liabilities between the counterparties, and the risk management procedures of the counterparties are adequately sound, robust, and consistent with the level of complexity of the derivative transactions. Other jurisdictions, including the US, have indicated that an exemption for intra-group transactions is under review.

Participant exemptions

Participant exemptions also are expected to be implemented in several jurisdictions. Non-financial end-users are expected to be exempted from mandatory clearing obligations in most jurisdictions, including the European Union and United States. Some jurisdictions may exempt other types of participants, including some financial entities. The CFTC and SEC are required under the Dodd-Frank Act to consider whether to exempt certain small financial institutions, including those with total assets under \$10 billion, from the mandatory clearing requirements for swaps and security based swaps. The proposed EU legislation envisages a temporary exemption from central clearing for OTC derivatives contracts entered into with a view to decreasing investment risks related to the financial solvency of pension schemes arrangements. This exemption is envisaged for a pre-defined transitional period. The rationale provided for the proposed exemption is that many entities operating pension scheme arrangements are obliged to hedge their risks, including via interest rate and inflation derivatives, but typically minimise their allocation to cash in order to maximise efficiency and the return for their policy holders. Hence, requiring them to clear OTC derivatives contracts centrally would require them to divest a significant proportion of their assets for cash in order for them to meet the ongoing variation margin requirements of CCPs. The European Union has proposed that, to avoid a likely negative impact of such a requirement on the retirement income of future pensioners, the clearing obligation not apply to pension schemes until a suitable technical solution for the transfer of non-cash collateral as variation margins is developed by CCPs to address this problem. During the transitional period, bilateral collateralisation requirements will apply to the OTC derivatives contracts covered by the exemption.

Another type of participant exemption under discussion concerns central banks and other public entities. Under the proposed EU legislation, members of the European System of

Central Banks, multilateral development banks, the BIS, the European Financial Stability Facility and another few specific public sector entities would be exempt from central clearing, bilateral risk management, and reporting requirements. The rationale provided by the European Commission for this exemption is to avoid limiting these institutions' power to perform their task of common interest, and because such institutions are not considered to pose counterparty credit risk.

Potential overlaps or conflicts in regulation of market infrastructures

The October 2010 Report recommends that CCPs that clear OTC derivatives and TRs should be subject to robust and consistently applied supervision and oversight on the basis of regulatory standards that, at a minimum, meet evolving international standards developed jointly by CPSS and IOSCO. The principles for financial market infrastructures (FMIs), including CCPs and TRs, which have been issued for consultation by CPSS and IOSCO, are expected, when finalised, to provide a means for ensuring a robust global level of consistency across the jurisdictions that implement them. Overlaps and conflicts nevertheless may arise between jurisdictions in their adoption of legislative and regulatory frameworks for oversight of FMIs. In this regard, the FSB welcomes the continuing work in CPSS and IOSCO to address cross-border cooperation and oversight issues, and the discussions taking place in bilateral and multilateral fora. As a key element of its work going forward, the ODWG will continue to actively monitor the adoption of jurisdictional legislative and regulatory frameworks for oversight of FMIs, and bring any overlaps or conflicts that may prove detrimental to the G-20 objectives of OTC derivatives reforms to the attention of the FSB, particularly if there seems to be a risk that such overlaps or conflicts will not be satisfactorily resolved through existing bilateral or multilateral channels.

CCP location requirements

Survey results indicate that some jurisdictions may require transactions in certain derivatives to be cleared through a CCP located within their domestic jurisdiction. **Table 7** sets out survey responses regarding CCP location requirements. The imposition of a CCP location requirement is likely to be a factor influencing whether OTC derivatives central clearing infrastructure likely will be more fragmented across domestic or regionally-focused CCPs or more centralised in a smaller set of global CCPs. Current CGFS work by a Study Group on the macro-financial implications of alternative CCP access configurations suggests that different infrastructure configurations will have different impacts on efficiency and stability. Decisions about configurations may affect the market structure in some jurisdictions due to particular features, such as stage of development, or location in a particular currency area. The FSB will continue to survey jurisdictions regarding establishment of CCP location requirements, and will flag where such requirements may have an impact on the implementation of central clearing in light of the G-20 objective of mitigating systemic risk.

Supervision and oversight challenges

Authorities have a role beyond implementation of legislative and regulatory frameworks in ensuring that the objectives of increasing transparency, mitigating systemic risk, and protecting against market abuse are met. It will be critical for authorities to ensure that appropriately tailored and effective supervision is in place. International coordination on

implementing effective crisis management as well as robust resolution arrangements for CCPs should continue.

As CCPs extend support to more complex products and broaden their services to more participants with potentially varying business models and capabilities, the complexity of governance and risk management challenges will increase. Authorities need adequate resources and staff members with advanced skill sets to oversee implementation of clearing products that have not been cleared before. International guidance and cooperation between authorities also are needed to address these supervision and oversight challenges. In this regard, work is being taken forward by CPSS and IOSCO to further develop standards for effective cooperation and coordination on oversight arrangements and information sharing among relevant authorities for FMIs.

2.2 Issues raised in implementation of organised platform trading

The primary issue raised regarding organised trading is that development of legislative and regulatory frameworks is markedly behind the progress made toward other commitments. Based on survey responses, it appears that some jurisdictions are likely not to mandate organised platform trading for any standardised OTC derivatives, and in those jurisdictions that will require organised platform trading, early indications are that there will be divergent approaches taken. One aspect likely to differ across regimes is whether qualifying platforms will be required to provide for multi-dealer functionality or whether single-dealer functionality will be permitted. Another likely difference is whether pre- and/or post-trade transparency requirements are put in place, and if so, their scope and application. Different approaches may have different impacts on market operation or the efficiency of the price formation process, and opportunities for regulatory arbitrage may arise.

2.3 Issues raised regarding TR reporting

The Data Report raised several issues, including the risk that TRs will not provide effective access to comprehensive OTC derivatives trade data that can be readily aggregated on a global basis unless further internationally coordinated action is taken. Continued inability to aggregate and analyse OTC derivatives transaction data on a global basis would mean that the usefulness of TRs for financial stability and systemic risk analysis would be severely limited.

The FSB notes that the intentions of some jurisdictions to substitute reporting to the central bank or other governmental authority in place of reporting to an entity specifically designated as a TR; and/or impose requirements that reporting take place to a TR located within that jurisdiction; and/or offer the ability to report to more than one TR per asset class located within that jurisdiction may lead to the development of multiple sources of data per asset class. Data contained in TRs and central banks or other governmental authorities needs to be able to be readily aggregated for the purposes of analysis on a global basis in order to ensure that such potential fragmentation is not problematic. Effective and practical cross-border access to data, whether reported to industry-operated TRs or to governmental authorities, needs to be assured. For example, in Hong Kong, a legislative and regulatory framework is being put in place to require reporting to a TR operated by the HKMA through the Central Money Markets Unit. The future regulatory framework will address the sharing of information stored in the TR with overseas authorities. The HKMA's TR also will follow

international standards on reporting and data format, which will facilitate the aggregation of data on a global basis.

The lack of progress in addressing legal barriers to the collection and dissemination of data has the potential to seriously undercut the usefulness of TR data. Authorities need to have ongoing discussions with their respective market participants to identify any challenges to reporting comprehensive and complete derivatives transaction details to TRs, including challenges that may arise due to confidentiality restrictions or privacy law. Jurisdictions should ensure that any barriers to the full reporting of data to TRs are removed or addressed in relevant legislation. For example, the European Union's EMIR proposal eliminates barriers to full reporting by overriding privacy and confidentiality law and requiring that all relevant data must be reported. Furthermore, practical and effective access must be assured, including on a cross-border basis, to the data held in TRs that authorities require to carry out their respective regulatory mandates. In this regard, CPSS and IOSCO have asked the FSB to assign responsibility to a particular body or group to recommend principles and guidance concerning public authorities' access to TR data.

In response to the calls of CPSS and IOSCO for input in regard to these issues, the FSB advocates:

- setting up a small *ad hoc* experts group, organised by the FSB, to define from the “demand side” what data is needed to bridge data gaps, including what data efficiently could be provided by TRs, for (i) assessing systemic risk and financial stability; (ii) supervising market participants; and (iii) conducting resolution activities;
- that CPSS and IOSCO, coordinating with relevant authorities, take forward work on authorities' access to TR data, taking into account data security needs and building on work that has been done by ODRF; and
- strong support for further work on the LEI and the industry development of a standard product classification system in consultation with relevant regulatory bodies.

2.4 Issues raised regarding capital requirements

Some aspects of the BCBS capital framework for counterparty credit risk exposures, in particular as it relates to banks' exposures to CCPs, are still being finalised. Uncertainties will remain until finalisation of the framework as to the nature of the capital incentives for derivatives to be cleared on CCPs rather than to be non-centrally cleared. BCBS, CPSS, and IOSCO are consulting each other to ensure that incentives are appropriately set.

Meanwhile, there is little information at present on likely capital requirements for non-bank regulated entities.

The FSB will continue to monitor developments in this area to ensure that reform objectives are being met.

2.5 Issues raised regarding standardisation

Although data and metrics are available to measure the level of automation, an element of operational process standardisation, for some asset classes (see Appendix II), challenges remain in measuring progress in other aspects of standardisation in OTC derivatives markets. Recommendation 5 of the October 2010 Report sets out the factors to be considered in determining whether an OTC derivative product is standardised and therefore suitable for central clearing. So far, no simple metrics or other straightforward means have been developed to measure overall standardisation on a per-product basis. In the absence of precise quantitative measures, it may be difficult to measure progress in standardisation taking into account the factors set out in Recommendation 5 over time.

Improved standardisation matrices could provide a useful tool to identify products that may warrant consideration for central clearing, although the matrices alone would clearly be insufficient for purposes of determining clearing suitability. The FSB welcomes the publication of the Standardisation Matrix, with supporting asset class-specific narratives and aggregate data, which may serve as a useful tool to evaluate how levels of standardisation evolve over time, and better inform authorities and market participants of developments in the derivatives market.

3. Conclusion

The FSB believes that the highest current priority in implementation of OTC derivatives markets reforms is to increase the pace of legislative and regulatory action to ensure that frameworks are in place as soon as possible. Jurisdictions should aggressively push forward to meet the end-2012 deadline in as many areas as possible, including accelerating jurisdictional policy decision-making with regard to organised platform trading.

The European Union and United States, the jurisdictions with authority over the largest and most developed OTC derivatives markets, are well into the process of establishing legislative and regulatory frameworks. Many jurisdictions have indicated that final decisions on domestic legislative frameworks will look to the international baseline established once EU and US legislation and implementing regulations are in place and international standards are finalised. Only a small minority of jurisdictions either have pre-existing frameworks or have adopted legislative reforms and are working on implementing regulations. To meet the end-2012 deadline, it is important that all jurisdictions do as much as they can without waiting for finalisation of approaches in the largest markets.

To ensure consistency in implementation, and avoid overlaps, gaps, and conflicts in legislative and regulatory frameworks that may risk compromising reform objectives, specific overlaps, gaps, and conflicts should continue to be discussed, as a matter of priority, bilaterally between or multilaterally among jurisdictions. Solutions also should come through consistency across jurisdictions in application of international standards that either address such issues directly or set out processes and expectations for international cooperation between authorities. As a key element of its work going forward, the ODWG will continue to actively monitor the consistency of implementation, and bring any overlaps, gaps, or conflicts to the attention of the FSB that may prove detrimental to the G-20 reform objectives of increasing transparency, mitigating systemic risk, and protecting against market abuse, particularly if there seems to be a risk that such overlaps, gaps, or conflicts will not be satisfactorily resolved through existing bilateral or multilateral channels.

With the end-2012 deadline rapidly approaching, the FSB is committed to maintaining its intense focus on monitoring and assessing the adequacy of progress being made to fully and consistently implement the G-20 commitments through the development of international standards and policies, the adoption of legislative and regulatory frameworks, and changes in market structures and activities. Collecting useful and comprehensive qualitative and quantitative data to carry out this monitoring function requires significant effort. Until reporting to TRs and other reforms have been fully implemented, alternative sources of data and metrics need to be identified for tracking progress toward achieving the G-20 commitments. The FSB will seek enhanced reporting by FSB members in future FSB surveys. Market participant contributions, particularly from financial market infrastructures, also will be critical to understanding changes in the marketplace. The FSB intends to focus as a matter of priority on improving the data that it collects, uses, and presents in future reports in its assessment of implementation progress.

Appendix I: International Policy Development Timeline

Commitment(s)	Action	Responsible	Status
Central clearing	Report on the macro-financial implications of alternative configurations for access to CCP in OTC derivatives markets	CGFS	For discussion November 2011 (with a view to subsequent publication)
Central clearing	Revision of the BCBS Supervisory guidance for managing settlement risk in foreign exchange transactions (2000)	BCBS and CPSS	Consultative report by end-2011
Central clearing	Report on international standards to address coordination of central clearing requirements with respect to products and participants (and any exemptions from clearing requirements)	IOSCO (working with other authorities as appropriate)	January 2012
Central clearing, Reporting to trade repositories	Principles for financial market infrastructures (FMIs), including derivatives CCPs and trade repositories Results of follow-up work being conducted during the consultation period may be incorporated into the final report on principles for FMIs. Follow-up work to cover: 1. access and links 2. resolution 3. development of standards/principles for effective cooperation and coordination on oversight arrangements and information sharing among the relevant authorities for FMIs (including trade repositories and CCPs)	CPSS and IOSCO (working with other authorities as appropriate)	Consultative report published March 2011 Final report by early 2012
Central clearing	International standards on margining for non-centrally cleared derivatives	BCBS, IOSCO, CPSS, CGFS Working Group	Consultative report by June 2012
Exchange and electronic platform trading	Report on trading of OTC derivatives	IOSCO	Final report published February 2011

Exchange and electronic platform trading	Stock-taking on use of multi-dealer and single dealer trading platforms for OTC derivatives	IOSCO	December 2011
Reporting to trade repositories	Report on OTC derivatives data reporting and aggregation requirements	CPSS and IOSCO	Consultative report published August 2011 Final report by end-2011
Reporting to trade repositories, Central clearing	Development and implementation of frameworks for effective cooperation and coordination on oversight arrangements and information sharing among the relevant authorities for individual trade repositories and systemically important OTC derivatives CCPs	ODRF	No timetable set (ongoing)
Capital requirements	Regulatory capital adequacy rules for capitalisation of both trade and default fund exposures to CCPs	BCBS	Consultative report published December 2010 (2 nd consultation on rules for banks' exposures to CCPs shortly) Final rules by end-2011
Standardisation, Central clearing	Roadmap of industry initiatives and commitments along four thematic objectives: (1) increasing standardisation, (2) expanding central clearing, (3) enhancing bilateral risk management, and (4) increasing transparency	ODSG	Strategic Roadmap published March 2011 Specific milestones starting from 30 April 2011 through early 2012
Commodity derivatives	Report on principles for the regulation and supervision of commodity derivatives markets	IOSCO	Final report published September 2011

Appendix II: Metrics to measure operational process standardisation¹³

The ODSG has developed three sets of electronic eligibility metrics to track levels of operational process standardisation in the OTC derivatives market:

Metric 1 ("Electronically processed")	$\frac{\text{Electronic volume}}{\text{All volume}}$	Measures the extent to which the entire population of transactions are confirmed electronically on a flow basis
Metric 2 ("Electronically eligible: electronically processed")	$\frac{\text{Electronic volume}}{\text{Eligible volume}}$	Measures the extent to which the volume of transactions which are eligible to be confirmed electronically are actually processed electronically on a flow basis
Metric 3 ("Electronically eligible")	$\frac{\text{Eligible volume}}{\text{All volume}}$	Measures the extent to which the entire population of transactions are eligible to be confirmed electronically on a flow basis

¹³ The terms "electronic processing," "confirmation," and "matching" are used interchangeably throughout the appendices.

Appendix II.a: Recent data on operational process standardisation

Table II.a.1 presents G-14 data calculated using Metric 1. The percentage has been calculated by dividing the electronically processed volume (representing transactions executed bilaterally and processed on electronic confirmation platforms (*i.e.* confirmed)) by the total volume (representing the total transaction volume reported by the G-14 dealers with their respective counterparties). The electronically processed volume as a percentage of the total volume provides an indication of the population of electronically confirmed trades as compared with all transactions. Table II.a.2 presents data calculated using Metric 2. The percentage has been calculated by dividing the electronically processed volume by transactions included within the G-14 definition of “eligible” which varies according to asset class. Data in both tables provide an indication of the overall level of automation and is one metric used to consider the level of standardisation in each of the asset classes. For each of the 3 metrics, a higher percentage indicates a greater level of process standardisation with respect to electronic confirmation and indirectly indicates residual opportunities for further electronic processing of transaction volumes.

Table II.a.1 – Metric 1

Electronic processing of OTC derivatives contracts by asset class and product type¹

Asset class – product type	Electronically processed volume	
	as of June 2010	as of June 2011
Interest Rates	78.0%	84.1%
Credit	98.8%	98.8%
Equity	33.3%	40.1%
Commodities – Energy	79.1%	76.5%
Commodities – Metals	64.2%	69.1%
Commodities – Other	37.1%	25.4%
FX – Non-Deliverable Forwards	75.6%	89.2%
FX – Vanilla Non-Deliverable Options	46.5%	69.6%
FX – Simple Exotic Options	8.9%	22.6%

¹ The year-over-year decline in electronic processing of energy and other commodity derivatives can be attributed to temporary shifts in the products traded by the G-14 dealers and the mix of counterparties they transacted with. June 2011 data is included to provide a comparison to June 2010 data presented in the October 2010 Report.

Table II.a.2 – Metric 2

Asset class – product type	Electronically eligible volume that was electronically processed
	as of June 2011
Interest Rates	89.8%
Credit	99.8%
Equity	87.5%
Commodities – Energy	83.5%
Commodities – Metals	75.8%
Commodities – Other	59.5%
FX – Non-Deliverable Forwards	90.4%
FX – Vanilla Non-Deliverable Options	79.5%
FX – Simple Exotic Options	39.6%

Table II.a.3 presents data calculated using Metric 3, which measures electronic eligibility, that is, the availability of third party mechanisms (*e.g.*, electronic confirmation platforms) to automate operational processes. The percentage has been calculated by dividing the transactions included within the G-14 definition of “eligible” which varies according to asset class by total volume (representing the total transaction volume reported by the G-14 dealers with their respective counterparties).

Table II.a.3 – Metric 3

Asset class – product type	Electronically eligible volume
	as of June 2011
Interest Rates	93.6%
Credit	99.0%
Equity	45.9%
Commodities – Energy	91.6%
Commodities – Metals	91.2%
Commodities – Other	42.7%
FX – Non-Deliverable Forwards	98.7%
FX – Vanilla Non-Deliverable Options	87.6%
FX – Simple Exotic Options	57.1%

Appendix III: Standardisation matrix

The Standardisation Matrix is a tool developed by the ODSG and major market participants to benchmark existing levels of product and process standardisation for OTC derivatives by asset class, identify areas for further progress, and monitor how levels of standardisation evolve over time using quantitative and qualitative information. Three derivatives asset classes (credit, equity, and interest rates) have developed Standardisation Matrices in accordance with a 2010 industry commitment to the ODSG; Standardisation Matrices for two other asset classes (commodities and foreign exchange) are currently under development. In the interest of providing greater transparency around levels of standardisation to the public and private sector, market participants recently have agreed to the public release of the 2010 Standardisation Matrices for credit, interest rates and equity derivatives.

The G-14 dealers have populated the three Standardisation Matrices with a combination of absolute numbers (*e.g.* for transaction count and notional amounts) and percentage ranges (*e.g.* for trading venue and electronic confirmation) which provide indicative levels of standardisation by product and process as of June 2010. Each Standardisation Matrix is accompanied by a narrative that documents relevant terms and concepts, and a link to these documents is provided herein for reference: <http://www2.isda.org/G20objectives>. Enhanced versions of the Standardisation Matrices populated with data as of 30 June 2011 were delivered on 30 September 2011 to the ODSG in accordance with the Strategic Roadmap.

The Standardisation Matrix comprises *rows* for categorizing groups of products in each asset class. The matrix also comprises *columns* for categorizing key functional areas pertinent to product and process standardisation, such as the availability and use of standardised documentation, electronic processing platforms, and trading venues. For each product grouping, the matrix includes information on the availability of standard processes (*e.g.*, electronic confirmation platforms) and the take-up and use of such standard processes. As an example, the Standardisation Matrix for credit shows that electronic confirmation platforms are both available and being used in large proportion (90-100%) for iTraxx Europe Index CDS. This indicates that the transaction documentation and operational processes supporting this product grouping have achieved a meaningful level of standardisation, and that market participants are availing themselves of these standardised products and processes.

The Standardisation Matrix also provides information on the usage of different types of trading platforms by product. Appendix V sets out how this information can be analysed in relation to measuring the usage of organised trading platforms. It should be noted, however, that the Standardisation Matrix construct is only intended to provide an approximation of standardisation at a point in time, rather than a representation of eligibility for the central clearing or organised platform trading of a product. Liquidity and availability of pricing (two supplemental, yet critical criteria recognised by the FSB) are not captured in the Standardisation Matrices.

Appendix IV: Metrics to measure central clearing of standardised derivatives

The ODSG has developed two sets of metrics that may be used to measure and monitor central clearing of standardised OTC derivatives:

Metric 4 ("Eligible cleared")	$\frac{\text{Volume of standardised transactions cleared}}{\text{Volume of transactions in clearable instruments}}$	Measures the number of transactions cleared over some time period as a proportion of the number of transactions in "clearable" instruments (numerator and denominator each defined by asset class) over the same time period, expressed in percentage terms.
Metric 5 ("Cleared")	$\frac{\text{Volume of standardised transactions cleared}}{\text{Volume of transactions in all instruments}}$	Measures the number of transactions cleared over some time period as a proportion of the number of transactions in "all" instruments (numerator and denominator each defined by asset class) over the same time period, expressed in percentage terms.

In order to utilise these metrics, however, several data challenges need to be addressed, the keys to which are sourcing needed data and resolving definitional issues.

The further development of centralised infrastructures (CCPs and TRs), including requiring reporting to TRs and minimum content standards, will facilitate the ability to calculate these metrics. There are some challenges however with using data from such infrastructures. These include definitional challenges, such as establishing a universally applicable definition of "clearable" or "all" instruments. For example, the definition of "clearable" used by the industry in its credit clearing commitments to the ODSG depends on both counterparties being members of such CCP. Currently, CCPs offer certain products for clearing but only to a limited set of market participants that meet certain criteria. Further difficulties arise when considering how to aggregate across jurisdictions whose definitions of "clearable" may differ. Furthermore, because there are currently multiple infrastructures that serve as data sources in most asset classes, it is difficult to determine the full population of "clearable" transactions for the denominator in Metric 4. Calculating the numerator of these metrics is less challenging, since each individual CCP can reasonably be expected to provide comprehensive and relevant data.

The currently voluntary nature of reporting transactions to TRs in each asset class results in available data being reflective only of a subset of the market. This impacts, for example, the ability to accurately identify the full population of transactions for the denominator in Metric 5. Currently, the BIS conducts a triennial survey which provides an indication of the size of the overall market. While this data could be used as a proxy given that it covers reporting from major market participants in each of 47 jurisdictions (in the 2010 report),

without obtaining the data for the metric from the same sources for the numerator and denominator, it is difficult to know if the metric is ultimately measuring the correct dataset.

While already serving as useful sources of data to both the public and private sectors, TRs are expected to become more valuable sources of data as they develop, so they should contain more comprehensive data by end-2012.

With respect to Metric 4, the clearing process in some asset classes (such as credit) nets down or “compresses” transactions when they are submitted to the CCP for clearing. This process distorts the calculation intended by the ratio of “cleared” to “clearable” volume, because the notional amounts of the transactions submitted (which make up part of “clearable” volume) are reduced before clearing occurs, so that “cleared” volume does not precisely measure how much of “clearable” volume is being subject to the clearing process. To obtain such an accurate picture it may be necessary to supplement Metric 4 with numbers that account for the volumes of transactions that get compressed before being cleared. Developing a uniform method to collect data may sufficiently address these particular challenges.

Until reporting to TRs is mandated and TRs themselves are more fully developed, data to calculate these metrics also might be sourced from individual market participants. Another source of interim high-level information on clearing eligibility may be found in the credit and interest rates Standardisation Matrices which identify where at least one transaction in any sub-product/region combination is available for clearing. For example, using the case described in Appendix III, the Standardisation Matrix reveals that iTRAXX Europe Index CDS are currently available for clearing. Once market participants are required to centrally clear transactions, it can reasonably be expected that individual market participants will capture data that indicates their compliance with clearing requirements, in order to ensure they are meeting the requirements set forth in law or regulation. Their internal data could therefore be leveraged to calculate the overall percentages of the market, by asset class, which are cleared for individual jurisdictions.

Appendix IV.a: Recent data on central clearing of OTC derivatives

Table IV.a.1 sets out estimated percentages of current outstanding notional of interest rate and credit derivatives cleared on a CCP. The analysis is not limited to standardised derivatives and accordingly the statistics for Total Notional Outstanding includes data for non-standardised products.

Estimated percentages of major OTC derivatives asset classes and products on CCPs

	Total notional outstanding (USD equivalents in billions)	Notional outstanding on a CCP (USD equivalents in billions)	Percentage of total on a CCP
Interest rate derivatives ¹	395,304	134,113	34%
– Interest rate swaps	214,472	104,913	49%
– Basis swaps	19,286	2,405	13%
– Overnight index swaps	50,244	26,796	53%
– Other	111,302	NA	NA
Credit default swaps ²	27,046	3,107	11%
– Multi name	12,185	1,994	16%
– Single name	14,861	1,113	7%
Equity ³	5,635	NA	NA
Commodity ³	2,922	NA	NA
Foreign exchange ³	57,798	NA	NA

¹ To ensure that the total notional outstanding amounts are comparable with outstanding volumes for other non-centrally cleared derivatives, the presented numbers have been adjusted to include only one contract for every two contracts booked with a CCP. The adjusted notional outstanding on a CCP has been calculated by dividing in half the gross notional outstanding on a CCP (as reported by TriOptima in its Table II b). The adjusted total notional outstanding has been calculated by deducting the adjusted notional outstanding on a CCP from the gross notional outstanding, as reported by TriOptima in its Table II a, to arrive at a single-sided equivalent adjusted total outstanding. This data is from TriOptima as of 1 July 2011 and is available at: <http://www.trioptima.com/repository/historical-reports.html>.² For credit default swaps (CDS), “Total notional outstanding” has been adjusted to capture only one side of each position for all live Confirmed Certain trades in the Trade Information Warehouse as of specified date minus the double counting of positions for each dealer to dealer cleared trade and triple counting for each dealer to client trade. Similarly, “Notional outstanding on a CCP” for CDS has been adjusted to eliminate the double and triple counting for trades novated to the CCP. DTCC’s Trade Information Warehouse is the source of the CDS data presented. CDS data reflects only transactions with “gold records” at the Trade Information Warehouse and does not include transactions with “copper records” kept by the Warehouse. A “gold record” of a contract is the official, legally binding record that is electronically confirmed by both counterparties via DTCC and stored in the Warehouse. For “gold records,” DTCC performs automated record keeping to maintain the current state of the contract terms, taking into account post-trade events. “Copper records” are single-sided records and are non-legally binding, but are stored in the Warehouse for the purpose of regulatory transparency. Copper records are generally non-standardised transactions. ³ Total notional outstanding as of 31 December 2010 from BIS statistics available here: http://www.bis.org/publ/otc_hy1105.pdf.

Table IV.a.2 presents counterparty clearing information for current outstanding credit derivatives, as well as information on the clearing of new trades in the first six months of 2011.

Credit default swaps

Position (stock) data (as of 17 June 2011)

In billions of US dollars

Participant	Product	Adjusted gross notional ¹	Adjusted gross notional on a CCP ²	Percentage on a CCP
Dealer to dealer	Single names	10,802	1,113	10%
	Index	6,536	1,992	30%
Dealer to non-dealer	Single names	4,059	–	0%
	Index	5,649	2,181	0%
Total		27,046	3,107	11%

Volume (flow) data (20 December 2010 through 17 June 2011)

In billions of US dollars

Participant	Product	Gross notional all market risk activity ³	Adjusted “new” cleared trades on CCP ⁴	Percentage on a CCP
Dealer to dealer	Single names	2,327	650	28%
	Index	7,172	3,953	55%
Dealer to non-dealer	Single names	1,389	–	0%
	Index	3,569	3	0%
Total		14,459	4,605	32%

¹ “Adjusted gross notional” represents one side of each position for all live Confirmed Certain trades in the Trade Information Warehouse as of specified date minus the double counting of positions for each dealer to dealer cleared trade and triple counting for each dealer to client trade. ² “Adjusted gross notional on a CCP” represents one side of each position facing a CCP for all live Confirmed Certain trades in the Trade Information Warehouse as of specified date minus the double counting of positions for each dealer to dealer cleared trade and triple counting for each dealer to client trade. ³ “Gross notional all market risk activity” refers to all transactions that change the risk position between two parties. This includes New trades, Same Day cleared trades, Terminations of existing transactions, and assignments of existing transactions to a third party. This excludes transactions which did not result in a change in the market risk position of the market participants, and are not market activity. For example, central counterparty clearing of existing bilateral trades and portfolio compression both terminate existing transactions and re-book new transactions or amend existing transactions. These transactions still maintain the same risk profile and consequently are not included as “market risk transfer activity” transactions. Additionally, this analysis excludes transactions such as amendments, intra-family trades and double counting of prime brokerage activity. ⁴ “Adjusted “new” cleared trades on CCP” refers to All New Confirmed Certain Trades submitted by a CCP. This includes Same Day Trades, Backloaded Trades (previously bilaterally executed) and Replacement Cleared Trades. Replacement trades are those which replace the Terminations from Clearing Compression. This number is then adjusted to remove double counting of positions for each dealer to dealer cleared trade and triple counting for each dealer to client trade.

Appendix V: Metrics to measure organised platform trading of standardised derivatives

The ODSG has developed the following metric that may be used to measure trades that are traded on exchanges and electronic trading platforms (organised platforms):

Metric 6 ("Organised platform traded")	$\frac{\text{Standardised volume traded on organised platforms}}{\text{All standardised volume}}$	This metric would be calculated by OTC derivatives product, such that the volume numbers would be for a specific product (defined individually by product on a flow basis).
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As with metrics for central clearing, in order to utilise these metrics, however, several data challenges need to be addressed, the key to which is sourcing needed data.

Currently, there is not comprehensive data indicating how transactions are executed (*e.g.*, electronic or voice trading). The further development of TRs, combined with requiring reporting to TRs and minimum content standards, may facilitate the ability to calculate this metric if market participants are required to indicate the venue of execution for transactions reported to TRs.

As described in Appendix III, the June 2010 Standardisation Matrices include percentage ranges for products that are available for trading bilaterally/multilaterally by voice and electronically by single and/or multi-dealer platforms. Notwithstanding the limitations of the data previously mentioned, the Standardisation Matrices provide a foundation for benchmarking and ongoing analysis of the level of various methods of trading in each asset class.

Using the example from Appendix III, the Standardisation Matrix shows that iTRAXX Europe Index CDS have achieved a meaningful level of standardisation, and market participants are availing themselves of these standardised products and processes in large proportion (90-100%). Notwithstanding the high level of operational process standardisation and the fact that central clearing is available for iTRAXX Europe Index CDS, the Standardisation Matrix also reveals low usage of electronic trading platforms for these products. It shows that only 10-20% of iTRAXX Europe Index CDS is traded on multilateral trading facilities; 0-10% on single dealer platforms; and 60-70% is traded bilaterally by voice.

It should be noted that the Standardisation Matrix construct is only intended to provide an approximation of standardisation at a point in time, rather than a representation of eligibility for the central clearing or electronic trading of a product. Liquidity and availability of pricing (two supplemental, yet critical criteria recognised by the FSB) are not captured in the Standardisation Matrices.

Appendix VI: Reporting to trade repositories of OTC derivatives transactions

The ODSG has developed the following metric that may be used to measure the percentage of transactions that are reported to TRs:

Metric 7 (“TR reported”)	$\frac{\text{Transactions reported to TRs}}{\text{All transactions}}$	Measures the percentage of trades reported to TRs (snapshot)
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The ideal metric for measuring progress to the G-20 commitment of reporting to TRs, is measuring the transactions reported to TRs versus all transactions. Achievement of the G-20 commitment would be reflected by a figure of 100%. This metric could be calculated either on an asset class basis or in aggregate by jurisdictions or the FSB.

The further development of TRs, combined with requiring reporting to TRs, will facilitate the ability to calculate this metric. The data, particularly for the numerator would be sourced directly from the TRs themselves. The inherent challenge in calculating this metric is ascertaining the number of all transactions for the denominator. In addition, data reported to other entities in place of reporting to an entity specifically designated as a trade repository (*e.g.*, a central bank), would need to be aggregated with data in the TRs.

Since market participants would be unlikely to report to authorities that they are not reporting transaction data to TRs (particularly in jurisdictions where market participants would be required to report to TRs), it may be more efficient to rely on some of the OTC derivatives surveys such as those conducted by the BIS or ISDA (although these surveys also have their limitations).

Given the difficulties in relying on incomplete reporting data for a metric on data reporting, the following measurements may provide additional information regarding progress in the interim:

- The number of jurisdictions that have requirements in place for reporting to TRs to achieve the G-20 commitment and those which are in effect.
- The percentage of market participants (and the percentage of trades) that are in compliance with the requirements.

In conjunction with these measurements, it would be important to understand how frequently market participants are examined for compliance with trade reporting requirements.

On a jurisdictional level, particularly in smaller jurisdictions, it may be easier to measure the above metric as authorities may be able to examine their own market participants to evaluate whether they have submitted all of their trades to the TRs.

Appendix VI.a: Recent data on reporting to trade repositories of OTC derivatives transactions

The table below provides an indicator of the comprehensiveness of reporting to TRs by asset class and product. This indicator compares the notional amounts outstanding of derivatives reported to the BIS with the notional amounts of derivatives that have been reported to TriOptima (in the case of interest rate derivatives and currency swaps) and the Trade Information Warehouse (TIW) (in the case of credit derivatives).

The Equity Derivatives Reporting Repository (EDRR), operated by DTCC, has been operational since August 2010, but does not publish statistics on the notional outstanding amounts of equity derivatives reported to it. EDRR public reporting is expected to be available by end-2011.

The TIW, also operated by DTCC, regularly publishes the notional amount of electronically confirmed credit default swaps reported to it (so-called "gold" records). Non-electronically confirmed transactions, generally understood to be non-standardised transactions, also are reported to the TIW within firms' position data (so-called "copper" records). As of 31 December 2010, the notional outstanding represented by copper records reported to the TIW was 3.7 billion US dollars.

Global OTC derivatives market

Notional amounts outstanding, in billions of US dollars
31 December 2010

	BIS	Trade repository	%
Grand total	601,048	497,907	82%
Foreign exchange contracts	57,798	NA	NA
Currency swaps	19,271	9,305 ¹	48%
Interest rate contracts	465,260	463,052	100%
FRAs	51,587	49,260	95%
Swaps	364,378	371,831 ²	102%
Options	49,296	41,961 ³	85%
Equity-linked contracts	5,635	NA	NA
Commodity contracts	2,922	NA	NA
Credit default swaps	29,898	29,277 ⁴	98%
Single-name instruments	18,145	14,625 ⁵	81%
Multi-name instruments	11,753	10,925 ⁵	93%
Unallocated	39,537 ⁶	NA	NA

¹ Includes exotic swaps. ² Includes exotic swaps, OIS, inflation swaps and basis swaps. ³ Includes exotic options, swaptions, caps / floors and debt options. ⁴ Includes USD 3,727 billion for the copper population. ⁵ Electronically confirmed trades only (gold population). ⁶ Includes foreign exchange, interest rate, equity, commodity and credit derivatives of non-reporting institutions, based on the latest Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity, in 2010.

Sources for trade repository data: DTCC for credit default swaps and TriOptima for currency swaps and interest rate contracts. The reporting populations for the BIS semi-annual survey and the TriOptima trade repository are not the same. In addition, the way products have been categorized may differ between the BIS data and the TriOptima data (in particular, this may be the case with regard to exotic interest rate swaps). Furthermore, positions included in the "unallocated" category represent an estimate of positions in interest rate derivatives, as well as foreign exchange, equity, commodity and credit derivatives, as reported by "non-regular reporters" not represented in the BIS semi-annual survey data. These factors may explain why the IRS reported to TriOptima exceed the "allocated" IRS reported to the BIS as set out in the table above.

Appendix VII: Questionnaire for FSB survey on implementation of OTC derivatives market reforms

At the September 2009 Pittsburgh Summit, G-20 Leaders committed to reforming the OTC derivatives markets. In the October 2010 report on [*Implementing OTC Derivatives Market Reforms*](#) (the “October Report”), the FSB made 21 recommendations addressing practical issues that authorities may encounter in implementing these commitments concerning standardisation, central clearing, exchange or electronic platform trading, and reporting of OTC derivatives transactions to trade repositories. G20 Leaders at the Seoul Summit in October 2010 endorsed the FSB recommendations and asked the FSB to regularly monitor implementation progress.

In January 2011, the FSB Secretariat solicited information through a questionnaire on FSB member jurisdictions’ work plans and progress to date in implementing OTC derivatives market reforms. The FSB’s [first progress report](#) on implementation, attaching a summary of questionnaire responses and the questionnaire used on that occasion, was published in April 2011.

The FSB Secretariat is now soliciting updated information from FSB member jurisdictions through this new questionnaire regarding their implementation of OTC derivatives market reforms, focusing on the recommendations set out in the October Report, as well as information on emerging issues that have been identified. The questionnaire also provides an opportunity for member jurisdictions to identify any additional emerging issues or areas where further guidance or international coordination may be necessary to achieve the G20 commitments. Responses to this questionnaire will be provide important input to the FSB OTC Derivatives Working Group, which will prepare a second progress report covering implementation efforts in member jurisdictions as well as coordination in international workstreams. This will be considered by the FSB, and if adopted, provided to the G20 in October 2011.

Each member jurisdictions is requested to provide a consolidated response to the questionnaire, covering all authorities responsible for implementing OTC derivatives market reforms within its jurisdiction. Please ensure that answers are brief and respond directly to the relevant questions.

Responses will be posted on the FSB’s internal website for members’ information, but will not be made available publicly.

Member jurisdictions are kindly requested to return the completed questionnaire to the FSB Secretariat (fsb@bis.org) by close of business on Friday, 1 July 2011. Any questions regarding completion of the questionnaire should be directed to Sarah Casey Otte in the FSB Secretariat (sarahcasey.otte@bis.org, +41.61.280.8956).

The September 2009 G20 Pittsburgh Summit Declaration provides:

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.

The June 2010 G20 Toronto Summit Declaration, Annex II, provides:

We pledged to work in a coordinated manner to accelerate the implementation of over-the-counter (OTC) derivatives regulation and supervision and to increase transparency and standardisation. We reaffirm our commitment to trade all standardised OTC derivatives contracts on exchanges or electronic trading platforms, where appropriate, and clear through central counterparties (CCPs) by end-2012 at the latest. OTC derivative contracts should be reported to trade repositories (TRs). We will work toward the establishment of CCPs and TRs in line with global standards and ensure that national regulators and supervisors have access to all relevant information.

1. Implementation progress of OTC derivatives market reforms in member jurisdictions

1.1 Standardisation

With regard to increasing OTC derivatives’ standardisation (*see recommendations 1-4 of the October Report*):

Will the proportion of OTC derivatives traded in your jurisdiction that is composed of standardised derivatives have been substantially increased (compared to pre-September 2009 levels) by end-2012?

Yes ____ **No** ____

- a. Have legislative and/or regulatory steps been taken in your jurisdiction toward the goal of increasing the use of standardised derivatives products and standardised processes?

Yes ____ **No** ____

If you indicate “Yes”, please explain by identifying the nature of the action taken, and when such action became/will become effective.

- b. Will additional legislative and/or regulatory steps be taken toward the goal of increasing the use of standardised derivatives products and standardised processes in your jurisdiction?

Yes _____ **No** _____

If you indicate "Yes," please set out the expected timeframe for undertaking such steps.

- c. Are there non-legislative/non-regulatory steps being taken in your jurisdiction (including, where necessary, improved infrastructure) toward the goal of increasing the use of standardised derivatives products and standardised processes?

Yes _____ **No** _____

If you indicate "Yes," please specify the steps being taken, responsible parties, and the expected timeline.

- d. Are there any potential vulnerabilities or known challenges regarding the expected timeframe for completing the steps outlined in your answers to b. and c. above?

Yes _____ **No** _____

If you indicate "Yes," please identify the potential vulnerabilities or known challenges.

- e. Are there any matters outside your jurisdiction that, if addressed, would facilitate accomplishing the commitment to increasing standardisation?

Yes _____ **No** _____

If you indicate "Yes," please explain by briefly identifying the matter, and, if you are aware of an international workstream already addressing such matter, identifying the workstream. Please also note whether, in your view, any identified workstream has an adequate mandate to address the matter or whether additional work needs to be undertaken in this workstream as well as the desired scope of this additional work.

- f. How will the use of non-standardised OTC derivatives products be monitored in your jurisdiction?

1.2 Central clearing

With regard to moving to central clearing of OTC derivatives (*see recommendations 5-12 of the October Report*):

In your jurisdiction, will all standardised OTC derivatives be cleared through central counterparties by end-2012?

Yes _____ **No** _____

Please provide an estimate, by order of magnitude (e.g., all, majority, significant portion, small portion or none), for each major asset class (interest rate, credit, equity, commodity,

and FX), of the portion of OTC derivatives traded in your jurisdiction that you expect to be cleared by central counterparties by end-2012.

- a. In your jurisdiction, will law and/or regulation be in force by end-2012 that requires all standardised OTC derivatives to be cleared through central counterparties (CCPs)?

Yes ____ **No** ____

- b. What legislative and/or regulatory steps have been taken in your jurisdiction toward the central clearing of standardised OTC derivatives?

- c. Must additional legislative and/or regulatory steps be taken for a central clearing requirement for standardised OTC derivatives to be effective by end-2012?

Yes ____ **No** ____

If you indicate "Yes," please explain what steps are needed and the expected timeframe for undertaking such steps.

- d. In your jurisdiction, will derivatives that trade on exchange- and electronic platform-traded derivatives be subject to a mandatory central clearing requirement?

Yes ____ **No** ____

If you indicate "No," please explain why.

- e. Are there non-legislative/non-regulatory steps being taken in your jurisdiction (including, where necessary, improved infrastructure) toward the central clearing of standardised OTC derivatives?

Yes ____ **No** ____

If you indicate "Yes," please specify the steps, responsible parties, and the expected timeline.

- f. Are there any potential vulnerabilities or known challenges regarding the expected timeframe for completing the steps outlined in your answers to c. and e. above?

Yes ____ **No** ____

If you indicate "Yes," please identify the potential vulnerabilities or known challenges.

- g. Are there any matters outside your jurisdiction that, if addressed, would facilitate accomplishing the commitment to central clearing?

Yes ____ **No** ____

If you indicate "Yes," please explain by briefly identifying the matter, and, if you are aware of an international workstream already addressing such matter, identifying the workstream. Please also note whether, in your view, any identified workstream is adequate to address the matter or whether additional work needs to be undertaken in this workstream as well as the desired scope of this additional work.

- h. Will CCPs in your jurisdiction that clear derivatives, if any, be subject to robust and consistently applied supervision and oversight on the basis of regulatory standards that, at a minimum, are expected to meet the standards developed jointly by CPSS and IOSCO when these are finalised in 2012?

Yes _____ **No** _____

If you indicate "Yes," please briefly describe the expected steps and timeframe for this to be achieved.

- i. Will your jurisdiction require clearing to take place in a CCP in a particular location?

Yes _____ **No** _____

If you indicate "Yes," please explain the nature of the location requirement.

- j. Will clearing requirements be phased in over time? If so, what are the expected phases and on what general criteria will the phase-in be based (e.g., asset class, counterparty, perceived systemic importance)?

- k. Will clearing requirements in your jurisdiction cover all asset classes (including interest rate, credit, equity, commodity, and foreign exchange derivatives)?

Yes _____ **No** _____

If you indicate "No," please identify the asset class(es) that will not be subject to clearing requirements, and briefly explain the basis for the exemption.

- l. Will clearing requirements in your jurisdiction cover all types of financial entities (such as banks, insurance, asset management, pension funds, hedge funds) and non-financial entities?

Yes _____ **No** _____

If you indicate "No," please identify the type(s) of financial and/or non-financial entities that will not be subject to clearing requirements, and briefly explain the basis for the exemption.

- m. Will all transactions between different legal entities within a group structure (ie. intra-group or inter-affiliate transactions) be subject to clearing requirements in your jurisdiction?

Yes _____ **No** _____

If you indicate "No," please identify the type(s) of intra-group transaction(s) that will be exempt from central clearing requirements.

- n. How will use of any participant exemptions (e.g., end-user exemptions) from central clearing requirements, and their appropriateness, be monitored in your jurisdiction?

- o. How will use of any product exemptions (e.g., FX swaps and forwards) from central clearing requirements, and their appropriateness, be monitored in your jurisdiction?

p. What criteria will your jurisdiction use for determining which OTC derivatives are standardised and therefore suitable for central clearing? What other criteria will be used in determining which OTC derivatives will be subject to a mandatory clearing requirement?

q. What approach(es) will your jurisdiction take to implementing mandatory clearing requirements?

Top-down **Bottom-up** **Other**

Please explain the approach that your jurisdiction plans to implement, particularly if you indicate "Other."

r. Will capital requirements for non-centrally cleared derivatives contracts in your jurisdiction be higher than for corresponding centrally-cleared derivatives contracts?

Yes ____ **No** ____

Please explain your answer, indicating the types of regulated entities to which such capital requirements will apply and when such requirements will be effective.

s. In your jurisdiction, are strong bilateral risk management standards, including collateralisation, being set and applied, with market participants required to benchmark against defined best practices?

Yes ____ **No** ____

Please explain your answer, indicating the steps being taken or planned to implement bilateral risk management standards and benchmarking, and the expected timeframe for achieving this.

t. Will margining (collateralisation) requirements apply to non-centrally cleared derivatives transactions in your jurisdiction?

Yes ____ **No** ____

If you indicate "Yes," please describe the scope of such requirements, whether such requirements will be commensurate with requirements applicable to centrally cleared transactions, and any anticipated exemptions from such requirements (for example, based on the nature of the transaction or counterparties).

u. Will clearing requirements in your jurisdiction specify how market participants should treat cross-border transactions (*i.e.*, transactions where counterparties are located in different jurisdictions and/or the CCP is located in a different jurisdiction from one or both counterparties)?

Yes ____ **No** ____

1.3 Exchange or electronic platform trading

With regard to trading on exchanges or electronic trading platforms (*see recommendations 13-14 of the October Report*):

In your jurisdiction, will all standardised OTC derivatives be traded on exchanges or electronic trading platforms, where appropriate, by end-2012?

Yes _____ No _____

Please indicate, by order of magnitude (e.g., majority, significant portion, small portion or none), and for each major asset class (interest rate, credit, equity, commodity, and FX), the portion of standardised derivatives traded in your jurisdiction that you expect to be traded on exchanges or electronic platforms¹⁴ by end-2012.

- a. In your jurisdiction, will law and/or regulation be in force by end-2012 that will require all or any subset of standardised OTC derivatives to be traded on exchanges or electronic platforms?

Yes _____ No _____

If you indicate "Yes," please describe the nature of the trading requirement and any exemptions from this requirement that will apply.

If you indicate "No," please describe whether there are any standardised OTC derivatives traded in your jurisdiction and if so, explain why such standardised derivatives are considered not appropriate to be subject to an exchange or electronic trading platform requirement.

- b. What legislative and/or regulatory steps have been taken in your jurisdiction toward the trading of standardised OTC derivatives on exchanges or electronic trading platforms?
- c. Will additional legislative and/or regulatory steps be taken to implement a trading requirement in your jurisdiction?

Yes _____ No _____

If you indicate "Yes," please explain what steps are needed and the expected timeframe for undertaking such steps.

- d. Are there non-legislative/non-regulatory steps being taken in your jurisdiction (including, where necessary, improved infrastructure) toward the trading of standardised OTC derivatives on exchanges or electronic trading platforms?

Yes _____ No _____

If you indicate "Yes," please specify the steps, responsible parties, and the expected timeline.

- e. Are there any potential vulnerabilities or known challenges regarding the expected timeframe for completing the steps outlined in your answers to c. and d. above?

Yes _____ No _____

If you indicate "Yes," please identify the potential vulnerabilities or known challenges.

- f. Are there any matters outside your jurisdiction that, if addressed, would facilitate accomplishing the commitment to trading on exchanges or electronic platforms?

Yes _____ No _____

If you indicate “Yes,” please explain by briefly identifying the matter, and, if you are aware of an international workstream already addressing such matter, identifying the workstream. Please also note whether, in your view, any identified workstream is adequate to address the matter or whether additional work needs to be undertaken in this workstream as well as the desired scope of this additional work.

- g. Will your jurisdiction require that standardised OTC derivatives be traded on exchanges or electronic platforms that provide multi-dealer functionality¹⁵ or will your jurisdiction permit electronic trading platforms that provide single-dealer functionality to satisfy trading requirements (*i.e.*, by permitting single-dealer platforms for the trading of standardised derivatives to co-exist alongside exchanges and electronic platforms that provide multi-dealer functionality)?

Multi-dealer functionality required

Single-dealer functionality permitted

- h. Will your jurisdiction require pre-trade price and volume transparency for all exchange- or electronic-platform- traded and OTC derivatives transactions?

Yes _____ No _____

- i. Will your jurisdiction require post-trade price and volume transparency for all exchange-traded or electronic platform-traded and OTC derivatives transactions?

Yes _____ No _____

- j. Will any exceptions, exemptions or waivers of any pre-trade or post-trade price or volume transparency requirements be permitted for trades of a certain size (*e.g.*, block trades)?

Yes _____ No _____

If you indicate “Yes,” please briefly describe the applicable exception(s), exemption(s) or waiver(s).

1.4 Reporting to trade repositories

With regard to reporting to trade repositories of OTC derivatives (*see recommendations 15-19 of the October Report*):

In your jurisdiction, will all OTC derivatives contracts be reported to trade repositories by end-2012?

Yes _____ No _____

*Please indicate, by order of magnitude (*e.g.*, all, majority, significant portion, small portion or none) and for each major asset class (interest rate, credit, equity, commodity, and FX), the portion of OTC derivatives traded in your jurisdiction that you expect to be reported to trade repositories by end-2012.*

- a. In your jurisdiction, will law and/or regulation be in force by end-2012 that requires all OTC derivatives transactions, whether centrally-cleared or non-centrally cleared, to be reported to trade repositories?

Yes _____ **No** _____

If you indicate "No," please if particular types of OTC derivatives transactions will not be required to be reported to trade repositories.

- b. In your jurisdiction, will all exchange- and electronic platform-traded derivatives transactions be required to be reported to trade repositories?

Yes _____ **No** _____

If you indicate "No," please explain why.

- c. What legislative and/or regulatory steps have been taken in your jurisdiction toward the reporting of derivatives transactions to trade repositories?

- d. Must additional legislative and/or regulatory steps be taken for a requirement to report all derivatives transactions to trade repositories to be effective by end-2012?

Yes _____ **No** _____

If you indicate "Yes," please explain what steps are needed and the expected timeframe for undertaking such steps.

- e. Are there non-legislative/non-regulatory steps being taken in your jurisdiction (including, where necessary, improved infrastructure) toward the reporting of derivatives transactions to trade repositories?

Yes _____ **No** _____

If you indicate "Yes," please specify the steps, responsible parties, and the expected timeline.

- f. Are there any potential vulnerabilities or known challenges regarding the expected timeframe for completing the steps outlined in your answers to d. and e. above?

Yes _____ **No** _____

If you indicate "Yes," please identify the potential vulnerabilities or known challenges.

- g. Are there any matters outside your jurisdiction that, if addressed, would facilitate accomplishing the reporting of all derivatives transactions to trade repositories?

Yes _____ **No** _____

If you indicate "Yes," please explain by briefly identifying the matter, and, if you are aware of an international workstream already addressing such matter, identifying the workstream. Please also note whether, in your view, any identified workstream is adequate to address the matter or whether additional work needs to be undertaken in this workstream as well as the desired scope of this additional work.

- h. Will your jurisdiction require reporting to a trade repository located in a particular location?

Yes ____ No ____

If you indicate "Yes," please explain the nature of the location requirement.

- i. Will trade repositories in your jurisdiction, if any, be subject to robust and consistently applied supervision and oversight on the basis of regulatory standards that, at a minimum, are expected to meet the standards developed jointly by CPSS and IOSCO when these are finalised in 2012?

Yes ____ No ____

If you indicate "Yes," please briefly describe the expected steps and timeframe for this to be achieved.

- j. Will your jurisdiction permit or require reporting of derivatives transactions to a governmental authority in place of a stand-alone trade repository?

Yes ____ No ____

If you indicate "Yes," will that governmental authority be able to share information with other authorities in the same manner as a stand-alone trade repository?

Yes ____ No ____

If applicable, please explain the circumstances under which reporting to a central bank or other governmental authority will be permitted or required.

- k. Has your jurisdiction undertaken work to identify any barriers to the collection and dissemination of trade data, including underlying client data, by trade repositories concerning market participants in your jurisdiction?

Yes ____ No ____

If you indicate "Yes," please explain whether any such barriers have been identified, what legislative and/or regulatory steps must be taken to address this, and the timeframe in which such steps will be undertaken.

2. International coordination of OTC derivatives market reforms

- 2.1 A number of workstreams are in train to coordinate implementation of OTC derivatives market reforms (*see International Workstreams Timeline document attached as Annex I*). In addition to any responses provided in Section 1 above, do these workstreams cover the matters that need to be addressed to achieve full and internationally consistent implementation of the G-20 commitments to standardisation, central clearing, exchange or electronic platform trading, and reporting to trade repositories by end-2012? If not, what additional work is needed, and on what timeframe?
- 2.2 Have any emerging issues been identified by your jurisdiction that could increase the potential for regulatory arbitrage or otherwise hamper the ability to achieve international implementation of the recommendations? If so, and if not already

covered in your answers to Section 1. above, please specify whether your jurisdiction believes that such issues are adequately addressed by the workstreams listed in Annex I, or, if additional work is needed, what should be covered and within what timeframe.

**Appendix VIII:
Tables summarising responses to FSB survey on
implementation of OTC derivatives market reforms**

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Table 1 Standardisation			
	Proportion of OTC derivatives composed of standardised derivatives substantially increased by end-2012	Legislative and/or regulatory steps completed toward increasing the use of standardised products and processes	Additional legislative and/or regulatory steps planned toward increasing the use of standardised products and processes
Argentina	Yes	Yes (Central Bank regulation Com. "A" 4725 provides a regulatory stimulus for the use of guarantees and CCPs to all financial institutions supervised by the Central Bank)	Yes (MAE is considering increasing the standardised derivatives products that can be traded on its platform)
Australia	NA (main OTC derivatives instruments traded in Australian markets are interest rate and FX products, which are already fairly standardised)	No	No (no immediate plan to take legislative steps)
Brazil	No (market already highly standardised)	No	No
Canada	Yes	No	Yes (new capital standards; regulatory steps with regard to TRs)
China	Yes	Yes (improved Master Agreement and Definition Document; developed electronic trading platform)	No
European Union	Yes	Yes (Regulation on OTC derivatives, central counterparties and trade repositories (EMIR), Capital Requirements Directive (CRD) implementing Basel III, G14 commitment)	Yes (amendments to the Markets in Financial Instruments Directive (MiFID); EMIR and technical standards implementing EMIR) ¹
Hong Kong SAR	NA (monitoring development of reference benchmark, in particular the work undertaken by G14 dealers under the steering of the ODSG, and dialogue with industry to track changes)	No	Yes (HKMA to begin legislative process for incorporating Basel III framework in its capital regime for banks for implementation in 2013)
India	Yes	Yes (CCIL expected to start guaranteed settlement in IFS/FRA shortly; guidelines to standardise terms of coupon, maturity dates, coupon payment dates, etc. on single name CDS for corporate bonds issued May 2011)	Yes (gradual approach)
Indonesia	NA	Yes (exchange trading of standardised derivatives products on Surabaya Stock Exchange since 2003)	Yes (expected timeframe 2012–13)

¹ In addition, in Italy national competent authorities are considering a requirement to increase the proportion of standardised derivatives (versus bespoke) in which pension funds invest.

Table 1 (cont)			
Standardisation			
	Proportion of OTC derivatives composed of standardised derivatives substantially increased by end-2012	Legislative and/or regulatory steps completed toward increasing the use of standardised products and processes	Additional legislative and/or regulatory steps planned toward increasing the use of standardised products and processes
Japan	Significant portion of market already standardised: according to data published by Bank of Japan	Yes (Financial Instruments and Exchange Act (FIEA) amended May 2010)	Yes (JFSA expects cabinet ordinance and other measures to be finalised by November 2012)
Mexico	No (most OTC derivatives products in Mexico are already highly standardised and plain vanilla; interest rate related derivatives represent more than 60% of the domestic market)	No	Yes (Mexican financial authorities will develop a general framework)
Republic of Korea	Yes	July 2011 preliminary announcement on the revision of Financial Investment Services and Capital Markets Act, including standardisation of OTC derivatives	Yes; revision of the Financial Investment Services and Capital Markets Act to be submitted to the National Assembly by the end of 2011; detailed provisions of enforcement ordinances and supervisory regulations required after legislation is adopted
Russia	No data available	Yes (Law #7-fz on clearing and clearing services, Law #8-fz , and Law #281-fz were adopted recently creating the legal basis for the Master Agreement and standardised OTC contracts and providing tax preferences for agreements on standardised terms; close-out netting covers only standardised products)	Yes (implementing regulation to be adopted pursuant to the recently adopted laws by end-2011)
Saudi Arabia	No (banks in Saudi Arabia already use standardised and plain vanilla products (foreign exchange and interest rate products)	Yes (July 2000 SAMA requirement for all counterparties to use a standard Customer Treasury Agreement)	No (no further legislative or regulatory steps envisaged given the nominal size of the OTC derivatives market, plain vanilla standardised products and the already implemented requirement for banks to use CTA and ISDA contracts)

Table 1 (cont)			
Standardisation			
	Proportion of OTC derivatives composed of standardised derivatives substantially increased by end-2012	Legislative and/or regulatory steps completed toward increasing the use of standardised products and processes	Additional legislative and/or regulatory steps planned toward increasing the use of standardised products and processes
Singapore	Yes (major participants in the domestic market are the G14 dealers who have committed to increase standardisation)	No	Yes (relevant legislation to be introduced by end-2012; public consultation by end-2011)
South Africa	No	Yes (Financial Services Board South Africa has amended the Securities Services Act 36 of 2004 (SSA0 to strengthen the regulation of unlisted securities, which include OTC derivatives; Financial Markets Bill (FMB) has been submitted to the SA National Treasury for Cabinet and Parliamentary approval)	Yes (FMB and subordinate legislation envisaged to be promulgated during 2011)
Switzerland	NA	Yes (Basel capital requirements)	NA (under review)
Turkey	No (investment firms are prohibiting from dealing in OTC derivatives in Turkey; banks use mostly plain vanilla products with standardised features)	No (legislation has not been proposed, but plans under preparation)	Under review
United States	Yes	Yes (Dodd-Frank Act enacted July 2010; CFTC and SEC proposed implementing rules that should promote standardisation)	Yes (CFTC and SEC final rules to be adopted)

Table 2 Central clearing			
	Law and/or regulation in force by end-2012 requiring all standardised OTC derivatives to be cleared through CCPs	Legislative and/or regulatory steps completed toward central clearing of standardised OTC derivatives	Additional legislative and/or regulatory steps needed for a central clearing requirement for standardised OTC derivatives to be effective
Argentina	No	NA	No
Australia	TBD	Legislation not yet proposed; Council of Financial Regulators (CFT) discussion paper published June 2011	Yes; CFR consultation period open until 5 August 2011, after which CFR to develop recommendation for Australian government consideration
Brazil	No	Pre-existing legislation in place requires all exchange-traded derivatives to be centrally cleared; non-exchange traded derivatives may be bilaterally risk managed or centrally cleared at the option of counterparties	No (note that mandatory clearing requirement applies only to exchange-traded derivatives)
Canada	Under review; provincial legislation expected by end-2012 with rule-making contingent on international harmonisation efforts	Legislation in place in provinces where the majority of OTC derivatives trades are booked but further work required to harmonise across all provinces	Yes; upcoming consultation on clearing will inform rule making; potential legislative changes that may be needed to support clearing are under review
China	Under consideration	Legislation not yet proposed; PBOC efforts to encourage Shanghai Clearing House to establish detailed schemes for central clearing of OTC derivatives	Under review
European Union	Yes (EMIR)	Legislation not yet adopted; EMIR proposal made in September 2010	Yes; EMIR to be adopted by end-2011; technical rules to be drafted by ESMA, EBA, and EIOPA
Hong Kong SAR	Yes, "but much also depends on the timing of global consensus on key issues and completing the legislative process in time"	Legislation not yet proposed; regulators have commenced work on required amendments to legislation for regulatory regime for OTC derivatives	Yes; legislation must be adopted; regulators to consult market in Q4 2011
India	No	Legislation not yet proposed; CCIL non-guaranteed settlement of interest rate swaps since November 2008; soon to transition to guaranteed settlement. Guidelines for CDS settlement to become effective in October 2011.	Yes; CCIL to transition soon to guaranteed settlement of IRS; no immediate timeframe for guaranteed settlement of CDS

Table 2 (cont)			
Central clearing			
	Law and/or regulation in force by end-2012 requiring all standardised OTC derivatives to be cleared through CCPs	Legislative and/or regulatory steps completed toward central clearing of standardised OTC derivatives	Additional legislative and/or regulatory steps needed for a central clearing requirement for standardised OTC derivatives to be effective
Indonesia	Yes	Legislation not yet proposed; Rule of Bapepam-LK No. III.E.I: Futures Contract and Option on Securities or on Securities Index	Yes; revision of regulation in 2012–13 timeframe
Japan	Yes, but initially the requirements will apply only to Yen interest rate swaps and CDS (iTraxx Japan indices)	Financial Instruments and Exchange Act (FIEA) amended May 2010	Yes; Cabinet Ordinance to be amended to include requirement for CCP clearing of trades “that are significant in volume and would reduce settlement risks in the domestic market”
Mexico	Yes	Legislation not yet proposed; development of regulation by MFA in process	Yes; MFA to develop the general framework in the course of 2011 and may promote legislation to the congress
Republic of Korea	Yes	Legislation not yet proposed; July 2011 preliminary announcement on the revision of Financial Investment Services and Capital Markets Act to be submitted to the National Assembly by end-2011	Yes; Financial Investment Services and Capital Markets Act amendments to be adopted; detailed provisions of enforcement ordinances and supervisory regulations required after passage of legislation, as well as establishment and pilot-testing of domestic CCP
Russia	No	Laws #7-fz and #8-fz relating to clearing and clearing services, and Law #281-fz relating to the tax code, create the legal basis for promulgation of regulations dealing with central clearing of standardised OTC derivatives	Yes; implementing regulations need to be adopted concerning central clearing, covering among other things close-out netting of contracts concluded under Master Agreement and aligning close-out netting rules with Master Agreement terms
Saudi Arabia	Yes, depending on recommendations resulting from self-assessment exercise at end-2011	Legislation not yet proposed; self-assessment study underway to consider whether to establish a domestic CCP for OTC derivatives should make recommendations by end-2011	Yes; depends on outcome of self-assessment study
Singapore	Yes	Legislation not yet proposed	Yes; public consultation to be issued by end-2011; legislation to be introduced by end-2012

Table 2 (cont)
Central clearing

	Law and/or regulation in force by end-2012 requiring all standardised OTC derivatives to be cleared through CCPs	Legislative and/or regulatory steps completed toward central clearing of standardised OTC derivatives	Additional legislative and/or regulatory steps needed for a central clearing requirement for standardised OTC derivatives to be effective
South Africa	Yes	Financial Markets Bill (FMB) submitted to the National Treasury for Cabinet and Parliamentary approval	Yes; FMB and subordinate legislation envisaged to be promulgated during 2011
Switzerland	TBD	Legislation not yet proposed; under review to be concluded by end-2011	Yes
Turkey	No (making the central clearing agency of Turkey serve as CCP for derivatives products is under review)	Under review	Under review
United States	Yes	Dodd-Frank Act adopted in July 2010	Yes; CFTC and SEC implementing regulations to be finalised

Table 3

Exchange or electronic platform trading

	Law and/or regulation in force by end-2012 requiring all or any subset of standardised derivatives to be traded on exchanges or electronic trading platforms	Legislative and/or regulatory steps completed toward implementing a trading requirement for standardised derivatives	Additional legislative and/or regulatory steps needed for a trading requirement for standardised derivatives to be effective
Argentina	[Yes]	Central Bank regulation Com. "A" 4725 provides incentives to trade derivatives on organized platforms that provide for central clearing	Yes; MAE is considering increasing the standardised derivatives products that can be traded on this platform
Australia	TBD	Legislation not yet proposed; review of market licensing regime for electronic trading platforms and exchanges underway	TBD
Brazil	No	Capital incentives for use of exchange-traded derivatives	No
Canada	Under review	None	Yes; consultation paper to be published late 2011
China	Under review	Legislation not yet proposed; interest rate transactions executed outside of the organized platform need to be reported to the China Foreign Exchange Trading System (CFETS) platform	No
European Union	No (final rules expected to be in effect by end-2013)	Legislation not yet proposed; Commission Communication on Ensuring efficient, safe and sound derivatives markets: Future policy actions – COM (2009)563; October 2010 CESR (now ESMA) technical advice on Standardisation and Organised Platform Trading of OTC Derivatives; December 2010 public consultation on the review of the Markets in Financial Instruments Directive (MiFID)	Yes; proposed amendments to MiFID foreseen for October 2011 "provisionally envisaged to require trading of all OTC derivatives subject to an obligation of central clearing (pursuant to EMIR) and which are sufficiently liquid, as determined by ESMA, to take place on one of three regulated venues: regulated markets, multilateral trading facilities, and the future organized trading facilities"; final rules subject to agreement by the European Parliament and Council expected in 2012
Hong Kong SAR	Yes (legislative changes to give regulators the power to impose a trading requirements is targeted to be completed by end-2012, although the timing of implementation is under consideration and will be guided by the development of international standards)	Legislation not yet proposed; regulators have commenced work on required amendments to legislation to build the regulatory regime for OTC derivatives	Regulators will consult the market in Q4 2011
India	No	None	No

Table 3 (cont)

Exchange or electronic platform trading

	Law and/or regulation in force by end-2012 requiring all or any subset of standardised derivatives to be traded on exchanges or electronic trading platforms	Legislative and/or regulatory steps completed toward implementing a trading requirement for standardised derivatives	Additional legislative and/or regulatory steps needed for a trading requirement for standardised derivatives to be effective
Indonesia	NA	Legislation not yet been proposed; Rule of Bapepam-LK No. III.E.I on Futures Contract and Option on Securities or on Securities Index in place	Yes; revision of Bapepam-LK regulations in 2012–13
Japan	TBD (awaiting conclusions of IOSCO and other countries)	Legislation not yet proposed; TBD whether legislative or regulatory steps will be taken (FIEA May 2010 does not address trading)	TBD (awaiting conclusions of IOSCO and other countries)
Mexico	Yes (preliminary work underway; also waiting for outcome in major financial centres)	Legislation not yet proposed; MFA has begun drafting changes to the regulation on derivatives	Yes; MFA to develop the general framework in the course of 2011
Republic of Korea	No (under review)	Legislation not yet proposed; review of policy options underway	No
Russia	No	Legislation not yet proposed; work in progress to draft a law on exchanges and organized trading	Yes; need to develop practical experience before proceeding with further regulatory measures; laws already adopted provide authority to adopt implementing regulation
Saudi Arabia	NA (possible regulatory measures under consideration; awaiting results of self-assessment study)	None; financial institutions' self-assessment study underway	NA (possible regulatory measures under consideration)
Singapore	Yes (relevant legislation to be introduced by end-2012)	None	Public consultation on proposed policies for implementation in legislation by end-2011; legislation to be introduced by end-2012
South Africa	No (trade repositories expected to provide adequate post-trade transparency)	None	No

Table 3 (cont)

Exchange or electronic platform trading

	Law and/or regulation in force by end-2012 requiring all or any subset of standardised derivatives to be traded on exchanges or electronic trading platforms	Legislative and/or regulatory steps completed toward implementing a trading requirement for standardised derivatives	Additional legislative and/or regulatory steps needed for a trading requirement for standardised derivatives to be effective
Switzerland	NA (under review)	None; Law (Art. 5 Abs. 2 BEHG Stock Exchange Act SESTA) requires exchanges to establish a trade repository of trade details and to publish quotes and volumes of on-exchange and off-exchange transactions; for collateralized certificates, the COSI services has been introduced to allow for automated trading, clearing without risk transfer to the infrastructure provided (DVP) and settlement of these instruments; application to OTC derivatives trading is currently under review)	NA (under review)
Turkey	Under review	Under review	Under review
United States	Yes	Dodd-Frank Act requires any swap or security-based swap that is subject to a clearing requirement to be traded on a registered trading platform, <i>i.e.</i> , a contract market designated by the CFTC or swap execution facility registered with the CFTC or exchange or security-based swap execution facility registered with the SEC, if such swap or security-based swap is made “available to trade” on a trading platform. The CFTC and SEC have proposed rules pertaining to the registration and operation of trading platforms	Yes; legislative steps completed with adoption of Dodd-Frank Act in July 2010; CFTC and SEC must adopt final implementing rules

Table 4
Transparency and trading

	Multi-dealer functionality required to fulfil trading requirement or single-dealer functionality permitted	Pre-trade price and volume transparency required for all exchange or electronic-platform-traded and OTC derivatives	Post-trade price and volume transparency required for all exchange or electronic-platform-traded and OTC derivatives
Argentina	Single-dealer functionality permitted	Yes	Yes (post-trade price and volume transparency required for all exchange-traded or electronic platform-traded derivatives (not required for OTC transactions which still must be reported to the Central Bank)
Australia	TBD (under the current market licensing regime – which is under review – a single-dealer platform is not required to be regulated as a market)	TBD (under review)	TBD (under review)
Brazil	Multi-dealer functionality required	No (pre-trade price and volume transparency required for the 90% of the market that is exchange-traded; no pre-trade requirements for the 10% of the market that is OTC)	Yes (all derivatives, including OTC, must be reported to a TR)
Canada	TBD (will seek to harmonise with international community)	TBD	TBD (supportive of improved price transparency, although this needs to be carefully defined and further work needs to be undertaken to weigh potential costs and benefits)
China	Multi-dealer functionality required	Yes	Yes
European Union	Multi-dealer functionality (suggested in MiFID consultation)	Yes (suggested in MiFID consultation)	Yes (suggested in MiFID consultation)
Hong Kong SAR	Under consideration (with global developments in view)	Under consideration (with global developments in view)	Under consideration (with global developments in view)
India	NA	NA	Yes (post-trade price and volume information in respect of IRS/FRA and CDS to be disseminated by respective trade repositories)
Indonesia	Multi-dealer functionality required	Yes	Yes
Japan	Single-dealer functionality permitted	TBD	TBD
Mexico	Multi-dealer functionality required	No	Yes

Table 4 (cont)
Transparency and trading

	Multi-dealer functionality required to fulfil trading requirement or single-dealer functionality permitted	Pre-trade price and volume transparency required for all exchange or electronic-platform-traded and OTC derivatives	Post-trade price and volume transparency required for all exchange or electronic-platform-traded and OTC derivatives
Republic of Korea	Multi-dealer functionality required	Yes	Yes
Russia	TBD	[No] (pre-trade transparency required only for exchange-traded)	TBD
Saudi Arabia	TBD	TBD	TBD
Singapore	NA (note that US and EU have proposed different rules; useful for IOSCO to provide guidance on the use of single-dealer platforms)	To be consulted on (taking into consideration IOSCO report on trading)	To be consulted on (taking into consideration IOSCO report on trading)
South Africa	NA	No	Yes (readily available for exchange-traded; all OTC transactions to be reported to a TR on a real-time basis)
Switzerland	Under review	Under review (exchanges currently required by law to provide pre-trade transparency)	Under review (exchanges currently required by law to provide post-trade transparency)
Turkey	Under review	Under review	Under review
United States	Multi-dealer functionality required	TBD (Dodd-Frank Act requires that market participants have the ability to execute or trade swaps or security-based swaps subject to clearing and trading mandates by accepting bids and offers made by multiple participants on a designated contract market or swap execution facility. CFTC and SEC have proposed rules to implement this requirement)	Yes

Table 5 Reporting to trade repositories				
	Law and/or regulation in force by end-2012 requiring all OTC derivatives transactions to be reported to trade repositories	Legislative and/or regulatory steps completed toward implementing a reporting requirement	Additional legislative and/or regulatory steps needed for a reporting requirement to be effective	Reporting to governmental authority in place of specifically-designated trade repository
Argentina	Yes (derivatives operations of banks with cross-border counterparties are the bulk of OTC transactions and are subject to reporting and monitoring by the Central Bank)	Regulatory incentives to encourage use of electronic trading platforms (Central Bank regulation Com. "A" 4725)	No	Yes
Australia	NA – Expected by end-2012 (timing to be reviewed at end-2011)	None	NA (under consideration; expect to consult with industry participants; to be reviewed later in 2011)	TBD
Brazil	Yes	Pre-existing rules enacted by the Central Bank and CVM require all OTC derivatives trades to be reported to a TR	No	No
Canada	TBD (contingent on legislative changes and rules being put in place across multiple jurisdictions and international reporting standards)	Canadian Securities Administrators published a consultation paper on TRs; most jurisdictions are assessing what legislative changes may be required; Ontario has amended its Securities Act to support reporting to TRs and regulatory access to data	Yes (decision to be made to require reporting to a domestic TR or rely on reporting to a global TR)	TBD (anticipated that a very small number of trades may not be accepted by TRs that could be reported to securities regulators)
China	Yes	Under current rules, all OTC interest rate, FX and credit risk mitigation tools (other than credit risk mitigation agreements) can be traded on the CFETS electronic platform; interest rate trades executed outside the CFETS platform should be reported to CFETS; credit risk mitigation trades should be reported to NAFMII	Yes (details including frequency and contents of reporting and which institutions will play the role of TRs)	Yes
European Union	Yes (EMIR)	Legislation has not yet been adopted; EMIR has been proposed and is expected to be adopted by end-2011	Yes (EMIR adoption; ESMA technical standards)	Yes (reporting to ESMA where a TR is not able to record the details of an OTC derivative)

Table 5 (cont)

Reporting to trade repositories

	Law and/or regulation in force by end-2012 requiring all OTC derivatives transactions to be reported to trade repositories	Legislative and/or regulatory steps completed toward implementing a reporting requirement	Additional legislative and/or regulatory steps needed for a reporting requirement to be effective	Reporting to governmental authority in place of specifically-designated trade repository
Hong Kong SAR	Yes (depends on timing of global consensus on key issues and completing the legislative process in time; intention to take a phased approach, beginning with interest rate swaps and non-deliverable forwards)	Legislation not yet proposed; regulators have commenced work on required amendments to legislation to build the regulatory regime for OTC derivatives (pending detailed rules subject to international developments; intention to take a phased approach, beginning with interest rate swaps and non-deliverable forwards)	Yes (legislation needed); regulators will consult the market on the proposed regime in Q4 2011	Transactions that meet HK nexus condition to be reported to local TR to be developed by HKMA
India	Yes (per existing regulatory guidelines, banks and PDs should report IRS/FRA transactions to the CCIL reporting platform; in the case of CDS, all market makers must report trades on the centralised reporting platform within 30 minutes of execution; CCIL will extend trade reporting service to FX forwards and considering this service for FX options)	Legislation not yet proposed; existing regulatory guidelines for banks and PDs	Yes (working group on reporting of OTC derivative transactions has made recommendations for CCIL to serve as an efficient single point reporting platform for all OTC interest rate and FX derivative transactions)	No
Indonesia	NA	None	NA	NA
Japan	Yes (in general, trade data will be reported to a TR and trade data that the TR does not accept will be reported to JFSA)	FIEA amended May 2010 to introduce the legislative framework for reporting of OTC derivatives transactions to TRs	Yes (Cabinet Ordinance to be completed November 2012)	Yes (trade data reported to JFSA will be limited to information not accepted by a TR, such as exotic OTC derivatives trades)

Table 5 (cont)				
Reporting to trade repositories				
	Law and/or regulation in force by end-2012 requiring all OTC derivatives transactions to be reported to trade repositories	Legislative and/or regulatory steps completed toward implementing a reporting requirement	Additional legislative and/or regulatory steps needed for a reporting requirement to be effective	Reporting to governmental authority in place of specifically-designated trade repository
Mexico	TBD	Under current law, banks report OTC derivatives transactions to the Central Bank; legislation expected to be proposed requiring all OTC derivatives transactions to be reported to TRs by end-2012	Yes (under consideration whether to mandate reporting to a TR for financial and non-financial institutions)	Yes (participants to report transactions to the Central Bank if there is no TR available for reporting)
Republic of Korea	Yes	Financial Investment Services and Capital Markets Act (FSS) and the Foreign Exchange Transactions Act (BoK) require reporting of all OTC derivatives transactions to authorities	Yes (necessary to improve some parts of the reporting system to meet international standards)	Yes (reporting of OTC transactions to governmental authorities mandated by the Financial Investment Services and Capital Markets Act and the Foreign Exchange transactions Act)
Russia	No (only transactions conducted by professional market participants and entities taking advantage of close-out netting procedures will report transactions)	Recently adopted laws concerning OTC derivatives	Yes (regulations to require reporting to TRs to be implemented under recently adopted legislation)	Yes
Saudi Arabia	NA	None; financial institution self-assessment study underway	NA	TBD
Singapore	Yes (relevant legislation to be introduced by end-2012)	Legislation not yet proposed	Yes (public consultation by end-2011; legislation to be introduced by end-2012)	Yes (under review)
South Africa	Yes	Financial Markets Bill (FMB) submitted to SA National Treasury for Cabinet and Parliamentary approval	Yes (FMB and subordinate legislation anticipated to be in effect by end-2012)	No

Table 5 (cont)

Reporting to trade repositories

	Law and/or regulation in force by end-2012 requiring all OTC derivatives transactions to be reported to trade repositories	Legislative and/or regulatory steps completed toward implementing a reporting requirement	Additional legislative and/or regulatory steps needed for a reporting requirement to be effective	Reporting to governmental authority in place of specifically-designated trade repository
Switzerland	Under review	Legislation not yet proposed; Art. 15 (2) SESTA applies to derivatives traded on exchange and requires that securities dealers report all the information necessary to ensure a transparent market	Under review	Under review
Turkey	Under review	Under review	Under review	Under review
United States	Yes	Dodd-Frank Act adopted July 2010; CFTC and SEC have proposed implementing regulations	Yes (CFTC and SEC final rules must be adopted)	Yes (reporting to the CFTC or SEC if there is no TR available; should be limited in scope)

Table 6

Application of central clearing requirements

	Coverage of all asset classes	Coverage of all types of financial entities	Intra-group transactions
Argentina	Yes	No (exempted: insurance, asset management, pension funds (ANSES – Administración de la Seguridad Social), hedge funds)	No
Australia	No; likely to harmonise with requirements in major jurisdictions (e.g., exemption of some classes of FX derivatives likely); coverage of credit and equity classes under review	No (likely that smaller financial entities would be exempt)	Under review
Brazil	No; central clearing requirement pertains only to exchange-traded derivatives (not OTC)	No	No
Canada	Under review; FX swaps and forwards may be exempted with a view to harmonising rules with other jurisdictions; other asset classes TBD	Under review; consideration being given to systemic risk concerns and harmonisation with other jurisdictions	Under review
China	Under review	Yes	NA
European Union	Yes (EMIR)	Yes (EMIR, however, exemption of certain pension arrangements for a limited period under consideration by Council and Parliament)	No (both Council and Parliament have proposed an exemption for intra-group trades in EMIR)
Hong Kong SAR	Yes; mandatory clearing expected to cover standardised interest rate swaps and non-deliverable forwards initially, extending this to other types of product will be considered after the initial roll out	Yes (scope of coverage of mandatory clearing under review; “HK’s current plan is to cover institutions holding positions that may pose systemic risk to the financial system”)	No; “HK will however keep in view global developments in this regard”
India	Yes	Yes	Yes
Indonesia	No (Bapepam-LK expected to cover only equity derivatives; other asset classes not within Bapepam regulatory authority)	No (only entities under Bapepam-LK jurisdiction will be covered; this does not include banks)	NA
Japan	TBD (Cabinet Ordinance expected November 2012)	Yes (applicable to all “financial intermediaries”)	TBD (Cabinet Ordinance expected November 2012)
Mexico	No (under review but FX swaps and forwards likely to be exempted)	Yes	Yes
Republic of Korea	Yes	Yes	

Table 6 (cont)

Application of central clearing requirements

	Coverage of all asset classes	Coverage of all types of financial entities	Intra-group transactions
Russia	Yes	Yes	No
Saudi Arabia	No (depends on outcome of self-assessment study)	TBD (depends on outcome of self-assessment study)	TBD (depends on outcome of self-assessment study)
Singapore	Yes (taking into account systemic risk to the local market and degree of standardisation in the local market)	Under review	Under review
South Africa	Yes	Yes	Yes
Switzerland	Under review	Under review	Under review
Turkey	Under review	Under review	Under review
United States	Yes (although US Treasury has proposed exempting foreign exchange swaps and forwards from mandatory clearing requirements)	Yes	TBD (under consideration by CFTC and SEC)

Table 7
CCP location requirements

	CCP location requirement
Argentina	No
Australia	Under review
Brazil	No
Canada	TBD (appropriate measures to encourage onshore clearing of Canadian-dollar denominated interest rate derivatives under consideration)
China	Yes (Shanghai Clearing House)
European Union	No
Hong Kong SAR	No
India	Yes (CCP must be located in India and subject to the jurisdiction of the home country regulator)
Indonesia	Yes (domestic CCP)
Japan	Yes (domestic CCP clearing to be mandated for those derivatives required “to be aligned with the domestic bankruptcy regime”; iTraxx Japan series of CDS index trades anticipated to be included)
Mexico	TBD
Republic of Korea	No
Russia	NA
Saudi Arabia	No
Singapore	No (however, this is under review)
South Africa	No
Switzerland	Under review
Turkey	NA
United States	No

Appendix IX: Members of the OTC Derivatives Working Group

Co-Chairs	<p>Brian Bussey (representing IOSCO) Associate Director for Derivatives Policy and Trading Practices Division of Trading and Markets Securities and Exchange Commission</p> <p>Jeanmarie Davis (representing CPSS) Senior Vice President, Financial Market Infrastructure Function Financial Institution Supervision Group Federal Reserve Bank of New York</p> <p>Patrick Pearson Head of Financial Markets Infrastructure Internal Market DG European Commission</p>
Brazil	<p>Otavio Yazbek Commissioner Comissão de Valores Mobiliários (CVM)</p>
Canada	<p>Carolyn A Wilkins Special Director, OTC Derivatives Markets Initiatives Financial Markets Department Bank of Canada</p>
China	<p>Kong Yan Director, Bonds Products Supervision Division People's Bank of China</p>
France	<p>Catherine Dias Managing Director Senior Advisor, Regulation of Intermediaries and Market Infrastructures Department Autorité des marchés financiers (AMF)</p>
Germany	<p>Thomas Schmitz-Lippert Executive Director, International Policy/Affairs Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)</p>
Hong Kong	<p>Daryl Ho Head of Market Development Division Hong Kong Monetary Authority</p>
Japan	<p>Kazunari Mochizuki Director, International Financial Markets (Settlements) Financial Services Agency</p>
Korea	<p>Choi Sang Ah Director Financial Services Commission</p>

UK	Anne Wetherilt Senior Manager, Payments and Infrastructure Division Bank of England
	David Bailey Manager, OTC Derivatives & Post Trade Policy Financial Services Authority
USA	Sarah Josephson Counsel to the Chairman Commodity Futures Trading Commission
	Jeff Mooney Assistant Director, Division of Trading and Markets Securities and Exchange Commission
	Erik Heitfield Chief, Risk Analysis Section Federal Reserve Board of Governors
European Central Bank	Andreas Schöenberger Principal Market Infrastructure Expert in the Oversight Division Directorate General Payment and Market Infrastructure
BIS	Jacob Gyntelberg Senior Economist
BCBS	Raquel Lago Member of Secretariat
IMF	John Kiff Senior Financial Sector Expert
CPSS	Daniel Heller Secretary General
IOSCO	Tajinder Singh Deputy Secretary General
FSB	Rupert Thorne Deputy Secretary General
	Sarah Casey Otte Member of Secretariat