Reform of Over-the-Counter (OTC) Derivatives Markets in Canada: Discussion Paper from the Canadian OTC Derivatives Working Group

Prepared by the OTC Derivatives Working Group

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Executive Summary

This discussion paper represents the work of the inter-agency Canadian OTC Derivatives Working Group (OTCD WG) formed in December 2009 that is chaired by the Bank of Canada, composed of members from the Office of the Superintendent of Financial Institutions (OSFI), the federal Department of Finance, the Ontario Securities Commission, the Autorité des marchés financiers, the Alberta Securities Commission and the Bank of Canada (see Annex 1 for details). This group was tasked with providing advice and coordinating efforts to meet Canada’s G-20 commitments related to OTC derivatives in a manner consistent with the continuing stability and vibrancy of the Canadian financial system. The discussion paper sets out the interim recommendations of the OTCD WG, which are based on analysis of OTC derivatives markets, globally and in Canada, consultations with and advice from private sector participants, and ongoing work internationally. Given the changing international regulatory landscape, as well as the number of outstanding issues to be resolved, these recommendations should be viewed as directional in that they will require periodic review and refinement.

The G-20 commitments state that:

“All standardized 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.”

The OTCD WG views the initiatives for reform of OTC derivatives markets contained in the G-20 commitments as important to the resilience and stability of the financial system. While small on a global scale, OTC derivatives play an important role in Canadian financial markets, serving both financial and non-financial entities. The majority of OTC transactions are cross-border, but there are Canadian-specific OTC derivatives markets for certain products (e.g., Canadian equity-linked derivatives). Reforms are therefore important to: i) reduce systemic risk, ii) improve market efficiency, and iii) improve market integrity and investor protection. Reforms should be designed with a view to their potential unintended adverse consequences, including those associated with regulatory arbitrage.

Much work remains to be done in order to implement all elements of the G-20 commitments by the 2012 target date. At the domestic level, the dialogue and engagement with stakeholders is underway. The Canadian Market Infrastructure Committee (CMIC) is presently providing input to the OTCD WG on meeting the G-20 commitments with respect to standardization, central
clearing, trade reporting and transparency. This input will be assessed by the OTCD WG (and the relevant experts in each organization). The OTCD WG will also continue to engage other derivatives market participants and infrastructure providers to inform them about the OTC derivatives reforms discussed in this paper and to collect information to help inform policy.

The OTCD WG’s recommended strategy at this time is to rely on both capital incentives and actions of Canadian financial-sector authorities to implement the reforms. Further regulatory action is required to set the standards for the industry, especially if capital is not a sufficient economic motivator to avoid regulatory arbitrage.

To meet the G-20 commitments, it is imperative that Canadian prudential and market conduct regulators have the authority, tools and information necessary to monitor and regulate the Canadian OTC derivatives market on an ongoing basis. This means coordinating activities across current federal and provincial jurisdictions as well as potentially developing a new regulatory framework for OTC derivatives market participants not currently subject to regulation. In the case of international solutions the same information to monitor and regulate would also be necessary.

The OTCD WG recognizes the importance of the ongoing work of the Canadian Securities Administrators (CSA) Derivatives Committee to develop a comprehensive framework for regulating the OTC derivatives market. The OTCD WG also recognizes the importance of contributing actively to the international dialogue on reform of OTC derivatives markets, and harmonizing with international efforts on a broad range of issues where appropriate.

Recommendations

The fulfillment of the G-20 commitments is a public-sector initiative that will require significant engagement of the industry, and should be informed by the substance and timing of measures undertaken in other major jurisdictions. The design of reforms should be embedded in a robust regulatory framework. The reforms should take into account international initiatives at the G-20 level, and the input of Canadian market participants.

Table 1 summarizes OTCD WG recommendations across five key areas of reform: i) capital incentives and standards; ii) standardization; iii) central counterparties and risk management; iv) trade repositories; and v) trading venues.

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1 The CMIC is comprised of major dealers and buy-side participants active in Canadian derivatives markets. It is a newly-formed group with roots in the Industry Advisory Group (IAG) that was comprised of the six largest Canadian banks and was created in January 2010 for the purpose of assessing international developments, collecting data on Canadian OTC derivatives markets and developing policy recommendations related to implementing the G-20 recommendations.
**Table 1: Summary of OTCD WG Recommendations**

1. **Capital incentives and standards**
   - i. The Basel Committee on Banking Supervision (BCBS) will develop the definitive international capital regime applied to prudentially regulated entities engaged in activities in OTC derivatives markets. New capital standards should encourage the use of standardized, centrally cleared transactions, and Canada should coordinate implementation of these standards with other jurisdictions once finalized and agreed.
   - ii. Regulatory bodies that oversee entities not subject to BCBS capital standards that are engaged in OTC derivatives activities should take steps to apply consistent capital standards in order to ensure an even playing field.

2. **Standardization**
   - i. There should be a concerted effort to increase the degree of standardization in OTC derivatives contracts across all asset classes in Canada. Standardization should be harmonized internationally on the basis of guidance provided by international standard-setters.
   - ii. Industry should draft plans and priorities for standardizing OTC derivatives products in Canada, by asset class, for consideration by regulatory authorities.
   - iii. Industry should commit to specific targets and milestones for processing and legal standardization in each asset class of OTC derivatives consistent with the timelines set out by the G-20 and with major international industry initiatives. These targets will be set in consultation with Canadian authorities.

3. **Central Clearing Counterparties and risk management**
   - i. Industry should thoroughly assess all possible solutions for obtaining access to safe and efficient central clearing services. These include, but are not limited to, the following:
     - o The merits of building a Canadian-based CCP with properly risk-proofed links to international infrastructure should be examined in cooperation with regulators and possible infrastructure providers.
     - o Direct access to global CCPs should be considered, with special attention paid to supervisory arrangements and client access considerations.
   - ii. Canadian financial institutions involved in derivatives dealing should commit to specific target levels and timelines for central clearing for each class of OTC derivatives that are appropriate for clearing. These targets will be set in consultation with Canadian authorities. Canadian institutions that are derivatives dealers in international markets should abide by these commitments for central clearing.
   - iii. For all non-centrally-cleared derivatives contracts, best practices should be adopted for counterparty risk management that are no less conservative than standards for central counterparties.

4. **Trade repositories**
   - i. All OTC derivatives transactions involving a Canadian counterparty should be required to be reported to a trade repository to which Canadian authorities have appropriate access. As well, Canadian authorities should also have appropriate access to OTC derivatives trade information on underlying Canadian entities, regardless of where the counterparties are located geographically.
   - ii. Canadian authorities should ensure that they have access to data from international TRs and are engaged in their oversight, where appropriate.
   - iii. Canadian OTC derivative market participants should support international efforts currently underway to implement asset-specific global trade repositories.
   - iv. To ensure regulatory oversight of the domestic OTC derivatives market, a Canadian trade repository will need to be established if and where it is expected that international trade repositories will not provide Canadian authorities with adequate data access and coverage of Canadian participants and products.
     - o A Canadian trade repository must be subject to oversight by a Canadian regulator.

5. **Trading venues**
   - i. To promote transparency and market efficiency, domestic authorities should encourage the migration of standardized OTC derivatives transactions to electronic trading platforms or exchanges, where appropriate.
   - ii. Canadian authorities will be assessing various models and suggestions from the industry to ensure appropriate transparency for those transactions not executed on a public trading venue. All market participants should have the ability to be aware of prevailing levels of activity and valuations.
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1. Introduction

The G-20 commitments for improving the infrastructure of OTC derivatives markets contain the following elements:²

1) All standardized 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.

2) OTC derivative contracts should be reported to trade repositories; and,

3) Non-centrally cleared contracts should be subject to higher capital requirements.

These commitments are an important element of the global reform agenda considering the size (US$ 615 trillion) of the global OTC derivatives market. ³ Canada represents approximately 2 per cent of the global market for OTC derivatives (US$12.4 trillion);⁴ moreover, a large portion of OTC derivatives activity by the six major Canadian banks occurs outside of Canada and/or with counterparties outside of Canada. These facts suggest that international coordination of reforms will be essential and that Canadian objectives will need to be reflected in international fora.

The G-20 commitments are also critical to reinforcing the stability and resilience of derivatives markets and the financial system as a whole, and thus the timeline for their implementation is intentionally ambitious. Much ground remains to be covered, both for Canada and the international community. For example, work is underway to determine the best approach for market participants to access global CCP infrastructure. There is also ample room to further increase the transparency of OTC derivatives in Canada and abroad.

This discussion paper outlines preliminary recommendations of the OTC Derivatives Working Group (OTCD WG) on the substance and process for implementation of the G-20 commitments as they pertain to Canadian OTC derivatives. The OTCD WG is an inter-agency group chaired by the Bank of Canada, composed of members from the Office of the Superintendent of

² These commitments, made at the G-20 Leaders’ Summit at Pittsburgh in September 2009, were reconfirmed in June 2010 at the Leaders’ Summit held in Toronto. At this time they were modified to address margin requirements for CCPs that take account of procyclicality, place somewhat greater emphasis on standardization and transparency and stress the need for internationally consistent standards and implementation.
⁴ Notional amount, as of December 2009. Source: OSFI.
Financial Institutions (OSFI), the federal Department of Finance, the Ontario Securities Commission, the Autorité des marchés financiers, the Alberta Securities Commission and the Bank of Canada. The recommendations are based on analysis of OTC derivatives markets globally and in Canada, consultations with and advice from private sector participants, as well as views and data provided by the Industry Advisory Group (IAG) and by international policy working groups and committees. A specific focus of the OTCD WG is to ensure that any structural change is contemplated and undertaken in a manner consistent with the continuing stability and vibrancy of the Canadian financial system. Given the degree of uncertainty related to the international regulatory landscape, as well as the number of outstanding issues to be resolved, these recommendations should be viewed as directional in that they will require periodic review and refinement.

To set the stage, Section 2 interprets the underlying objectives of the G-20 commitments and guiding principles that should be followed in implementing the required reforms. Sections 3 through 7 outline the key issues and developments, and make recommendations, across five key areas of reform: i) capital incentives and standards; ii) standardization; iii) central counterparties and risk management; iv) trade repositories; and v) trading venues. The final section outlines next steps.

2. Objectives of G-20 Commitments Related to OTC Derivatives

The G-20 commitments address a number of objectives including: reduced systemic risk; market efficiency; and market integrity and investor protection. These objectives, and possible tradeoffs between them, should be taken into account in the design and implementation of OTC derivatives market reforms in Canada. In the design and implementation of these reforms, it is essential to recognize the possibility that reforms may have unintended consequences stemming from the incentives created for participants, including those related to regulatory arbitrage.

The increased use of CCPs can reduce systemic risk in the first instance by making the management of counterparty risk centralized, transparent, and uniform. It also helps to reduce total counterparty risk exposure through multilateral netting and risk mutualization. In combination, these effects reduce the ability of default shocks and uncertainty regarding exposures to cascade across the network of major market participants. A CCP would thus, in conjunction with other reforms, help ensure that the failure of an individual institution would not

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5 See Annex 1 for the group’s mandate and a list of its members.
6 Presently the CMIC (see Footnote 1).
7 See Annex 3 for list of key international policy groups.
8 See Brunnermeier (2009), Duffie, Li and Lubke (2010), and Caballero and Simsek (2009).
jeopardize systemic integrity and market confidence. But CCPs also concentrate counterparty credit risk. Given that CCPs are likely to assume a more important role in OTC derivatives markets in the future and are likely to be large, it is crucial that authorities ensure that CCPs employ strong risk controls and are subject to rigorous oversight.

Encouraging trading to move to exchanges or electronic trading platforms can increase transparency to market participants. In particular, exchange trading would enhance pre-trade and post-trade price transparency of the OTC derivatives market.\(^9\) Price transparency has the potential to improve market efficiency as well as levelling the playing field for market participants, thus offering greater protection to less sophisticated market participants. That said, any improved price transparency regime imposed on OTC derivatives markets would have to be designed to minimize its potential negative impact on liquidity; some forms of price transparency could impair dealers’ market making ability, withdrawing liquidity from the market.\(^10\) A potential reduction in aggregate hedging capacity is also possible if market-making activity is shifted away from bespoke OTC contracts in favour of standardized exchange contracts.\(^11\)

The establishment of trade repositories (TRs) can reduce systemic risk and support market integrity and investor protection by improving the ability of regulators to assess financial system risks. A TR can give regulatory authorities the timely and reliable information required to assess risks on the books of market participants, identify and monitor build up of concentration risks, support enforcement of market conduct regulation and address risky market practices.\(^12\) A TR can also increase transparency to the market through public reporting of data such as aggregated live positions, transaction activity, and aggregate settlement data, but they are unlikely to provide contemporaneous post-trade transparency to market participants.

Finally, subjecting non-centrally cleared trades to higher capital requirements can support financial system stability by applying appropriate capital charges to address both counterparty credit and market risks. It also supports stability and efficiency objectives by putting in place the incentives to standardize and centrally clear OTC derivative transactions.

In order to achieve these objectives, Canada should adopt the following principles to guide implementation of the G-20 commitments to reinforce financial stability and market integrity:

i. Canadian authorities must have the power, tools and information necessary to monitor and regulate the Canadian OTC derivatives market on an ongoing basis.

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\(^9\) Price transparency could, in principle, be provided by a trade repository (post-trade) or through other venues such as a CCP (settlement price), or electronic trading platform (indications of interest).

\(^10\) See for example, Financial Services Authority and HM Treasury (2009).

\(^11\) The price at which dealers offer bespoke contracts is likely to be higher if they find it more difficult to lay-off the risk related to these contracts as volumes move to more standardized OTC or exchange-traded contracts.

\(^12\) See BIS CPSS-IOSCO (2010a). A TR may also engage in trade life-cycle event management and downstream trade processing services based on authoritative records it maintains (e.g., central settlement of payment obligations, electronic novation and affirmation, portfolio compression and reconciliation, collateral service provision).
ii. OTC derivatives market reforms in Canada should seek to reduce systemic risk, as well as support market efficiency, integrity and investor protection. In pursuing these objectives, reforms should take into account the potentially distortionary implications of regulatory arbitrage.

iii. Canadian OTC derivative reform measures should aim to establish appropriate incentives for the financial system participants, within a robust regulatory framework.

iv. Canadian OTC derivatives reform measures should take into account international initiatives at the G-20 level and the input from the Canadian industry.

v. OTC derivatives infrastructure (e.g., CCPs, TRs, electronic trading venues and exchanges) should be properly governed and subject to appropriate oversight and regulation with risk-proofing consistent with up-to-date international best-practice.

vi. All OTC derivatives markets should be subject to standards for trade reporting and transparency for the purposes of enhancing market stability, efficiency, integrity, and investor protection.

vii. Canadian institutions that act as OTC derivatives dealers should adopt best practices for managing counterparty risk, operational risk, trade reporting, and transaction execution.

These principles are used to guide OTC WG recommendations across five key areas of reform: i) capital incentives and standards; ii) standardization; iii) central counterparties and risk management; iv) trade repositories; and v) trading venues.

3. Capital Incentives and Standards

After a review of the financial crisis, the Basel Committee on Banking Supervision (BCBS) has proposed reforms which would increase capital required for both market risk and counterparty credit risk related to OTC derivatives for prudentially regulated institutions.\textsuperscript{13} According to these proposals, non-centrally cleared contracts will continue to be subject to higher capital requirements, while contract exposures to CCPs will retain a lower but non-zero risk weighting for collateral and mark-to-market exposure provided they meet CPSS-IOSCO Recommendations for CCPs (which are currently being updated to apply to OTC derivatives) that achieve a level of solvency protection acceptable to bank supervisors.\textsuperscript{14}

Higher capital requirements for non-centrally cleared derivatives add to the current incentives for participants to centrally clear a wider range of products and to consider the systemic risk

\textsuperscript{13} Under current Basel rules, banks subject to BCBS capital standards are required to hold minimum capital for the risk of loss as a result of a default by the counterparty to an OTC derivative or securities lending transaction. As well, they must hold capital in their trading books for the market price risks arising from the reference assets on which OTC derivatives are based.

\textsuperscript{14} BIS CPSS-IOSCO recently provided guidance on the application of its Recommendations for CCPs to OTC derivative CCPs. See BIS CPSS-IOSCO (2010a).
associated with their non-centrally cleared derivatives. Capital requirements should be based solely on relative risk. To limit the potential for regulatory arbitrage and to ensure consistency of regulation across participants, various jurisdictions have also enacted legislation that will give authorities the power to impose capital requirements on derivative transactions for those entities not subject to BCBS capital standards.\textsuperscript{15}

**Recommendations Regarding Capital Incentives and Standards**

1. The Basel Committee on Banking Supervision (BCBS) will develop the definitive international capital regime applied to prudentially regulated entities engaged in activities in OTC derivatives markets. New capital standards should encourage the use of standardized, centrally cleared transactions, and Canada should coordinate implementation of these standards with other jurisdictions once finalized and agreed.

2. Regulatory bodies that oversee entities not subject to BCBS capital standards that are engaged in OTC derivatives activities should take steps to apply consistent capital standards in order to ensure an even playing field.

**4. Standardization**

Greater standardization of OTC derivative contracts is required for central clearing of trades whether they continue to be executed over-the-counter or move to some form of electronic trading venue (exchange or alternative trading platform). This understanding is implicit in the various initiatives aimed at increasing the level of standardization in OTC derivatives contracts (e.g., OTC Derivatives Supervisors’ Group and G14; FSB working group) and is reflected in the G-20 commitment. As well, the standardization of trade processing can also help to reduce operational risk in the lifecycle of an OTC derivative trade (e.g., straight-through processing).\textsuperscript{16}

Factors such as the contract’s underlying economic characteristics and legal documentation, market practices with respect to post-trade and life cycle events and capacity for electronic processing are elements that should be considered in determining the level of standardization.\textsuperscript{17} For example, the successful move of credit default swaps (CDS) contracts to CCP clearing was facilitated by ISDA’s development of protocols for a cash settled auction mechanism (applicable to most CDS) and the introduction of standard coupons.

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\textsuperscript{15} For example, under Title VII of the Dodd-FrankWall Street Reform and Consumer Protection Act (Dodd-Frank Act), the CFTC or SEC have the authority to impose capital requirements for non-cleared swaps and security-based swaps on major participants and dealers for which there is not a prudential regulator.

\textsuperscript{16} Defined by the CPSS as the capture of trade details directly from front-end trading systems and the complete automated processing of confirmations and settlement instructions without the need for rekeying or reformatting data.

\textsuperscript{17} Coupon, maturity date, valuation model and reference index are examples of economic characteristics; terms, definitions and contract specifications are examples of aspects of legal documentation that could be standardized.
The degree of standardization achievable for each type of derivative is one factor that will influence the extent to which OTC derivatives can be cleared through a CCP or moved to an exchange or electronic trading platform. For example, interest rate swaps are viewed as one of the easiest OTC derivatives to standardize while, relative to other asset classes, equity-linked derivatives are somewhat less standardized. While it is likely that a high level of overall standardization is achievable, there will be some proportion of OTC derivatives contracts that are highly customized to meet specific end-user requirements for hedging business and operational risk, and hence for which central clearing is not appropriate. In addition, new products are not likely, at least initially, to be sufficiently standardized to be centrally cleared.

*While standardization is a necessary condition for central clearing it is not sufficient.* This has been noted by the IMF, the UK authorities\(^\text{18}\) and more recently, the CPSS and IOSCO in their guidance on how the 2004 CPSS-IOSCO Recommendations for Central Counterparties (RCCPs) might be applied to CCPs for OTC derivatives.\(^\text{19}\) This guidance highlights the link between clearing eligibility and the ability of the CCPs to effectively manage the risks of OTC derivatives. The guidance suggests that the determination of clearing eligibility (in a manner that satisfies the expectations set out in the RCCPs for appropriate risk management) also requires an assessment of factors such as the risk characteristics of the product, the availability of price information and trading liquidity. The bar is even higher, in terms of standardization, for a product to be exchange-traded.

Greater standardization of OTC derivatives products is nonetheless needed in order to increase central clearing and industry efforts are crucial in this regard. Internationally, the OTC Derivatives Supervisors Group has been actively working with the G14 dealers and buy-side clients to increase the level of standardization. These dealers have recently committed to the Supervisors Group to establish work streams to analyze existing and potential opportunities for further standardization by asset class and by product with a focus on credit, interest rate and equity derivatives.\(^\text{20}\) This will provide a useful starting point for regulators in various jurisdictions as they work to determine what products can be safely cleared by CCPs or moved to electronic trading platforms or exchanges. The CMIC is presently working on setting objectives for standardization for Canadian OTC derivatives products, recognizing the importance of customized trades for end-users, including non-financial corporate entities, for hedging their market risks.

Given that CCPs will have to manage the risks associated with clearing OTC derivatives it is important that there be an ongoing role for the CCP and its regulator in determining which

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\(^{18}\) See International Monetary Fund (2010) and Financial Services Authority and HM Treasury (2009), respectively.  
\(^{19}\) BIS CPSS-IOSCO (2010a).  
products are clearing eligible. This is the approach taken by the UK authorities\(^{21}\) and enacted in the U.S. Dodd-Frank Act.\(^{22}\) It is also important that there be incentives to harmonize standardization of OTC derivatives products across jurisdictions to facilitate global CCPs and potential links between local CCPs and global infrastructure.

**Recommendations Regarding Standardization**

i. There should be a concerted effort to increase the degree of standardization in OTC derivatives contracts across all asset classes in Canada. Standardization should be harmonized internationally on the basis of guidance provided by international standard-setters.

ii. Industry should draft plans and priorities for standardizing OTC derivatives products in Canada, by asset class, for consideration by regulatory authorities.

iii. Industry should commit to specific targets and milestones for processing and legal standardization in each asset class of OTC derivatives consistent with the timelines set out by the G-20 and with major international industry initiatives. These targets will be set in consultation with Canadian authorities.

**5. Central Counterparties (CCP) and Risk Management**

Given the potential regulatory benefit of CCPs in terms of systemic risk reduction, there is general agreement among policy makers and regulators regarding the need to increase central clearing of OTC derivatives. Legislation requiring mandatory clearing of standardized or clearing-eligible OTC derivatives has been passed in Japan\(^{23}\) and the United States,\(^{24}\) and has been proposed in Europe.\(^{25}\) The major derivatives dealers from the U.S. and Europe (G14) have been working actively with the OTC Derivatives Supervisors Group to set ambitious targets for


\(^{22}\) In the Dodd-Frank Act, the CFTC and SEC are not authorized to require a clearing agency to clear any category of swap or security-based swap if it would “threaten the financial integrity of the clearing agency.”

\(^{23}\) Legislation requiring central clearing of OTC derivatives and trade reporting was approved by Japan’s parliament on 12 May 2010.

\(^{24}\) The Dodd-Frank Act requires that all clearable derivative contracts be cleared. It is expected that the SEC and CFTC will make determinations on mandatory clearing for many products by the summer of 2011.

\(^{25}\) The European Commission released, in September 2010, a *Proposal for a Regulation of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories*, which includes mandatory clearing of eligible OTC derivatives. Eligibility will be determined by the European Securities and Markets Authority (ESMA).
central clearing. To date, these efforts have been limited to eligible trades in credit, equity and interest rate derivatives.\textsuperscript{26}

In recognition of the systemic importance of CCPs, regulators have stepped up efforts to create appropriate standards and oversight frameworks that will ensure that CCPs are required to manage their risks in accordance with internationally-agreed best practices. The efforts of the CPSS-IOSCO to develop guidance and standards to ensure operationally robust CCPs with well-designed risk controls will support the migration towards greater use of CCPs.\textsuperscript{27} The work of the OTC Derivatives Regulators Forum to create cooperative oversight frameworks tailored to existing CCPs is also an important effort to ensure that future infrastructure serves the purposes set out in the G-20 commitment.\textsuperscript{28}

While central clearing of OTC derivatives will be increasing dramatically in the next few years, the CCP market is still in the early stages of development. Clearing of energy derivatives is relatively mature, and interest rate swaps have substantial participation in clearing, but credit default swaps are just beginning to be cleared on CCPs and there has been very little action in other asset classes. Clearing capacity for Canadian dollar-denominated products, internationally or within Canada, is currently limited mainly to some energy derivatives, interest rate swaps and equities.\textsuperscript{29} Currently only a small proportion of OTC derivatives transactions undertaken by Canadian dealers are centrally cleared. The CMIC is providing input to the OTCD WG to assess a number of options for access to CCP services.

At a general level, there are two paths for market participants in smaller economies to obtain access to global counterparties with central clearing. In the first case, dealers that meet the membership criteria of global CCPs could clear directly using global infrastructure, while other participants clear indirectly through them. In the second case, a local CCP could be setup that links to the global infrastructure for access to global counterparties. There are a wide variety of different configurations for this type of link, including full peer-to-peer interoperability.

In determining how Canadian OTC derivative market participants will gain safe access to CCP clearing and remain efficiently connected to the global market, there are several important questions that the OTCD WG is considering:

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\item \textsuperscript{26} http://www.newyorkfed.org/newsevents/news/markets/2010/100301_letter.pdf
\item \textsuperscript{27} Ibid.
\item \textsuperscript{28} International efforts (industry and regulators) with regard to CCPs and other aspects of OTC derivatives markets reform are detailed in Annex 1.
\item \textsuperscript{29} In Canada, NGX clears OTC energy forwards. For equity-linked OTC derivatives, CDCC Converge provides CCP services in Canada, although its usage as a CCP for OTC equity derivatives is currently limited. LCH.Clearnet’s SwapClear clears Canadian-dollar interest rate swaps in London.
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• What is the best mechanism for Canadian authorities to ensure that CCPs clearing Canadian products and serving Canadian financial institutions are properly overseen and risk-proofed?
• How will the clearing of Canadian products by CCPs be prioritized now and in the future in order to foster resilient markets and not constrain healthy innovation?
• What will be the physical location of this and other important market infrastructure, now and in the future?
• How will Canadian market participants be able to retain competitiveness in the OTC derivatives marketplace?
• How will CCPs clearing Canadian products obtain effective access to extraordinary Canadian dollar liquidity from the Bank of Canada?
• If links between CCPs are required, how can they be established in a safe and cost-efficient manner?

Some OTC derivatives contracts will not be centrally cleared, either because they are not amenable to adequate standardization or because inadequate liquidity or price information makes them inappropriate for management by a CCP. To ensure that non-centrally-cleared products do not create systemic risks, bilateral risk controls applying to these transactions must be strengthened and standardized. One such protection is to mandate that market participants exchange margins on non-cleared OTC derivative transactions.  

**Recommendations Regarding Central Counterparties (CCP) and Risk Management**

i. Industry should thoroughly assess all possible solutions for obtaining access to robust central clearing services. These include, but are not limited to, the following:
   o The merits of building a Canadian-based CCP with properly risk-proofed links to international infrastructure should be examined in cooperation with regulators and possible infrastructure providers.
   o Direct access to global CCPs should be considered, with special attention paid to supervisory arrangements and client access considerations.

ii. Canadian financial institutions involved in derivatives dealing should commit to specific target levels and timelines for central clearing for each class of OTC derivatives that are appropriate for clearing. These targets will be set in consultation with Canadian

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30In the U.S., the Dodd-Frank Act requires that the CFTC or SEC set minimum capital and margin requirements for non-bank swap dealers and major swap participants.
authorities. Canadian institutions that are derivatives dealers in international markets should abide by these commitments for central clearing.

iii. For all non-centrally-cleared derivatives contracts, best practices should be adopted for counterparty risk management that are no less conservative than standards for central counterparties.

6. Trade Repositories

Work is underway globally to establish trade repositories for OTC derivatives, and to mandate reporting of all OTC derivative contracts to trade repositories (or to the relevant authority in the absence of a trade repository).\(^{31}\) Furthermore, CPSS- IOSCO is proposing factors for consideration by trade repositories and their relevant authorities.\(^{32}\)

In order to strengthen their capacity to assess risks on the books of market participants and identify and monitor build up of concentration risks, regulators must have access to transaction level data for all OTC derivatives transactions booked in Canada and all transactions by Canadian regulated financial institutions, regardless of where the trade was booked. The publication of aggregated live positions, transaction activity, and aggregate settlement data could also help market participants assess the risks they face (UK FSA/H.M. Treasury).

Industry (ISDA) also favours the establishment of a single, global TR for each asset class, given that multiple TRs for any asset class (e.g., by region) could result in data fragmentation and may provide regulators with an incomplete understanding of the exposures of market participants. However, a single global TR per asset class may create monopolistic risks that would have to be managed. There is a risk that a TR may develop as a single source of information for particular OTC derivative market segments and result in highly concentrated operational risks. Therefore, TRs need strong operational management (including security) to protect trade data from loss, leakage, unauthorized access, and other processing risks. It is necessary for TR’s to apply information security and system integrity objectives to its own operations as well as to its participants and other entities that directly access the TR’s systems to protect trade data during transmission and dissemination.

There are also numerous (cross-jurisdiction) legal issues that need to be resolved in order for a global TR to operate effectively. Confidentiality around counterparty reporting to a 3rd party service provider and the subsequent use of that data is a notable issue being discussed.

\(^{31}\) For example, in the Dodd-Frank Act (Section 727(13) (g)): “Each swap (whether cleared or uncleared) shall be reported to a registered swap data repository.”

\(^{32}\) BIS CPSS-IOSCO (2010b).
internationally. There may also be legal barriers in any relevant jurisdiction that could potentially restrict a TR’s ability to provide data to regulators.

DTCC’s Warehouse Trust collects information on confirmed credit derivative transactions in its trade repository, and provides aggregate data to the public on a weekly basis (e.g., gross and net notional outstanding amounts for the Top 1000 reference entities). The OTC Derivatives Regulator’s Forum (ODRF) has developed a cooperative oversight framework for DTCC. In terms of transparency to regulators, the ODRF has provided guidance to DTCC Warehouse Trust, identifying data maintained in the Warehouse Trust that relevant financial authorities around the world expect to request, and establishing a transparent process by which they may directly access this data. The principles within this framework could serve as the basis for frameworks with other trade repositories.

The establishment of a trade repository specific to OTC derivatives in Canada could complement efforts currently underway to implement asset-specific global trade repositories. This would serve to guarantee unfettered access to the data required to assess and monitor the risks of Canadian regulated financial institutions. The choice of location of a trade repository (i.e., a national trade repository vs. asset-specific global trade repositories) should also take into account both the upfront costs to build the necessary infrastructure (e.g., IT programming to ensure security and communication with other TRs) as well as ongoing operational costs of running the trade repository.

**Recommendations Regarding Trade Repositories**

i. All OTC derivatives transactions involving a Canadian counterparty should be required to be reported to a trade repository to which Canadian authorities have the appropriate access. As well, Canadian authorities should also have appropriate access to OTC derivatives trade information on underlying Canadian entities, regardless of where the counterparties are located geographically.

**Recommendations Regarding Location of Trade Repositories**

ii. Canadian authorities should ensure that they have access to data from international TRs and are engaged in their oversight, where appropriate.

iii. Canadian OTC derivative market participants should support international efforts currently underway to implement asset-specific global trade repositories.

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33 TRs exist in other OTC derivative asset classes. For example, TriOptima provides trade repository services for interest rate contracts. Also, DTCC / MarkitServ announced the launch of its Equity Derivatives Reporting Repository in August 2010.
iv. To ensure regulatory oversight of the domestic OTC derivatives market, a Canadian trade repository will need to be established if and where it is expected that international trade repositories will not provide Canadian authorities with adequate data access and coverage of Canadian participants and products.

- A Canadian trade repository must be subject to oversight by a Canadian regulatory body.

7. Trading Venues

Various jurisdictions have different views about whether mandating trading venues for OTC derivatives is appropriate. For example, in the Dodd-Frank Act, all OTC products that are required to be centrally cleared would also be required to be executed on an exchange or a swap execution facility. On the other hand, the UK FSA and H.M. Treasury (2009) have the view that there is no need to mandate the trading of standardised derivatives on organised trading platforms if: i) all relevant OTC derivative trades are registered in a trade repository; ii) capital charges reflect appropriately the risks posed; iii) internationally-agreed 'clearing eligible' products are cleared through CCPs (and these CCPs are regulated consistently in the major jurisdictions); and iv) there is greater standardisation of OTC derivatives contracts. There is unlikely to be a global consensus on the electronic trading platform issue in the near future.

Exchange trading can enhance both pre-trade and post-trade price transparency of the OTC derivatives market. Pre-trade transparency refers to the availability of information regarding the volumes and prices at which participants are willing to transact. Where an active order book exists, this could range from information about inside prices (i.e., the size and price of the best bid and offer quotes) to information about all orders in the limit order book. Electronic trading platforms typically offer a high degree of pre-trade transparency (i.e., displaying indicative prices or a request for quotes), but are better able than exchanges to provide market participants with access to the depth of liquidity and nature of trading in an OTC market (e.g., in some instances, an active order book does not exist).  

Post-trade transparency includes information about the price and volume of completed transactions, and can be published with a delay. An appropriate level of post-trade price transparency would improve market efficiency and offer greater protection to less sophisticated

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34 Viswanathan and Wang (2004) discuss the conditions under which types of inter-dealer trading improves customer welfare. When customer orders are large and uninformative, a bilateral inter-dealer market is preferred. When customer orders contain a higher degree of payoff-relevant information, the benefit of a multistage (i.e. inter-dealer) market is reduced, and a bilateral inter-dealer market is more subject to breakdowns relative to a multilateral inter-dealer market.
market participants. While mandated exchange trading would increase price transparency, it could reduce the incentives of market-makers to provide liquidity to the market. Post-trade transparency could, in principle, also be provided by an electronic trading platform, a CCP, or a trade repository, and work remains to be done to determine which channel would provide the appropriate level of price transparency for different types of OTC derivatives.

Globally, there has been a limited development of marketplaces with OTC derivatives trading capabilities. The marketplaces that have existing or announced support for OTC derivatives trading are largely concentrated in the area of OTC commodity and energy derivatives, and these marketplaces have not announced specific plans to trade Canadian contracts. In addition, there are also a number of single dealer-to-client or inter-dealer trading platforms, ranging from broker quote pages on services such as Reuters and Bloomberg to online platforms for electronic trading. In Canada, the marketplaces that have developed existing capability or announced plans to support OTC derivative trading are limited. The Natural Gas Exchange (NGX – Alta) provides an electronic system for the anonymous matching of bids and offers for forward contracts (both physical commodity forwards and financial forwards).

**Recommendations Regarding Trading Venues**

i. To promote transparency and market efficiency, domestic authorities should encourage the migration of standardized OTC derivatives transactions to electronic trading platforms or exchanges, where appropriate.

ii. Canadian authorities will be assessing various models and suggestions from the industry to ensure appropriate transparency for those transactions not executed on a public trading venue. All market participants should have the ability to be aware of prevailing levels of activity and valuations.

**8. Next Steps**

Meeting the G-20 commitments will be challenging and much work is left to be done, both in Canada and internationally. Canadian prudential and market regulators must have the authority, tools and information necessary to monitor and regulate the Canadian OTC derivatives market on an ongoing basis. Activities across current federal and provincial jurisdictions should be coordinated, including potentially a new regulatory framework for OTC derivatives market

35 For example, Blackbird is a U.S. based inter-dealer broker that also offers an on-line platform for conducting inter-dealer trades in interest rate swaps. Deutsche Bank’s Autobahn provides Deutsche Bank clients with a platform for trading interest rate and asset swaps.

36 NGX is wholly owned by the TMX Group and is regulated by the Alberta Securities Commission as an exchange and clearing agency.
participants not currently subject to regulation. The ongoing work of the CSA Derivatives Committee to develop a comprehensive framework for regulating the OTC derivatives market is particularly important in this regard.

Major Canadian dealers are presently providing input to the OTCD WG on meeting the G-20 commitments with respect to standardization, central clearing, trade reporting and transparency. This input will be assessed by the OTCD WG (and the relevant experts in each organization). We will also continue to engage other derivatives market participants and infrastructure providers to inform them about the OTC derivatives reforms discussed in this paper and to collect information during this engagement to help inform policy.
References


Euroclear (2009). “Euroclear response to CESR Consultation on Trade Repositories”.


Annex 1: Terms of Reference and Membership - Canadian OTC Derivatives Working Group

Background:

At the Pittsburgh summit in September 2009, G-20 leaders made the following commitment:

“All standardized 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.”

Rationale:

OTC derivatives markets are recognized as providing a substantial benefit to economic efficiency by enabling effective risk management within the economy. As a result of the experience of the financial crisis, OTC derivatives markets are currently the focus of an ambitious international regulatory reform agenda intended to mitigate the risks these markets may pose to future financial system stability. Given the global nature of the OTC derivatives market and its participants, international coordination is essential to ensure the adoption of best practices in the global marketplace, to reduce the possibility of regulatory arbitrage and to mitigate potential systemic risk issues that may arise in the future. Many jurisdictions, in response to their G-20 commitment, are pursuing initiatives directed at enhancing transparency, improving risk management, and strengthening the regulation and oversight of OTC derivatives activity occurring within their borders and by their institutions.

Mandate:

An inter-agency Working Group has been formed and tasked with coordinating efforts directed towards meeting Canada’s G-20 commitment on OTC Derivatives. A specific focus of the Group will be to ensure that any structural change is contemplated and undertaken in a manner that is appropriate for the ongoing stability and vibrancy of the Canadian financial system and that the timetable for initiatives is consistent with the “end 2012” commitment.

Areas of consideration:

Standardization – domestic and international definitional issues and the desirable future degree of standardization in Canadian markets

Trading Venues, Central Counterparties and Trade Repositories – role and impact of proposed changes to fundamental market infrastructures

Cost, Capital and Risk Management - impact of new practices on market participants and market dynamics

Overall Impact of market reforms in achieving goals regarding transparency, risk management and efficiency
### Working Group Members:

<table>
<thead>
<tr>
<th>Organization</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank of Canada</td>
<td>Carolyn Wilkins (Chair)</td>
</tr>
<tr>
<td></td>
<td>Eric Tuer</td>
</tr>
<tr>
<td></td>
<td>Toni Gravelle</td>
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<tr>
<td></td>
<td>Jonathan Witmer</td>
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<tr>
<td></td>
<td>Elizabeth Woodman</td>
</tr>
<tr>
<td>Alberta Securities Commission</td>
<td>David McKellar</td>
</tr>
<tr>
<td>Autorité des marchés financiers</td>
<td>Derek West</td>
</tr>
<tr>
<td></td>
<td>Marc Stephens</td>
</tr>
<tr>
<td>Department of Finance</td>
<td>Wayne Foster</td>
</tr>
<tr>
<td></td>
<td>Dan Calof</td>
</tr>
<tr>
<td>Office of the Superintendent of Financial Institutions</td>
<td>Richard Gresser</td>
</tr>
<tr>
<td></td>
<td>Brad Shinn</td>
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<tr>
<td></td>
<td>Greg Caldwell</td>
</tr>
<tr>
<td></td>
<td>Doug Sannuto</td>
</tr>
<tr>
<td>Ontario Securities Commission</td>
<td>Debbie Foubert</td>
</tr>
<tr>
<td></td>
<td>Kevin Fine</td>
</tr>
</tbody>
</table>
Annex 2: Key facts about OTC derivatives in Canada

While small on a global scale, the Canadian OTC derivatives market is important for Canadian financial and non-financial entities. The size of Canadian OTC derivative markets, relative to the size of the global market, is roughly in line with that of other Canadian financial markets such as equities (see Table 1). At US$ 12.4 trillion in December 2009 (notional amounts outstanding), it represents approximately 2 per cent of the global market for OTC derivatives.\(^{37}\) For the IAG members, it accounts for an estimated 10 to 30 per cent of their overall trading revenue.\(^{38}\)

The Canadian OTC derivatives market is global in nature. A large portion of the IAG’s OTC derivatives activity occurs outside of Canada and/or with counterparties outside of Canada - IAG members’ book 36 per cent of their OTC market derivatives activity outside of Canada, and 78 per cent of the total OTC derivatives business is with counterparties located outside of Canada,\(^{39}\) most of which are with other financial institutions (excluding the IAG members), and this business will most likely be affected by OTC derivatives regulation outside of Canada.

The Canadian OTC derivatives market has some distinctions relative to the global market. FX swaps are an important element in the core funding of Canadian financial institutions, as evidenced by the fact that FX contracts are more widely used in Canada where the IAG has at least one side of the trade (23 per cent in Canada vs. 9 per cent globally).\(^{40}\) However, like the global market, the two largest OTC derivative asset classes by notional amount are interest rate and FX contracts. For the IAG, OTC interest rate contracts make up 69 per cent of outstanding notional amounts.

A small, but significant, portion of IAG OTC business is with non-financial counterparties. 20 per cent of IAG FX contracts are with non-financial counterparties (12 per cent inside Canada, 8 per cent outside Canada).\(^{41}\) Likewise, 9 per cent of interest rate contracts are with non-financial counterparties (7 per cent inside Canada, 2 per cent outside Canada). For equity and commodity OTC derivatives, 46 percent and 50 per cent of contracts are with non-financial counterparties, respectively.

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\(^{37}\) Source: OSFI.

\(^{38}\) Source: Industry Advisory Group (2010). Unless otherwise noted, Canadian OTC derivatives market data by category represents the positions of the six members of the Canadian OTC derivatives Industry Advisory Group (IAG), representing Canada’s largest dealers in OTC derivatives (i.e., this data represents OTC derivatives contracts where an IAG member is a counterparty on at least one side of the trade). According to OSFI data, these six members account for US$ 12.0 trillion of the US$ 12.4 trillion market. Other deposit-taking institutions account for US$ 0.3 trillion, while large life insurers account for US$ 0.1 trillion.

\(^{39}\) For 80 per cent of overall activity, at least one side of the transaction is booked outside of Canada.

\(^{40}\) In the BIS Quarterly survey, the “Unallocated” category includes foreign exchange, interest rate, equity, commodity and credit derivatives of non-reporting institutions, based on the latest Triennial BIS survey. This category is excluded in comparisons to BIS statistics.

\(^{41}\) US$ 319 billion of FX contracts were booked with non-financial counterparties in Canada. A large portion of this is likely from provincial borrowers, who had $105 billion outstanding in foreign currency debt at the end of 2009.
In considering counterparty risk associated with transactions between financial institutions and non-financial entities it is important to note that many of these transactions are uncollateralized and there may be less scope for bilateral netting of counterparty exposures. Moreover, dealers generally have matched books (i.e., offsetting positions) whereas end-users are likely to have one-way risk. These end-users may be relying on the use of non-standardized OTC derivatives to hedge their operating or balance sheet risk.

Other financial institutions (excluding the IAG members) within Canada represent 4 per cent and 3 per cent of IAG members’ OTC interest rate and FX business, respectively. Depending on the capital requirements for membership and the margin requirements of a global CCP, many of these smaller Canadian financial institutions may either not be eligible or not find it possible to become members of a global CCP. Finally, about 9 per cent of Canadian OTC business is between IAG members.

Table 1: OTC Derivatives Amounts Outstanding by Asset Class and Product Type

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Notional Amt. Outstanding (US$ B)</th>
<th>Gross Market Value (US$ B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>10,146</td>
<td>614,674</td>
</tr>
<tr>
<td>FOREIGN EXCHANGE CONTRACTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outright Forwards &amp; Forex Swaps</td>
<td>2,307</td>
<td>49,196</td>
</tr>
<tr>
<td>Currency Swaps</td>
<td>1,234</td>
<td>23,129</td>
</tr>
<tr>
<td>Options</td>
<td>862</td>
<td>16,509</td>
</tr>
<tr>
<td></td>
<td>210</td>
<td>9,558</td>
</tr>
<tr>
<td>INTEREST RATE CONTRACTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forward Rate Agreements (FRAs)</td>
<td>7,240</td>
<td>449,793</td>
</tr>
<tr>
<td>Swaps</td>
<td>6,145</td>
<td>349,236</td>
</tr>
<tr>
<td>Options</td>
<td>324</td>
<td>48,808</td>
</tr>
<tr>
<td>EQUITY-LINKED CONTRACTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forwards</td>
<td>116</td>
<td>6,591</td>
</tr>
<tr>
<td>Swaps</td>
<td>2,6</td>
<td>1,830</td>
</tr>
<tr>
<td>Options</td>
<td>72</td>
<td>4,762</td>
</tr>
<tr>
<td>COMMODITY CONTRACTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gold—All Contracts</td>
<td>130</td>
<td>2,944</td>
</tr>
<tr>
<td>Other Commodities—Forwards &amp; Swaps</td>
<td>35</td>
<td>423</td>
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<tr>
<td>Other Commodities—Options</td>
<td>66</td>
<td>1,675</td>
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<tr>
<td>CREDIT DEFAULT SWAPS</td>
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<td></td>
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<tr>
<td>Single-Name Instruments</td>
<td>326</td>
<td>21,917</td>
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<tr>
<td>Multi-Name Instruments</td>
<td>23</td>
<td>10,776</td>
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<tr>
<td>UNALLOCATED</td>
<td>3</td>
<td>73,456</td>
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<tr>
<td>Gross Credit Exposure</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* This table provides information on OTC derivative amounts outstanding in Canada, as reported by members of the Canadian OTC derivatives Industry Advisory Group (IAG). For comparison, global OTC derivative amounts outstanding (from the BIS Quarterly Review, June 2010) are also provided. See http://www.bis.org/publ/qtrpdf/r_qa1006.pdf
## Annex 3: International Policy Groups

### G20 / Pittsburgh Statement

“All standardized 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.”

### G7 / Issues paper on financial sector structural issues, including OTC derivatives, discussed at Iqaluit

IMF

Working papers on OTC derivatives

Article on OTC derivatives in Global Financial Stability Report (GFSR)

<table>
<thead>
<tr>
<th>Annex 3: International Policy Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>G14 OTC derivatives dealers</strong></td>
</tr>
<tr>
<td>• Industry group created in 2005 to address issues related to confirmation backlogs in credit derivatives.</td>
</tr>
<tr>
<td>• Currently working on various commitments related to improving the infrastructure of OTC derivatives, including efforts to increase standardization of OTC derivatives, setting quantitative targets and deadlines for standardization, clearing, reporting of trades and buy-side access.</td>
</tr>
<tr>
<td>• Ongoing.</td>
</tr>
<tr>
<td><strong>ISDA</strong></td>
</tr>
<tr>
<td>• ISDA is working with the G14 OTC derivatives dealers and acting as the coordinating body with respect to the G14 commitments</td>
</tr>
<tr>
<td>• Put in place a formal governance framework (ISDA Industry Governance Committee, or IIGC) at the end of 2009.</td>
</tr>
<tr>
<td>• The IIGC has several dedicated working groups reporting to the main IIGC Forum: steering committees for each product class, operational risk committee and collateralisation committee.</td>
</tr>
<tr>
<td>• Ongoing</td>
</tr>
<tr>
<td><strong>(1) IOSCO Task Force on Unregulated Markets and Products</strong></td>
</tr>
<tr>
<td>• To consider how to extend perimeter of regulation to unregulated markets and products. Focus on OTC derivatives limited to CDS.</td>
</tr>
<tr>
<td><strong>(2) IOSCO Task Force on Commodity Futures Markets</strong></td>
</tr>
<tr>
<td>• To examine how to move towards industry commitments for commodity derivatives markets beginning with energy derivatives.</td>
</tr>
<tr>
<td>• Ongoing.</td>
</tr>
<tr>
<td><strong>CPSS-IOSCO</strong></td>
</tr>
<tr>
<td>• To provide guidance on how the 2004 Recommendations for Central Counterparties (RCCPs) should be applied to the CCPs handling OTC derivatives. Also to provide guidance on trade repositories.</td>
</tr>
<tr>
<td>• Consultative documents were issued in May 2010.</td>
</tr>
<tr>
<td>• Comprehensive review of existing standards for all financial market infrastructures, including OTC derivatives CCPs.</td>
</tr>
<tr>
<td>• Draft of all revised standards to be issued for public consultation by early 2011 and final report by end-2011.</td>
</tr>
<tr>
<td><strong>Basel Committee - Risk Management &amp; Modelling Group (BCBS)</strong></td>
</tr>
<tr>
<td>• Consultative document released December 2009 proposing measures to strengthen counterparty credit risk capital requirements for OTC derivatives, as well as capital for market risk.</td>
</tr>
<tr>
<td>• A Quantitative Impact Assessment (QIS) of proposed measures will be conducted.</td>
</tr>
<tr>
<td>• Final rules text for capital requirements to be finalized by end-2010.</td>
</tr>
<tr>
<td><strong>Financial Stability Board Working Group</strong></td>
</tr>
<tr>
<td>• To further the objectives agreed by the G-20.</td>
</tr>
<tr>
<td>• To explore possible solutions to implement the mandatory clearing and exchange or electronic trading requirements for standardized products.</td>
</tr>
<tr>
<td>• To suggest policy options for promoting the use of standardized products.</td>
</tr>
<tr>
<td>• Final report published in October 2010.</td>
</tr>
<tr>
<td><strong>OTC Derivatives Regulators’ Forum (ORF)</strong></td>
</tr>
<tr>
<td>• For information sharing and oversight coordination related to OTC derivatives clearing initiatives and trade repositories.</td>
</tr>
<tr>
<td>• Working groups on regulatory needs for data reporting.</td>
</tr>
<tr>
<td>• Ongoing</td>
</tr>
<tr>
<td><strong>OTC Derivatives Supervisors Group</strong></td>
</tr>
<tr>
<td>• Group monitoring the commitments of the G14 OTC derivatives dealers.</td>
</tr>
<tr>
<td>• Ongoing</td>
</tr>
</tbody>
</table>