

OTC Derivatives Market Reforms

Fourth Progress Report on Implementation

31 October 2012

Foreword

In September 2009, G20 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 its October 2010 report on [Implementing OTC Derivatives Market Reforms](#) (October 2010 progress report), the FSB made 21 recommendations addressing practical issues that authorities may encounter in implementing the G20 Leaders' commitments. On several occasions since then, most recently in June 2012, G20 leaders have reaffirmed their commitment to achieve these goals.

This is the fourth progress report by the FSB on OTC derivatives markets reform implementation. In contrast to the previous reports, which focused mainly on international policy development and national and regional legislation and regulation, this report focuses primarily on the readiness of market infrastructure across the FSB's member countries to provide clearing services, collect and disseminate trade data and provide organised trading platforms. As part of its review of market readiness, the FSB's OTC Derivatives Working Group (ODWG) undertook a survey of [central counterparties](#) and [trade repositories](#). Information on organised trading platforms was gathered through research and conversations with industry groups and discussions with personnel from several operating organised trading platforms. This fourth progress report also includes a brief update on significant developments in the setting of international standards and guidance and national and regional implementation of legislation and regulation.

The FSB's first three implementation progress reports were published in [April 2011](#), [October 2011](#) and [June 2012](#). The June 2012 progress report noted that encouraging progress had been made in setting international standards, the advancement of national legislation and regulation by a number of jurisdictions and practical implementation of reforms to market infrastructure and activities. It cautioned, however, that much remained to be completed by the end-2012 deadline to achieve the G20 commitments and concluded that all jurisdictions and markets need to aggressively push ahead to achieve full implementation of market changes by end-2012 to meet the G20 commitments in as many reform areas as possible.

The FSB's OTC Derivatives Working Group will continue to monitor implementation of OTC derivatives reforms. As the end-2012 implementation deadline is reached and reforms take effect, the FSB and its members will not only assess whether detailed individual reforms have been fully implemented, but also whether – looked at in total – the steps taken are sufficient to meet the G20's underlying goals of improving transparency in the derivatives markets, mitigating systemic risk, and protecting against market abuse.

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Executive Summary

The FSB's third progress report on implementation of OTC derivatives reforms in June 2012 noted the good progress both from an international policy perspective and from a practical perspective, particularly in those jurisdictions with the largest OTC derivatives markets. However, it also stressed that all jurisdictions and markets need to push ahead aggressively to achieve full implementation of market changes by end-2012 to meet the G20 commitments in as many reform areas as possible.

This fourth progress report complements earlier reports by focusing on the readiness of market infrastructure¹ - central counterparties (CCPs), trade repositories (TRs) and organised trading platforms (i.e. exchanges and electronic trading platforms) – as the end-2012 deadline approaches. It includes information collected from market infrastructure. Where views of market infrastructures are presented, these do not necessarily reflect the views of the FSB or its members. By focusing on market infrastructure readiness, the report provides a partial picture of the readiness of the private sector as a whole. Analysis of the preparations of market participants will also be necessary to make a comprehensive assessment of the overall readiness of markets to meet new challenges and opportunities resulting from OTC derivatives reform. The FSB will provide a fuller assessment of market readiness in its next progress report, in spring 2013.

This report also includes a brief update on progress in international policy, national legislation and regulation, and the status of implementation of the four safeguards for a resilient and efficient global framework for central clearing.

The key messages of this report are as follows:

- Market infrastructure is in place and can be scaled up. The development of market infrastructure does not appear to be an impediment to further progress in meeting the G20 commitments for OTC derivatives trading, central clearing, and reporting (although regulators should take into account the start-up time for infrastructure to expand their activities and receive regulatory approvals).
- The international policy work on the four safeguards for global clearing is substantially completed and implementation is proceeding at a national level. Sufficient progress on the safeguards has therefore been made to enable all jurisdictions without delay to decide, and put in place, their regulatory approach to central clearing.
- Regulatory uncertainty remains the most significant impediment to further progress and to comprehensive use of market infrastructure. Jurisdictions should put in place their legislation and regulation promptly and in a form flexible enough to respond to cross-border consistency and other issues that may arise. Regulators need to act by end-2012 to identify conflicts, inconsistencies and gaps in their respective national

¹ Throughout this report, references to “market infrastructure” are to CCPs, TRs and organised trading platforms for OTC derivatives. These references therefore cover a different set of bodies to those defined as “financial market infrastructures (FMIs)” in the CPSS-IOSCO [Principles for Financial Market Infrastructures \(PFMIs\)](#).

frameworks, including in the cross-border application of rules. They need to work together quickly to address the identified issues.

Readiness of market infrastructure

The key findings of the report on readiness of market infrastructure are as follows:

- Market infrastructure has been set up to provide services to a wide range of the global OTC derivatives market. CCPs are available to clear some products in all asset classes and TRs exist for reporting transactions in all asset classes. Organised platform trading infrastructure also exists for all asset classes. While it is currently less developed than infrastructure for central clearing and trade reporting, it may be able to expand quickly.
- The expansion of infrastructure use, in terms of the proportion of transactions reported to TRs and centrally cleared, has plateaued. Infrastructure providers cite uncertainty over the future regulatory framework as inhibiting their ability to complete necessary changes. This includes uncertainty over the scope of products and participants that mandatory requirements will cover and the potential for cross-border regulatory differences and overlap.
- Further clarity and consensus regarding “standardisation” is needed in order to reduce the risk of regulatory arbitrage in the application of central clearing and organised platform trading requirements.²
- Increased standardisation of products and processes facilitates use of market infrastructures. Industry, with the support of regulators, should accelerate their work on issues relating to the standardisation of both products and processes.
- On-boarding new products and participants takes time. Organised trading platforms and TRs report typically taking up to six months to add services for new products and often less time to add new participants. CCPs generally reported longer timelines than other types of infrastructure (sometimes more than a year) for providing clearing services for new products, especially for less standardised products.
- TRs are already beginning to be an important source of data for authorities. However, significant data gaps remain concerning the extent of reporting and central clearing of products, in particular for the commodities, equities and foreign exchange asset classes. These data gaps need to be filled.
- Progress in further developing the use of TR data for regulatory and financial stability purposes may be limited by impediments to data aggregation. There is a risk that, absent additional efforts to coordinate use of compatible data formats necessary for reconciliation, data could remain fragmented within and across jurisdictions.

² For a discussion of “standardisation” see the FSB’s October 2010 report, [Implementing OTC Derivatives Market Reforms](http://www.financialstabilityboard.org/publications/r_101025.pdf), which recommends that, in determining whether a product is “standardised” and therefore suitable for central clearing, authorities should take into account (i) the degree of standardisation of a product’s contractual terms and operational processes; (ii) the depth and liquidity of the market for the product; and (iii) the availability of fair, reliable and generally accepted pricing sources. (Available at: http://www.financialstabilityboard.org/publications/r_101025.pdf).

- It is important that authorities have access to the TR data necessary to carry out their functions. The FSB supports the on-going work of CPSS and IOSCO to address issues of authorities' access to TR data and provide guidance on access to TR data.

Table 1 at the end of the Executive Summary provides additional information on CCPs and TRs by asset class.

Central clearing

Overview of central clearing across asset classes

As of end-June 2012, CCPs were available to clear some products in all five asset classes across FSB jurisdictions.

Until comprehensive reporting of OTC derivatives to TRs is in place, any estimates of the proportion of the overall market, or the overall standardised market, that is being centrally cleared will continue to be imperfect. Although some data exists to measure this progress, data sources continue to be incomplete and not directly comparable. Looking at the total population of trades (including non-standardised products and all counterparties), estimates indicate approximately 10% of outstanding credit default swaps and approximately 40% of outstanding interest rates derivatives had been centrally cleared as of end-August 2012 (see Table 1).

Earlier increases in market use of CCPs appear to have plateaued, as the estimated notional value and percentage of the overall market for credit default swaps and interest rate derivatives that have been centrally cleared have not increased significantly since 2010 (see Table 3). CCPs note they are awaiting final regulatory reforms that would clarify the scope of products and participants that mandatory requirements will cover. Future expansion of the range of products that CCPs can clear would also be facilitated by further product and process standardisation.

Membership, access and cross-border activity of CCPs

The timeframe for adding new CCP members depends on the type of clearing relationship – whether direct or indirect. Most CCPs reported taking three to six months to add new direct clearing members.

Most CCPs reported that the vast majority of direct clearing members are located in the same jurisdiction as the CCP itself. Several CCPs noted that applicants for direct membership from outside their home jurisdiction would likely be required to register in the CCP's and applicant's home jurisdiction. Requirements for registration in the same jurisdiction of the CCP are sometimes included in CCP membership requirements or, in some jurisdictions, required by local regulation.

Links to other market infrastructure

Operational links between CCPs and other types of infrastructure could be used to enhance efficiency where, for example, links to organised trading platforms can lead to straight-through processing and links to TRs can facilitate reporting. CCPs most commonly reported having operational links with organised trading platforms and, in some cases, several different organised trading platforms.

Some of the CCPs surveyed envisage expanding services through links with other CCPs. Operational links with other CCPs may provide the opportunity to increase multilateral netting and can broaden market participant access to central clearing services across a range of products through interoperability and cross-margining. However, operational links with other CCPs affect a CCP's risk profile and the resulting risk management. This highlights the importance of national authorities with CCPs interested in interoperability examining the risks and potential systemic impacts posed by the exposures arising from CCP interoperability and cross-margining.

Expanding product offerings and clearing services

The experience of CCPs to date in developing new product offerings and services provides some indication of the likely future operational time lags in CCPs' further expansion of the services that they provide.

Just over half of the surveyed CCPs reported timeframes for offering clearing services for new products. Those timeframes cover a wide range - from four weeks to 21 months. This timeframe may be influenced by how different the new products are to existing offerings (for example, new asset classes offered, as opposed to adding new products within an established asset class). CCPs noted that risk modelling becomes more complex for less standardised products, lengthening the time needed to begin offering services for these products. Indeed, some CCPs were unable to estimate a timeframe, citing in part the uncertainties arising from the complexities of risk modelling and regulatory approval processes for clearing new products.

Reporting to trade repositories

Overview of TRs: coverage of asset classes and location

TRs are available to accept reporting on transactions in all five asset classes. Information regarding TRs is summarised in Table 1.

Timeframe

Current estimates suggest that transaction information on well over 90% of OTC interest rate and credit derivative contracts is being reported to TRs (Table 1). The estimate for certain foreign exchange derivatives transactions reported to TRs is around 50%. Reliable estimates for commodity and equity derivatives transactions do not currently exist. **Appendix V** provides more detail on this information.

Participants and links with other market infrastructure

For most TRs, the participants are predominantly located in the same jurisdiction as the TR. Few TRs currently have links with other market infrastructure, although several are planning to put them in place. Where links currently exist, they are generally to affiliated organised trading platforms or clearing and settlement systems.

Data storage, regulatory access and market transparency

There is considerable commonality in the core set of categories of data that are collected and stored by TRs, irrespective of the asset class involved, but specific data formats and technical

standards vary. All TRs surveyed provide, or will provide once they are operational, data to authorities, although the means of access vary. All TRs also provide, or will provide, transaction data to the public in an anonymised and aggregated form. Less than half of the TRs surveyed collect portfolio-level information, and none stores legal documentation.

Data standards and capacity to aggregate, reconcile and disseminate TR data to authorities.

Many of the TRs surveyed stated that the data formats they use would not be compatible with those of other TRs for the purposes of data aggregation across TRs and reconciling any differences in reporting from different participants. Standardisation of reporting formats and common identifiers is seen by TRs as key to facilitating aggregation, but requires further development. Even those TRs that considered their own data formats to be compatible with the data formats used by other TRs anticipated difficulties in aggregating or reconciling data owing to legal obstacles such as confidentiality requirements and restrictions on disclosure to third parties.

The FSB encourages industry, with the involvement of authorities, to advance work on standardisation of data formats and the implementation of the global legal entity identifier and product classification systems as quickly as possible to support the effective use of TR data for regulatory and financial stability purposes. Authorities should reflect the recommendations set out in the CPSS-IOSCO report on OTC derivatives data reporting and data aggregation requirements in their work with industry.³

Organised trading platforms

Availability of organised trading platforms across asset classes

Organised trading platforms are active in all five asset classes. Organised trading platforms are available for the more liquid interest rate and credit markets, and also for some equity, foreign exchange and commodity products.⁴

Development of new organised trading platforms

Organised trading platform operators, and standard setting bodies and regulators that have worked with industry in this area, expect that new platforms should be able to develop and become operational within a few months of requirements being put in place through, for example, existing inter-dealer infrastructure. The challenges cited by infrastructure providers in the development of infrastructure to support additional organised platform trading include the likely range and complexity of products to be offered, and the need for sufficient liquidity to support the accurate pricing of new products.

³ Available at <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD366.pdf>.

⁴ OTC markets are only a part of the overall derivatives market for each asset class; exchange-traded markets for some products in each asset class already existed prior to the crisis.

Challenges reported by market infrastructure operators

In sum, market infrastructure providers noted several impediments to expanding their services to cover more OTC products, including:

- Uncertainty over the scope of products and participants that requirements for clearing, trading and reporting will cover because legislative and regulatory frameworks have not been finalised. (Particular uncertainty exists regarding future requirements for trading on organised platforms.);
- Uncertainty regarding the cross-border application of regulatory frameworks;
- Need for further standardisation to facilitate expansion of the use of CCPs and organised trading platforms; and
- Time and technological resources needed to establish links and interfaces with other types of entities (including individual market participants).

CCPs expressed concerns over the operational challenges that would be caused by multiple new requirements potentially coming into force at the same time (in terms of both the expansion of the scope of products required to be centrally cleared and the number of participants covered by such requirements).

The TR responses highlight that industry-wide standards that provide compatibility of data formats and the ability to aggregate across systems have not yet been developed. This will present challenges for authorities seeking to aggregate information (possibly in multiple formats) in order to monitor the aggregated positions of individual participants as well as aggregated positions across an asset class or across the participants in a financial sector.

The FSB supports the on-going work of CPSS and IOSCO to address issues of authorities' access to TR data.

Significant developments in international policy and national legislation and regulation

International policy

Since the June 2012 report, BCBS and IOSCO, in consultation with CGFS and CPSS, published a consultative document on *Margining requirements for non-centrally-cleared derivatives*;⁵ BCBS published interim rules on *Capital requirements for bank exposures to CCPs*;⁶ and CPSS and IOSCO published a consultative document on *Recovery and resolution of financial market infrastructures*.⁷ These documents address critical issues related to central clearing and support the G20 reforms and implementation of the four safeguards. BCBS and IOSCO expect to develop a final proposal on margin requirements by the end of 2012.

⁵ Available at <https://www.bis.org/publ/bcbs226.pdf>.

⁶ Available at <https://www.bis.org/publ/bcbs227.pdf>.

⁷ Available at <https://www.bis.org/publ/cpss103.pdf> and <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD388.pdf>.

CPSS and IOSCO are working on guidance for TRs and authorities aimed at facilitating minimum access for authorities to TR data needed to support their mandates and responsibilities. This is building upon the work undertaken by the OTC Derivatives Regulators' Forum (ODRF) to provide guidance to TRs and authorities on the minimum levels of access to TR data that different authorities would require in order to fulfil their respective functional mandates. CPSS and IOSCO held roundtables with TRs and other stakeholders in October 2012 to solicit input to the guidance. In addition, significant progress has been made in the design of a global LEI system, and the FSB is leading work to launch the system on a self-standing basis by March 2013.

National legislation and regulation

Since the June 2012 progress report, significant steps towards further implementation have been taken by the European Union, Hong Kong, Japan and the United States. **Table 2** at the end of the Executive Summary provides a snapshot of current progress in implementing legislative and regulatory frameworks.

In the European Union, the Regulation on OTC derivatives, central counterparties and trade repositories (EMIR) entered into force on August 16, 2012. On 27 September 2012, the European Supervisory Authorities⁸ adopted draft technical standards that will implement around twenty principles specified in EMIR. Those technical standards are scheduled for final adoption by the European Commission by end-2012.

Hong Kong published its proposed regulatory regime for OTC derivatives markets, following the conclusion of its consultation process.

In Japan, on 6 September 2012 the Diet passed revised legislation on the use of organised trading platforms (specifically, electronic trading platforms) and market transparency. Implementation of this legislation will be phased in to allow providers and users of systems adequate time to prepare. In addition, in July 2012 Japan's FSA promulgated a cabinet office ordinance regarding central counterparties and trade repositories which, among other things, subjects certain transactions to mandatory central clearing and will take effect on 1 November 2012. Reporting requirements to TRs will be introduced for certain interest rate, foreign exchange, equity, and credit derivatives transactions.

In the US, the Commodity Futures Trading Commission (CFTC) and Securities and Exchange Commission (SEC) have jointly adopted final rules further defining the products subject to Title VII of the Dodd-Frank Act. Compliance with CFTC regulatory reporting and real-time public transparency rules began on 12 October 2012 and will be phased-in based on product type and type of market participant. In addition, the CFTC finalised a rule establishing a schedule for compliance with mandatory clearing requirements for swaps and proposed the first classes of swaps that will be subject to mandatory clearing. The SEC published a policy statement on the sequencing of compliance dates for final rules to be adopted under the Dodd-Frank Act.

⁸ The ESAs are the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities Markets Authority (ESMA).

In the June 2012 progress report, the FSB urged national authorities to use the guidance provided by international standards and policies to put in place the needed legislation and regulation, in a form flexible enough to respond to cross-border consistency and other issues that might arise. Following the FSB's call, the CFTC was the first regulator to provide greater clarity and consult on cross-border application of its regulations by publishing, in July, proposed guidance on its approach to cross-border issues. Other jurisdictions have provided feedback raising a number of issues for further discussion relating to potential overlap, potential conflicts or need for further clarification.

In the EU, EMIR contains a mechanism that seeks to avoid duplicative or conflicting rules on OTC derivatives transactions with those of a foreign jurisdiction; if the foreign requirements are considered to be 'equivalent' and are applied in an equitable, non-distortive manner, the EU requirements can be disapplied. EU market participants may use CCPs and trade repositories from other jurisdictions to clear and report trades if such CCPs and TRs have been recognised as being subject to 'equivalent' legal requirements in another jurisdiction. In order to achieve a consistent level of risk mitigation in respect of EU entities the European Commission will develop rules specifying the type of non-EU OTC derivative transactions that have a direct, substantial and foreseeable effect in the EU, and that will therefore nonetheless be subject to EMIR. EMIR also contains anti-evasion provisions to ensure that if market participants structure a contract outside of the EU with the aim of avoiding EMIR, the EU rules will still apply. All of these further rules are yet to be adopted and will need to ensure an appropriate consistency with the cross-border approaches of other jurisdictions.

The global nature of OTC derivatives markets - where counterparties to transactions are frequently located in different jurisdictions to each other or in a different location to the infrastructure being used - makes globally consistent regulation of cross-border activity particularly important. In order to achieve the effective and consistent implementation of the G20 objectives, international coordination is needed on the cross-border scope of regulations, and cooperation over their application, to avoid unnecessary overlap, conflicting regulations and regulatory arbitrage. Jurisdictions are working together, both bilaterally and multilaterally, to identify and address cross-border issues. However, progress to date in cross-border discussions has been slow. This risks delaying the full and timely implementation of the G20 objectives.

In a number of jurisdictions the approach to cross-border application has yet to be specified. With the end-2012 deadline for reforms imminent, individual jurisdictions that have not yet done so need to urgently set out their proposed cross-border approach, not least so as to enable issues of international consistency between jurisdictions' approaches to be identified and addressed. The FSB encourages discussions to quickly resolve any potential inconsistencies and, where needed, agree on coordinated approaches across jurisdictions. This includes continuation of work by key, high-level OTC derivatives market regulators from G20 jurisdictions. Senior representatives of these regulators have met on past occasions to discuss international coordination of OTC derivatives regulations. They are urged to pursue further discussions before the end-2012 deadline to (i) identify the cross-border application of rules to infrastructure, market participants, and products; (ii) identify concrete examples of any overlaps, inconsistencies and conflicts; and (iii) develop options for addressing these issues. Senior regulators are encouraged to coordinate on regulatory issues that are acting as impediments and find mutually acceptable solutions for providing clarity regarding how rules

will apply to transactions and entities, and to keep the FSB informed of progress and remaining issues.

Implementation of the four safeguards for a global framework for central clearing

In June 2012, the G20 Leaders agreed that substantial progress had been achieved in the four safeguards for a resilient and efficient global framework for central clearing and called on jurisdictions to rapidly finalise their decision-making and put in place the legislation and regulations needed to meet the end-2012 commitment to central clearing.⁹ The FSB will also separately report to the November 2012 G20 Finance Ministers and Governors meeting on the decisions FSB member jurisdictions have taken in this regard.

Jurisdictions are building on the substantial progress at the international policy level to achieve the safeguards by taking actions at the national level. For instance, a number of jurisdictions have information sharing memoranda of understanding in place, and cooperative oversight arrangements are being developed for global CCPs.

The CCPs surveyed do not report any barriers to fair and open access to their services for either domestic or foreign participants. Authorities typically require (or will put in place requirements) that CCPs' membership terms provide fair and open access based on reasonable risk requirements.

Further progress has been made with respect to international standards and guidance on recovery and resolution and on liquidity arrangements, with the issuance of the CPSS-IOSCO consultative report on FMI recovery and resolution. Jurisdictions and CCPs are working to put in place arrangements and procedures for recovery that comply with the CPSS-IOSCO *Principles for Financial Market Infrastructure* (PFMIs) and the consultative report on FMI recovery and resolution. However, few jurisdictions have as yet adopted specific resolution regimes for CCPs.¹⁰

Jurisdictions generally report that CCPs have or are putting in place liquidity arrangements that aim to be consistent with the PFMIs and with the guidance of the Economic Consultative Committee of the Bank of International Settlements (BIS), published in June 2012.

Next steps

The FSB will provide an assessment of all aspects of implementation of the G20 reforms of OTC derivatives markets, including legislation and regulatory steps, in its next progress report, which will be presented after the end-2012 deadline. In that fifth progress report, the FSB will seek to complement this report by updating data and other information in this report and will begin an analysis of the readiness of market participants to meet central clearing,

⁹ The four safeguards are: (i) fair and open access by market participants to CCPs, based on transparent and objective criteria; (ii) cooperative oversight arrangements between relevant authorities, both domestically and internationally and on either a bilateral or multilateral basis, that result in robust and consistently applied regulation and oversight of global CCPs; (iii) resolution and recovery regimes that aim to ensure the core functions of CCPs are maintained during times of crisis and that consider the interests of all jurisdictions where the CCP is systemically important; and (iv) appropriate liquidity arrangements for CCPs in the currencies in which they clear.

¹⁰ In several jurisdictions, CCPs are covered by a resolution regime for banking institutions, but such regimes do not necessarily have the sector specific features identified by CPSS-IOSCO in the consultative report on recovery and resolution of FMIs as necessary to address the specific nature of CCPs.

organised platform trading and trade reporting obligations consistent with the G20 reform goals.

The FSB will continue to monitor any new risks that may arise as a result of changes in market structure, and will consider the extent to which reform meets the G20's underlying goals of improving transparency in the derivatives markets, mitigating systemic risk, and protecting against market abuse.

Table 1: Summary of OTC Derivatives infrastructure by asset class¹

OTC Derivatives Asset Classes	Aggregate number across jurisdictions	Location(s) (where domiciled)	Jurisdiction(s) where supervised (registered, recognised or exempt from registration)	% of outstanding transactions that are centrally cleared and/or reported to TRs	Notional outstanding in each asset class (USD equivalents in billions)
Commodities					
CCP	8	Brazil, Germany, Singapore, Sweden, UK, US	EU, Singapore, US	Data unavailable	[3,091] ²
TRs	9	Brazil, Korea, Luxembourg, Netherlands, Singapore, US	Brazil, EU, Korea, Singapore, US	Data unavailable	
Credit					
CCP	6	France, Germany, Japan, UK, US	EU, Japan, US	12% ³	22,229 ⁵
TRs	8	India, Japan, Korea, Singapore, UK, US	EU, India, Japan, Korea, Singapore, US	99% ⁴	
Equity					
CCP	3	Brazil, Canada, Sweden	Brazil, Canada	Data unavailable	5,982 ⁶
TRs	9	Brazil, Japan, Korea, Luxembourg, Singapore, UK, US	Brazil, EU, Japan, Korea, Singapore, US	Data unavailable	
Foreign Exchange					
CCP	5	Brazil, India, Singapore, UK, US	Brazil, EU, India, Singapore, US	Data unavailable	63,349 ⁸
TRs	10	Brazil, Hong Kong, India, Japan, Korea Luxembourg, UK, US	Brazil, EU, Hong Kong, India, Japan, Korea, US	47% ⁷	
Interest rate					
CCP	6	Brazil, , Singapore, Sweden, UK, US	EU, , Singapore, US	40% ⁹	368,393 ¹¹
TRs	10	Brazil, Hong Kong, India, Japan, Korea, Luxembourg, Singapore UK, US	Brazil, EU, Hong Kong, India, Japan, Korea, Singapore US	97% ¹⁰	

¹ There are nine operating TRs (where operating means a TR is both accepting trade reporting and making data available to regulators). Six TRs are available to accept and report **Interest Rate** and **Commodity** derivatives; accept and report on **Equity** and **Foreign Exchange** derivatives; and four accept and report on **Credit** derivatives (see **Appendix II**).

The CCP numbers in this table do not include four CCPs that are not yet operational for clearing OTC derivatives: that is, ASX, HKEx, OCC and the Shanghai Clearing House (see **Appendix I**).

² As of 31 December 2011 from BIS statistics.

³ This information is correct as of 31 August 2012. 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 centrally 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 Trade Information 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 Trade Information 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.⁴ Includes USD 3,352 billion for the copper population.

⁵ As of 31 August 2012, from DTCC.

⁶ As of 31 December 2011 from BIS statistics.

⁷ Due to data limitations, this figure is based only on currency swaps (including exotic currency swaps), which represented about one third of all outstanding foreign exchange derivatives as of end-2011 according to BIS data. The figure in this table is likely higher than the overall percentage of foreign exchange derivatives reported to trade repositories.

⁸ As of 31 December 2011 from BIS statistics.

⁹ 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 DTCC as of 31 August 2012 and is available at: http://www.dtcc.com/products/derivserv/data/data_table_1.php.

¹⁰ Includes exotic swaps, OIS, inflation swaps and basis swaps; exotic options, swaptions, caps / floors and debt options.

¹¹ As of 31 August 2012, from DTCC.

Table 2: Summary of National Progress of OTC derivatives market reforms ¹												
Government framework												
Status of applicable legislation							Status of implementing regulation					
	Central Clearing	Exchange/ Platform trading	Reporting to TRs	Capital	Margin ²	Standardisation ³	Central clearing	Exchange/ Platform trading	Reporting to TRs	Capital	Margin	Standardisation
Argentina ⁴	Adopted	Adopted					Adopted	Adopted				Adopted
Australia	Proposed	Proposed	Proposed	Proposed		Proposed				Consultation		
Brazil ⁵			Adopted	Adopted					Adopted			
Canada ⁶	Adopted	Adopted	Adopted	N/A					Consultation	Consultation		
China	Proposed	Adopted	Adopted			Adopted	Proposed	Adopted	Adopted			
European Union	Adopted	Proposed	Adopted			Adopted	Proposed		Proposed			
Hong Kong SAR	Proposed	Proposed	Proposed	Adopted	Proposed	Proposed				Consultation		
India	Adopted	Adopted	Adopted	Adopted	Adopted	Adopted	Adopted	Proposed	Adopted	Adopted	Partially adopted (CDS only)	Partially Adopted
Indonesia ⁷		Adopted	Adopted			Adopted		Adopted	Adopted			Adopted
Japan	Adopted	Adopted	Adopted	N/A		Adopted	Adopted ⁸		Adopted ⁸	Consultation		Adopted
Mexico	N/A	N/A	N/A	N/A	N/A	N/A	Consultation	Consultation	Consultation			Consultation
Republic of Korea	Proposed		Adopted			Proposed						
Russia	Adopted	Adopted	Adopted			Adopted						
Saudi Arabia ⁹	N/A	N/A	N/A	N/A	N/A	N/A						Adopted
Singapore	Proposed	Proposed	Proposed	Proposed		Consultation			Consultation	Consultation	Consultation	
South Africa	Proposed		Proposed			Proposed						
Switzerland	Consultation	Consultation	Partially Adopted ¹⁰	Adopted		Consultation						
Turkey	Proposed		Proposed									
United States	Adopted	Adopted	Adopted	Adopted	Adopted	Adopted	Adopted ¹¹	Proposed	Adopted ¹¹	Proposed ¹¹	Proposed ¹¹	Adopted ¹¹
Key:												
	No action has been taken to date											
N/A	Not applicable in jurisdiction (<i>i.e.</i> implementing rules may not be needed in certain jurisdictions)											
Consultation	Official documents have been published for public consultation											
Proposed	Draft legislation or regulations have been submitted through the appropriate process											
Adopted	Final legislation or rules have been adopted by the appropriate bodies and are enforceable											

- ¹ This summary table provides a simple overview of progress in implementing the OTC derivatives reforms; for more detailed responses, please see Annex X, Tables 1-7.
- ² Jurisdictions have noted that they are implementing Basel III capital requirements and are monitoring the progress of the Working Group on Margining Requirements (WGMR) for guidance on developing margining requirements.
- ³ Progress on standardisation here generally refers to having taken legislative steps to increase the use of standardised products.
- ⁴ In Argentina, central clearing and trading organised platforms are not requirements. However, Argentina issued regulations in 2007 to provide incentives for trading derivatives on organised platforms that offer central clearing. Argentina reports that a significant portion of derivatives trading is currently centrally cleared and traded on organised platforms as a result of existing regulation. Argentina reports that it will continue to consider whether additional legislation is needed.
- ⁵ In Brazil, banks incur a capital surcharge when entering into a non-centrally cleared OTC derivative transaction.
- ⁶ In Canada, authorising legislation for central clearing and reporting to TRs is in place in the provinces where the majority of OTC derivatives are booked. Basel capital rules will be in effect for banks as of January 1, 2013.
- ⁷ Indonesia, certain types of equity derivatives products are required to be traded on exchange; Indonesia requires banks to report interest rate derivatives and FX derivatives transactions to the central bank.
- ⁸ In Japan, these regulations (Cabinet Office Ordinance) will take effect on 1 November 2012.
- ⁹ In Saudi Arabia, OTC derivatives reforms are going to be implemented through regulation issued by SAMA and the CMA. The authorities reported that a draft self-assessment and a validation process have been completed. Saudi Arabia is currently reviewing the results of the draft self-assessment prior to formally finalising and approving any recommendations. The self-assessment will be finalised once the review process is complete and will assist in deciding any regulatory steps required.
- ¹⁰ In Switzerland, there is existing legislation to require dealers to report information on derivatives needed for a transparent market. This legislation does not cover the entire scope of the G20 commitments and Switzerland is planning to publish additional legislation for public consultation in the first half of 2013, along with other OTC derivatives reform initiatives.
- ¹¹ In the US, the CFTC has adopted several of the necessary rules for CCPs, mandatory clearing, reporting to TRs; and standardisation; with certain exceptions, the SEC has not yet adopted final rules. The CFTC and prudential supervisors have proposed regulations for capital and margining; the SEC has not yet proposed regulations for capital and margin requirements

1. Detailed assessment of market readiness for OTC derivatives reforms

The next steps outlined in the June 2012 progress report stated, among other things, that:

- *The FSB will focus increasingly on monitoring not only the legislative and regulatory steps that have been achieved but also the concrete implementation that has taken place. To assist in doing so, the FSB will seek to further improve data and other survey information on the extent to which OTC derivatives are in practice standardised, centrally cleared, traded on organised platforms and reported to TRs.*
- *The FSB intends to put additional focus on the readiness of infrastructures to provide central clearing, platform trading and reporting of OTC derivatives, the practical ability of industry to meet the requirements and the remaining steps for industry to take.*

In light of these goals, this fourth progress report seeks to provide a snapshot of the current availability of market infrastructure and, where possible, to identify the extent to which infrastructure can expand the scope of its activities to support implementation of the G20 commitments. In this report, “infrastructure readiness” refers to: a CCP’s ability to accept an OTC derivative for clearing; a TR’s ability to collect OTC derivative trade reporting and disseminate certain transaction information; and an organised trading platform’s ability to enable the trading of an OTC derivative.

For this fourth progress report, information was collected through: surveys of market infrastructure and authorities in the G20 jurisdictions; dialogue with industry groups such as International Swaps and Derivatives Association (ISDA), International Council of Securities Associations, (ICSA) and Securities Industry and Financial Markets Association (SIFMA); and the on-going work and reports published by standard setting bodies such as CPSS and IOSCO, and by the OTC Derivatives Supervisors Group and the OTC Derivatives Regulators Forum.

Part 1 of this report discusses the current readiness of each type of market infrastructure and issues relevant to the availability and capacity of infrastructure to support the implementation of the G20 commitments. **Part 2** provides a high-level update of the significant developments in international policy and national legislation and regulation, including a discussion of the progress jurisdictions are making towards implementing the four safeguards.

Appendices I and II provides entity-level summaries and availability of CCPs and TRs.

Appendix III includes a comparison of notional outstanding across OTC derivatives asset classes from end-2008 to end-2011.

Appendix IV provides estimated percentages of major OTC derivatives asset classes and products on CCPs through December 2011 and provides additional detail on the position and volume data for CDS through 31 August 2012.

Appendix V provides data on reporting of OTC derivatives transactions to TRs (as of end-December 2011).

Appendices VI and VII provides survey responses from CCPs and TRs on estimated notional outstanding on CCPs and reported to TRs by asset class (2010, 2011, end-June 2012).

Appendix VIII sets out a list of the international standard-setting and other workstreams relating to OTC derivatives reforms, identifying the responsible organisation and date of completion or expected completion.

Appendix IX provides more detail on jurisdictions' progress in implementing OTC derivatives reforms to date. The tables in Appendix X are similar to tables that have been presented in the last two progress reports and have been updated to reflect the current status of reforms.

1.1 Central Clearing

Summary

- CCPs are available to clear some OTC derivatives products in each of the five asset classes. Many CCPs reported plans to expand clearing services in the near future, particularly for interest rates derivatives.
- The nineteen CCPs included in the information collection are located in nine jurisdictions; five reported offering services cross-border and being registered (or exempt from registration) in multiple jurisdictions; 13 are supervised and offering services only in the same jurisdictions in which they are located.
- CCPs reported being able to apply their membership criteria to applicants located domestically and cross-border; however direct clearing members are generally located in the same jurisdiction as the CCP. Although times vary according to CCP, it typically takes three to six months to become a new direct clearing member, under current circumstances. Where indirect clearing relationships are permitted through client relationships with existing direct clearing members, it can take weeks (or less) for an entity to establish an indirect (or “client”) clearing relationship with a CCP. However, CCPs have limited information on the process for establishing client relationships and characteristics of indirect clearing members, such as where they are located and supervised.
- The timeline for clearing new products may vary considerably based on the complexity of the product. Many CCPs provided timeframes for launching new products and these responses ranged from four weeks to 21 months. However, several CCPs were unable to estimate the time because of the variation in risk management procedures and regulatory approvals.
- Approximately half of the CCPs reported having operational links to other types of market infrastructure, most commonly organised trading platforms and other CCPs.
- CCPs highlighted that expanding offerings and the number of participants and adding links to other CCPs (and thus expanding access to members of the linked CCP) increased the scale and complexity of the risk exposures to be managed.
- CCPs also pointed to operational challenges and regulatory uncertainty, including potential overlaps and differences between jurisdictions’ regulations, as obstacles to further expansion of services.

1.1.1 Availability of clearing services for OTC derivatives products

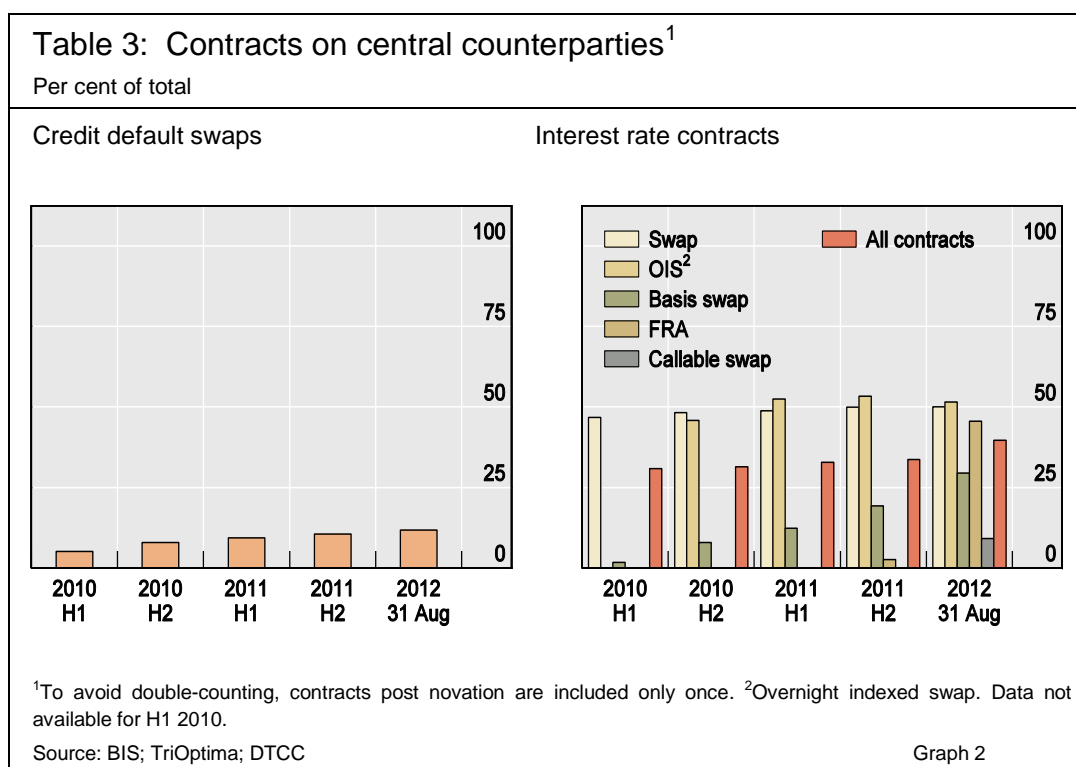
1.1.1.1 Current availability for OTC products by asset class

CCPs are currently available to clear some products in all five asset classes (commodities, credit, equity, foreign exchange and interest rate), even though regulatory requirements relating to central clearing are not yet in force in all jurisdictions.¹¹

The number of CCPs offering clearing in specific classes varies, ranging from eight clearing commodities to three CCPs that clear equity derivatives.¹²

Approximately half of the CCPs that are currently operational clear products in a single asset class, and another eight reported clearing products in between two and four different asset classes. No CCP currently clears products in all five asset classes, although one, CME Group, intends to do so.

Data on central clearing is still very limited, but data is available for interest rate contracts and credit default swaps. Approximately 10% of credit default swaps and 40% of interest rate derivatives were outstanding on a CCP as of 31 August 2012.



¹¹ According to ISDA data, clearing on CCPs has increased within certain asset classes since 2007 but also seems to have levelled off in 2010. OTC Derivatives Market Analysis, year-end 2011. Available at: <http://www2.isda.org/functional-areas/research/studies>. For example, according to this recent ISDA study, the percentage of interest rate derivatives being centrally cleared increased approximately 35% since 2007. The ISDA study also shows that the bulk of the increase - approximately 23% - occurred between 2007 and 2009, suggesting that in the interest rate asset class there was already some growing market demand for central clearing.

¹² BM&F Bovespa in Brazil, CDCC in Canada and Nasdaq OMX in Sweden reported clearing equities; the CCPs that clear OTC derivatives for commodities cover a range of CCPs that are registered domestically, such as SGX Asiaclear and CME Clearing Europe, and CCPs that are registered in multiple jurisdictions, such as LCH Clearent Ltd and CME Group.

As **Table 3** shows, the proportion of interest-rate contracts being centrally cleared stayed fairly stable over the first half of 2012, with one notable exception – forward rate agreements (FRAs). According to the most recent data, approximately half of the market for FRAs is now centrally cleared, whereas only a small percentage of the FRA market was centrally cleared as of end-2011.¹³

The number of transactions on CCPs in the commodity, equity and foreign exchange asset classes is typically not yet reported. Although CCPs provided some data in these asset classes in the survey exercise for this report, these data sets are incomplete and may include data for exchange-traded derivatives as well as OTC derivative transactions. More data across all asset classes should be available to authorities after mandatory reporting of OTC derivatives to TRs is implemented and in force. **Appendices IV** and **VI** provide some more detail on the volume and notional outstanding on CCPs from 2010 to 31 August 2012 based, respectively, on data collected from secondary sources and data collected for this report.

Product availability

There are a number of CCPs offering clearing services for interest rate and credit derivatives across jurisdictions, including CCPs that offer services in more than one jurisdiction.

The survey asked CCPs to indicate whether they offer clearing services for a list of specific products within each asset class.¹⁴ The majority of CCPs that offer clearing services for credit derivatives clear the same set of products, limited to CDS indices and single-name CDS.¹⁵ In the commodity and foreign exchange asset classes, the scope of products centrally cleared is small relative to those available for trading and is concentrated in energy derivatives and non-deliverable FX forwards. The number of CCPs that provide clearing services for products in the interest rate asset class varies greatly, although there are more types of products in this category, including more CCP specific offerings (i.e., several CCPs reported providing clearing services for a wider range of products than those in the categories listed in the survey).¹⁶ In each of these asset classes, where only one or two CCPs offer a product, the CCPs included are registered in or offering services in multiple locations.

For equity derivatives, the CCPs each clear different products.¹⁷ It is not clear whether the lack of availability of clearing for certain products within asset classes reflects current demand and whether this will change as implementation of mandatory clearing progresses.

The currencies in which CCPs clear OTC derivatives are a function not only of the location of the CCP but also the features of the products. Some OTC derivatives are denominated in multiple currencies (e.g., interest rates and foreign exchange) while others (e.g., credit and commodities) tend to be denominated in frequently traded global currencies such as the US

¹³ This increased central clearing of FRAs refers to the period from December 2011 through 31 August 2012. LCH began clearing these products in December 2011, which may account for the uptick in central clearing of FRAs since that time.

¹⁴ See the CCP survey available at http://www.financialstabilityboard.org/publications/r_121031b.pdf.

¹⁵ Specifically, all six offered clearing services for 5-year CDS products, five of the six CCPs offered clearing services for 10 year products. Three CCPs reported providing services for single name products and two reported providing services for multi-name products.

¹⁶ For example, only one CCP reported offering clearing services for forward rate agreements while four CCPs reported offering services for fixed-to-floating swaps.

¹⁷ Equity derivatives cleared at CDCC are extensions of listed equity products cleared by the same CCP. A similar offering is provided by listed derivatives exchanges in other jurisdictions, although these were not included in the survey.

dollar and the euro. Some CCPs reported clearing a broad range of currencies in asset classes such as interest rate derivatives and non-deliverable foreign currency forwards and noted plans to further extend the number of currencies cleared.

1.1.1.2 Expansion of product offerings

Over two-thirds of the CCPs surveyed reported plans to expand their current range of clearing services. Of those CCPs, 11 plan to add services for interest rate derivatives by Q1 2013; five reported plans to expand or add clearing services for equity and currency products; four plan to expand services for credit derivatives; and two plan to add services for commodity derivatives.

Most of the CCPs surveyed provided information on both the process involved in offering new products and a rough timeline for new offerings. In general, development of a new clearing offering from concept to launch involves the following steps (the order of which may vary): product development; risk management for the product (including risk modelling); development of operational capabilities; development of appropriate technology; regulatory review and approvals; and marketing.

CCPs noted that the timeframe from concept to launch varies based largely on the complexity of the product and on the time required for the regulatory review and approval process. Another factor may be how similar the new product is to other products already being offered for clearing (for example, offering a new asset class may take additional time.) The estimates provided ranged from four weeks to 21 months. The average timeframe reported was less than a year and several CCPs estimated a typical timeframe of between six and nine months.¹⁸ Of the four CCPs registered and operating in multiple jurisdictions that reported specific timeframes, the average ranged from five to nine months.¹⁹ However, the timeframe is typically shorter for established CCPs that are only incrementally expanding their clearing services. For example, when adding products that were similar to those for which clearing services are already provided, three CCPs reported that the time for launch was as little as two months, and one CCP reported that it was able to launch a comparable product in four to eight weeks.²⁰ For more complicated or novel products, the same CCP reported a timeframe ranging between 12 and 18 months.

1.1.2 CCP Participants and Registration

CCP registration

Most jurisdictions require that CCPs register with or obtain an exemption from registration from the relevant domestic regulators in that jurisdiction in order to provide clearing services to its domestic market participants. This applies both where the CCP has a local presence and

¹⁸ One CCP indicated that this information was confidential; two CCPs noted that a timeframe could not be provided (one indicating that the regulatory approval process was too uncertain), given the range of products; and three did not respond.

¹⁹ All four entities provided a range for the timeframe. The timing reflected here represents the average shortest time and the average longest time in the ranges given. This number includes European Commodity Clearing's response, which clears only commodities derivatives and reported a three to six month timeframe for adding new products in this asset class. Six months was considerably less than the outside timeframe that other three cross-border CCPs reported. When European Commodity Clearing is taken out of the pool, the average timeframe for new products is five to 15 months to add clearing services for new products amongst that group of CCPs.

²⁰ ICE Clear Europe reported being able to launch a comparable product in four to eight weeks; NASDAQ OMX also noted that the timeframe for launch could be just two months for products that were similar to those products already being cleared.

where it offers cross-border services into that jurisdiction. This can mean that CCPs wishing to offer services in multiple locations need to register in multiple jurisdictions in order to provide services to market participants operating in those jurisdictions. For example, five of the CCPs surveyed are registered or exempt from registration, and operate, in multiple jurisdictions, so that their services are available to participants in those jurisdictions without requiring the participants having to register in a third country jurisdiction or access the CCP indirectly as clients of clearing members.²¹ Although a minority of those surveyed, these CCPs currently clear a sizeable portion of OTC derivatives.

Alternatively, market participants based in other jurisdictions may structure their activities so as to clear through an entity in the home location of the CCP. Clearing members of CCPs include some of the largest banks and brokerage firms in the world, with subsidiaries, affiliates or branches in multiple jurisdictions.²² Market participants in several jurisdictions seem to be accessing CCPs as direct clearing members through a subsidiary or affiliate organised or registered (or both) in the home country of the CCP. An authority may be assisted in identifying potential market risks if it has the ability to oversee simultaneously participants and infrastructure in its market (through direct supervision or international cooperation). Several CCPs note that their membership requirements include registration with the relevant authorities in the home country of the CCP.

Direct clearing members: Characteristics and access

The CCPs included in the data collection each have between five and 150 direct clearing members.²³ The process for becoming a direct clearing member of a CCP generally requires the applicant to comply with regulatory status, minimum capital and operational requirements, and to submit to an analysis of its risk modelling and risk management procedures. The applicant is also required to contribute to the settlement fund; demonstrate ability to meet minimum margin requirements; have technological infrastructure compatibility; and, often, to undergo an onsite assessment or audit by the CCP. The process usually takes between three and six months,²⁴ but this may vary depending on the sophistication of the applicant. CCPs report that as their membership changes, they must recalibrate their risk management and risk modelling procedures.

Most CCPs operate in their home jurisdiction under the supervision of a home authority and a majority of their direct clearing members have a presence (through operations, supervision, or

²¹ CME Group Ltd is located in the US and subject to supervision by US regulators and by the UK FSA (as a Recognised Operating Clearing House (ROCH)); Eurex Clearing is located in Germany and subject to supervision in Germany and the UK; ICE Clear Europe, is located in the UK, subject to supervision in both the UK and in the US and offers services in both jurisdictions; LCH Clearnet Ltd is located in London and subject to supervision in the UK, US, and (pursuant to exemptions) in Germany and Canada; and LCH.Clearnet SA is located in France and subject to supervision in France and the UK (as a ROCH) and has applied to the CFTC for registration in the US. The European Commodities Clearing exchange is subject to supervision by authorities in Germany, but noted offering services in multiple European countries.

²² In addition to CCP survey responses, characteristics of direct clearing members for certain CCPs are also highlighted in the [Financial Stability Oversight Council's Annual Report](http://www.treasury.gov/initiatives/fsoc/Documents/2012%20Appendix%20A%20Designation%20of%20Systemically%20Important%20Market%20Utilities.pdf), regarding designations of financial market utilities. Available at : <http://www.treasury.gov/initiatives/fsoc/Documents/2012%20Appendix%20A%20Designation%20of%20Systemically%20Important%20Market%20Utilities.pdf>.

²³ The number of direct clearing members, however, may not a good proxy for volume or size (in terms of value) of the CCP's business.

²⁴ Some CCPs reported a considerably shorter time, depending on the characteristics of the participant applying for membership.

both) in the same jurisdiction as the CCP. The nature and extent of cross-border clearing activity seems generally related to the size and structure of the given CCP; local registration requirements in some jurisdictions; the nature of its direct clearing members and products being cleared; indirect clearing relationships; and links to other CCPs.

For most CCPs, the majority of their direct clearing members – in several instances, 100% - have a presence in the CCP’s jurisdiction. Only four CCPs, all of which are located in the EU, reported that more than 50% of their direct clearing members did not have a presence in the CCP home country.

Most CCPs reported that they have the same membership requirements for applicants with a presence in the CCP’s home country as they do for applicants that are not located in the same jurisdiction. Several CCPs reported that becoming a direct clearing member requires being subject to supervision by a local supervisory authority (or through membership of a locally regulated self-regulatory organisation, such as an exchange) either based on the CCP’s membership criteria or other local requirements.²⁵ To access clearing services for equities, for example, CDCC and BM&F Bovespa reported that direct clearing members must either be a member of a local exchange or otherwise subject to supervision in the home jurisdiction of the CCP.²⁶ Unless a participant meets one of those conditions, market participants must rely on indirect clearing relationships to clear equities derivatives through CDCC or BM&F Bovespa. For all other asset classes there is at least one CCP registered in multiple jurisdictions, which may make availability of clearing services for direct participants more available across jurisdictions.²⁷

Even when the membership requirements are the same regardless of the applicant’s location, there may be other factors, such as the requirements for local supervision or membership in a local exchange, that weigh in favour of participants having a local presence. It is not clear whether requirements for local supervision, such as requirements for registration or membership of a locally regulated exchange, create barriers or incentives that influence whether a market participant establishes as a local entity in order to be a direct clearing member of a CCP.

Indirect clearing: Characteristics and access

CCPs take different approaches to indirect or “client” clearing relationships. Some require tripartite agreements between the CCP, the clearing member and the client, while others rely on the direct clearing member’s relationship with its client (although such arrangements are

²⁵ “Subject to supervision” can include registration or exemption from registration. Not all CCPs provided information regarding membership or other requirements for local supervision. The following noted that there are requirements that members be subject to supervision in the CCPs home jurisdiction or by a regulator designated by the CCP: BM&F Bovespa, CDCC, CCIL, ICE Clear Credit (designates regulatory authorities with which members must be registered), JSCC, SGX. LCH noted that they do not require that applicants be supervised by any particular authority, but did note that applicants from EU countries would be exempt from certain requirements and that non-EU applicants would have to provide, among other things, confirmation of regulatory oversight and a legal opinion stating that local law in the applicant’s jurisdiction would not prevent the provisions of the LCH rulebook from being applied.

²⁶ Nasdaq OMX also reported providing clearing services for OTC equity derivatives products. However, Nasdaq OMX only provided information about product offerings and timelines for bringing clearing services to new products and did not provide additional detail regarding participant access.

²⁷ CME Group, Eurex Clearing, ICE Clear Europe, LCH Clearnet Ltd and LCH Clearnet SA are all registered in multiple jurisdictions and offer services in multiple jurisdictions. European Commodity Clearing reports that it operates in five different jurisdictions within the EU but is registered and supervised only in Germany. The remaining CCPs all report being registered in and operating in a single jurisdiction.

generally evaluated as part of the risk modelling and management of the member). CCPs that allow indirect clearing may be able to expand their services quickly through new indirect clearing agreements between the CCP's direct clearing members and clients of those firms. Some CCPs reported that an existing client of a direct clearing member could be in a position to clear on the CCP in as little as 24 hours, though the more commonly reported timeframe was approximately two weeks – still considerably less time than becoming a direct clearing member.²⁸

Not all CCPs provided information on the number of indirect clearing members. Of the CCPs that provided information, the numbers of indirect clearing members ranged from zero to almost 2000. Some CCPs stated that they did not collect this information, and one CCP declined to provide information.

Where CCPs have indirect clearing participants, the number of indirect clearing participants is generally several times larger than the number of direct clearing members. Only two CCPs reported both the number of indirect participants and the percentage that have a presence in the CCP's home jurisdiction. ECC reported that approximately 29% of indirect clearing is carried out by participants with a presence in Germany.²⁹ BM&F Bovespa reported that approximately 98% of indirect participants have a presence in Brazil.³⁰

1.1.3 Links with other infrastructure

More than half of the CCPs surveyed reported having links with other types of market infrastructure. Five of the CCPs surveyed are also linked with TRs. Operational links may enhance efficiency. For example, links between CCPs and organised trading platforms can lead to straight-through processing. Similarly, links between CCPs and TRs can facilitate reporting. CCPs reported being linked, most commonly, with one or more organised trading platforms or exchanges.³¹

Operational links between CCPs may provide the opportunity to increase multilateral netting and can broaden market participant access to central clearing across a range of products through interoperability and cross-margining. However, operational links with other CCPs affect a CCP's risk profile. How the CCP manages its risk exposure to other CCPs³² can also create exposure to new risks. Only four CCPs reported having links to other CCPs (in two instances, a related entity), of which three noted that the linked CCPs also clear OTC derivatives products, but did not specify whether they engage in cross-clearing of OTC derivatives. Three CCPs also reported plans to establish operational links with other CCPs. For those few entities that currently have operational links to other CCPs, only two reported having cross-margining and netting services.

²⁸ This timeframe is based on the CCPs perspective of indirect arrangements and does not take into consideration arrangements and diligence that direct clearing members must make in order to extend services to their clients.

²⁹ ECC is a German CCP operating in multiple European jurisdictions under the supervision of BaFin and the Bundesbank. Since, under EMIR, CCPs will continue to be registered with and regulated by their national supervisors the home jurisdiction is considered to be Germany rather than the EU.

³⁰ BM&F Bovespa is located and operating in Brazil, under the supervision of the CVM and BCB.

³¹ The FSB CCP survey asked for links with “trading platforms/exchanges,” as trading platforms are still being defined in different jurisdictions.

³² The CGFS report on alternative configurations to CCP access, from November 2011 provides an in-depth analysis of costs and benefits to certain types of linkages (available at <http://www.bis.org/publ/cgfs46.pdf>).

The limited number of current operational links between CCPs may reflect caution with regard to the additional complexity and risk exposure that such links might entail. Because such links may expose the CCP and its members to new operational or prudential risks, national authorities with CCPs interested in interoperability must examine the risks posed by CCP interoperability and cross-margining, and monitor the potential systemic impact of the exposures arising from such links.³³

1.1.4 Issues

1.1.4.1 Regulatory uncertainty

A number of CCPs report plans to expand their clearing services to a wider range of products, perhaps in anticipation of an increased demand for clearing services in their markets based on the direction of regulation. However, many CCPs reported that legislative and regulatory uncertainty about the specific products and market participants to which new clearing requirements for OTC derivatives apply is causing delays in offering products for clearing and developing new services to support mandatory central clearing. This uncertainty is compounded by perceived potential for overlapping and inconsistent regulation.

1.1.4.2 Risk management

CCPs noted that new products and participants entail new risks that have to be modelled, analysed and managed. Some CCPs highlighted the lack of standardisation of products as a challenge to appropriate risk modelling. Although requirements for central clearing include sufficiently standardised features, there is still uncertainty about what features will ultimately be used as the touchstone for “standardised” across jurisdictions.

Similarly, CCPs expressed concern that as new clearing requirements come into force market participants will rush to access clearing services, either directly or indirectly, which could place additional stress on the CCPs. For example, because due diligence (including assessing the potential member’s risk management procedures) is generally carried out when a market participant applies to become a clearing member, CCPs require sufficient time to implement risk procedures that are appropriate for the new clearing relationships.

Some authorities have begun to provide guidance in the form of proposed rules and statements of general policy regarding the phasing of compliance. Such guidance may help to address concerns regarding the potential stresses that a “rush” to rapidly increase central clearing might cause.

1.1.4.3 Accessibility across FSB member countries

About half of FSB member countries have no CCPs located in or authorised to operate in their jurisdictions.

In many instances, market participants are already registered or organised in multiple jurisdictions. For example, the G15 dealers have structured business operations to be operational in multiple jurisdictions.³⁴ Conversely, CCPs may register or seek exemptions

³³ EMIR initially sets out requirements for CCPs setting up new links for money market instruments and transferable securities like equities or bonds. The products to which these requirements apply may be extended after a planned comprehensive study is carried out in 2014.

³⁴ The G15 dealers are the largest derivatives dealers and signatories to the March 2011 Strategic Roadmap process and can include a different number of firms, depending on those that have become signatories to particular initiatives. See <http://www.newyorkfed.org/newsevents/news/markets/2011/SCL0331.pdf>.

from registration in multiple jurisdictions in order to facilitate use by market participants in multiple locations. However, it is unclear whether authorisation requirements or other factors might limit the direct participation of smaller participants that currently do not have a presence in the home country of existing CCPs. Based on responses from CCPs regarding their current membership and the timeframe for becoming a member, it is unlikely that market participants from jurisdictions with no CCP infrastructure will become direct clearing members in other jurisdictions by end-2012.

1.1.4.4 Expansion of offerings

As CCPs expand services to meet new regulatory requirements, they need to carefully manage any additional risks.

For example, several CCPs clear only in the currency of their home jurisdiction. Expanding services to provide clearing in different currencies, or possibly through links with other infrastructures, raises challenges for liquidity management.

More broadly, expanding to new products can also pose new risk management challenges. For instance, the market risks associated with clearing CDS contracts referencing diversified multi-name indexes are significantly different from those associated with clearing single-name CDS contracts.

In addition, managing operational risks through developing and testing compatible technology is a necessary (and time consuming) step required to interface with both clearing members and new infrastructure.

1.2 Reporting to trade repositories

Summary

- TRs exist for reporting in each of the five asset classes. The state of development is most advanced for those TRs that were developed first – credit, interest rates and equities – while TRs for foreign exchange and commodities are relatively less advanced. Around two thirds of TRs surveyed have business operations only in a single jurisdiction. Less than one third of TRs surveyed reported plans to extend their operations geographically.
- A number of TRs are planning to extend the asset classes for which they accept trade reporting. These TRs typically report needing approximately six months to launch such new services.
- Few TRs currently have links to other FMIs, although the majority of the TRs surveyed reported work in progress, or the intention, to develop links to CCPs and organised trading platforms.
- The majority of TRs report that the G15 dealers are either ready now to comply with mandatory trade reporting or will be ready by end-2012; several TRs also reported that other financial institutions will be ready by end-2013, at the latest.
- TRs' estimates of the time required for new clients to complete the necessary administrative and technological steps to register with a TR and start trade reporting vary, but generally range from six weeks to three months.
- There is considerable commonality in the categories of data that are collected and stored by TRs. However, there is no single standard format for data reporting and storage and the majority of TRs surveyed use proprietary codes and formats, which makes aggregation and reconciliation difficult. TRs consider that progress in this area depends on standardisation of reporting formats and common identifiers for legal entities, products and trades.
- Less than half of the TRs surveyed currently collect data or provide services in relation to portfolio-level information. Most of the TRs surveyed do not currently store legal documents relating to reported contracts.
- All TRs report maintaining a range of data security arrangements and safeguards.
- All TRs provide access for authorities to data stored, in most cases through a web-based portal. The challenges to official access reported are generally legal rather than technological. All TRs provide transaction data to the public in an anonymised and aggregated form.

1.2.1 Availability for asset classes

TRs are currently available for all five asset classes.³⁵ TRs have developed even absent final regulations in many jurisdictions, to accept reporting across asset classes in several jurisdictions. Industry and regulators have been devoting significant resources seeking to ensure the availability of TRs for each asset class.

Currently, there are between four and six TRs available for each asset class (see **Appendix II**).³⁶ However, a number of TRs that are currently operating have plans to expand their services by accepting data for new asset classes.³⁷ According to current plans to establish new TRs or expand the asset classes accepted by existing TRs, the range will increase to seven to twelve TRs for each asset class by end-2013 or sooner. As discussed in **Section 1.2.9**, while the development of TRs for reporting of transactions is encouraging, development without coordination of data formats could result in fragmentation that could diminish the ability of the regulatory community to view markets broadly. The on-going work to implement the global LEI (see **Section 2.1.5**) and more consistent data reporting frameworks will enhance the ability of regulators to aggregate data from TRs in each asset class.

Fifteen TRs are either registered or are in the process of becoming registered and nine are operational at the time of publication of this report. For this purpose, a TR is operational if it is both accepting trade reports and making data available to regulators. Of those TRs that are operational, one is located in the US, one each in India and Korea, two in Brazil and three in the EU.³⁸ New TRs are to begin operations in the EU, Hong Kong, Japan, Singapore and the US in the near future.³⁹

As with clearing, there is better information available for interest rate and credit default swaps than for other asset classes. The percent of notional outstanding reported to TRs continues to be high for interest rate swaps and CDS (over 90% for both types of products), and close to 50% for foreign exchange derivatives products.⁴⁰ There is insufficient data to report on the proportion of commodity and equity derivatives reported to TRs. However, as with the CCP data, TRs reported some information regarding these asset classes, as is presented in **Appendices VI and VII**. Increases in the total notional amount outstanding recorded within

³⁵ One EU-based TR currently accepts reports for interest rates, foreign exchange, commodities and equity derivatives, and proposes to extend its services to credit derivatives by the end of 2012. A new TR that is being established in Singapore and a US TR that is not yet operational will both also cover all five asset classes once operational.

³⁶ Only one TR, Bank of Korea, reported collecting transaction data across all five asset classes.

³⁷ ICE Trade Vault reports expanding reporting facilities to the foreign exchange asset classes; REGIS-TR reports expanding reporting facilities to credit derivatives.

³⁸ The TRs by location are as follows: BM&F Bovespa and CETIP are located in Brazil, CCIL is located in India, ICE Trade Vault is located in the US; and DTCC EFETnet, DTCC-DDRL and REGIS-TR are located in the EU.

³⁹ In the majority of cases, those new TRs are scheduled to be operational by end-2012 or January 2013. The TR being developed by the HKMA is scheduled to start operating in Q3 2013.

⁴⁰ The only reported foreign exchange derivative product is currency swaps. This was calculated based on the notional amounts outstanding of derivatives that have been reported to the BIS (denominator) as compared with the notional amounts of derivatives that have been reported to TriOptima (in the case of interest rates and foreign exchange derivatives) and DTCC (in the case of credit derivatives). This is the same methodology that was used in calculating the trade reporting statistics presented in Appendix VII.a of the June 2012 progress report. DTCC does not publish statistics on the notional outstanding of equity derivatives, which is why there is no calculation for that asset class. Reporting this class is expected to be available only at end-2012. Although the TR data shows that approximately half of the foreign exchange derivatives are reported to TRs, it seems that there are issues regarding the scope of products included in the BIS data as compared with data from TRs.

TRs over the last two years are generally attributable to the development of new TRs rather than increases in the number of participants and products offered in TRs.

The timeframe for TRs to put in place facilities for new reporting services appears to vary significantly, with reported timeframes between two to twelve months. However, TRs may require substantially more time to establish reporting facilities for entirely new asset classes than to add new products within an asset class for which it already accepts trades. The divergence may also reflect differences in the current levels of development of TRs. The timeframe for launching new services may also be contingent on variables such as the time needed for IT development and for industry bodies to finalise standard messaging formats, where that is necessary to support reporting of a products in a new asset class. One operator currently estimates an average timeline of six months for a new product to be reported to one of its TRs.⁴¹ That timeframe typically includes three months for the operator to fully define specifications with users and a further three months to code and test the product reporting, and assumes that the process for obtaining regulatory approval will be conducted in parallel.

1.2.2 Market participants

1.2.2.1 Current reporting

The nature and location of the users varies considerably between TRs. In most cases, TRs predominantly serve market participants located in their home jurisdiction. However, an EU-based TR⁴² that currently accepts transaction data for all credit, equity and interest rates assets classes estimates that 86% of its 27,000 accounts are foreign, while another⁴³ that currently accepts data for the commodities and energy asset class reports a global range of almost 350 participants including G15 dealers and other types of financial institutions.

The type of institutions that are participants can vary greatly from one TR to another. For example, a TR that accepts data on derivatives covering all asset classes other than credit reported that 90% of its participants are non-G15 banks, 10% are non-financial institutions and all are domestically located. Another,⁴⁴ which accepts data on interest rate, equity, commodities and foreign exchange data classes, reported that just over 2% of its participants are non-domestic, but 99% of its participants are non-financial institutions.⁴⁵

1.2.2.2 Readiness for future reporting

The survey also invited TRs to assess the readiness of three broad classes of market participants - G15 dealers, other financial institutions and non-financial institutions - to report OTC derivatives transactions by the end of 2012 or end 2013. The majority considered that the G15 dealers are either ready now to meet reporting obligations, or will be ready by end 2012.⁴⁶ Two TRs⁴⁷ established in Brazil, where derivatives activity has been regulated since

⁴¹ DTCC –DDR, DTCC-DDRL, DTCC-EFETnet, DTCC-GTR, DTCC Data Repository – Japan, DTCC Data Repository-Singapore (together, the DTCC TRs).

⁴² DTCC-DDRL.

⁴³ ICE Trade Vault.

⁴⁴ Cetip.

⁴⁵ REGIS-TR did not provide information on its members and noted that many market participants were waiting until the finalisation of technical regulation to start their on-boarding process.

⁴⁶ Under existing rules and proposals in different jurisdictions, it is likely that the G15 dealers will be the reporting party for purposes of reporting transactions in credit and interest rate asset classes, since a G15 dealer is often on one side of these

1994, reported that all relevant institutions are ready to meet trade reporting obligations. Two other TRs⁴⁸ estimated other financial entities to be ready currently; while seven (including the DTCC TRs) considered that other financial institutions will be ready by end-2013 or sooner.⁴⁹ One TR assessed that, in Europe, the vast majority of medium-sized financial entities and non-financial entities have not yet started developing projects to adapt their systems for trade reporting.⁵⁰

TRs expressed varying views regarding the process that markets participants would need to take to begin trade reporting (if they are not already) and on the usual timeframe required to complete the process. The steps needed for new participants to begin reporting to a TR generally include: (i) participant “on-boarding,” including submission of applications, completion of user agreements and conducting ‘know your customer’ and anti-money-laundering checks; (ii) internal systems adaptation by the participant, including creation of appropriate files for submission to the TR; and (iii) systems integration, which would include developing the appropriate arrangements and technological interface for submitting data files to the TR.

One TR noted that market participants that were already clearing trades through a CCP affiliated with the TR would be able to use the same electronic interface to report trades and would merely be required to incorporate the reporting fields required by applicable regulations into their inbound communications. However, market participants that do not already have a clearing relationship with that affiliated CCP would have to customise their infrastructure to ensure compatibility with that of the TR, a process which would generally take between four and six weeks.⁵¹ Another TR estimated a timeframe of three months for firms to develop the necessary systems capabilities.⁵²

The majority of the TRs surveyed accept (or where not yet operating intend to accept) transaction reports from third parties on behalf of the counterparties to a transaction. Those third parties are generally the execution venue (for the terms of the initial trade), or CCPs (for confirmation, continuation and valuation data).

1.2.3 Locational activities

No TRs surveyed reported any local restrictions on the derivatives transactions that could be reported. However, the Hong Kong Monetary Authority (HKMA) is establishing and will run the TR which serves as the repository for the mandatory reporting requirement imposed on entities under the local regulatory regime. Under this framework, Hong Kong intends to

trades. Counterparties to transactions in equity and commodity asset classes are likely to be more varied, and may not include a G15 dealer.

⁴⁷ BM&F Bovespa and Cetip.

⁴⁸ CCIL, CME SDR.

⁴⁹ TRs in the DTCC Group, CME SDR and HKMA TR.

⁵⁰ REGIS-TR (which did not express a view on the readiness of G14 dealers).

⁵¹ CME SDR.

⁵² Another TR that is not yet operating estimated that it would take up to twelve months for a new participant to complete the technological steps to connect to a TR and to be able to extract the necessary data from its own systems.

require derivatives transactions that have a bearing on Hong Kong's financial market to be reported to the HKMA TR.

Most of the TRs surveyed reported that they have business operations only in the jurisdiction where they are registered. Two TRs in the DTCC group reported having business operations in two jurisdictions – the jurisdiction where they are registered and one additional jurisdiction.⁵³ Five of the TRs surveyed reported plans to extend their operations to provide global services.⁵⁴ Two envisaged expansion within the EU once the trade reporting framework under EMIR comes into force,⁵⁵ while several TRs plan for geographically broader expansion.⁵⁶

1.2.4 Collection and storage of data

1.2.4.1 Categories of data collected

TRs both collect data and provide data. There seem to be few impediments to collecting data, and those that were reported generally relate to technological interfaces and are capable of being addressed. TRs surveyed reported few technical constraints on collection and storage of data even with respect to non-standardised contracts.

Data is collected through a number of different methods, including internet-based electronic interfaces between the customer and the TR, secure communications network (e.g., Swiftnet, FinNet), file uploads, screens for entry of transactions, feeds from organised trading platforms and CCPs and direct reporting.

Non-standardised and 'exotic' transactions may not be easily accommodated by electronic submission. To address this challenge, one TR that is provisionally approved as a swap data repository reported having created an 'Exotic Trade' schema to support submission of such trades,⁵⁷ while another noted that its ability to support transactions in bespoke derivatives that do not conform to industry standard software messaging formats (e.g. XML, FpML) would be contingent on industry finalising messaging standard representations.⁵⁸ In contrast, one TR noted that the EU reporting formats that are currently being prepared by ESMA do not distinguish between standardised and non-standardised contracts and set out data fields that should accommodate all contracts, regardless of whether they are standardised.⁵⁹

The ODRF is working with TRs and industry implementation groups to provide guidance on, among other things, underlying data design and reporting output. The aim of this work is to understand the information that is being collected by TRs and to work with TRs to ensure that the reports being developed are useful for, and meet the needs of, authorities.

Table 4 below summarises the information TRs reported collecting from the list provided in the questionnaire:

⁵³ DTCC-EFETnet and DDRL reported operating in London (where registered) and an additional location (New York).

⁵⁴ DTCC DDR (Singapore), DTCC-EFETnet, DTCC DDRL, ICE Trade Vault and REGIS-TR.

⁵⁵ ICE Trade Vault and REGIS-TR.

⁵⁶ For example, the DTCC TRs based in the Netherlands and UK plan expansion in 2013 both within and outside of Europe and ICE Trade Vault will register in the EU and Singapore.

⁵⁷ ICE Trade Vault. ICE Trade Vault noted that these trades are fairly common in the commodity asset class.

⁵⁸ CME SDR.

⁵⁹ ESMA requirements regarding the format of data for reporting to TRs are expected to come into force in Q1 2013.

Table 4: Specified transaction data collected by TRs

Entity	Counterparty name	Contract type	Centrally cleared	Trade date	Currency	Buyer/Seller position	Buyer/seller jurisdiction	Underlying	Maturity	Notional Value	Price	Settlement date	Counterparty Exposure and collateralisation
Bank of Korea	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
BM&F Bovespa	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CETIP	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Clearing corporation of India (CCIL)*	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
CME Swap Data Repository	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DTCC-DDR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
DTCC-DDRL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
DTCC-EFETnet	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
DTCC-GTR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
DTCC-Data Repository (Japan)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
DTCC Data Repository (Singapore) PTE Ltd	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
HKMA	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	
IceTrade Vault	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
REGIS-TR	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	

*CCIL collects information regarding the underlying for CDS only; CCIL can construct buyer/seller data through member identifications.

✓	indicates that this information is collected and maintained by the TR
	indicates that the TR does not collect this information

The majority of TRs do not collect or provide services relating to portfolio-level information (including gross or net portfolio exposures, collateral or legal agreements that apply to derivatives portfolios), and most indicated that they have no current intentions to develop such services. One noted that there is limited need or commercial viability for such services in the product market in which it operates. However, one intends to offer portfolio-level information as part of planned post-trade processing services. Some TRs however, do provide reports relating to portfolio-level information, including outstanding position-level reports.⁶⁰

1.2.4.2 Storage of additional transaction information

Of the TRs surveyed, six currently provide services for storing legal documentation relating to reported, non-standard contracts.⁶¹ Those TRs store PDF versions of confirmations for non-standardised contracts and electronic versions of legal agreements. Two other TRs noted that their systems are capable of storing documents. One of those TRs, based in the EU, indicated that the EU data fields that are being developed by ESMA for the purposes of the reporting requirements under EMIR, and does not accept documents for reporting purposes. However, that TR plans to offer the storage of contracts in conjunction with other ancillary services as these are developed.

1.2.5 Access to data

1.2.5.1 Authority access to data

As discussed in the CPSS-IOSCO Report of January 2012 on OTC derivatives data reporting and aggregation requirements⁶² (CPSS-IOSCO data report) a range of authorities require practical access to data stored in TRs on both a routine and an *ad hoc* basis, and the ability to aggregate those data effectively, in order to carry out their mandates.⁶³ The CPSS-IOSCO data report advises that there are a number of methods by which a TR can provide authorities with effective and practical access to relevant data including: a dedicated web portal with appropriate controls; active distribution by email; and separate server or host-to-host functionality.

All TRs surveyed indicated that they provide, or will provide, regulatory and supervisory authorities with access to data.⁶⁴ The most commonly used method is through a secure web portal or user interface, although alternatives, such as a secure file transfer system, are also used. Several TRs provide both a web portal and additional arrangements (e.g., an in-house MIS delivery channel, or downloadable reports generated intra-day and at day-end). One TR,

⁶⁰ The DTCC TRs and ICE Trade Vault, which is able to provide this data at the product or index level to regulators.

⁶¹ The DTCC TRs.

⁶² <http://www.bis.org/publ/cpss100.pdf> and <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD366.pdf>.

⁶³ As acknowledged in the CPSS-IOSCO data report, a broad range of authorities and public sector entities are interested in obtaining access to data reported to TRs, including international financial institutions. Market regulators, central banks, prudential supervisors and resolution authorities must have effective and practical access to the data collected by TRs that they require to carry out their respective mandates. Access to TR information by official international financial institutions should be permitted in appropriate form where consistent with their mandates.

⁶⁴ The survey and responses focus on the technical capacity of the TRs to provide effective access to authorities to stored data and the methods by which that access is provided. This does not address the question of legal capacity and confidentiality restrictions that might apply under national law to limit access for foreign authorities. Those questions are addressed in the CPSS-IOSCO report on data access referred to in section 2.1.4.

in addition to web access, will provide reports compiled on the basis of specified regulatory requirements and enable supervisors to request information on aggregated positions.

This information suggests that, from a technical perspective, TRs are able to ensure that authorities have effective and timely access to stored data. Where there are impediments, these are likely to arise from the legal framework under which TRs or market participants operate.⁶⁵ CPSS and IOSCO are currently carrying out work on access to TR data (see section 2.1.4). Their report is expected to set out guidance on the levels of access authorities typically expect to need to carry out their mandates.

1.2.5.2 Market transparency (Public availability of data)

All TRs that responded also provide transaction data on OTC derivatives to the public, or intend to do so. Public access is generally provided via a website. In some cases and for some products, trading information is provided on a real-time basis. Some TRs only publicly disclose aggregated, end-of-day information.⁶⁶ One TR currently operating in the EU provides aggregated and anonymous market data on reported credit default swaps and interest rate swaps registered on a weekly basis, including aggregated information about transactions and positions.⁶⁷ Another TR publishes real-time information on matched trades in credit default swaps and interest rate swaps, daily aggregated information on the number and volume of matched trades, and also provides aggregated information in its publications on a weekly, monthly and annual basis.⁶⁸ In the EU, TR data will be provided to the public in accordance with technical standards that are being prepared by ESMA.

All TRs registered with the CFTC will provide a service to enable trading venues and their participants to meet their public real-time trade reporting obligations by providing reports tailored to the real-time ticker of transactions in accordance with the framework prescribed by CFTC regulations.

1.2.5.3 Data security

All TRs responded that they maintain legal, operational or technological arrangements to ensure the security of stored data.⁶⁹ These include a combination of user authentication and access controls; password policies and signature keys; logs of and limitations on failed user access attempts; audit trails; encryption; intrusion detection systems; firewalls and network segmentation; and vendor security software. Such security policies may also control access by authorities to ensure that authorities do not have access to transaction-level (as opposed to aggregate) information of entities that are not subject to their supervision, or the identities of counterparties for which the authority does not have jurisdiction. TR employees are also subject to confidentiality requirements and security policies for managing sensitive data.

⁶⁵ For example, confidentiality requirements and legal restrictions on disclosure.

⁶⁶ BM&F Bovespa and Cetip.

⁶⁷ DTCC-DDRL.

⁶⁸ CCIL.

⁶⁹ These are assertions made by the TRs and should not be interpreted to imply a judgement by appropriate regulatory authorities or standards setting bodies.

1.2.6 Data aggregation and reconciliation

As highlighted in the CPSS-IOSCO data report, the ability to aggregate OTC derivatives data across multiple TRs is necessary to support the objectives of supervisory and regulatory authorities. This significant challenge is being addressed on a number of fronts, including the development of a global LEI (see **Section 2.1.5**) and industry work on a universal system for product classification. TRs are a fundamental part of the architecture for enabling data aggregation.

There is currently no single, industry-wide format for data reporting, processing and storage.⁷⁰ The current capacity of TRs to aggregate data appears to be low.⁷¹ Only two of the TRs surveyed report a current capacity to aggregate data for OTC derivatives transactions reported to them across multiple asset classes, and only one currently has systems in place to aggregate or reconcile internal data with transaction data conveyed to them from another TR. All TRs reported having or anticipating difficulties in aggregating or reconciling OTC derivatives transaction data across different TRs. Five TRs expressed the view that the data formats they used would not be compatible with those of other TRs for the purposes of data aggregation or reconciliation.

Regarding the process for aggregation, one TR noted that swap data initially reported to it across multiple asset classes might span a number industry standard software messaging formats. These would then be normalised to a consistent data format before storage. Once normalised the data may be aggregated in the database.

Standardisation of reporting formats and common identifiers are key to aggregation, and requires further development. One TR expressed the view that without common reporting formats and data fields, reconciliation of data reported to different TRs would be difficult if not impossible. Another indicated that common identifiers for legal entities, products and trades would all be necessary to enable aggregation and reconciliation of data for transactions across asset classes, and between TRs. One TR that indicated that it has a system in place to aggregate or reconcile data reported to it by another TR, and that its data formats would be compatible with those of other TRs noted, nevertheless, that it might be difficult to identify the same transaction reported to multiple TRs in the absence of a common unique trade reference number.

The seven TRs that compose the DTCC group, however, reported that their formats are compatible with those of other TRs. These related TRs do not anticipate difficulties in aggregation or reconciliation of data from a technical perspective, provided that other TRs use industry standard data sets, formats and protocols, including unique transaction identifiers. Nevertheless, the TRs in the DTCC group also reported that they anticipate that aggregation and reconciliation will be difficult for reason of legal obstacles to the sharing of data, including confidentiality and privacy regimes.

⁷⁰ The most common formats used for reporting and storing data are FpML, or XML / FIXML (including FIXML with embedded FpML). One TR surveyed reported also using CSV Excel file and another uses TXT format. The majority of TRs surveyed use non-ISO (International Organisation for Standardisation) codes and proprietary codes and formats.

⁷¹ The ability for TRs to aggregate data through the use of compatible formats would facilitate regulatory oversight and, under current and proposed frameworks, TRs are not obligated to aggregate data across entities.

1.2.7 Links with other infrastructure

Several of the TRs reported links with other market infrastructure, such as organised trading platforms, CCPs and settlement systems. In two cases, those links are intra-group: for example, CCIL is connected to an affiliated settlement system and organised trading platforms. One TR that collects and stores derivatives data on commodities and energy asset classes indicated that its participants include organised trading platforms and clearing houses,⁷² while another reported extensive links with a range of market infrastructure.⁷³ Others are planning to put links in place. For example, one TR that is not yet operating plans to establish links to a local CCP, another TR and a confirmation platform,⁷⁴ while another TR is expecting to operate as a CFTC-registered Swap Data Repository beginning in October 2012, anticipates links in due course to a range of Swap Execution Facilities, CCPs and affirmation platforms.⁷⁵

1.2.8 Additional Services

A number of TRs currently provide services other than trade reporting, either directly or through affiliates. Those include portfolio management, life-cycle processing and contract maintenance services, confirmation and matching services and collateral management. Several others are proposing an expansion of services to include further succession and credit event processing services, third party valuation and exposure management. There appears to be no standard timeline for putting such services in place.

1.2.9 Issues

Ability to aggregate data

The principal issue that emerges from the survey of TRs is that further work is needed, both by TRs and by industry generally, to facilitate data aggregation and reconciliation. This is distinct from the issue of authorities' access to data that is the subject of the report by CPSS-IOSCO (see **Section 2.1.4**), although both effective access for authorities to TR data and the ability to aggregate data are necessary for trade reporting to meet the needs of authorities as identified in the CPSS-IOSCO data report of January 2012.

It is clear from the responses of the TRs surveyed that data aggregation and reconciliation is likely to be difficult or impracticable without further standardisation of the formats in which data are reported to and stored by TRs and the delivery of a global LEI. The development of common product and trade identifiers would also be highly desirable. The FSB encourages industry, with the involvement of regulators, to advance this work as quickly as possible to support the effective use of TR data for regulatory and financial stability purposes. Regulators should reflect the recommendations set out in the CPSS-IOSCO data report in their work with industry.

⁷² ICE Trade Vault.

⁷³ DTCC DDRL.

⁷⁴ HKMA.

⁷⁵ CME SDR.

1.3 Use of organised trading platforms

Summary

- Trading infrastructure is less developed than infrastructure for central clearing and trade reporting, owing to uncertainties about the scope and form of future regulatory frameworks for organised platform trading.
- Organised trading platforms are currently available for trading certain derivatives products. Some are designed for dealer-to-dealer transactions, others for dealer to customer transactions. In at least some countries, platforms are most widely available for credit and interest rate swaps, which are the most standardised OTC asset classes. Some organised platform facilities exist for a limited range of foreign exchange and equity derivatives.
- Features of existing organised trading platforms vary, reflecting the range of characteristics previously identified by IOSCO in its reports on the trading of OTC derivatives.
- Most of the organised trading platforms are headquartered in Europe or the US, with global online access and local offices and trading screens in other markets.
- The extent that organised trading platforms are linked to other infrastructure varies, but is likely to increase as the market takes shape in conjunction with progress implementing the G20 commitments in the development of regulatory frameworks.
- It is expected that new trading platforms can become operational relatively quickly once regulatory frameworks for mandatory organised platform trading are put in place.
- Some degree of product standardisation is a prerequisite for an OTC derivative to be transacted on an organised trading platform. Steps to increase product standardisation can lead to improved market liquidity, pricing and transparency.

1.3.1 Background on organised trading platforms

As highlighted in the previous progress reports, establishment of legislative and regulatory frameworks to require trading of standardised derivatives on organised trading platforms, where appropriate, is not as advanced as other reform areas.⁷⁶ Regulatory actions in this area range from the enactment of legislation and proposal of regulation, through proposing legislation, to considering whether to propose such requirements.⁷⁷ Regulatory uncertainty has been a factor inhibiting the development of trading infrastructure.

⁷⁶ As noted in the introduction, the FSB did not implement a survey for trading platforms. The FSB engaged in conversations with industry representatives and some organized trading platform operators to discuss any change in status since the IOSCO Trading report.

⁷⁷ The US adopted legislation requiring swaps and security-based swaps subject to the clearing requirement to be traded on a registered trading platform in 2010. In Japan, the Diet passed the revised legislation on the use of organised trading platforms (specifically, electric trading platforms) and market transparency in September 2012. The EU has proposed legislation. The Hong Kong authorities have decided not to include requirements relating to trading in their legislative

Even so, organised trading platforms are available for certain OTC derivatives products – indeed, some existed well before 2009 – and it is expected that new platforms should be able to develop and become operational fairly quickly, for example through existing inter-dealer broker infrastructure.

The IOSCO reports on trading of OTC derivatives⁷⁸ provide detailed analysis on the characteristics and features of trading platforms and some market data on their use. The IOSCO Follow-on Analysis of Trading was published in January 2012 and this fourth progress report provides a brief update of the findings of that IOSCO report with regard to the characteristics of trading platforms and availability for different asset classes. Where relevant, this fourth progress report also highlights impediments that have reported with respect to establishing accessible platforms for all five asset classes.

1.3.2 Availability of organised trading platforms and characteristics

To the extent that organised trading platforms seek to provide price and volume transparency and automated processing (including the client-to-client electronic execution) for their users, they function best with products that are sufficiently standardised in order to be comparable and create the liquidity needed to support efficient pricing. Not surprisingly, organised trading platforms tend to be developed first for those products that are more standardised. Discussions with industry representatives indicate that, outside the US, the derivatives assets classes for which organised platform trading are most widely available are credit default swaps and interest rate swaps. The principal organised trading platforms used by the G15 dealers and other major financial institutions provide relatively wide coverage for those products. Organised trading platforms are also available for trading a limited range of OTC commodities, foreign exchange and equity derivatives products.

The features of the major organised trading platforms remain unchanged from those described in the IOSCO Follow-on Analysis of Trading report. These platforms fall into two broad categories: those with multiple liquidity providers (multi-dealer platforms) and those with a single liquidity provider (single dealer platforms). While these platforms are broadly similar in terms of the function they fulfil, there may be differences in the trade execution models used to effect transactions, the participant coverage, the degree of automation, the scope of asset class or product coverage, and the geographic coverage.

1.3.3 Relationships with other infrastructure

Organised trading platforms are diverse in the extent of their links to a variety of other types of market infrastructure. Several organised trading platforms indicated that they could facilitate clearing through multiple CCPs but were not “linked with any particular one.” One

proposal In connection with the June 2012 progress report, some jurisdictions ns (e.g. Australia, South Africa and Korea) also reported taking a ‘wait-and-see’ approach regarding requirement trading on organised trading platforms.

⁷⁸ *Report on Trading of OTC Derivatives*, February 2011, <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD345.pdf>
Follow-on Analysis to the Report on Trading of OTC Derivatives, January 2012, <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD368.pdf>.

platform noted that it was developing links to CCPs, remarking that this created efficiencies for participants that were already members of those CCPs.

Although some market participants reported that links enhance the efficiency of a platform and the usefulness of the services it offers, links could also be limiting. For example, linking to a particular CCP may restrict participants to members of the linked CCP.

Although none of the TRs surveyed reported any links to unaffiliated organised trading platforms, links between organised trading platforms and other infrastructure are likely to develop as the market takes shape in conjunction with the reform process.⁷⁹

1.3.4 Issues

The most frequently cited reason for the lack of more widespread development and use of organised trading platforms is lack of certainty about the scope and form of requirements for OTC derivatives to be traded on organised trading platforms.

Market infrastructure operators cite challenges in creating the appropriate technology to interface with clients and other infrastructure. Although links with other infrastructure are not required to meet the G20 commitments, operators noted that efficiencies resulting from such links may create incentives to put such links in place. For example, because products that are required to be traded on an organised trading platform are also likely to be subject to an obligation for central clearing, arrangements that provide sufficient certainty that trades that are executed on a platform will also be accepted for clearing (i.e., ‘straight through processing’) may be important from both a regulatory and market participant perspective.

⁷⁹ One of the TRs surveyed indicated that it was linked to trading platforms within the same group (CCIL) and another TR that is not yet operational (CME Group) indicated that it intended to link to a number of swap execution facilities.

2. Significant developments in international policy and national legislation and regulation

Since the June 2012 progress report, there has been further progress in international guidance regarding recovery and resolution of FMIs; capital requirements for bank exposures to CCPs; margin requirements for non-centrally cleared derivatives and access for authorities to trade repository data. These are significant next steps that help support implementation of the G20 commitments and implementation of the four safeguards.

Significant steps towards implementation of the commitments have also been taken in Australia, the EU, Hong Kong, Japan and the US. Nevertheless, the most significant obstacle globally to further progress in implementing the G20 commitments is regulatory uncertainty with respect to implementation of legislative and regulatory frameworks, including cross-border application.

2.1 International policy

2.1.1 Central clearing

CPSS-IOSCO consultative report on recovery and resolution of FMIs

In July 2012 CPSS and IOSCO published a consultative Recovery and Resolution Report on FMIs.⁸⁰ The Recovery and Resolution Report outlines the issues that should be taken into account for different types of FMIs, including CCPs, when putting in place effective recovery plans and resolution regimes in accordance with the CPSS-IOSCO *Principles for Financial Market Infrastructures* and the *FSB Key Attributes of Effective Resolution Regimes for Financial Institutions*. The Recovery and Resolution Report emphasises the importance of robust arrangements for the recovery of FMIs and, if that fails, for their resolution. It also helps to develop a common interpretation of how the umbrella standards set out in the *Key Attributes* apply to the recovery and resolution of FMIs. The Recovery and Resolution Report supports the four safeguards by providing guidance on the essential features of recovery and resolution regimes necessary to ensure that the core functions of CCPs can be maintained during times of crisis and in a manner that considers the interests of all jurisdictions where the CCP is systemically important. The comment period for the Recovery and Resolution report ended 28 September 2012. This work of CPSS-IOSCO will assist implementation by jurisdictions of resolution regimes for FMIs, and its results will be reflected in the methodology for assessing compliance with the *Key Attributes* that is being prepared by the FSB.

2.1.2 Capital requirements for bank exposures to CCPs

In July 2012, the BCBS issued interim rules on capital requirements for banks' exposures to CCPs and to clients for whom they perform clearing services as direct clearing members of CCPs.⁸¹ The interim rules were adopted after two rounds of public consultation⁸² and

⁸⁰ <http://www.bis.org/publ/cpss103.pdf> and <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD388.pdf>.

⁸¹ <http://www.bis.org/publ/bcbs227.pdf>.

discussions with CPSS and IOSCO. The interim rules seek to complement the PFMI and to create incentives for the use of CCPs in both direct and indirect clearing. For example, the interim rules set a nominal risk weight of 2% for trade exposures to a CCP that is supervised in accordance with the PFMI, and also allow clients of direct clearing members to benefit from the preferential treatment for central clearing. For determining the capital required for exposures to CCP default funds, the interim rules allow banks to choose one of two approaches: (i) a risk sensitive formula that takes into account the qualifying CCP's financial resources, its counterparty credit risk exposures and the application of those resources in accordance with the CCP's loss-bearing 'waterfall', on which the BCBS consulted in the two rounds of public consultation; and (ii) a simplified method under which default fund exposures are subject to a risk weight of 1250%, capped by reference to the total trade exposures of the bank.

The interim rules come into effect from 1 January 2013, allowing full implementation of Basel III from the beginning of 2013. Further work to develop an improved capital framework is planned for 2013. The BCBS will monitor capital requirements that are relevant to the OTC derivatives markets reforms and their interaction with other related policy initiatives such as the on-going work on margin requirements for non-centrally cleared derivatives, to ensure that they remain consistent with the G20 objectives.

2.1.3 Margin requirements for non-centrally cleared derivatives

In July 2012, the BCBS and IOSCO issued a consultative document on margin requirements for non-centrally cleared derivatives, setting out high-level principles on margining practices and treatment of collateral, and proposing margin requirements for non-centrally cleared derivatives.⁸³ Appropriate margining practices can help to mitigate the systemic risk that remains from the substantial volume of OTC derivatives that are not sufficiently standardised for central clearing by ensuring that collateral is available to offset losses caused by the default of a counterparty and by limiting the build-up of uncollateralised exposures in the financial system. Furthermore, margin requirements that reflect the generally higher risk of non-centrally cleared derivatives complement and support the G20 derivatives markets reforms because they promote central clearing by addressing possible financial incentives that might otherwise induce market participants to customise contracts and thereby avoid the costs of clearing that arise from CCPs' requirements for margin. Standardised requirements internationally reduce the potential for regulatory arbitrage and competitive distortion.

The consultative document acknowledges that margin requirements interact with capital requirements that are also aimed at mitigating counterparty credit risk, and have an impact on liquidity that needs to be assessed in the context of parallel regulatory initiatives such as the Liquidity Coverage Ratio and Net Stable Funding Ratio of the BCBS and the increased demands for liquid, high-quality collateral that is likely to be created by increased central clearing of standardised derivatives. Accordingly, in parallel with the consultation the BCBS

⁸² The first and second consultation papers were published in December 2010 at <http://www.bis.org/publ/bcbs190.pdf>, and in November 2011 at <http://www.bis.org/publ/bcbs206.pdf>.

⁸³ <http://www.bis.org/publ/bcbs226.pdf> and <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD387.pdf>.

and IOSCO are conducting a quantitative impact study to better understand the impact of the margin proposals set out in the consultative document and, in particular, the amount of margin required on non-centrally cleared derivatives and the amount of available collateral that could be used to satisfy those requirements.

The final proposal on margin requirements will be developed later in 2012.

2.1.4 Access for authorities to trade repository data

The June 2012 progress report noted that effective access for authorities to data stored in TRs, including on a cross-border basis, was being addressed by a CPSS-IOSCO workstream launched earlier in 2012. This work builds upon the work undertaken by the ODRF and its objective is to provide guidance to TRs and authorities on the minimum levels of access that different authorities with an interest in TR-held data would require in order to fulfil their respective functional mandates. The report of this workstream will also complement that guidance with a more detailed mapping of the level of access authorities would typically seek to support their mandates and responsibilities.

2.1.5 Framework for a global LEI

Introduction and adoption of a global LEI system would offer significant benefits for market participants to meet trade reporting requirements in a way that facilitates data aggregation and analysis by authorities as well as offering gains to internal risk management.

In June 2012, the FSB published a report⁸⁴ setting out 35 recommendations for the development and implementation of a global LEI system. The recommendations were endorsed by G20 Leaders at the Los Cabos Summit, and the FSB has subsequently established a LEI Implementation Group which, assisted by a FSB LEI Private Sector Preparatory Group, has started work to develop and implement a detailed plan to put in place the legal framework and institutional structure for the governance and operation of the global LEI system recommended in the report. The target date for the launch of the global LEI system on a self-standing basis is March 2013.

In June, ESMA published a consultation paper providing, among other things, strong support for the use of a global LEI, if such a system is in place when reporting under EMIR commences, and proposed development and use of an interim entity identification scheme in line with the technical specifications agreed by the FSB in case of a delay in establishing a global solution.⁸⁵ In August, MAS released a follow-up paper to its earlier consultation paper on OTC derivatives reform noting that it will take into account developments regarding the LEI when designing and implementing the reporting framework.⁸⁶ In July, the CFTC

⁸⁴ “A Global Legal Entity Identifier for Financial Markets”, available at: http://www.financialstabilityboard.org/publications/r_120608.pdf

⁸⁵ ESMA’s “Draft Technical Standards for the Regulation on OTC Derivatives, CCPs, and Trade Repositories”, available at: <http://www.esma.europa.eu/system/files/2012-379.pdf>

⁸⁶ MAS ‘Response to Feedback Received on the Consultation on Policy Reforms on the Regulation of OTC Derivatives,’ available at: http://www.mas.gov.sg/en/News-and-Publications/Press-Releases/2012/~media/resource/publications/consult_papers/2012/Response%20To%20Consultation%20On%20Policy%20Reforms%20On%20Regulation%20Of%20OTC%20Derivatives%20Part%202.ashx.

announced that DTCC/SWIFT had been designated as the provider of CFTC Interim Compliant Identifiers (CICIs) for a limited period of two years. The CFTC also confirmed that the CFTC plans to adopt the governance principles and LEI reference data requirements endorsed by the FSB, and that once these steps are completed the CICI system will subsequently transition into the global LEI.

2.2 National legislation and regulation

Despite the short timeframe between progress reports, some jurisdictions, notably Australia, the EU, Hong Kong, Japan and the US, took significant steps towards legislative and regulatory implementation since the June 2012 progress report.

2.2.1 Australia

On 12 September 2012 the Australian Government introduced legislation into Parliament to provide a legislative framework which allows Australia to take a flexible approach to implementing OTC derivatives reforms as the Australian market evolves. The framework enables the Minister to decide whether mandatory clearing, reporting or organised platform trading should apply to certain classes of OTC derivatives. This will allow regulations and rules to be made to specify the details of these obligations.

Under the framework, the Australian Securities and Investments Commission (ASIC) will also be authorised to issue implementing rules. The framework allows the Reserve Bank of Australia, the Australian Prudential Regulation Authority and ASIC to provide advice to the Minister about whether mandatory obligations should apply to specific classes of OTC derivatives.

Central clearing

Australian regulatory authorities anticipate that capital incentives relating to the capitalisation of exposures to CCPs and the likely adoption of international standards on the margining of non-centrally cleared trades should be particularly effective in encouraging larger market participants to move to central clearing arrangements, which should in turn make a significant contribution to systemic risk reduction and lead to other market participants centrally clearing standardised OTC derivatives.

Australian regulatory authorities are preparing a market assessment report from which advice will be provided to Government on which OTC asset classes should be subject to mandatory obligations for trade reporting, central clearing and trade execution. Regulatory agencies will conduct further assessments next year to monitor the migration of market participants to central clearing. Should the move to central clearing occur at a less than desirable pace, the agencies may advise the Government that mandatory clearing obligations be imposed on certain classes of OTC derivatives.

2.2.2 European Union

The EU has taken additional steps towards its implementation of the OTC derivatives reforms with the entry into force of EMIR in August 2012 and the public consultation on draft implementing standards pursuant to EMIR.

EMIR requires central clearing of all standardised OTC derivatives contracts determined to be subject to the clearing obligation,⁸⁷ margin for non-centrally cleared contracts and reporting of all derivatives contracts to TRs, and introduces prudential requirements for CCPs.⁸⁸

During July and August 2012, the European Supervisory Authorities⁸⁹ conducted a public consultation on draft technical standards required to implement EMIR. The technical standards specify, among other things, the criteria for identifying those OTC derivatives that will be covered by the central clearing obligation, prudential requirements for CCPs and the data to be reported to trade repositories. Those draft standards were submitted to the European Commission at the end of September for endorsement. The European Commission aims to adopt the final technical standards by end-2012, with a view to their application in Q1 2013. The technical standards related to margin requirements for non-centrally cleared trades will be finalised at a later stage, with a view to implementing the results of the international working group on margin requirements and ensuring global consistency (see Section 2.1.3).

Implementation

The full implementation of EMIR will occur once the technical standards take effect. The process will be as follows:

- CCPs and TRs will have six months from the date of entry into force to apply for authorisation or recognition under EMIR. Once EU regulators have processed those applications, the first decisions imposing clearing and reporting obligations will be adopted and enforced (Q2/Q3 2013).
- Once a CCP has been authorised or recognised under EMIR to clear a particular type of OTC derivatives contract, ESMA has six months to determine whether that contract is suitable for mandatory central clearing and will specify the date of entry into force of such obligation. This gives effect to the ‘bottom-up’ approach⁹⁰ to application of the central clearing obligation adopted under EMIR, which aims to ensure that no CCP is forced to clear contracts that it cannot safely risk-manage.

Cross-border application

Both EMIR and the proposed revision of MiFID (‘MiFID II’) contain provisions relating to the cross-border application of rules on OTC derivatives.

EMIR contains a mechanism that seeks to avoid duplicative or conflicting rules on OTC derivatives, including a process for recognising ‘equivalent’ regimes in other jurisdictions where specified conditions are met.

⁸⁷ The criteria set out in the FSB report from October 2010 are used to determine which contracts are standardised.

⁸⁸ The EU implementation of derivatives reforms will be completed by the reforms to the Markets in Financial Instruments Directive (MiFID), which will require standardised OTC derivatives to be traded on multilateral trading platforms and central clearing of both OTC and non-OTC derivatives. The reforms to MiFID are expected to apply before end-2014. The framework legislation enacting the trading obligation should be adopted in the first quarter of 2013.

⁸⁹ The European Supervisory Authorities are the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities Markets Authority (ESMA).

⁹⁰ The ‘bottom up’ and ‘top down’ approaches to the determination of products that should be subject to mandatory clearing are set out in the Report of the Technical Committee of IOSCO on Requirements for Mandatory Clearing, February 2012: <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD374.pdf>.

EMIR permits the European Commission to adopt ‘equivalence decisions,’ declaring that the legal, supervisory and enforcement arrangements of another jurisdiction are equivalent to EMIR for clearing and reporting obligations, risk mitigation techniques, non-financial counterparties and implementing the framework. Where such a decision has been adopted, an EU counterparty transacting with a foreign counterparty can apply the foreign jurisdiction’s rules and thus be deemed to have complied with its obligations under EMIR. In order to achieve a consistent level of risk mitigation in respect of EU entities the European Commission will develop rules specifying the type of non-EU OTC derivative transactions that have a direct, substantial and foreseeable effect in the EU, and that will therefore nonetheless be subject to EMIR. The technical standards that specify which contracts “are considered to have a direct, substantial and foreseeable effect within the Union”, for the purposes of defining the scope of the clearing obligation for foreign entities, will be finalised later.

EMIR also provides recognition regimes for foreign CCPs and foreign TRs which allow a CCP or TR established outside the EU to provide its services to EU entities. The recognition regime for CCPs relies on two elements: first, an assessment by the European Commission that the foreign CCP is subject to equivalent rules and supervision in its country of establishment, and that the legal framework of that jurisdiction provides for an effective equivalent system for the recognition of foreign CCPs; and second, the establishment by ESMA of cooperation agreements with the third country competent authorities.

The regime for TRs relies on three elements: first, an assessment by the European Commission that the foreign TR is subject to equivalent rules and supervision in its country of establishment; second, an international agreement between the EU and each foreign authority that provides for immediate and continuous mutual access to data and exchange of information on OTC derivatives contracts held in TRs; and third, the establishment by ESMA of cooperation agreements with the foreign authorities.

Under the regime foreseen in the proposals for the review of MiFID II, where the European Commission determines that another jurisdiction has equivalent rules and standards of supervision to the EU and provides for equivalent reciprocal recognition of EU firms, a firm which is authorised in that country will be able to provide services directly to eligible counterparties in the EU, without also being authorised in the EU and subject to certain EU rules.

EMIR also requires the European Commission to report to the European Parliament and Council before 17 November about extending the exemption of foreign central banks to clear, report and apply bilateral margining. The European Commission must consider the three largest derivatives jurisdictions outside the EU to take an informed decision and has already contacted the relevant countries for information needed to prepare a draft report.

2.2.3 Hong Kong

The HKMA and Securities and Futures Commission of Hong Kong (SFC) released in July 2012 their joint consultation conclusions from their October 2011 public consultation on OTC derivatives reform. As a result of the October 2011 consultation, the HKMA and SFC have modified some of their original proposals for reform and raised two additional issues for consultation. The consultation conclusions set out the proposals of the HKMA and SFC for

legislative reform to implement all of the G20 commitments related to OTC derivatives reform.

The proposals for legislative consideration address: the legislative framework for OTC derivative regulation and persons covered; the extent of joint oversight by the HKMA and SFC; the scope of the term “OTC derivatives transactions”; products subject to mandatory reporting and clearing; application of mandatory reporting obligations; application of mandatory clearing obligations; penalties for breach of mandatory obligations; regulation of CCPs; capital and margin requirements; regulation of intermediaries; and oversight of “systemically important players”. The consultation conclusions specifically note that no requirement to trade on organised trading platforms will be mandated at this time, although the proposed regime will empower the regulators to impose such a requirement. Rather, the consultation conclusions note that more research will be done to assess how to best implement such an obligation in Hong Kong.

The consultation conclusions in some instances made modifications to reflect the global nature of the OTC derivatives business. For example, the consultation conclusions limit clearing obligations to transactions booked in Hong Kong and notes that CCPs will be able to accept members from other entities regulated by an “acceptable overseas jurisdiction” as determined by the HKMA and SFC. The conclusions note further consideration of how to facilitate indirect clearing is needed.

With respect to reporting to trade repositories, Hong Kong has specifically added location requirements – all derivatives transactions that have a bearing on Hong Kong’s financial markets would be required to be reported to the HKMA TR. The HKMA and SFC note that this approach allows them to obtain relevant OTC derivatives information as quickly and directly as possible. Such a requirement may have been proposed to avoid any complications with receiving data from repositories located in the EU or US, where regulatory challenges to providing data access have been highlighted in previous reports.

Hong Kong’s consultation conclusions also propose a number of exemptions, including: exemptions from both clearing and reporting for central banks, monetary or similar bodies and certain global institutions; and clearing exemptions for intra-group transactions, transactions involving non-financial entity end users engaged in commercial hedging activities, and transactions involving “closed markets” participants.⁹¹

The publication of the consultation conclusion is an important milestone towards implementing final legislative and regulatory reform, but there is still more to do. With this publication, the HKMA and SFC also initiated a new consultation period on the scope of certain newly introduced regulated activities and the regulation of systemically important entities. Their goal is to finalise the consultation for these two issues, while working with the government on drafting amendments to primary legislation in order to have a complete bill to introduce to the legislative council in early 2013. As in several other jurisdictions, Hong Kong envisages having a legislative structure combined with implementing rules and regulation that

⁹¹ “Closed market participants” are described generally in the consultation conclusions as jurisdictions which have a material level of foreign exchange control or other local regulatory restrictions making it impractical to require that clearing take place in any jurisdiction other than its own (*see* fn. 6 of the Consultation Conclusions at <http://www.hkma.gov.hk/media/eng/doc/key-information/press-release/2012/20120711e3a34.pdf>).

address more technical aspects of the reforms. The published timetable anticipates that legislation will be fully implemented around Q3 2013, subject to passage of the relevant legislation by the Legislative Council.

2.2.4 Japan

On 6 September 2012, the Japanese Diet passed revised legislation on the use of electronic trading platforms (ETP) and market transparency. In view current trading practices in Japan and potential impact on market liquidity, the implementation of this legislation will be phased in (over up to three years) so that ETP operators and users can fully prepare to comply with the requirements. As regards the eligible products, it is envisaged in the first instance that plain-vanilla Japanese Yen (JPY) denominated interest rate swaps that are sufficiently standardised and maintain adequate liquidity will be deemed eligible for ETP trades.

With respect to reforms regarding mandatory use of CCPs and TRs, the Japanese FSA promulgated in July 2012 a cabinet office ordinance which will take effect on 1 November 2012. The implementation plan will be as follows:

Central Counterparties (CCPs)

At the initial stage of implementation in November, index-based CDS (i.e. iTraxx Japan Index Series) and plain-vanilla JPY denominated IRS with reference to LIBOR will be subject to mandatory clearing. The scope of products subject to mandatory clearing would be expanded to products such as JPY denominated IRS with reference to TIBOR, foreign currency (US\$ and euro) denominated IRS, and CDS referencing a Japanese company, taking into consideration elements such as size of transactions and degree of standardisation.

Also, at the initial stage, mandatory clearing requirements will be applied to transactions in OTC derivatives products subject to mandatory clearing between large domestic financial institutions registered under the Financial Instruments Exchange Act (FIEA) that are members of the clearing organisation (Japan Securities Clearing Corporation, JSCC) or that are subsidiaries of a parent company that is a member of JSCC. The clearing requirements could be expanded in the future to transactions between the financial institutions mentioned above and foreign financial institutions (not registered under FIEA), taking into account international discussions currently underway on cross-border regulation.

Trade Repositories (TRs)

Financial institutions registered under FIEA will be required to report to TRs OTC derivatives transactions for which TR services are available, such as credit derivatives transactions and forward, option and swap transactions in relation to interest rate, foreign exchange, and equity. Applicable transactions will be reviewed for expansion after November 2012, taking into account further developments in market infrastructure.

2.2.5 The United States

In the US, the CFTC and SEC took additional steps towards implementation of the Dodd-Frank Act by further addressing the scope of regulation, central clearing, sequencing of compliance, and cross-border activities.

Scope of products regulated

The CFTC and SEC jointly adopted final rules further defining the products subject to the Title VII of the Dodd-Frank Act and delineating the regulatory authority of the CFTC and SEC with respect to such products.⁹² Generally, the following types of transactions would be covered by the definition of “swap” or “security-based swap”: interest rate swaps; basis swaps; currency swaps; foreign exchange swaps; total return swaps; equity swaps and equity index swaps; debt and debt index swaps; credit default swaps; energy swaps; metal swaps; agricultural swaps; and other commodity swaps.

Among the listed exclusions from the products definitions, generally, are the following: futures contracts, insurance products (if they meet any of three specified provisions); forward contracts and security forwards; and consumer and commercial transactions (noting that exempting such a transaction would be based on a fact specific inquiry into the characteristics of the transaction).

Sequencing compliance, mandatory clearing, trade reporting, and public transparency

The adoption of the product definitions set the compliance dates for some other rules previously finalized by the CFTC including those requiring the regulatory reporting of swaps to a TR that is a “swap data repository” and for real-time public transparency. Compliance with regulatory reporting and transparency rules began on 12 October 2012 and will be phased in based on product type and type of market participant.

The CFTC finalised a rule establishing a schedule for compliance with the clearing requirements for swaps and proposed the first classes of swaps that will be subject to mandatory clearing, which includes certain types of broad-based credit default swaps and interest rate swaps. If these mandatory clearing determinations are finalised, it will signify the first products required to be centrally cleared under the CFTC regime. The final rule generally staggers compliance based on type of market participant. For example, the first group of entities that will be required to clear within 90 days of the CFTC issuing a final clearing determination includes swap dealers, major swap participants, and private funds that enter into more than 200 swaps per month. The second group, which must comply within 180 days, includes all other private funds, commodity pools, and others involved in financial activities. The third group, which is allowed 270 days to comply with the clearing requirement, includes any persons not captured by the first two groups, such as clearing for third-party subaccounts and retirement plans.

The CFTC issued a proposed exemptive order for phased-in compliance with regulation for certain swap dealers. The proposed exemptive order establishes a process for swap participants to submit a compliance plan for entity-level and transaction-level rules as part of the registration process. This addresses both US and non-US entities that are required to register with the CFTC.

In June 2012, the SEC published a policy statement regarding the sequencing of the compliance dates for final rules to be adopted as part of the OTC derivatives regulatory

⁹² <http://www.cftc.gov/LawRegulation/FederalRegister/FinalRules/2012-18003>.

reform initiative.⁹³ Most of the rules covered by the policy statement have been proposed, but are not yet final. The policy statement sets out for public comment the general sequence in which the SEC expects compliance dates for categories of new rules regulating the derivatives market would occur, without commenting specifically on when final rules will be adopted. For example, with respect to clearing rules, the SEC expects compliance with rules regarding standards for CCP governance, operation, participation standards, and risk management practices prior to *requiring* central clearing and that trading on organised platforms would not be required until the compliance with the clearing requirement was in place.

Cross-border application

As has been discussed in previous progress reports, the cross-border issues that arise when seeking to regulate a global market are complex. In July 2012, the CFTC proposed an interpretive guidance and policy statement addressing some of the complexities of these cross-border issues. The proposed guidance and policy statement addresses the statutory standard In the proposal, the CFTC set out the manner in which it proposed to interpret section 2(i) of the Commodity Exchange Act (CEA), which provides that the swaps provisions of the CEA do not apply to activities outside of the US unless those activities have a direct and significant connection with activities in, or effect on, commerce of the US.

This CFTC proposal generally describes the scope and level of activities that may subject non-US entities (or the non-US operations of US entities) to the swaps provisions of the CEA and associated regulations. For example, the proposal describes the level of swap activities that would require non-US entities (or the non-US operations or subsidiaries of US entities) to register with the CFTC as swap dealers or major swap participants.

The CFTC proposal also sets out a general framework to permit certain entities to substitute compliance with the entity-level and transaction-level requirements of their home or host jurisdiction in lieu of compliance with US law and regulations, provided that the CFTC finds that such requirements are comprehensive and comparable to the CEA and its regulations. In evaluating comparability and comprehensiveness, the CFTC would take into consideration all relevant factors, including: the scope and objectives of the relevant regulatory requirements; the comprehensiveness of the home jurisdiction's regulations and compliance programme; and the home regulator's authority to support and enforce its oversight of the non-US entity.

A number of jurisdictions provided public comments to the CFTC on its proposal. Among the main issues raised are: overlapping or conflicting regulation; the breadth of the definition of a 'US person'; the timing of application of CFTC regulations; and the CFTC's proposed approach to substituted compliance. The CFTC will consider these issues as it finalises the proposal for adoption.

In October 2012, the CFTC also published its final interpretative statement providing guidance on the scope and application of certain confidentiality and indemnification provisions under the CEA to foreign regulators.⁹⁴ This interpretive statement clarifies that a

⁹³ <http://www.sec.gov/rules/policy/2012/34-67177.pdf>.

⁹⁴ For a discussion of issues raised by the confidentiality and indemnification provisions, see pages 29-30 of the FSB's June 2012 progress report: http://www.financialstabilityboard.org/publications/r_120615.pdf. The CFTC's interpretive statement is available at: <http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/federalregister102212.pdf>.

registered TR would not be subject to these provisions if: (i) such registered TR also is registered, recognised or otherwise authorised in a foreign jurisdiction's regulatory regime; and (ii) the data sought to be accessed by a foreign regulatory authority has been reported to such registered TR pursuant to that foreign jurisdiction's regulatory regime.

2.3 Implementation of the four safeguards for a global framework for central clearing

At the June 2012 Los Cabos Summit, the G20 Leaders agreed that substantial progress had been achieved in the four safeguards for a resilient and efficient global framework for central clearing. Given that progress, G20 Leaders called on jurisdictions to rapidly finalise their decision-making and put in place the needed legislation and regulations to meet the end-2012 commitment to central clearing. The FSB is monitoring and will separately report on the steps taken in this regard.

In addition, jurisdictions are also taking action to implement at national level the international agreements on the four safeguards. The steps taken by jurisdictions with respect to each of the safeguards are summarised below.

Fair and open access by market participants

Principle 18 of the PFMI, relating to access, states that participation requirements of a FMI should allow for fair and open access, in all relevant jurisdictions, based on reasonable risk related participation requirements.

Several jurisdictions responded that they consider access to CCPs in their jurisdiction to be fair and open.⁹⁵ Authorities in these jurisdictions generally pointed to legislative or regulatory frameworks that set out a principle of non-discrimination by, for example, stating that membership should be based on reasonable risk requirements. The CCP would then create membership requirements consistent with that principle.

All jurisdictions that are in the process of developing legislation for CCPs report consulting to ensure fair and open access. Several authorities noted that they review whether requirements are in fact applied in a non-discriminatory fashion as part of their oversight function.

Only the US reported proposals to set specific requirements requiring CCPs to provide membership access to market participants over a certain size (US rules would require CCPs to offer access to non-dealers with minimum capital of at least over \$50 M.)

However, as described in **Section 1.1.2**, in practice membership of most CCPs seems to primarily consist of participants located in the home country jurisdiction. This home preference of clearing participants may be consistent with fair and open access. Nevertheless, as authorities continue to monitor the openness of access, they should keep under review whether there are any factors that direct or indirectly handicap access to a CCP for participants from outside the home location.

⁹⁵ Brazil, China, France, Germany, India, Japan, Switzerland and the UK.

Cooperative oversight arrangements between relevant authorities, both domestically and internationally and on either a bilateral or multilateral basis, that result in robust and consistently applied regulation and oversight of global CCPs

Responsibility E of the PFMI sets out detailed key considerations for authorities establishing cooperative oversight arrangements. Work is underway to facilitate the development and adoption of cooperative frameworks that are consistent with international standards.

Several authorities note having at least one existing MoU or cooperative oversight arrangement with another jurisdiction and with domestic regulators.⁹⁶ Others note that they have the authority to share information with other authorities, rather than full-fledged cooperative arrangements, at this stage. (The responses included information-sharing arrangements and cooperative oversight arrangements that may extend beyond just CCPs.) CCPs for which cross-border cooperative oversight are under development include LCH SwapClear and ICE Clear CDS Service.

Resolution and recovery regimes that aim to ensure the core functions of CCPs are maintained during times of crisis and that consider the interests of all jurisdictions where the CCP is systemically important

The publication in July 2012 of the CPSS-IOSCO consultative document on recovery and resolution of FMIs (see section 2.1.1) represents a significant step at the international level. However, work at the national level on recovery and resolution regimes for FMIs, including CCPs, remains at an early stage in most jurisdictions. More substantive progress has been made in relation to recovery arrangements than resolution regimes.

In the US, all CFTC-registered derivatives clearing organisations and SEC-registered clearing agencies are required to have rules and procedures to manage customer defaults and maintain the core functions of the CCP in a crisis. CFTC-registered derivatives clearing organisations are required to maintain a default management plan, and test it at least annually. The global CCPs established in the UK have recovery plans, and in France and Germany, where CCPs are authorised and regulated as banks, recovery provisions under banking regimes already apply.

Few jurisdictions currently have regimes in force that provide authorities with the range of resolution powers set out in the FSB's *Key Attributes* to manage the failure of a CCP. In the US, the orderly liquidation authority under Title II of the Dodd-Frank Act may be used to resolve a financial institution and the FDIC has special powers, as receiver of a failed financial institution to facilitate orderly resolution, and the US authorities are in the process of developing rules to implement Title II. In France, the prudential supervisory authority has the power to appoint a provisional administrator to a failing CCP. The German bank restructuring regime provides some resolution powers (such as powers to transfer assets and liabilities) which may be applied to CCPs.

Other jurisdictions also recognise the importance of resolution regimes for CCPs and most plan to take action. In August 2012, the UK issued a consultation paper, with accompanying draft legislation, on enhancing the mechanisms available for dealing with the failure of

⁹⁶ France, India, Japan, Korea, the UK, and the US.

systemically important non-bank financial institutions, including CCPs.⁹⁷ Australia, Brazil, Canada, India and Japan are also considering adopting such regimes, but have not yet taken legislative steps.

Appropriate liquidity arrangements for CCPs in the currencies in which they clear

Principle 7 of the PFMI sets out standards for CCPs to maintain sufficient liquid resources in all relevant currencies to settle securities-related payments, make required variation margin payments, and meet other payment obligations on time with a high degree of confidence under a wide range of potential stress scenarios. Several jurisdictions indicate that CCPs in their jurisdiction have or are putting in place liquidity arrangements that aim to be consistent with the PFMI and with the BIS Economic Consultative Committee's guidance published in June 2012.

Most CCPs surveyed clear in at most a handful of currencies – usually three or fewer – and several clear only in their home currency. However, four CCPs clear transactions in five or more currencies, with one CCP clearing in twenty currencies.⁹⁸

Most of the CCPs surveyed stated that they have credit lines and liquid assets available to address liquidity shortfalls. Additionally, CCPs manage liquidity through monitoring the type and quality of collateral, settling daily and performing margining multiple times daily. The CCP in Hong Kong has access to the Real Time Gross Settlement infrastructure, which allows for overdraft protection from settlement banks.⁹⁹ The Reserve Bank of Australia (RBA) has recently announced a new policy relating to Exchange Settlement Accounts (ESAs) that applies to any CCP that is licensed to operate in Australia (whether it is based in Australia or abroad).¹⁰⁰ UK authorities are currently undertaking detailed examinations of the liquidity management arrangements of UK CCPs.

⁹⁷ http://www.hm-treasury.gov.uk/d/condoc_financial_sector_resolution_broadening_regime.pdf.

⁹⁸ Three of these CCPs clear interest rate swaps.

⁹⁹ RTGS systems offer continuous (real-time) settlement of funds or securities transfers individually on an order by order basis) at accounts held at central banks.

¹⁰⁰ <http://www.rba.gov.au/media-releases/2012/mr-12-17.html>.

Appendix I

CCPs: Entity level summary chart¹

Entity Name	Location	Supervisors	OTC derivatives asset classes cleared (Co., Cr., E, FX, IR)	Future offerings	Number of Direct Clearing Member (CM)s	Number of Indirect Clearing Members (IDCM)	% of members domestic	Number of market infrastructures with which linked	Description of Links
ASX	Australia	ASIC	Not yet operational	Operational in Q1 2013 for IR and equity					
BM&F BOVESPA ²	Brazil	BCB, CVM,	Co, E, FX, IR	None planned.	76	450	CM: 100% IDCM: 97.8%	1	Also acts as TR
CDCC	Canada	AMF (Ontario); BoC	E	Expand equity offerings; add some FX and IR products offerings (estimated end-2013)	34	100+	CM: 100% IDCM: Not reportable.	0	
CCIL	India	RBI	FX	Expand to IR by end-2012 (currently only settling IR)	47	0	CM: 100% IDCM: N/A	1	With TR
CME Clearing Europe ³	UK	FSA	Co	<i>Information not provided</i>	14		CM: 71% IDCM: N/A		
CME Group ⁴	US	CFTC, UK FSA (ROCH); SEC;	Co, Cr, FX, IR	Expand IR products by end-2012 (e.g., overnight index swaps, basis swaps and forward rate agreements) Expand commodities, credit, and FX products (e.g., deliverable OTC FX forwards and options and non-deliverable and cash-settled forward contracts Add equity products	65	Cannot calculate	CM: 89% IDCM: N/A	18+	15+ Platforms or exchanges 3 CCPs
Eurex Clearing	Germany	BaFin; UK FSA; CFTC (pending)	Cr	Add IR by end-2012 Expand credit Add equity	150	0	CM: 37% IDCM: N/A	11	1 TR 1 CCP 9 Platforms or exchanges
European Commodity Clearing	Germany	BaFin, Bundesbank	Co		14	312	CM: 44% IDCM: 29%	7	1 CCP 6 Trading platforms/exchanges
HKEx	Hong Kong	Registering with SFC	Not yet operational	Add IR and FX by Q1 2013				1	With TR
ICE Clear Credit ³	US	CFTC, SEC,	Cr	Add single name CDS for client clearing	27	Cannot calculate	CM: 62% IDCM: N/A	1	With TR

Entity Name	Location	Super-visors	OTC derivatives asset classes cleared (Co., Cr., E, FX, IR)	Future offerings	Number of Direct Clearing Member (CM)s	Number of Indirect Clearing Members (IDCM)	% of members domestic	Number of market infrastructures with which linked	Description of Links
ICE Clear Europe	UK	FSA, CFTC, SEC	Co, Cr	Add FX and CDS.	65	Not tracked	CM: 43% IDCM: N/A	3	1 TR 2 Trading platforms or exchanges
JSCC	Japan	JFSA	Cr		5	1	CM: 100% IDCM: 100%	0	
LCH Clearnet Ltd.	UK	UK FSA; BofE; CFTC. Exemption in Switzerland, Germany, Canada	Co, IR, FX		88	1,752	CM: 47% IDCM: Cannot calculate (jurisdictional information not collected)	6	6 trading platforms or exchanges
LCH Clearnet SA	France	AMF (France); ACP; Banque du France; UK FSA (ROCH); CFTC (pending)	Cr	Expand credit by end-2012 (add single-name)	9	0	CM: 44% IDCM: N/A	2	1 TR 1 Trading platforms or exchange
LCH Clearnet (US) LLC ⁵	US	CFTC	IR	<i>Information not provided</i>					
Nasdaq OMX Stockholm AB	Sweden	<i>Information not provided</i>	Co, E, IR	Expand products in existing classes and FX products	<i>Information not provided</i>				
SGX Asiaclear	Singapore	MAS	Co, FX, IR	Expand IR products by Q12013	30	<i>Information not provided</i>	CM: 100%	5	5 Trading platforms
Shanghai Clearing House	China	PBC	Not yet operational	IR by Q4 2012	43		CM: 100%	3	1 Trading platform 1 CSD 1 Payment system
The Options Clearing Corporation (OCC) ⁶	US	CFTC; SEC	Not yet operational	Propose to clear equity index options	<i>Information not provided</i>			3	3 CCPs

1. The entities included in this information collection were identified as CCPs clearing OTC derivatives by the working group members; there may be additional CCPs that clear OTC derivatives and that were not included in the information collection. All CCPs listed provided responses to the survey (though some were incomplete), except for CME Europe, which gave permission to use publicly available information.
2. BM&F BOVESPA and CCIL are both a CCP and TR. They are listed as being linked with another infrastructure because they provide clearing and reporting services for participants.
3. Based on information publicly available on the CME Europe website.
4. Designated as systemically important by US Financial Stability Oversight Council (FSOC).
5. This information was provided by US regulators, not LCH.
6. Designated as systemically important by US Financial Stability Oversight Council (FSOC).

Appendix II

TRs: Entity level summary chart¹

Entity Name	Location	Regulator	Asset classes (Co, Cr, E, FX, IR)	Direct access provided to regulators	Participants (G-15; Financial Institution FI); Non-financial institution (NFI)	Ability to aggregate within asset classes (data from other TRs)	Ability to aggregate across asset classes	Links with other market infrastructure	Description of links with other market infrastructure
Bank of Korea	Korea	(Not supervised)	Co, Cr, E, FX, IR	Yes	G15:0% FI:100% NFI: 0%	No	Yes	None	
BM&F Bovespa	Brazil	BCB CVM	Co, E, FX, IR	Yes (secure file transfer system)	Total: 87 G15: 0% FI: 90% NFI: 10 %	No	No	None	
CETIP	Brazil	BCB CVM	Co, E, FX, IR	No direct access. Provides end-of-day files	Total: 11,670 G15: 0.04 % FI: 0.91% NFI: 99.05 %	No	Yes	None	
Clearing corporation of India (CCIL)	India	RBI	Cr, FX, IR	Yes (web interface and report browser)	Total: 101 <i>Credit</i> G15: 40% FI: 60% <i>FX</i> G15: 14% FI: 86% <i>Interest rates</i> G15: 25%, FI: 75%	No	No	Yes	Linked to affiliated trading platforms and settlement systems
CME Group	US	CFTC (registration pending)	Co, Cr, E, FX, IR ²	Yes (electronic interface)	N/A (not yet operational)	No	Yes	To be established	Expects to link to a range of SEFs, confirmation platforms and CCPs
DTCC-DDR	US	CFTC – provisionally registered	Cr, E, FX, IR ³	Yes (web based portal)	N/A (not yet operational)	No	No	To be established	Testing includes links to CCPs and middleware providers
DTCC-DDRL ⁴	UK	FSA	Cr, E, IR, FX ⁵	Yes (web based portal)	Total: 2,430 (with 27,127 accounts) <i>Credit</i> G15: 80% FI: 19% NFI: 1% <i>Equity</i> G15: 100% ⁶ <i>Interest rates</i> G15+1: 100% ⁷	No	No	Yes	Links to a large number of infrastructure providers, including 6 CCPs, 1 trading platform (links being established with 10 others), 1 settlement system
DTCC-EFETnet	Netherlands	None ⁶	Co	Yes (web based portal)	Total: 14 G15: 100 %	No	No	None	
DTCC-GTR	US	CFTC (registration pending)	Co ⁸	Yes (web based portal)	N/A (not yet operational)	No	No	None	
DTCC-Data Repository (Japan)	Japan	To seek registration with JFSA	Cr, E, FX, IR ⁹	Yes (web based portal)	N/A (not yet operational)	None	None	None	
DTCC Data Repository (Singapore) PTE Ltd	Singapore	To seek registration with MAS	Co, Cr, E, FX, IR ¹⁰	Yes (web based portal)					

HKMA	Hong Kong	HKMA	FX, IR ¹¹	Yes (web portal and in-house MIS delivery)	N/A (not yet operational)	Yes	No	To be established	Local CCP, DTCC TR and a confirmation platform
ICE Trade Vault	US	CFTC (provisionally registered)	Co, Cr, FX ¹²	Yes	Approx. 350	-	-	Yes	Trading platforms, CCPs and confirmation platform.
REGIS-TR	Luxembourg	CSSF	Co, E, FX, IR	Yes (secure web access)	<i>Not answered.</i>			Yes	

1. The entities included in this information collection were identified as TRs that are either currently accepting OTC derivatives transaction reports or in the process of becoming operational by the working group members; there may be additional TRs that accept transaction reports and that were not included in the information collection. All TRs listed provided responses to the questionnaire (though responses were incomplete).
2. Scheduled to be operational by October 2012 and once operational will accept reports on Cr and IR transactions immediately, and FX and Co after 3 months. Reports on equity swaps are expected to be accepted in Q3 2013.
3. Scheduled to be operational for interest rates and credit derivatives from October 2012, and for equity and foreign exchange derivatives from January 2013.
4. Recording services for credit derivatives (Trade Information Warehouse) have been transferred from the Warehouse Trust Company LLC (DTCC-WT, referred to in the third progress report) to DTC DDRL.
5. Scheduled to be operational for foreign exchange derivatives from November 2012.
6. DTCC-EFETnet will be regulated by ESMA from January 2013, with certain supervisory tasks delegated to the AFM.
7. All equity derivatives trades submitted by G15 dealers. The counterparties for those trades are, roughly, other G15 dealers (28%) and non-G15 firms (72%).
8. All interest rates derivatives trades submitted by G15+1 dealers. The counterparties for those trades are, roughly, other G15 dealers (18%), CCPs (43%) and non-G15 firms (38%).
9. Scheduled to be operational from January 2013.
10. Scheduled to be operational for credit, equity, interest rates and foreign exchange asset classes from 1 November 2012.
11. Operational by target date of Q3 2013.
12. ICE Trade Vault is operational for the credit asset class and is scheduled to be operational for commodities on January 10, 2013. ICE Trade Vault currently also accepts reports of transactions in the commodities asset classes, but is considering offering services in the foreign exchange asset class.

TRs by Asset Class

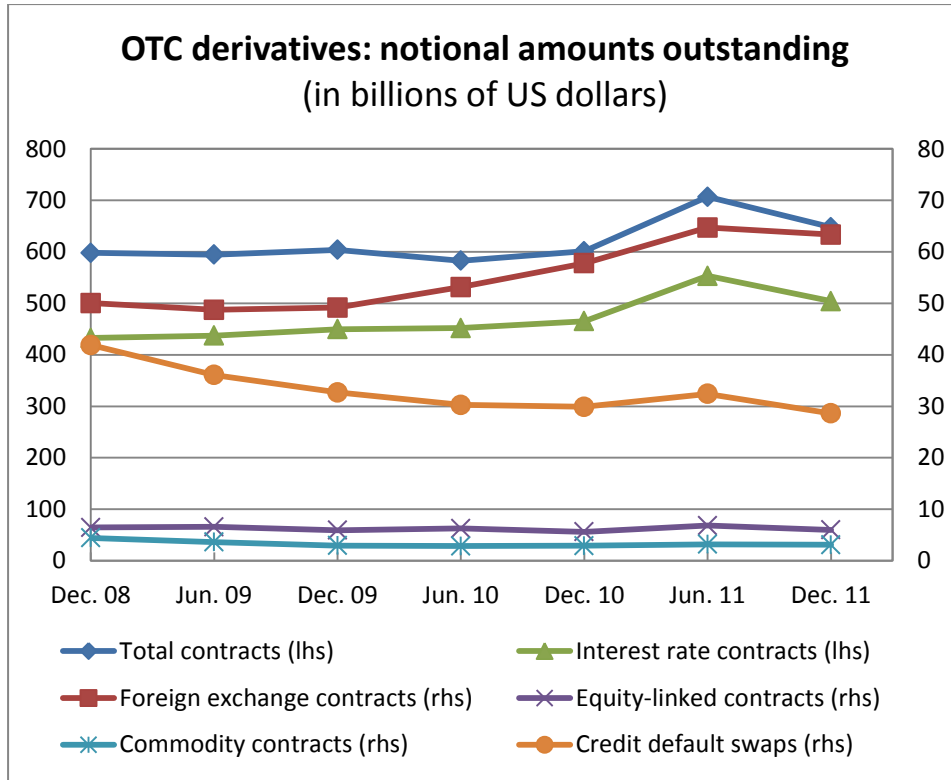
Asset Class	Trade Repositories	Location	Status ¹
Interest rate	Bank of Korea	Korea	Operating
	BM&F Bovespa	Brazil	Operating
	CETIP	Brazil	Operating
	Clearing Corporation of India	India	Operating
	CME Group	USA	Expected to be operating in Q4 2012
	DTCC-DDR	USA	Expected to be operating in Q4 2012
	DTCC-DDRL	UK	Operating
	DTCC Data Repository – Japan	Japan	Expected to be operating in Q4 2012
	DTCC Data Repository – Singapore	Singapore	NOT OPERATING
	HKMA	Hong Kong	Expected to be operating in Q3 2013
	REGIS-TR	Luxembourg	Operating
Credit	Bank of Korea	Korea	Operating
	Clearing Corporation of India	India	Operating
	CME Group	USA	Expected to be operating in Q4 2012
	DTCC-DDR	USA	NOT OPERATING
	DTCC-DDRL	UK	Operating
	DTCC Data Repository – Japan	Japan	Expected to be operating in Q4 2012
	DTCC Data Repository – Singapore	Singapore	NOT OPERATING
	ICE Trade Vault	USA	Operating
Equity	Bank of Korea	Korea	Operating
	BM&F Bovespa	Brazil	Operating
	CETIP	Brazil	Operating

Asset Class	Trade Repositories	Location	Status¹
	CME Group	USA	Expected to be operating in Q3 2013
	DTCC-DDR	USA	Expected to be operating in Q1 2013
	DTCC-DDRL	UK	Operating
	DTCC Data Repository – Japan	Japan	Expected to be operating in Q4 2012
	DTCC Data Repository – Singapore	Singapore	NOT OPERATING
	REGIS-TR	Luxembourg	Operating
Commodities	Bank of Korea	Korea	Operating
	BM&F Bovespa	Brazil	Operating
	CETIP	Brazil	Operating
	CME Group	USA	Expected to be operating in Q1 2013
	DTCC-EFETnet	Netherlands	Operating
	DTCC-GTR	USA	Operating on a limited basis; expected to be operating on a broader basis starting in Q1 2013
	DTCC Data Repository – Singapore	Singapore	NOT OPERATING
Foreign Exchange	ICE Trade Vault	USA	Expected to be operating on January 10, 2013
	REGIS-TR	Luxembourg	Operating
	Bank of Korea	Korea	Operating
	BM&F Bovespa	Brazil	Operating
	CETIP	Brazil	Operating
	Clearing Corporation of India	India	Operating
	CME Group	USA	Expected to be operating in Q1 2013
	DTCC-DDR	USA	Expected to be operating in Q1 2013

Asset Class	Trade Repositories	Location	Status¹
	DTCC-DDRL	UK	Expected to be operating in Q4 2012
	DTCC Data Repository – Japan	Japan	Expected to be operating in Q4 2012
	DTCC Data Repository – Singapore	Singapore	NOT OPERATING
	HKMA	Hong Kong	Expected to be operating in Q3 2013
	ICE Trade Vault	USA	NOT OPERATING
	REGIS-TR	Luxembourg	Operating

1. For the purposes of this table, ‘operating’ means a TR is both accepting reports and making them available to authorities.

Appendix III
Notional outstanding contracts for major asset classes
 (end-2008 to end-2011; source: BIS)



Note: The numbers on the left hand axis are greater than the right hand axis in order to efficiently present the data. The references to “LHS” and “RHS” (“left hand side” and “right hand side”) tell the reader which axis to focus on in order to accurately read the chart.

Appendix IV

Recent data on central clearing of OTC derivatives

The table below sets out estimated percentages of current outstanding notional amount on a CCP of major OTC derivatives asset classes. The analysis is not limited to standardised derivatives and accordingly the statistics for total notional outstanding includes data for non-standardised products and is a point-in-time snapshot.

Data for interest rate and credit derivatives are as of 31 August 2012; data for all other products are as of end-December 2011.

Estimated percentages of 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 Derivatives¹	368,393	146,258	40%
Total Swaps	275,291	122,456	44
Swaps	196,661	98,399	50
Overnight Indexed Swaps	33,856	17,457	52
Basis Swaps	22,089	6,512	29
Cross Currency Swaps	15,779	0	0
Exotic Swaps	3,410	0	0
Inflation Swaps	2,430	0	0
Callable Swaps	959	88	9
Cross Currency Exotic Swaps	105	0	0
Total Forwards	52,205	23,801	46
Forward Rate Agreements	52,205	23,801	46
Total Swaptions	28,605	0	0
Swaptions	28,605	0	0
Total Options	12,292	0	0
Caps / Floors	10,327	0	0
Exotic Options	1,362	0	0
Debt Options	604	0	0
Credit Default Swaps^{1,2}	22,229	2,622	12%
Multi name	8,868	1,524	17%
Single name	13,361	1,098	8%
Equity³	5,982	n.a.	n.a.
Commodity³	3,091	n.a.	n.a.
Foreign Exchange³	63,349	n.a.	n.a.

¹ When a contract between A and B is centrally cleared, that contract is replaced with one equivalent contract between A and the CCP and another between the CCP and B. To compare the volume of contracts that could potentially be centrally cleared with those that have actually been centrally cleared, it is necessary to adjust for this doubling in contract volumes under central clearing. Hence, the figures reported in the middle column have been halved compared with the original source, while the totals in the first column reflect deductions of half of the CCP amounts.

This data is from DTCC as of **31 August 2012** and is available at: http://www.dtcc.com/products/derivserv/data/data_table_1.php.

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 Trade Information 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 Trade Information 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 Trade Information Warehouse for the purpose of regulatory transparency. Copper records are generally non-standardised transactions. This data is as of 31 August 2012.

³ Total notional amounts outstanding as of 31 December 2011 from BIS statistics available at: <http://www.bis.org/statistics/otcder/dt1920a.pdf>.

The following two tables present counterparty clearing information for current outstanding credit derivatives, as well as information on the clearing of new trades for 18 weeks ended 31 August 2012.

Credit default swaps

Position (stock) data (as of 31 August 2012)
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	8,949	1,098	12%
	Index	4,090	1,521	37%
Dealer to non-dealer	Single names	4,412	-	0%
	Index	4,778	3	0%
Total		22,229	2,622	12%

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.

Credit default swaps (cont.)

Volume (flow) data (28 April 2012 through 31 August 2012)
In billions of US dollars

Participant	Product	Gross notional all market risk activity ¹	Adjusted “new” cleared trades on CCP ²	Percentage on a CCP
Dealer to dealer	Single names	1,217	423	34%
	Index	3,625	2,771	76%
Dealer to non-dealer	Single names	780	-	0%
	Index	3,522	3	0%
Total		9,144	3,207	35%

¹ “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.

² “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

Recent data on reporting of OTC derivatives transactions to trade repositories

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/DTCC (in the case of interest rate derivatives and currency swaps) and the DTCC's Trade Information Warehouse (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-2012.

The DTCC regularly publishes the notional amount of electronically confirmed credit default swaps reported to it ("gold" records). Non-electronically confirmed transactions, generally understood to be non-standardised transactions, are also reported to the DTCC-DDR as part of firms' position data ("copper" records). As of end-December 2011, the notional outstanding represented by copper records reported to the DTCC was US \$2,796 billion.

Global OTC derivatives market			
Notional amounts outstanding, in billions of US dollars			
End-December 2011			
	BIS	Trade repository	%
Grand total	647,762		
Foreign exchange contracts	63,349
Currency swaps	22,791	10,600 ¹	47%
Interest rate contracts	504,098	487,923	97%
FRAs	50,576	50,613	100%
Swaps	402,611	390,519 ²	97%
Options	50,911	46,791 ³	92%
Equity-linked contracts	5,982
Commodity contracts	3,091
Credit default swaps	28,633	28,675 ⁴	100%
Single-name instruments	16,881	14,658 ⁵	87%
Multi-name instruments	11,752	11,222 ⁵	95%
Unallocated	42,609 ⁶

-
- ¹ Includes exotic swaps.
 - ² Includes exotic swaps, callable swaps, OIS, inflation swaps and basis swaps.
 - ³ Includes exotic options, swaptions, caps / floors and debt options.
 - ⁴ Includes USD 2,796 billion for the copper population. May contain double counted contracts.
 - 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.

Note: 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 categorised 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 contracts as well as foreign exchange, equity-linked, commodity and credit default swaps contracts as reported by "non-regular reporters" not represented in the BIS semi-annual survey data.

Appendix VI

CCP survey responses: Notional outstanding contracts on CCPs by asset class

The survey undertaken of CCPs to inform this progress report included a request for information on the notional outstanding on CCPs. This information is presented in the table below, converted to USD and aggregated; it is presented in its raw form as it was reported. This information has not been verified by secondary sources.

The collection and presentation of this data highlight some challenges in collecting information that can be aggregated in a consistent manner. For example, when reviewing the data some inconsistencies have been identified:

- The aggregate data may include, at least for some CCPs, non-OTC transactions, such as listed futures contracts, in addition to OTC transactions.
- In some cases, data reported is inconsistent with other publications of similar data.

Accordingly, although this data may show certain trends (for example, between asset classes), this information should not be used as a reliable measure of central clearing.

Table VI¹⁰¹

Notional amounts outstanding (USD equivalents, in billions) on CCPs, as reported by CCPs in survey			
Asset class	end-2010	end-2011	30 June 2012
Credit	1,231	1,645	1,800
Commodities	25	17	13
Equity	11	2.8	2.4
FX	73	93	124
Interest rates	124,398	142,088	152,972

CCPs' data included in Table VI, however, not all CCPs included data for all of the time periods:

Credit – CME Group, Eurex Clearing, ICE Clear Credit, ICE Clear Europe, JSCC, LCH.Clearnet SA

Commodities – BM&F Bovespa, CME Group, ECC, ICE Clear Europe, LCH.Clearnet Ltd, SGX-Asiaclear

Equity – BM&F Bovespa, CDCC

FX – BM&F Bovespa, Clearing Corporation of India, CME Group, LCH.Clearnet Ltd, SGX-Asiaclear

Interest rates – BM&F Bovespa, CME Group, LCH.Clearnet Ltd, SGX-AsiaClear

¹⁰¹ Where conversion to USD was necessary, the exchange rate for a given currency on 31 December 2010; 31 December 2011; and 30 June 2012 were used, as appropriate.

Appendix VII

TR survey responses: Notional outstanding contracts reported to TRs by asset class

The survey undertaken of TRs to inform this progress report included a request for information on the notional outstanding in TRs. This information is presented in the table below, converted to USD and aggregated; it is presented in its raw form as it was reported and was not verified by secondary sources.

The raw data for the interest rate and credit derivatives seem to be in a similar range with figures reported by other sources (*i.e.* BIS data). However, the information regarding transactions reported to TRs for other asset classes either cannot be compared (since there is no comparable data available) or are very different from other reported sources.

The variation between reported data and the lack of comparable data may demonstrate current impediments to collecting and aggregating data in a consistent manner. The variation in reported aggregated data from different sources, for example, may be influenced by the difficulties in aggregating data across entities, as discussed in this progress report. In some cases, data reported is inconsistent with other publications of similar data.

Given these difficulties, the information in the table below should not be used as a reliable measure of reporting to TRs.

Table VII¹⁰²

Notional amounts outstanding (USD equivalents, in billions) in TRs, as reported by TRs in survey	
Asset class	30 June 2012
Credit	25,009
Commodities	60,549
Equity	7,409
FX	3,410
Interest rates	503,801

TRs' data included in Table VII:

Credit – Bank of Korea, CCIL, DTCC DRL

Commodities – Bank of Korea, CETIP, DTCC GTRfCBV

Equity – Bank of Korea, CETIP, BM&F Bovespa, DTCC DRL

FX – Bank of Korea, BM&F Bovespa, CETIP

Interest rates – Bank of Korea, BM&F Bovespa, CCIL, CETIP, DTCC DRL,

To the extent that TRs are fully functional, capturing relevant information (*e.g.* cleared trades), and in a form that can be aggregated, the data collection process is anticipated to be more reliable.

¹⁰² Where conversion to USD was necessary, the exchange rate for a given currency on 30 June 2012 was used.

Appendix VIII International policy development

WORK COMPLETED SINCE 3 rd FSB PROGRESS REPORT			
Commitment(s)	Action	Responsible	Status
Standardisation	Signatories to the March 2011 roadmap ¹ submitted populated Standardisation Matrices for Q3 and Q4 2011 for all asset classes.	ODSG	Q3 and Q4 data was submitted during the first half of 2012
Central clearing	International standards on margin requirements for non-centrally cleared derivatives. ²	BCBS and IOSCO (in consultation with CPSS and CGFS)	Consultative report published in July 2012
Central clearing	Consultation on revision of BCBS supervisory guidance for managing settlement risk in foreign exchange transactions (2000). ³	BCBS	Consultation on updated guidance published in August 2012
FMI Resolution	Consultative report on Recovery and Resolution of FMIs analysing the application of the FSB's <i>Key Attributes for Effective Resolution Regimes</i> to FMIs. ⁴	CPSS-IOSCO	Consultative report published in July 2012
Legal Entity Identifier	Report on "A Global Legal Entity Identifier for Financial Markets" setting out 35 recommendations for the development and implementation of a global LEI. ⁵	FSB	Report published in June 2012
Capital requirements	Interim regulatory capital adequacy rules for capitalisation of trade and default fund exposures to CCPs. ⁶	BCBS	Interim rules published in July 2012

1. Roadmap, published in March 2011 of industry initiatives and commitments relating to four thematic objectives: increasing standardisation; expanding central clearing; enhancing bilateral risk management; and increasing transparency, available at: <http://www.newyorkfed.org/newsevents/news/markets/2011/SCL0331.pdf> (See October 2011 progress report).
2. <http://www.bis.org/publ/bcbs226.pdf> and <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD387.pdf>.
3. <http://www.bis.org/publ/bcbs73.pdf>.
4. <http://www.bis.org/publ/cpss103.pdf> and <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD388.pdf>.
5. http://www.financialstabilityboard.org/publications/r_120608.pdf.
6. <http://www.bis.org/publ/bcbs227.pdf>

ON-GOING WORK			
Commitment(s)	Action	Responsible	Status
Standardisation (benchmarking)	On-going submission of agreed improved standardisation matrices: <ul style="list-style-type: none"> - matrices for all asset classes to include provision of absolute numbers of contracts; - matrices for all asset classes to be submitted semi-annually. 	ODSG	Next sets of populated standardisation matrices for credit, equity and interest rates due 30 September 2012.
Standardisation (product)	On-going work on product standardisation by signatories to March 2011 roadmap, ¹ including development, publication and use of standardised product documentation	ODSG	No timetable set; work on-going
Standardisation (process)	On-going work on process standardisation by signatories to March 2011 roadmap, including the design, implementation and take-up of automated processes and electronic platforms for key business functions	ODSG	No timetable set; work on-going
Central clearing	International standards on margin requirements for non-centrally cleared derivatives	BCBS and IOSCO (in consultation with CPSS and CGFS)	Consultative report published in 2012; final standards scheduled by end 2012
Reporting to trade repositories	Work on access by authorities to data reported to trade repositories	CPSS and IOSCO	Roundtables with TRs and other stakeholders in October 2012
Legal Entity Identifier	Work to put in place the legal and institutional framework for the governance and operational of the global LEI system recommended in the report published in June 2012.	FSB	Global LEI system to be launched on a self-standing basis by March 2013
FMI Resolution	Analysis of responses to consultation on FMI recovery and resolution and input into assessment methodology for the <i>Key Attributes of Effective Resolution Regimes</i> to ensure that it adequately reflects specificities of resolution regimes for CCPs.	CPSS-IOSCO	TBD

1. Roadmap, published in March 2011 of industry initiatives and commitments relating to four thematic objectives: increasing standardisation; expanding central clearing; enhancing bilateral risk management; and increasing transparency, available at: <http://www.newyorkfed.org/newsevents/news/markets/2011/SCL0331.pdf> (See October 2011 progress report).

Appendix IX

Updated tables summarising jurisdictions' progress in implementation of OTC derivatives market reforms

Table 1			
Standardisation			
	Proportion of OTC derivatives composed of standardised derivatives substantially increased by end-2012 (June 2011 Survey question 1.1)	Legislative and/or regulatory steps completed toward increasing the use of standardised products and processes (June 2011 Survey question 1.1.a)	Additional legislative and/or regulatory steps planned toward increasing the use of standardised products and processes (June 2011 Survey question 1.1.b)
Argentina	As from 1993, derivatives are traded through Mercado Abierto Electronico (MAE), a market regulated by the CNV. MAE together with ROFEX and MATBA (other regulated markets) have a share of 75% of all derivative contracts traded in Argentina.	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.	As markets do exist for standardised derivatives, there is no need to develop new regulation but of expanding the variety of contracts offered in these markets.
Australia	NA (main OTC derivatives instruments traded in Australian markets are interest rate and FX products, which are already fairly standardised). Regulators are also continuing to monitor the work undertaken by G-14 dealers under the steering of the ODSG and continuing dialogue with industry to track further proposed changes to standard documentation.	Yes. APRA has released for public consultation draft provisions to implement Basel III capital requirements (including the Basel rules for capital requirements for bank exposures to central counterparties, released July 2012), for implementation by January 2013 in accordance with the timetable of the Basel Committee on Banking Supervision.	Yes. APRA will incorporate Basel III capital requirements into its prudential standards to meet the BCBS timetable.
Brazil	No (market already highly standardised).	No.	No.
Canada	Yes.	No.	Yes, indirectly through the implementation of Basel III capital standards and trade reporting.
China	Yes.	Yes. PBC has approved CFETS to introduce standardised post-trade procedures for IRS trading via CFETS trading platform, and also the multi-lateral contract compression program for IRS.	No.
European Union	Yes.	Yes. EMIR entered into force in August 2012, MiFID II and MiFIR were proposed in October 2011. Capital Requirements Directive and Regulation ('CRD 4') implementing Basel III were proposed in July 2011.	Yes. Technical standards under EMIR to be developed by ESMA by September 2012 and adopted by the European Commission by end 2012; CRD 4 and MiFID II and MiFIR should be adopted in the 1 st quarter of 2013.

Table 1 Standardisation			
	Proportion of OTC derivatives composed of standardised derivatives substantially increased by end-2012 (June 2011 Survey question 1.1)	Legislative and/or regulatory steps completed toward increasing the use of standardised products and processes (June 2011 Survey question 1.1.a)	Additional legislative and/or regulatory steps planned toward increasing the use of standardised products and processes (June 2011 Survey question 1.1.b)
Hong Kong SAR	Monitoring development of reference benchmark, in particular the work undertaken by G-14 dealers under the steering of the ODSG. Main products traded in HK are already fairly standardised (interest rate swaps and non-deliverable forwards).	No.	Yes. HKMA has completed the process for primary legislation incorporating Basel III framework in its capital regime for banks. This is expected to increase standardisation.
India	Yes, CDS transactions permitted since 2011 are standardised.	Yes, CDS transactions permitted since 2011 are standardised.	The process of standardisation is planned to be undertaken gradually. CDS transactions are currently standardised and a working group was recently constituted to recommend standardisation of IRS contracts. (Foreign exchange derivatives are “plain vanilla” and essentially standardised with respect to functionality.)
Indonesia	N/A: under the rules of the capital market regulator, derivatives products may only be traded on exchange.	Yes, Bapepam-LK Rule III.E.1 stipulates use of the Future Contract and Option on Securities or Securities Index, which may only be traded on an exchange.	N/A
Japan	A significant portion of the market is already standardised.	Yes: Financial Instruments and Exchange Act (FIEA) was amended in May 2010 for mandatory clearing, and in September 2012 for the use of the electronic trading platforms (ETP). These are expected to promote standardisation.	Yes: With respect to CCPs, Cabinet Office Ordinance was promulgated in July 2012 and will be implemented in November 2012. With respect to ETP, the implementation will be phased in (up to three years)
Mexico	Most of the OTC derivatives transactions in the Mexican market are plain vanilla interest rate swaps.	No.	Yes. Financial authorities are working on the development of a general framework based on amendments to the secondary regulation, to be concluded in the course of this year. In addition to the regulatory framework, financial authorities are considering specific legislation (new law) to regulate derivatives markets.

Table 1 Standardisation			
	Proportion of OTC derivatives composed of standardised derivatives substantially increased by end-2012 (June 2011 Survey question 1.1)	Legislative and/or regulatory steps completed toward increasing the use of standardised products and processes (June 2011 Survey question 1.1.a)	Additional legislative and/or regulatory steps planned toward increasing the use of standardised products and processes (June 2011 Survey question 1.1.b)
Republic of Korea	Yes.	A revision of the Financial Investment Services and Capital Markets Act was submitted to the National Assembly in November 2011.	Yes: revision of the Financial Investment Services and Capital Markets Act to be submitted to the National Assembly in November of 2011; detailed provisions of enforcement ordinances and supervisory regulations required after legislation is adopted.
Russia	Classification codes for OTC derivatives introduced as a first step towards standardisation.	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. FFMS Regulation adopted on registration of OTC derivatives.	Yes. Implementing regulation to be adopted pursuant to the recently adopted laws by end-2012.
Saudi Arabia	No. Banks in Saudi Arabia already use standardised and plain vanilla products (primarily foreign exchange and interest rate products).	Yes: Since July 2000 SAMA requirement for all counterparties to use a standard Customer Treasury Agreement (CTA).	Yes. Pursuant to completion of self-assessment and in coordination with the Saudi Banking industry, a revised version of the CTA is being developed that will incorporate both ISDA and International Islamic Financial Market standards. The adoption and rollout of the new agreement (the “TMA”) and the requirement by SAMA for all counterparties to use the TMA in place of a CTA will ensure all counterparties (conventional and Shariah Compliant) will use a standard contract. The TMA is expected to be rolled out before 31 December 2012.

Table 1 Standardisation			
	Proportion of OTC derivatives composed of standardised derivatives substantially increased by end-2012 (June 2011 Survey question 1.1)	Legislative and/or regulatory steps completed toward increasing the use of standardised products and processes (June 2011 Survey question 1.1.a)	Additional legislative and/or regulatory steps planned toward increasing the use of standardised products and processes (June 2011 Survey question 1.1.b)
Singapore	Yes (major participants in the domestic market are the G-15 dealers that have committed to increase standardisation).	No.	Yes (relevant legislation to be introduced by end-2012).
South Africa	A significant portion of the market is already standardised. A phased-in approach is anticipated. Although increased use of standardised OTC derivatives is intended, this is not expected to increase substantially by end-2012.	Yes. The Financial Markets Bill (FMB) is expected to be approved by end-2012. The FMB amends the Securities Services Act 36 of 2004 (SSA) to strengthen the regulation of unlisted securities, including OTC derivatives.	Yes: the FMB and its subordinate legislation which is expected to be developed during the course of 2012.
Switzerland	Yes. Recent information collected from market participants shows a tendency towards greater use of standardised derivatives. In addition, the two major Swiss banks are part of the G-14 dealers that have committed to increase standardisation.	Yes: Basel capital requirements.	Yes. The Swiss Federal Council decided on a legislative reform package to fully implement the FSB principles in the area of OTC derivatives and to improve the regulation of financial market infrastructure on 29 August 2012, based on the analysis of a working group that was set up in 2011. Draft legislation is scheduled for public consultation in the first half of 2013.
Turkey	No. Under current legislation, investment firms are prohibited from dealing in OTC derivatives in Turkey; banks use mainly plain vanilla products with standardised features.	Yes: a draft Capital Markets Law to introduce OTC derivatives as capital market instruments has been prepared and proposed to the parliament in the second half of 2012 and is expected to be adopted by Q4 2012/Q1 2013.	Yes. A working group was set up in March 2012 to prepare the legislative framework to comply with FSB principles.

Table 1 Standardisation			
	Proportion of OTC derivatives composed of standardised derivatives substantially increased by end-2012 (June 2011 Survey question 1.1)	Legislative and/or regulatory steps completed toward increasing the use of standardised products and processes (June 2011 Survey question 1.1.a)	Additional legislative and/or regulatory steps planned toward increasing the use of standardised products and processes (June 2011 Survey question 1.1.b)
United States	Yes.	Yes: Dodd-Frank Act enacted July 2010. The CFTC and SEC have jointly adopted final rules further defining the products subject to the Dodd-Frank Act. The CFTC and SEC have each adopted final rules regarding processes for determining whether specific derivatives contracts will be subject to mandatory clearing; the CFTC finalised a rule establishing a schedule for compliance with mandatory clearing requirements for swaps and proposed new rule to require that swaps in four interest rate swap classes and two credit default swap classes be required to be cleared by registered derivatives clearing organisations. The CFTC and SEC have proposed, but not finalised, additional rules designed to promote standardisation.	Yes: Additional CFTC and SEC final rules to be adopted, including CFTC rules establishing processes to determine whether swaps have been made available to trade and, consequently subject to mandatory execution on designated contract markets or swap execution facilities.

Table 2
Central clearing

	Law and/or regulation in force by end-2012 requiring all standardised OTC derivatives to be cleared through CCPs (June 2011 Survey question 1.2.a)	Legislative and/or regulatory steps completed toward central clearing of standardised OTC derivatives (June 2011 Survey question 1.2.b)	Additional legislative and/or regulatory steps needed for a central clearing requirement for standardised OTC derivatives to be effective (June 2011 Survey question 1.2.a)
Argentina	No.	Central Bank regulation Com. "A" 4725 provides incentives to trade derivatives on organised platforms that provide for central clearing.	No.
Australia	On 12 September 2012, the Government introduced into the Australian Parliament a legislative framework to allow the imposition of a requirement to centrally clear standardised derivatives through CCPs. It is expected the legislation will be in place by end-2012. Implementing regulations and rules would be required before any mandatory obligations are imposed.	On 12 September the Government introduced into Parliament a framework for the imposition of central clearing obligations. The legislative framework is expected to be in place by end-2012. It is also expected that APRA's implementation of capital charges that incentivise the use of central clearing will result in large parts of the market moving to central clearing, where possible.	Yes. Legislation is currently expected to be in place before the end of 2012. Implementing regulations and rules will also be required.
Brazil	No.	Pre-existing legislation requires all exchange-traded derivatives to be centrally cleared; non-exchange traded derivatives may either be non-centrally risk managed or centrally cleared, at the option of counterparties, if the transaction is accepted for clearing by the CCP.	No: mandatory clearing requirement applies only to exchange-traded derivatives.
Canada	Provincial regulation expected to be in place by H1 2013.	Legislation in place in provinces where the majority of OTC derivatives trades are booked but further work required to harmonise across all provinces.	Yes: Canadian Securities Administrators (CSA) consultation on clearing closed in Q3 2012 and will inform rule making; work has been undertaken to identify and implement legislative changes needed to support clearing.
China	Proposed.	PBoC are taking measures to encourage Shanghai Clearing House to establish detailed schemes for central clearing of OTC derivatives. IRS central clearing operation scheme is under discussion.	Under review, depending on the legislative steps.

Table 2
Central clearing

	Law and/or regulation in force by end-2012 requiring all standardised OTC derivatives to be cleared through CCPs (June 2011 Survey question 1.2.a)	Legislative and/or regulatory steps completed toward central clearing of standardised OTC derivatives (June 2011 Survey question 1.2.b)	Additional legislative and/or regulatory steps needed for a central clearing requirement for standardised OTC derivatives to be effective (June 2011 Survey question 1.2.a)
European Union	Yes (EMIR).	EMIR entered into force in August 2012.	Yes; technical standards implementing EMIR to be adopted by the European Commission by end-2012.
Hong Kong SAR	Work on legislative drafting has started, with the aim of introducing the required legislative amendments before the legislature in early 2013. Pending those amendments, an interim legislative proposal has been made to support voluntary clearing of certain derivatives transactions through local CCPs recognised by the SFC.	A consultation paper on the proposed OTC derivatives regulatory regime for Hong Kong, including mandatory clearing requirements was released in October 2011 and the regulators published the conclusion paper in July 2012. Taking into consideration the responses received from the consultation, the regulators are now working on the legislative documents to be submitted to the Legislative Council.	Yes; legislative amendments must be adopted and further market consultation is also needed before finalising the detailed regulations on the mandatory central clearing requirement.
India	Progressive steps towards central clearing of OTC derivative transactions are being taken, though all standardised transactions may not be cleared by end-2012. 70% of IRS trades currently being centrally cleared without requirements to do so. It may take more time to achieve the necessary market activity to support central clearing of CDS transactions.	Repo transactions in government securities are required to be centrally cleared. There is a guaranteed centralised clearing arrangement for settlement of USD-INR forwards. CDS market still developing and premature for required CCP settlement.	Time frame for guaranteed settlement of CDS will be mandated after a critical level of volume is attained.
Indonesia	No. Bapepam-LK Rule III.E.1 stipulates use of the Future Contract and Option on Securities or Securities Index, which may only be traded on exchange. Currently, derivatives trading in Indonesia is relatively low volume and takes place only on exchange. Therefore, there is currently no plan to establish CCP for OTC derivatives.	Currently no legislative or regulatory steps are proposed. Please refer to Bapepam-LK Rule III.E.1 concerning the Future Contract and Option on Securities or Securities Index.	N/A

Table 2			
Central clearing			
	Law and/or regulation in force by end-2012 requiring all standardised OTC derivatives to be cleared through CCPs (June 2011 Survey question 1.2.a)	Legislative and/or regulatory steps completed toward central clearing of standardised OTC derivatives (June 2011 Survey question 1.2.b)	Additional legislative and/or regulatory steps needed for a central clearing requirement for standardised OTC derivatives to be effective (June 2011 Survey question 1.2.a)
Japan	Yes, but initially the requirements will apply only to Yen interest rate swaps and CDS (iTraxx Japan Index series).	The Financial Instruments and Exchange Act (FIEA) was amended in May 2010.	Yes: Cabinet Office Ordinance will be implemented in November 2012, including a requirement for central clearing of trades 'that are significant in volume and would reduce settlement risks in the domestic market'.
Mexico	Authorities plan to enact a law and/or secondary regulation to require all standardised OTC derivatives to be cleared through CCPs.	No.	Yes: MFA to develop the general framework in the course of 2011 and may propose legislation.
Republic of Korea	Yes.	Amendments to the Financial Investment Services and Capital Markets Act were submitted to the National Assembly in November 2011.	Yes: Financial Investment Services and Capital Markets Act amendments to be adopted; once adopted, implementation of the legislation will require detailed provision in enforcement ordinances and supervisory regulations, and the 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 the Master Agreement.
Saudi Arabia	No.	Results of the self-assessment conducted with the Saudi Banking Industry demonstrated that current and future trading volumes are unlikely to justify establishment of a domestic CCP. Saudi Bank is being encouraged to establish clearing relationships with global CCPs as the most appropriate solution.	No, given the current and future volumes of OTC derivatives, the standardisation of contracts, and the proposed establishment of a local trade repository is expected to obviate the need for any legislative and/or regulatory steps towards creation of CCPs. The issues may be revisited at a later date, should volumes justify such an action.

Table 2			
Central clearing			
	Law and/or regulation in force by end-2012 requiring all standardised OTC derivatives to be cleared through CCPs (June 2011 Survey question 1.2.a)	Legislative and/or regulatory steps completed toward central clearing of standardised OTC derivatives (June 2011 Survey question 1.2.b)	Additional legislative and/or regulatory steps needed for a central clearing requirement for standardised OTC derivatives to be effective (June 2011 Survey question 1.2.a)
Singapore	Yes.	Public consultation on licensing of CCPs and central clearing obligations has been issued. Legislation to be introduced by end-2012.	Yes. Development of detailed regulations is underway.
South Africa	Yes.	Financial Markets Bill (FMB) is expected to be approved by end-2012.	Yes: FMB and subordinate legislation are expected to be promulgated in the last quarter of 2012.
Switzerland	No, the legislative process is in progress.	Yes. The Swiss Federal Council decided on a legislative reform package to fully implement the FSB principles in the area of OTC derivatives and to improve the regulation of financial market infrastructure on 29 August 2012, based on the analysis of a working group that was set up in 2011. Draft legislation is scheduled for public consultation in the first half of 2013.	Yes.
Turkey	No: the new Capital Markets Law that has been proposed to The Parliament in the second half of 2012 and expected to be adopted by Q4 2012/Q1 2013 will allow the CMB to designate clearing agents to centrally clear OTC derivatives transactions or to require the establishment of a CCP in certain markets.	Under review.	Yes. A working group, including related government authorities and market participants, was set up in March 2012 to prepare the legislative framework to comply with FSB principles.
United States	Yes.	Dodd-Frank Act enacted in July 2010. The CFTC and SEC have each adopted final rules regarding processes related to determining whether specific derivatives contracts will be subject to mandatory clearing; CFTC finalised a rule establishing a schedule for compliance with mandatory clearing requirements and proposed new rules to require that swaps in four interest rate swap classes and two credit default swap classes be required to be cleared by registered derivatives clearing organisations; CFTC also has finalised rules on clearing documentation, the timing for acceptance of cleared trades, core principles applicable to CFTC-registered derivatives clearing organisations, and the exception to mandatory clearing for certain non-financial entities using swaps to hedge or mitigate commercial risk.	Yes: Additional CFTC and SEC implementing regulations to be finalised, including among others: CFTC rules establishing clearing requirement determinations for additional swap classes; and SEC rules establishing standards for the operation of clearing agencies.

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 (June 2011 Survey question 1.3.a)	Legislative and/or regulatory steps completed toward implementing a trading requirement for standardised derivatives (June 2011 Survey question 1.3.b)	Additional legislative and/or regulatory steps needed for a trading requirement for standardised derivatives to be effective (June 2011 Survey question 1.3.c)
Argentina	No.	Central Bank regulation Com. "A" 4725 provides incentives to trade derivatives on organised platforms that provide for central clearing. From March 2011, CNV has required software for the trading of negotiable securities to have a messenger interface compatible with FIX ("Financial Information eXchange Protocol") to ensure a standard functionality for international interconnection.	No.
Australia	On 12 September 2012, the Government introduced into Parliament a legislative framework to allow the imposition of a requirement to trade standardised derivatives on trading platforms or exchanges. It is expected the legislation will be in place by end-2012. Implementing regulations and rules would be required before any mandatory obligations are imposed.	The Government introduced into Parliament a legislative framework to permit imposition of a requirement to trade standardised derivatives on trading platforms or exchanges.	Yes. Legislation is currently expected to be in place by end of 2012. Implementing regulations and rules will also be required.
Brazil	No.	Capital incentives for use of exchange-traded derivatives.	No.
Canada	Under review.	None. A consultation paper will be published in Q4 2012 that will help inform regulators regarding the impact of a trading requirement.	Yes.
China	Under PBC's regulation, all standard OTC derivatives can be traded on the electronic trading platform operated by CFETS.	Electronic trading platform operated by CFETS has been developed. All standardized OTC interest rate and credit derivatives can be traded on CFETS platform.	No.

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 (June 2011 Survey question 1.3.a)	Legislative and/or regulatory steps completed toward implementing a trading requirement for standardised derivatives (June 2011 Survey question 1.3.b)	Additional legislative and/or regulatory steps needed for a trading requirement for standardised derivatives to be effective (June 2011 Survey question 1.3.c)
European Union	No: final rules on MiFID II and MiFIR expected to be in effect by mid-2014.	Legislation proposed in October 2011, consisting of a proposal for a recast Markets in Financial Instruments Directive (MiFID II) and a new Markets in Financial Instruments Regulation (MiFIR). These proposals 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 organised trading facilities.	Adoption of the Commission proposals by the European Council and Parliament; transposition of certain provisions into national law; delegated acts and technical standards to be developed and adopted.
Hong Kong SAR	The regulatory proposal which has been reviewed by a panel committee of the Legislative Council is under legislative drafting, which will give regulators the power to impose a trading requirement, although the timing of implementation is subject to further study by regulators on the liquidity level and number of trading venues available in Hong Kong in order to assess how best to implement such a requirement.	Regulators have jointly issued a consultation paper on the proposed OTC derivatives regulatory regime for Hong Kong, including the proposal to give the regulators powers to make rules to implement the mandatory trading requirement after the regulators' study on how best to implement such requirement in Hong Kong. Following the consultation, the regulators published the consultation conclusions in July 2012 to respond to the comments received from the consultation.	Yes: legislative amendments must be adopted and further market consultation is also needed before finalising the detailed regulations of the mandatory trading requirement.
India	No.	Mandated for all derivatives transactions involving repos in Government securities, IRS, forward rate agreements and foreign exchange forwards.	Yes. Explicit regulatory powers are needed to authorise and regulate OTC derivatives trading platforms.
Indonesia	N/A	Currently no legislative or regulatory steps are proposed. Please refer to Bapepam-LK Rule III.E.1 concerning the Future Contract and Option on Securities or Securities Index.	N/A
Japan	Yes – The Financial Instruments and Exchange Act (FIEA) was amended in September 2012.	The FIEA was amended in September 2012.	The implementation will be phased in (up to three years).

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 (June 2011 Survey question 1.3.a)	Legislative and/or regulatory steps completed toward implementing a trading requirement for standardised derivatives (June 2011 Survey question 1.3.b)	Additional legislative and/or regulatory steps needed for a trading requirement for standardised derivatives to be effective (June 2011 Survey question 1.3.c)
Mexico	Authorities plan to enact a law and/or secondary regulation to require a subset of standardised derivatives to be traded on electronic trading platforms.	No.	Yes. Financial authorities are working on the development of a general framework based on amendments to the secondary regulation to be concluded in the course of this year. In addition to the regulatory framework, financial authorities are considering the need for specific legislation (new law) to regulate derivatives markets.
Republic of Korea	No. This is under review.	Legislation not yet proposed; review of policy options underway.	No.
Russia	Yes.	Law regulating electronic platform trading has been adopted.	Yes: need to develop practical experience before proceeding with further regulatory measures; laws already adopted provide authority to adopt implementing regulations.
Saudi Arabia	No:	None.	No. Pursuant to completion of self-assessment in coordination with the Saudi Banking industry, it was agreed to establish a local Trade Repository by 31 December 2012 under the supervision of SAMA. The proposed TR will provide a mechanism to increase transparency of OTC market activity, commitments and balances. The TR is also expected to serve as the future foundation for any electronic trading on exchanges etc. should the need for such mechanisms arise. The TR in tandem with the standardisation of the OTC market through the TMA rollout is expected to address the regulatory requirements for greater transparency and disclosure.
Singapore	To be determined.	None.	No.
South Africa	No. We do not currently anticipate that electronic trading of OTC derivatives will be a requirement.	None.	No.

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 (June 2011 Survey question 1.3.a)	Legislative and/or regulatory steps completed toward implementing a trading requirement for standardised derivatives (June 2011 Survey question 1.3.b)	Additional legislative and/or regulatory steps needed for a trading requirement for standardised derivatives to be effective (June 2011 Survey question 1.3.c)
Switzerland	No, the legislative process is in progress.	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.	The Swiss Federal Council decided on a legislative reform package to fully implement the FSB principles in the area of OTC derivatives and to improve the regulation of financial market infrastructure on 29 August 2012, based on the analysis of a working group that was set up in 2011. Draft legislation is scheduled for public consultation in the first half of 2013.
Turkey	Policy options are under review.	Policy options are under review.	No.
United States	Yes.	Yes: Dodd-Frank Act enacted July 2010 requires any swap or security-based swap that is subject to a clearing requirement to be traded on a registered trading platform, i.e., 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 has finalised regulations with regard to designated contract markets. In addition, the CFTC has proposed regulations with regard to swap execution facilities and regulations defining the process by which a swap is “made available to trade” by a designated contract market or swap execution facility. The SEC has proposed rules pertaining to the registration and operation of trading platforms.	Yes: CFTC and SEC implementing rules regarding swap and security-based swap execution facilities and the process by which a swap is “made available to trade” by a trading platform to be finalised.

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
Argentina	Single-dealer functionality permitted.	Yes.
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. Consequently, under the current market licensing regime, if mandatory trading is imposed it would initially be on platforms or markets which offer multi-dealer functionality.	TBD: under review, monitoring the development of overseas requirements.
Brazil	Multi-dealer functionality is 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.
Canada	The issues will be explored in a consultation paper to be published Q4 2012.	The issues will be explored in a consultation paper to be published Q4 2012.
China	Multi-dealer functionality required.	Yes.
European Union	Multi-dealer functionality (proposed in Commission proposal for MiFID II / MiFIR).	Yes (proposed in Commission proposal for MiFID II / MiFIR).
Hong Kong SAR	Under consideration (with global developments in view).	Under consideration (with global developments in view).
India	Both options (single dealer and multi-dealer facilities) are available for foreign exchange derivatives.	Yes.
Indonesia	Multi-dealer functionality required.	Yes.
Japan	Multi-dealer functionality is expected, but single-dealer functionality will also be permitted (details to be determined by regulation).	Yes (details to be determined by regulations).
Mexico	Multi-dealer functionality required.	Yes.
Republic of Korea	Multi-dealer functionality required.	Yes.
Russia	To be determined.	No (pre-trade transparency required only for exchange-traded).
Saudi Arabia	No. the results of the self-assessment have indicated that the existing and future volumes do not require setting up of electronic trading and or exchanges.	No. the results of the self-assessment have indicated that the existing and predicted future volumes do not
Singapore	To be determined.	To be determined.
South Africa	TBD. No decision has yet been taken as to whether electronic trading of OTC derivatives will be required. If it is decided to require electronic trading,	Yes, for exchange traded derivatives.

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
	consideration will then be given to the characteristics of eligible platforms, and developments in other jurisdictions and any guidance from IOSCO will be relevant in this regard.	No, for OTC derivatives until they are traded on an exchange.
Switzerland	Under review.	Under review (exchanges currently required by law to provide pre-trade transparency).
Turkey	Under review.	Under review.
United States	Multi-dealer functionality required.	TBD – The CFTC and SEC have proposed rules under the Dodd-Frank Act relating to pre-trade transparency for swaps and security-based swaps that are traded on a swap execution facility or security-based swap execution facility, as applicable, but the rules have not yet been finalised.

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	No. However, derivatives operations of banks with cross-border counterparties, which are the bulk of OTC transactions, are subject to reporting and monitoring by the Central Bank.	To be determined.	To be determined.	To be determined.
Australia	On 12 September 2012, the Government introduced into Parliament a legislative framework to allow the imposition of mandatory trade reporting. It is expected that this legislation will be in place before the end of 2012, but implementing regulations and rules would be required before any mandatory obligations are actually imposed. The draft legislation also introduces a licensing regime for trade repositories.	A legislative framework to facilitate trade reporting was introduced into Parliament on 12 September 2012.	Yes. Legislation is currently expected to be in place by end of 2012, however implementing regulations and rules will be required.	TBD - If no TR available, the draft legislation would also permit imposition of a requirement that data be reported to a prescribed governmental authority.
Brazil	Yes.	Pre-existing rules enacted by the Central Bank and CVM require all OTC derivatives trades to be reported to a TR. Furthermore, according to Law no. 12,543, to have legal validity, derivatives transactions must be registered.	No.	No.
Canada	Process for development and implementation of reporting regulations is on-going. Requirements are scheduled to be implemented in H1 2013.	Canadian Securities Administrators published a consultation paper on TRs and most jurisdictions are assessing what legislative changes may be required. Ontario and Quebec have amended legislation to support reporting to TRs and regulatory access to data. Legislation has been proposed in some other provinces.	Yes: Rules for TR reporting and operations to be finalized in early 2013.	Yes. Anticipated that a very small number of trades may not be accepted by TRs and could be reported to securities regulators.

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China	Yes.	Trading of OTC interest rates executed outside the CFETS platform should be reported to CFETS.	Yes: details to be determined.	Yes.
European Union	Yes (EMIR).	EMIR entered into force in August 2012.	Yes: technical standards to be adopted by the European Commission by end 2012.	Yes: reporting to ESMA where a TR is not able to record the details of an OTC derivative.
Hong Kong SAR	The regulatory proposal which has been reviewed by a panel committee of the Legislative Council is under legislative drafting, with the aim of introducing the required legislative amendments before the legislature in early 2013. The intention is to take a phased approach, beginning with interest rate swaps and non-deliverable forwards.	A consultation paper on the proposed OTC derivatives regulatory regime for Hong Kong, including the proposed mandatory reporting requirements was released in October 2011 and the regulators published the conclusion paper in July 2012. Taking into consideration the responses received from the consultation, the regulators are now working on the legislative documents to be submitted to the Legislative Council	Yes, legislative amendments must be adopted and further market consultation is also needed before finalising the detailed regulations on the mandatory reporting requirement.	OTC derivatives transactions that have a bearing on the HK's financial market will be required to be reported to the local TR to be developed by HKMA.
India	Yes, as per existing regulatory guidelines, banks and primary dealers should report IRS/FRA and foreign exchange derivatives transactions to the CCIL reporting platform; in the case of CDS, all market makers must report trades on the centralised reporting platform within the stipulated time after of execution. Additional steps to bring other interbank OTC derivative under the repository framework by end-2012 are being considered.	Regulatory guidelines issued in 2007 for reporting of IRS and FRAs; reporting of CDS required by legislation in 2011; regulatory guidelines issued in June 2012 for certain forwards, swaps and options. Considering a phased in approach to bring any remaining OTC derivatives under the reporting framework.	Yes. Recommendations made to the Financial Sector Legislative Reforms Commission to provide appropriate statutory authority for the regulation of TRs, facilitating reporting to and dissemination of information from TRs to the appropriate members and regulators.	No. IRS trades are being reported to CCIL and the details are accessible to the Reserve Bank of India.

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Indonesia	Not applicable, as derivatives products may only be traded on exchange. The current regulation, Bapepam-LK, already requires OTC transactions to be reported to TRs, but that requirement only covers debt instruments (not derivatives). Banks are required to report interest rate derivatives and FX derivatives transactions to the central bank.	None.	N/A	N/A
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 Office Ordinance promulgated in July 2012 and will be implemented in November 2012.	Yes: trade data reported to JFSA will be limited to information not accepted by a TR, such as exotic OTC derivatives trades.
Mexico	Authorities plan to enact law and/or secondary regulation to require all OTC derivatives transactions to be reported to trade repositories.	No.	Yes. Financial authorities are working on the development of a general framework based on amendments to the secondary regulation to be completed in the course of this year. In addition to the regulatory framework, financial authorities are considering developing specific new legislation to regulate derivatives market.	No: authorities intend that entities should report to specifically-designated trade repositories. Currently, local financial intermediaries are required to report OTC derivatives to local authorities.
Republic of Korea	Yes.	The 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 required by the Financial Investment Services and Capital Markets Act and the Foreign Exchange transactions Act.

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Russia	No: only transactions conducted by professional market participants and transactions subject to close-out netting and executed under Master Agreements must be reported to TRs.	Laws concerning OTC derivatives adopted recently. FFMS regulation on TRs adopted.	Yes: regulations to require reporting to TRs to be implemented under recently adopted legislation.	Yes.
Saudi Arabia	Based on the self-assessment, a TR will be established under the supervision of SAMA by end December 2012.	None.	Yes. Appropriate regulations are expected to be in place before 31 December 2012.	Yes. The proposed TR will be established and operated by SAMA.
Singapore	Yes.	Public consultation on legislative amendments concerning the reporting mandate and the licensing of TR has been issued. Legislation to be introduced by end-2012.	Yes (in the process of developing detailed regulations, subject to international developments).	To be determined.
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.
Switzerland	No. The legislative process is in progress.	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.	Yes. The Swiss Federal Council decided on a legislative reform package to fully implement the FSB principles in the area of OTC derivatives and to improve the regulation of financial market infrastructure on 29 August 2012, based on the analysis of a working group that was set up in 2011. Draft legislation is scheduled for public consultation in the first half of 2013.	Under review.

Table 5
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Turkey	<p>Uno. The new Capital Markets Law which has been proposed to The Parliament in the second half of 2012 (and expected to be adopted Q4 2012/Q1 2013) includes provisions related to TRs and will give the CMB authority to require transactions to be reported directly to an authorised TR.</p> <p>Although not currently required, equity linked OTC derivatives transactions and leveraged foreign exchange transactions are required to be reported to the Istanbul Stock Exchange (ISE) or the ISE Custody and Settlement Bank.</p>	Under review	Yes. A working group was set up in march 2012 to prepare the legislative framework consistent with FSB principles.	The new Capital Markets Law will give CMB the authority to require capital markets transactions (including OTC derivatives) to be reported directly to the CMB or to an authorised TR.
United States	Yes.	Yes: Dodd-Frank Act enacted July 2010. The CFTC has finalised registration requirements, duties, and core principles applicable to CFTC-regulated TRs and rules on the reporting of swaps to TRs (including swaps entered into before the Dodd-Frank Act was enacted and which had not expired as of such date, as well as swaps entered into on or after such date of enactment but prior to the relevant reporting compliance date) – compliance with these rules will be phased-in by swap class starting in Fall 2012 with credit and interest rate swaps. The CFTC also has designated a provider of legal entity identifiers to be used by registered entities and swap counterparties in complying with the	Yes: SEC implementing regulations to be finalised.	Yes: Reporting to the CFTC or SEC only if there is no TR available; expected to be limited in scope.

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		<p>CFTC's swap data reporting regulations and continues to assist the industry's efforts in the development of a Universal Product Identifier and product classification protocol. The SEC has proposed regulations implementing TR reporting requirements and specifying registration requirements, duties and core principles of SEC-regulated TRs.</p>		

Table 6
Application of central clearing requirements

	Coverage of all asset classes	Coverage of all types of financial entities	Intra-group transactions
Argentina	Yes (for derivatives markets under the jurisdiction of the CNV).	Yes (for derivatives markets under the jurisdiction of the CNV).	No, if not traded through regulated markets.
Australia	Yes, the framework being adopted in Australia does not specify any asset classes as being exempt from central clearing requirements. However, implementation of any central clearing requirements will be considered on an asset class basis and will likely be harmonised with requirements in major jurisdictions	Yes, the framework being adopted in Australia does not specify any entities as being exempt from central clearing requirements. However, implementation of any central clearing requirements will likely be considered on an asset class basis and take into account the impacts on financial and non-financial entities. Coverage will be coordinated with other FSB members (likely that smaller financial entities and smaller end users would be exempt).	Under review.
Brazil	No: central clearing requirement applies 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.	Under review; consideration being given to systemic risk concerns and harmonisation with other jurisdictions.	Under review. Canadian Securities regulators are considering comments received in response to a consultation paper on end-user exemptions.
China	To be determined.	To be determined.	To be determined.
European Union	Yes.	Yes (with temporary exemption of certain pension arrangements from central clearing obligation).	No (intra-group transactions are exempted).
Hong Kong SAR	Yes, in phases. 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: HK's proposal is to cover financial institutions holding positions above a certain clearing threshold (which is to be determined).	The regulators are prepared to consider the possibility of introducing clearing exemptions in respect of intra-group transactions, albeit subject to certain conditions. Specific details on exemptions from clearing will be provided when the regulators consult on the detailed requirements in early 2013.
India	A central clearing facility is available for interest rate swaps, foreign exchange forwards, and repos in government securities; central clearing for CDS will be considered, depending on market development.	Yes.	Yes, provided the accounts are held separately.
Indonesia	Under review.	Under review.	N/A.

Table 6
Application of central clearing requirements

	Coverage of all asset classes	Coverage of all types of financial entities	Intra-group transactions
Japan	Yes. (Initially, the requirements will apply to Yen interest rate swaps and CDS referring iTraxx Japan. After November 2012, applicable products will be further expanded based on appropriate review).	Yes, applicable to major “Financial Intermediaries Business Operators” and financial institutions.	No.
Mexico	As a first stage, peso-denominated IRS will be subject to mandatory central clearing. (IRS represents more than 90% of the domestic market in OTC derivatives.)	All derivatives determined as standardised by the Central Bank will be subject to the central clearing requirement. Initially, central clearing requirements will only apply to banks and brokerage houses.	No. Exemptions for intra-group transactions are not planned.
Republic of Korea	Yes.	Yes.	
Russia	Yes.	Yes.	Yes.
Saudi Arabia	Under review.	Under review.	Under review.
Singapore	Yes (taking into account systemic risk to the local market and degree of standardisation in the local market).	Yes (financial entities and non-financial entities above specified threshold will come under the clearing obligation).	Under review (continuing to monitor international developments).
South Africa	Under review.	Under review.	Under review.
Switzerland	Under review.	Under review.	Under review.
Turkey	Under review.	Under review.	Under review.
United States	Yes (although U.S. Treasury has proposed exempting foreign exchange swaps and forwards from mandatory clearing requirements).	Yes (although the CFTC has adopted a final rule that exempts banks, savings associations, farm credit system institutions, and credit unions with total assets of \$10 billion or less from the definition of “financial entity,” making such “small financial institutions” eligible to elect to use the end-user exception to mandatory clearing for swaps that hedge or mitigate commercial risk; an analogous exemption for such entities is under consideration by the SEC).	An inter-affiliate clearing exemption has been proposed by the CFTC; exempting inter-affiliate transactions from clearing is under consideration by the SEC.

Table 7
CCP location requirements

Argentina	No.
Australia	No, but appropriate measures to ensure adequate domestic regulatory oversight will be imposed on foreign CCPs, which could require some Australian presence where a CCP is systemically important.
Brazil	No.
Canada	No.
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	Currently, derivatives in Indonesia are relatively very low and only traded on exchange. Hence, there is currently no plan to establish a CCP for OTC derivatives.
Japan	Yes, domestic CCP clearing to be required for those derivatives required “to be aligned with the domestic bankruptcy regime”; iTraxx Japan series of CDS index trades anticipated to be included.
Mexico	Not yet defined. However, authorities are considering whether to recognize CCPs based on their access policy and soundness, not on location.
Republic of Korea	No.
Russia	If clearing takes place in the Russian Federation, the CCP is domestic. If it takes place abroad, no location requirements apply.
Saudi Arabia	No.
Singapore	No.
South Africa	No.
Switzerland	No.
Turkey	Under review, but expected to be concluded that the CCP will be located in Turkey and subject to the home country regulator.
United States	No.

Appendix X

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>
Australia	<p>Oliver Harvey Executive Leader, Financial Market Infrastructure Australian Securities and Investments Commission</p>
Brazil	<p>Otavio Yazbek Commissioner Comissão de Valores Mobiliários (CVM)</p>
Canada	<p>Elizabeth Woodman Principal Researcher, Markets Infrastructure Division Financial Markets Department Bank of Canada</p>
China	<p>Kong Yan Director, Bonds Products Supervision Division People's Bank of China</p>
France	<p>Carole Uzan Autorité des marchés financiers (AMF)</p>
Germany	<p>Thomas Schmitz-Lippert Executive Director, International Policy/Affairs Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)</p> <p>Martin Ockler Higher Executive Officer, Financial Stability Department Deutsche Bundesbank</p>

Hong Kong	Daryl Ho Head of Market Development Division Hong Kong Monetary Authority
Japan	Jun Mizuguchi Assistant Commissioner for International Affairs Financial Services Agency
Korea	Yujung Oh Deputy Director, Capital Markets Division
Singapore	Tiak-Peow Phua Deputy Director, Capital Markets Policy Monetary Authority of Singapore
Switzerland	Michael Manz Head, International Finance and Financial Stability Swiss Federal Department of Finance FDF State Secretariat for International Finance SIF
UK	Anne Wetherilt Senior Manager, Payments and Infrastructure Division Bank of England
	David Bailey Acting Head of Market Infrastructure and Policy Department, Markets Division Financial Services Authority
USA	Warren Gorlick Associate Director, Office of International Affairs Commodity Futures Trading Commission
	Kim Allen Senior Special Counsel, Division of Trading and Markets Securities and Exchange Commission
	Erik Heitfield Chief, Risk Analysis Section Federal Reserve Board of Governors
ECB	Andreas Schönenberger Principal Market Infrastructure Expert in the Oversight Division Directorate General Payment and Market Infrastructure
BIS	Nick Vause Senior Economist

BCBS	Giuseppe Siani Head, International Cooperation Division Bank of Italy
IMF	Eija Holttinen Senior Financial Sector Expert
	Froukelien Wendt Senior Financial Sector Expert
CPSS	Klaus Löber Head of Secretariat
IOSCO	David Wright Secretary General
FSB	Rupert Thorne Deputy Secretary General
	Uzma Wahhab Member of Secretariat
	Ruth Walters Member of Secretariat