CANADIAN DERIVATIVES CLEARING CORPORATION

PRINCIPLES FOR FINANCIAL MARKET INFRASTRUCTURES ("PFMI")

Disclosure

The information provided in this disclosure is accurate as of December 31st, 2015

This disclosure is accessible online on CDCC website at www.cdcc.ca

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I. Executive summary

The disclosure document constitutes the summary narrative of the Canadian Derivatives Clearing Corporation (CDCC or the Corporation) observance of the CPMI-IOSCO Principles for Financial Market Infrastructures (the PFMI or the Principles)[1]. This disclosure aims at offering to CDCC's Clearing Members, market participants and the public a high-level understanding of CDCC's governance, operation and risk-management framework.

This disclosure document has been prepared in accordance with the internationally recognized "Principles for Financial Market Infrastructures: Disclosure framework and Assessment methodology" published December 2012 by CPMI-IOSCO. Headquartered in Montreal, Quebec, Canada, CDCC offers clearing and settlement services for all MX transactions, including Futures Contracts and Options on Equity as well OTC Fixed Income, including cash and repurchase agreements.

II. Summary of major changes since the last update of the disclosure

The version of CDCC's Disclosure is dated December 31st, 2015. It is the first public dissemination of CDCC's assessment of its observance of the Principle. The details of major changes will be provided in due course.

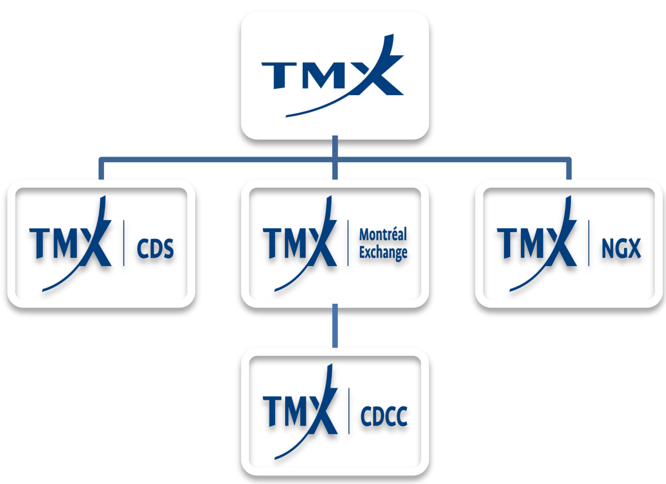
[1] Committee on Payments and Market Infrastructures and Technical Committee of the International Organization of Securities Commissions (CPMI-IOSCO), "Principles for Financial Market Infrastructures" (April 2012).

III. General background on the FMI

(A) General Description of CDCC and the Markets it Serves

History

Originating in 1975 as clearing facilities to support the first Canadian equity options market, CDCC began clearing futures for the Toronto Futures Exchange in 1985. It became a wholly-owned subsidiary of the Montréal Exchange (MX) in 2000. In 2008, the TMX Group Inc. was created through the combination of MX with TSX Group. In 2012, the TMX Group Limited (TMX Group) (formerly the Maple Group Acquisition Corporation (Maple), completed the acquisition of a number of entities to form an integrated, multi-asset class exchange group. TMX Group today owns and operates both cash and derivatives markets for multiple asset classes including equities, fixed income and energy. TMX Group's key subsidiaries include two other Canadian clearing facilities: the Canadian Depository for Securities Inc. (CDS) which supports Canada's equity, fixed income and money markets and NGX which offers clearing and settlement services for natural gas, crude oil and electricity markets.



Markets

CDCC has supported rapid growth in the Canadian derivatives marketplace for decades with expert clearing systems and risk management solutions. CDCC's technology infrastructure combined with its processes form the Canadian Derivatives Clearing System (CDCS). CDCC currently supports the clearing of all of MX exchange-traded products including a wide range of equity, exchange-traded fund (ETF) and index derivative products. Such products include both Futures and Options. CDCC also offers CCP clearing services for an expanding selection of customized equity derivatives products and fixed income (Repo) agreements to the Canadian financial market participants. CDCC has been since 2012 the sole Canadian CCP to offers such CCP services for clearing of fixed income (Repo) transactions. A list of the products available for clearing can be found on the CDCC website.

CDCC applies rigorous risk management procedures to protect its Clearing Members. The major aspects of its risk management framework are its Membership standards, Margin and Clearing Fund requirements as well as its Default management process. CDCC's membership currently comprises of major Canadian financial institutions and is numbered at 36.

Key metrics

	2013	2014	2015(as of Sept 30th)
Volumes - Futures	40 854 145	44 420 141	34 017 521
Volumes – Options	25 352 677	25 567 315	22 495 008
Volumes - Converge (Options)	1 966 173	1 027 900	426 611
Number of Transactions Converge (Repo)	55 314	75 311	61 504
Margin Fund (Deposit Value)	2 226 186 679	3 133 507 116	4 636 010 993
Clearing Fund (Deposit Value)	332 966 833	342 929 729	485 813 343

* Volumes and Transactions are single counted (only one side of the transaction is computed)

General Organization of the FMI

CDCC governance structure consists of the Board of Directors of the Corporation (the "Board of Directors") which is assisted by a Governance Committee and a Risk and Audit Committee in its oversight responsibility. The Board can also seek or obtain advice and non-binding recommendations from the Human Resources Committee established by the Corporation ultimate parent company, the TMX Group.

In addition, the Risk Management Advisory Committee (RMAC) assists and advises, at its request, the management of CDCC on risk management issues. The RMAC is entitled to give advice and to make non-binding recommendations to the Board of Directors on the same issues. The Board of Directors and its committees have constituting policies in place addressing the roles and responsibilities of its members and procedures to manage conflict of interest.

The Board of Directors appoints the Managing Director, and the President and other officers and delegate to the Managing Director the authority to manage the day-to-day business and affairs of the Corporation and to supervise and direct the President in the performance of his/her duties.

The Board of Directors is supported by CDCC senior management team, its Risk Management, Corporate Operations, Business Development functions as well as TMX Group Internal Audit, IT/System Services (Global Enterprise Services), Human Resources and Legal departments. The roles and responsibility of the senior management team directly and through CDCC's Risk Management Committee (RMC) include ensuring the appropriate design, operation and management of the risk management program and ensuring accurate, timely and consistent reporting.

(B) Legal and Regulatory Framework

CDCC is incorporated under the *Canada Business Corporations Act*. CDCC operates throughout Canada while primarily conducting business in the provinces of Quebec and Ontario. CDCC is subject to various provincial securities legislations and its regulatory framework is formed by the provincial securities commissions' recognition orders and the Bank of Canada Regulatory Oversight Agreement.

CDCC is recognized as a clearing agency by the Autorité des marches financiers (Quebec) (AMF)[2], the British Columbia Securities Commission (BCSC)[3] and the Ontario Securities Commission (OSC)[4]. In April 2012, pursuant to the *Payment and Clearing Settlement Act* (PCSA), the Bank of Canada designated CDCS which is the clearing and settlement system operated by CDCC, to be of systemic importance. As part of this designation, and pursuant to the Regulatory Oversight Agreement (ROA)[5], CDCC became subject to the Bank of Canada's oversight.

(C) System Design and operations

As the clearinghouse for exchange-traded and off-exchange derivative instruments as well as Fixed Income repurchases agreements (Repo), CDCC contributes to the integrity and stability of the Canadian market by acting as the central counterparty guarantor (CCP). CDCC guarantees the financial obligations of every contract that it clears by acting as the buyer to every seller and the seller to every buyer. CDCC thus protects the market participants from counterparty risk (also known as default risk or credit risk).

Upon acceptance of the Transaction, novation occurs and the initial Transaction is replaced by two different transactions between the Corporation and each Clearing Member involved in the Transaction. Each Clearing Member looks to the Corporation for the performance of the obligations under a Transaction and not to another Clearing Member. All transactions that are submitted to CDCC are registered in the name of the Clearing Member either in the Firm and Client Accounts. As a result, each client of a Clearing Member looks solely to the Clearing Member for performance of the obligations and not to the Corporation. The Corporation is obligated to the Clearing Member only.

CDCC provides support to its members in areas such as:

- Trading / assignment / exercise processing;
- Margin and collateral processing;
- Settlement and clearing; and

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[2] In May 2012, the AMF, pursuant to the section 12 of the Quebec Derivatives Act ("QDA"), issued the Decision 2012-PDG-0078 (the "AMF Recognition order") dated 2012-05-02 and as amended from time to time, recognizing CDCC as a clearing house.
[3]In April 2012, the British Columbia Securities Commission (BCSC), pursuant to section 24(d) of the Securities Act (British Columbia), issued its decision 2012 BCSECCOM 277 (the "BC Recognition Order"), recognizing CDCC as a clearing agency.
[4] In April 2014, the OSC, pursuant to section 21.1 of the Ontario Securities Act, issued an order recognizing CDCC as a clearing agency (the "OSC Recognition Order"), as amended from time to time.
[5] In March 2012, the Bank of Canada and CDCC entered into the Regulatory Oversight Agreement.
http://www.bankofcanada.ca/core-functions/financial-system/clearing-and-settlement-systems/#corporation

- IT processing.

CDCC registers, confirms, administers and settles derivative transactions traded on the MX and through its Converge© OTC offerings within the Canadian Derivatives Clearing Service (CDCS). The CDCS platform includes the SOLA-C and SOLA-R application components that were developed by the TMX Group's Information Technology teams.

The clearing, assignment and exercise of derivative contracts traded on the MX and through CDCC's off-exchange offering are conducted within its clearing application, SOLA-C. Trading transactions for CDCC's Fixed Income offering are delivered via CDS Inc.'s CDSX application. The clearing and settlement of the start and end legs of the Repo transactions are also facilitated through CDCS application system. Margin requirement calculations are performed on the margining sub-system SOLA-R which includes additional risk management parameterizations and manages the margin call interface to SPAN.

IV. Definition of key terms and abbreviations

AMF – Autorité des marchés financiers
BCBS – Basel Committee on Banking Supervision
BIA – Bankruptcy and Insolvency Act
CCP – Central Counterparties
CcQ – Civil Code of Québec
CDCC – Canadian Derivatives Clearing Corporation
CDCS – Canadian Derivatives Clearing Service
CDS – Canadian Depository for Securities Limited (TMX)
CFTC – Commodity Futures Trading Commission
CPSS – Committee on Payment and Settlement Systems
CRR/CRD – Capital requirements regulation and directive
CSA – Canadian Securities Administrators
DMC – CDCC Default Management Committee
EMIR – European Market Infrastructure Regulation
ERM – Enterprise Risk Management
ESMA – European Securities and Markets Authority
FMI – financial market infrastructures
FSB – Financial Stability Board
IM – Initial Margin
IOSCO – International Organization of Securities Commissions
KER – CDCC Key Enterprise Risk
OSA – Ontario Securities Act
OSC – Ontario Securities Commission
OSFI - Office of the Superintendent of Financial Institutions
OTC – Over-the-Counter
PCSA – Payment Clearing and Settlement Act
PFMI – Principles for financial markets infrastructures
PPSA – Personal Property Security Acts
QCCP – Qualifying Central Counterparty
QDA – Quebec Derivatives Act
RAS – CDCC Risk Appetite Statement
RMAC– CDCC Risk Management Advisory Committee
RMC – CDCC Risk Management Committee
VM – Variation Margin

V. Principle-by-principle narrative disclosure

Principle 1: Legal Basis

Principle

An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.

Disclosure

Key consideration 1: The legal basis should provide a high degree of certainty for each material aspect of an FMI's activities in all relevant jurisdictions.

CDCC has a well-founded, clear, transparent, and enforceable legal basis, with a high degree of certainty, for each material aspect of its activities in all relevant jurisdictions (that is, the jurisdictions in which CDCC is authorized and regulated).

The material aspect of its clearing activity which CDCC considers requiring a high degree of legal certainty include novation, netting, enforceability of its rights over collateral (margin and clearing fund deposits), the default management procedures and finality of settlements.

CDCC's Rules and Membership Agreement are governed by the laws of Québec, as supplemented by the *Payment Clearing and Settlement Act* (Canada) (PCSA). CDCC is a recognized clearing house regulated by Québec's financial services regulatory authority, the Autorité des marchés financiers (AMF). CDCC's clearing and settlement system, the Canadian Derivatives Clearing Service (CDCS), is subject to oversight by the Bank of Canada. CDCC is also recognized as a clearing agency in Ontario by the Ontario Securities Commission (OSC) pursuant to the *Securities Act* (Ontario) ("OSA") and the British Columbia Securities Commission (BCSC) pursuant to the *Securities Act* (British Columbia).

Pursuant to the designation by the Bank of Canada under the PCSA of CDCS, CDCC's settlement rules, which includes the rules "that provide the basis on which payment obligations, delivery obligations or other transfers of property or interests in, or in Quebec rights to, property are made, calculated, netted or settled and includes rules for the taking of action in the event that a participant is unable or likely to become unable to meet its obligations to the clearing house, a CCP, other participants or the Bank of Canada" are valid and binding notwithstanding anything in any statute or other law of Canada or a province.

In addition, pursuant to the PCSA, CDCC's rights or remedies with respect of any collateral that has been granted to it as security for the performance of an obligation incurred in respect of the clearing and settlement services are protected from the interference from any law relating to bankruptcy or insolvency.

Key consideration 2: An FMI should have rules, procedures, and contracts that are clear, understandable, and consistent with relevant laws and regulations.

CDCC's Rules and Operations Manual address the material aspects of CDCC's clearing activity including: novation, netting, default management procedures, and settlement finality. Ontario law is specified in the participant agreement between CDCC and CDS as the law governing the account agreement including the creation of security interest in collateral credited to the account. Rules, procedures and contracts of CDCC are closely monitored in the relevant jurisdictions by the regulatory authorities of Québec (AMF) and Ontario (OSC), and by the Bank of Canada under the Regulatory Oversight Agreement. The legal framework supporting CDCC's contractual rights is Québec law and the legal framework supporting CDCC's security interests in the collateral is Ontario law (or Québec, in the case of certificated securities held in Québec), in each case as supplemented by the PCSA.

Key consideration 3: An FMI should be able to articulate the legal basis for its activities to relevant authorities, participants, and, where relevant, participants' customers, in a clear and understandable way.

CDCC articulates the legal basis for its activities to relevant authorities, participants, and, where relevant, participants' customers, in a clear and understandable way. Under the self-certification process set forth under and pursuant to the Derivatives Act (Québec) (QDA), proposed rules are accompanied by a detailed analysis which articulates the legal basis of the relevant new or amended provisions in respect of any of CDCC's activities. Such rule change file is sent to all Clearing Members, posted on CDCC's website and sent to the AMF and OSC which publish it for a 30 day public comment period in their bulletins available electronically on their respective websites. Under the Regulatory Oversight Agreement, the same is also filed with the Bank of Canada for approval. As a result, regulators, Clearing Members and market participants are informed of any rule changes and are given the opportunity to make comments if anything is unclear or incomprehensible to them before their entry into force.

CDCC has rules, procedures, and contracts that are clear, understandable, and consistent with relevant laws and regulations. The CDCC Rules are readily accessible to Clearing Members and to the public in both English and French on CDCC's website. They have never been challenged as unclear or incomprehensible. Rule changes are not made rapidly given the lengthy review process so that regulators, Clearing Members, and other market participants have the opportunity to question and comment on the relevant initiatives, which helps ensure that they are clear and understandable.

Key consideration 4: An FMI should have rules, procedures, and contracts that are enforceable in all relevant jurisdictions. There should be a high degree of certainty that actions taken by the FMI under such rules and procedures will not be voided, reversed, or subject to stays.

There is a high degree of certainty that the most critical actions taken by CDCC under its rules, procedures and contracts are enforceable in the relevant jurisdictions and will not be voided, reversed, or subject to stays.

Key consideration 5: An FMI conducting business in multiple jurisdictions should identify and mitigate the risks arising from any potential conflict of laws across jurisdictions.

CDCC currently conducts business in Canadian provinces only. Every Canadian province has conflict of law rules and there is high level of legal certainty in this regard in all provinces and CDCC's activity never gave rise to a practical difficulty. CDCC continues to keep abreast of the latest regulatory developments in this regard.

Principle 2: Governance

Principle

An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.

Disclosure

Key consideration 1: An FMI should have objectives that place a high priority on the safety and efficiency of the FMI and explicitly support financial stability and other relevant public interest considerations.

CDCC is a for-profit legal entity, separate and independent from its shareholder. Maintaining the safety and efficiency of CDCC's operation is a primary objective of CDCC's Risk Management framework formed by the Rules, Operations, Risk and Default Management Manuals, as amended from time to time. The Canadian Derivatives Clearing Service (CDCS), operated by CDCC, has been designated by the Bank of Canada as being of systemic importance under the PCSA. CDCC is thus under the obligation, and subject to close oversight by the Bank of Canada, to operate in such a manner that risk is properly controlled and to promote efficiency and stability in the Canadian financial system. Furthermore, CDCC's public interest mandate is embedded in its recognition orders and subject to annual report to its provincial regulators.

Key consideration 2: An FMI should have documented governance arrangements that provide clear and direct lines of responsibility and accountability. These arrangements should be disclosed to owners, relevant authorities, participants, and, at a more general level, the public.

CDCC has governance arrangements which provide clear and direct lines of responsibility in the form of its committees and their associated charters which are disclosed to all stakeholders.

The Board of Directors is independent and carries out its mandate directly as well as through the Risk and Audit Committee and the Governance Committee. The Board of Directors can also seek or obtain advice and non-binding recommendations from the Human Resources Committee established by the Corporation ultimate parent company, the TMX Group.

Key consideration 3: The roles and responsibilities of an FMI's board of directors (or equivalent) should be clearly specified, and there should be documented procedures for its functioning, including procedures to identify, address, and manage member conflicts of interest. The board should review both its overall performance and the performance of its individual board members regularly.

The roles and responsibilities of CDCC Board of Directors are clearly specified in its Charter and Statement of Corporate Governance which document its functioning, including procedures to identify, address, and manage member conflicts of interest. Those documents are publically available on CDCC website. The Board of Directors reviews both its overall performance and the performance of individual Board members regularly.

Key consideration 4: The board should contain suitable members with the appropriate skills and incentives to fulfil its multiple roles. This typically requires the inclusion of non-executive board member(s).

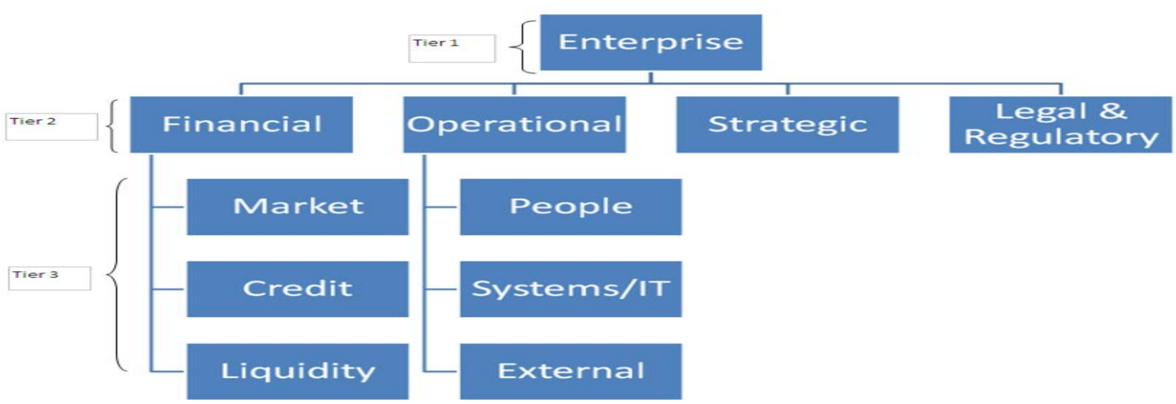
As explained in the Board Charter and Statement of Corporate Governance, the Board of CDCC contains suitable members with the appropriate skills and incentives to fulfill its multiple roles and includes independent board members, as defined and required under CDCC recognition orders. Currently, CDCC has nine elected directors, three of which were determined to be independent by the Board of CDCC. A list of the directors of CDCC is publicly available on CDCC's website.

Key consideration 5: The roles and responsibilities of management should be clearly specified. An FMI's management should have the appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities for the operation and risk management of the FMI.

The roles and responsibilities of CDCC's management are clearly specified. CDCC's management has the appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities and Officers must be fit and proper under the AMF recognition order. The boundaries between the Board of Directors and the management responsibilities are established by the Board who oversees the performance of the management.

Key consideration 6: The board should establish a clear, documented risk-management framework that includes the FMI's risk-tolerance policy, assigns responsibilities and accountability for risk decisions, and addresses decision making in crises and emergencies. Governance arrangements should ensure that the risk-management and internal control functions have sufficient authority, independence, resources, and access to the board.

CDCC Risk Management Policy Structure is aligned with its parent company structure. TMX Group's risk policies are structured in a hierarchy composed of three tiers, with the Enterprise Risk Management Policy as the highest level (Tier 1) risk management policy. The second tier (Tier 2) is made up of four policies covering financial, operational, strategic and legal and regulatory risks. Financial risk policy consists of three Tier 3 policies (namely market, credit and liquidity risks). Operational risk policy consists of three Tier 3 risk policies (namely people, systems/IT and external risks). The lower tier policies expand upon the principles identified in the Policy and the contents of the higher tier policies within the same hierarchy govern all the lower tier policies.



The current risk management framework at CDCC is included within the Rules, Operations, Risk and Default Manuals. The Board of CDCC has established a Risk and Audit Committee to take steps on its behalf as necessary to assist the Board in fulfilling its oversight responsibilities.

The Board of CDCC approves annually the Risk Appetite Statement (RAS) and Enterprise Risk Management (ERM) Policy and oversees the adequacy and operating effectiveness of CDCC's ERM program. CDCC's senior management, either directly or through its risk management committee, ensures the appropriate design and management of the ERM and appropriate and timely reporting.

Key consideration 7: The board should ensure that the FMI's design, rules, overall strategy, and major decisions reflect appropriately the legitimate interests of its direct and indirect participants and other relevant stakeholders. Major decisions should be clearly disclosed to relevant stakeholders and, where there is a broad market impact, the public.

CDCC invites participation of stakeholders through the Risk Management Advisory Committee (RMAC) and the Users' Groups for Derivatives and Fixed Income Clearing Members. Stakeholders' views are solicited and taken into consideration for any significant changes regarding CDCC's design, rules, or functioning. CDCC discloses major decisions made by its Board, in accordance with applicable legislation and regulations as well as its recognition orders and Bank of Canada regulatory oversight agreement, by means of notices to members, via its Clearing Members and regulatory extranets, and on its website, as necessary.

Principle 3: Framework for the Comprehensive Management of Risks

Principle

An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.

Disclosure

Key consideration 1: An FMI should have risk-management policies, procedures, and systems that enable it to identify, measure, monitor, and manage the range of risks that arise in or are borne by the FMI. Risk-management frameworks should be subject to periodic review.

CDCC has adopted an Enterprise Risk Management (ERM) framework for the purposes of enabling the comprehensive management of all of the risks to which it is exposed. As part of the broader TMX Group, the ERM framework is a shared framework across TMX entities and is sufficiently flexible to ensure that the specificities of the CDCC risk management function are considered.

The fundamental building block to the ERM program is the definition of CDCC's Risk Appetite Statement (RAS) which articulates the nature and amount of risk that CDCC is willing to accept across risk types. The RAS, when coupled with the risk management policies, form the core of the ERM framework with the latter being organized along the lines of the Key Enterprise Risks (KER) that CDCC faces. CDCC has devised risk management processes that define how each of the KERs, and the associated sub-risks, are identified, measured, monitored and reported. The KERs are broadly defined as credit risk, market risk, liquidity risk, operational risk, strategic risk, legal risk and reputational risk.

CDCC employs various systems and measurement approaches to the quantification of its risks ranging from the annual risk assessment exercise performed by CDCC management to the classification of incidents according to its incident-reporting framework. For all types of incidents, CDCC aggregates the potential impact which allows it to provide a holistic indicator across all types of risks.

The RAS as well as the risk management policies are revised by the CDCC internal Risk Management Committee (RMC) and approved by the CDCC Board of Directors at least annually, or subsequent to a significant change to the risk profile of the CDCC.

Key consideration 2: An FMI should provide incentives to participants and, where relevant, their customers to manage and contain the risks they pose to the FMI.

CDCC has developed a comprehensive incentivization structure vis-à-vis its Clearing Members and communicated details regarding these incentives via multiple fora, including its Rules, Notices to Members as well as through the various industry working groups which it has developed.

These incentives ranged from credit risk introduced to the clearing system reflected through the contingent liability in the Clearing Fund to operational delays and the associated fine structures. Furthermore, CDCC is currently articulating a more detailed set of Participation Requirements which will include operational as well as technology risks that Clearing Members will be required to manage against.

Key consideration 3: An FMI should regularly review the material risks it bears from and poses to other entities (such as other FMIs, settlement banks, liquidity providers, and service providers) as a result of interdependencies and develop appropriate risk-management tools to address these risks.

CDCC regularly reviews the material risks that it poses to other entities and takes mitigating actions where appropriate. As part of its liquidity management program, CDCC reviews its intraday liquidity arrangements so that it limits the settlement congestion that it may introduce at the Securities Settlement System which is employed for its securities settlement process. Furthermore, CDCC has diversified its settlement bank providers so as to limit the potential liquidity impacts at one particular settlement bank. As part of its ERM program, CDCC has devised (and continues to evolve) Key Performance and Key Risk Indicators to measure these material risks and the effectiveness of the tools used to measure these risks.

Key consideration 4: An FMI should identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. An FMI should prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment. Where applicable, an FMI should also provide relevant authorities with the information needed for purposes of resolution planning.

CDCC has undertaken the process of recovery planning and has developed specific scenarios in this regard; including credit, liquidity as well as operational events which it expects to form the foundation for its recovery and orderly wind-down plans. CDCC is expecting to receive finalized guidance on recovery planning for Canadian FMIs in the near term and will then be in the position to complete its planning.

Principle 4: Credit Risk

Principle

An FMI should effectively measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions.

Disclosure

Key consideration 1: An FMI should establish a robust framework to manage its credit exposures to its participants and the credit risks arising from its payment, clearing, and settlement processes. Credit exposure may arise from current exposures, potential future exposures, or both.

As part of its ERM program, CDCC has developed a robust and comprehensive framework to manage the credit risks which it has identified. As part of the framework, sources of credit risk are reviewed on an annual basis and the resulting credit risk appetite, principles and risk management processes are affirmed by the Board of Directors on a similar frequency. Through the review process, the supporting policies and documentation are revised so as to ensure that they remain consistent and reflective of the industry evolving business practices. Forming part of this ERM program is a dedicated CDCC Credit Risk Policy whose foundations are the numerous frameworks that describe the various risks and risk management processes that contribute to CDCC's overall credit risk exposure. Fundamentally, Credit Risk Policy is composed on two key elements: 1) sufficiency of financial resources and 2) credit exposure.

Key consideration 2: An FMI should identify sources of credit risk, routinely measure and monitor credit exposures, and use appropriate risk-management tools to control these risks.

CDCC identifies the sources of its credit risk at a minimum on an annual basis. Sources of credit risk fall into four broad-based categories: 1) credit risk to direct participants, 2) credit risk inherent in the collateral used by direct participants to cover margin requirements, 3) credit risk to commercial banks used as settlement agents and/or liquidity providers and 4) credit risk to custodians used by either direct or indirect participants to cover margin requirements.

1) Credit risk to direct participants is measured and monitored, as a first step, through the periodic review of capital requirements against the minimum standards required by the CDCC through its membership standards. Furthermore, credit risk derived through transactional activity is measured on a daily basis and is secured through the use of collateral provided by the direct participants.

2) Credit risk inherent in collateral is measured and monitored against the credit standards set within the collateral framework adopted by the CDCC. On a daily basis, CDCC will measure the collateral provided by direct participants against the collateral policy mix that is designed to mitigate against credit risk, among other risks.

3) Credit risk to settlement banks and/or liquidity providers is largely focused on a periodic review of financial statements against the requirements of such entities which are maintained as part of policy or Rule.

4) Credit risk to custodians is largely focused on a periodic review of financial statements against the requirements of such entities which are maintained as part of policy or Rule.

Key consideration 3: A payment system or SSS should cover its current and, where they exist, potential future exposures to each participant fully with a high degree of confidence using collateral and other equivalent financial resources (see Principle 5 on collateral). In the case of a DNS payment system or DNS SSS in which there is no settlement guarantee but where its participants face credit exposures arising from its payment, clearing, and settlement processes, such an FMI should maintain, at a minimum, sufficient resources to cover the exposures of the two participants and their affiliates that would create the largest aggregate credit exposure in the system.

Not applicable.

Key consideration 4: A CCP should cover its current and potential future exposures to each participant fully with a high degree of confidence using margin and other prefunded financial resources (see Principle 5 on collateral and Principle 6 on margin). In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. In all cases, a CCP should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount of total financial resources it maintains.

Current and Potential Future Exposure are computed and covered through the collection of Variation Margin (VM) in the first instance and Initial Margin (IM) in the latter, on at least a daily basis. Both VM and IM are collected from Clearing Members either in cash or via a collateralization scheme and IM is set achieve a coverage target of at least 99%. Both VM and IM are secured via acceptable margin deposits and are maintained at either the central bank or at approved depositories. The Clearing Member grants to and in favor of CDCC a first ranking pledge and security interest on all property deposited as margin deposits.

As a CCP designated as systemically important in a single jurisdiction and currency, CDCC maintains additional financial resources in the form of a Clearing Fund which is sized to a Cover 1 plus Affiliate standard. The sizing of the Clearing Fund is determined by subjecting the Clearing Members accounts to extreme but plausible market scenarios so as to determine the largest credit losses beyond VM and IM provided that would result in an uncovered shortfall. The sufficiency of total financial resources is tested on a daily basis and CDCC reserves the right to re-calibrate both IM and Clearing Fund components to ensure that it continues to meet its Cover 1 plus Affiliates standard.

The governance arrangements that have been adopted are embedded in the Enterprise Risk Management framework and involve the elaboration of risk appetite statements, various frameworks for the identification, monitoring and management of risks as well as monthly reporting to the internal risk management committee (RMC), the external industry risk committee (RMAC) as well as to the CDCC Board of Directors. Internal risk governance requires that CDCC evaluate the adequacy of its financial resources, at the Clearing Member and CCP-level, and take appropriate actions in the event that financial resources fall below defined thresholds.

Key consideration 5: A CCP should determine the amount and regularly test the sufficiency of its total financial resources available in the event of a default or multiple defaults in extreme but plausible market conditions through rigorous stress testing. A CCP should have clear procedures to report the results of its stress tests to appropriate decision makers at the CCP and to use these results to evaluate the adequacy of and adjust its total financial resources. Stress tests should be performed daily using standard and predetermined parameters and assumptions. On at least a monthly basis, a CCP should perform a comprehensive and thorough analysis of stress testing scenarios, models, and underlying parameters and assumptions used to ensure they are appropriate for determining the CCP's required level of default protection in light of current and evolving market conditions. A CCP should perform this analysis of stress testing more frequently when the products cleared or markets served display high volatility, become less liquid, or when the size or concentration of positions held by a CCP's participants increases significantly. A full validation of a CCP's risk-management model should be performed at least annually.

CDCC performs daily stress testing that includes Clearing Member exposures as well as the margin collateral that is provided to cover IM and Clearing Fund requirements. The stress testing program is governed by the stress testing framework that defines the various scenarios used for testing, the daily revision against available financial resources, and the monthly review against market movements as well as the various hypothetical scenarios used to stress test model parameters. The stress testing results are consolidated and provided reported to the various committees (RMC, RMAC and the Board of Directors). The stress testing and credit risk frameworks require that an independent vetting and validation be performed on at least an annual basis.

Key consideration 6: In conducting stress testing, a CCP should consider the effect of a wide range of relevant stress scenarios in terms of both defaulters' positions and possible price changes in liquidation periods. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions.

CDCC stress testing framework includes a variety of scenarios, which include both historical and hypothetical scenarios and are inclusive of all Clearing Member positions, peak price changes and volatilities. Multiple defaults are considered in the stress testing framework as CDCC meets a Cover 1 plus Affiliates standard.

Key consideration 7: An FMI should establish explicit rules and procedures that address fully any credit losses it may face as a result of any individual or combined default among its participants with respect to any of their obligations to the FMI. These rules and procedures should address how potentially uncovered credit losses would be allocated, including the repayment of any funds an FMI may borrow from liquidity providers. These rules and procedures should also indicate the FMI's process to replenish any financial

resources that the FMI may employ during a stress event, so that the FMI can continue to operate in a safe and sound manner.

CDCC has existing rules that address how Clearing Fund assessments are performed on surviving Clearing Members in the unlikely event that pre-funded financial resources are extinguished further to a Clearing Member default. Clearing Fund assessments are performed on a pro rata basis, and are a function of each survivors Clearing Fund contribution at the point of default. Re-payment of funds typically follows the reverse order of the default waterfall. As part of its on-going efforts on the adoption of recovery tools and the elaboration of recovery plans, CDCC will be introducing new rules in this regard in the short term.

Principle 5: Collateral

Principle

An FMI that requires collateral to manage its or its participants' credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.

Disclosure

Key consideration 1: An FMI should generally limit the assets it (routinely) accepts as collateral to those with low credit, liquidity, and market risks.

CDCC's collateral framework which is a key component of its ERM framework lays down the criteria that CDCC uses to determine the acceptability of collateral. The collateral framework considers market, credit, liquidity and operational risks as the key risk factors. The collateral framework is reviewed on at least an annual basis. CDCC's Rules also provide for the acceptance of collateral on an exceptional basis, however, these forms of collateral should not depart markedly from the criteria as established in the collateral framework and would require internal approvals prior to be accepted.

Collateral policy limits are set within the framework and are monitored daily. Specifically, wrong-way risk is managed by explicitly prohibiting the acceptance of collateral from Clearing Members' whose credit risk is highly correlated with the specific collateral.

Key consideration 2: An FMI should establish prudent valuation practices and develop haircuts that are regularly tested and take into account stressed market conditions.

Collateral that is pledged to CDCC is re-valued at least daily and haircuts are tested on a monthly basis for their adequacy. CDCC may also, in its sole discretion, determine its own value for collateral where market prices are deemed inadequate under market conditions.

Key consideration 3: In order to reduce the need for procyclical adjustments, an FMI should establish stable and conservative haircuts that are calibrated to include periods of stressed market conditions, to the extent practicable and prudent.

CDCC has adopted procyclicality adjustments as a means of establishing stable haircuts. These adjustments include two fundamental components: 1) an exponentially weighted moving average model and 2) a floor calibrated to historical stressed conditions. The resulting haircuts are then compared to the haircuts included in its liquidity arrangements so as to limit any potential for a liquidity drain when accessing such arrangements.

Haircuts are tested for adequacy on a frequent basis and are revised at least semi-annually.

Key consideration 4: An FMI should avoid concentrated holdings of certain assets where this would significantly impair the ability to liquidate such assets quickly without significant adverse price effects.

CDCC's collateral framework includes consideration for multiple risk factors that may affect the value of collateral in the event of Clearing Member default. One of the key factors includes (trading) liquidity risk and sets minimum standards for collateral acceptability in stock outstanding and trading liquidity. Finally, the collateral policy limits further includes limits on the size of any specific collateral that may be accepted from any one particular Clearing Member.

The collateral framework, including the associated limits, are reviewed at least annually for their appropriateness and adequacy.

Key consideration 5: An FMI that accepts cross-border collateral should mitigate the risks associated with its use and ensure that the collateral can be used in a timely manner.

CDCC accepts CAD as well as USD collateral to meet the VM, IM and Clearing Fund requirements. Haircuts on USD collateral are adjusted to reflect the foreign exchange risk that would be incurred upon liquidation and conversion into CAD to meet CAD denominated losses. As is the case for CAD collateral, USD collateral is pledged to CDCC at acceptable depositories in Canada thereby minimizing any legal risks that are inherent in cross-border transactions. Finally, CDCC's liquidity arrangements include support for USD collateral thereby ensuring timely liquidity if necessary.

Key consideration 6: An FMI should use a collateral management system that is well-designed and operationally flexible.

CDCC's collateral management system is linked to its clearing system on a near real-time basis and is capable of managing Clearing Member limits on a similar frequency. As CDCC does not currently support investment operations which rely on the re-use of Clearing Member collateral, tracking of collateral re-used for the purposes of obtaining liquidity in the unlikely event of a Clearing Member default is managed through existing processes.

As the collateral framework includes a consideration for operational risk, any changes to the collateral management system form part of the annual revision of the framework thereby ensuring that the system is capable of accommodating changes. Finally, as part of the annual default simulation exercises, the capacity the manage collateral during times of market stress is validated.

Principle 6: Margin

Principle

A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed.

Disclosure

Key consideration 1: A CCP should have a margin system that establishes margin levels commensurate with the risks and particular attributes of each product, portfolio, and market it serves.

The Market Risk Policy, which is a key component of CDCC's overall ERM program, defines the key sources of market risk, the measurement approaches used to quantify these risks as well as the associated mitigation measures taken to ensure that CDCC remains in line with corporate policies and risk appetite.

CDCC provides CCP services to two distinct markets: 1) the Canadian exchange-traded derivatives market and 2) and over-the-counter market which includes equity derivatives and fixed income products. CDCC has adopted the SPAN® margining sub-system which operates within the SOLA-R component of CDCS for all of its cleared products and the margining system is calibrated with the market risk measures that are made publicly available in its Risk Management Manual and are also consistent with its policies and risk appetite statements.

The credit exposure, which the market risk measures, are meant to mitigate are composed of Variation Margin (VM) and Initial Margin (IM). For all markets serviced, VM is measured and called at least daily and IM is called three times per day and is designed to cover the potential future exposure that the CDCC is exposed to in the event of Clearing Member default. IM is calibrated at the product level and reflects the volatility and closeout horizons that CDCC deems pertinent as the product level. Furthermore, where appropriate and deemed necessary as per the risk appetite of the organization, additional margin surcharges are levied upon Clearing Members which introduce additional risk to the system. These surcharges include, but are not limited to, concentration risk and specific wrong-way risk.

Key consideration 2: A CCP should have a reliable source of timely price data for its margin system. A CCP should also have procedures and sound valuation models for addressing circumstances in which pricing data are not readily available or reliable.

As part of its Market Risk Policy, CDCC has developed a framework for its data sources that enumerates what sources of data are used, any and all proxies that are key inputs into the risk management process, procedures and valuation practices for missing data and the governance process surrounding the revision of this data.

The sources of data that are considered as part of its risk management processes include readily available market data that emanate from the markets it serves. This includes the exchange-traded market for its derivatives services and data that originates from relevant ATSs which are considered representative of market values for the OTC markets. Furthermore, for data that is not readily available, proxies are derived from related market data through well-established theoretical financial principles. Data used to establish IM is derived through price changes from the relevant markets such that volatility estimates are representative of underlying price data.

Key consideration 3: A CCP should adopt initial margin models and parameters that are risk-based and generate margin requirements sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. Initial margin should meet an established single-tailed confidence level of at least 99 percent with respect to the estimated distribution of future exposure. For a CCP that calculates margin at the portfolio level, this requirement applies to each portfolio's distribution of future exposure. For a CCP that calculates margin at more-granular levels, such as at the subportfolio level or by product, the requirement must be met for the corresponding distributions of future exposure. The model should (a) use a conservative estimate of the time horizons for the effective hedging or close out of the particular types of products cleared by the CCP (including in stressed market conditions), (b) have an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio effects across products, and (c) to the extent practicable and prudent, limit the need for destabilising, procyclical changes.

The IM model adopted by CDCC is a SPAN® based model which sets potential future exposure at the individual product level and sub-account level. The model also set rules regarding aggregation of IM across sub-accounts and accounts to determine the total IM requirement at Clearing Member level. The IM model is designed to achieve a 99% coverage target at the Clearing Member level, after accounting for the aggregation rules.

They key assumption embedded in the IM model is that price changes follow a normal distribution for the majority of the products cleared by CDCC. In the case of the short-term interest rate futures contracts, the IM model assumes that price changes follow a Student t-distribution, which allows for a better representation of the fat tails inherent in that market.

The closeout horizon is the key parameter that sets IM level. For its most liquid contracts, CDCC sets this amount to a two-day horizon, whereas for other product, the closeout horizon will vary between two and five days. The key differentiator is the level of liquidity in the underlying product, which is confirmed through actual trading data and/or the presence of liquidity providers whose role it is to quote two-sided market with a certain size.

CDCC has adopted a pro-cyclicality adjustment to its IM model that includes both a floor as well as a smoothing parameter. This model ensures that IM cannot decrease below a set threshold and cannot spike overtly in times of market stress. The floor component is calibrated to a 10-year historical window, whereas the smoothing parameter is calibrated to a one-year historical window. This combined approach ensures that the IM model reflects both historical stressed market conditions as well as short term historical volatility.

CDCC has identified that the only source of specific wrong-way risk to which it is exposed is through the equity options market. The introduction of a margin surcharge which represents the full strike value of the short put positions cleared by Clearing Members on options on their own equities mitigates such risk.

Key consideration 4: A CCP should mark participant positions to market and collect variation margin at least daily to limit the build-up of current exposures. A CCP should have the authority and operational capacity to make intraday margin calls and payments, both scheduled and unscheduled, to participants.

CDCC currently effects three margin calls per day related to IM as well as two margin calls per day reflecting changes in VM. Insofar as VM calls are concerned, the first of the intraday calls is automatic and is applicable to all Clearing Members, whereas the second VM call is triggered only for specific Clearing Members that breach defined thresholds. These thresholds are defined with CDCC policies and reflect the risk appetite to unsecured intraday (overnight) exposure.

CDCC's Rules grant CDCC the right to effect as many intraday calls as it deems necessary, including unscheduled, to mitigate the build-up of risk and to ensure the stability of the markets it serves.

Key consideration 5: In calculating margin requirements, a CCP may allow offsets or reductions in required margin across products that it clears or between products that it and another CCP clear, if the risk of one product is significantly and reliably correlated with the risk of the other product. Where two or more CCPs are authorised to offer cross-margining, they must have appropriate safeguards and harmonised overall risk-management systems.

In computing overall margin requirements, CDCC does permit a certain level of offsets between products and risk factors that demonstrate a high level of correlation across long time horizons. It should be noted that this is restricted to position exposures that share a similar closeout horizon and is not permitted across exposures that have differing closeout horizons. Furthermore, the margin offsetting approach considers proximity of individual risk factors across the term structure of interest rates. CDCC does not currently engage in any cross-margining arrangements with other CCPs.

Key consideration 6: A CCP should analyse and monitor its model performance and overall margin coverage by conducting rigorous daily backtesting – and at least monthly, and more-frequent where appropriate, sensitivity analysis. A CCP should regularly conduct an assessment of the theoretical and empirical properties of its margin model for all products it clears. In conducting sensitivity analysis of the model's coverage, a CCP should take into account a wide range of parameters and assumptions that reflect possible market conditions, including the most-volatile periods that have been experienced by the markets it serves and extreme changes in the correlations between prices.

CDCC's backtesting framework is a key component of its overall validation process. Backtesting is performed daily and is comprised of both portfolio-level and parameter-level backtests. CDCC governance includes a model performance component which is akin to a traffic light approach for the identification of model breaches. In addition, sensitivity analysis is performed whereby key model parameters are stressed to ascertain and document potential limitations in the existing IM models. Sensitivity analysis is performed on a monthly basis. All model performance measures are reported to the internal Risk Management Committee (RMC) as well as to its industry Risk Management Advisory Committee (RMAC) on a frequent basis.

Key consideration 7: A CCP should regularly review and validate its margin system.

CDCC performs a regular review of its models, on a daily and monthly basis, as indicated above. Furthermore, risk management policies require a formal independent validation to be performed at least annually. These reviews include both an empirical and theoretical review.

Internal risk management governance requires that the results of these reviews be presented to either the RMC or the RMAC and, depending on the results and circumstances, may result in a material review of the models and/or parameters in question.

Principle 7: Liquidity Risk

Principle

An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.

Disclosure

Key consideration 1: Key consideration 1: An FMI should have a robust framework to manage its liquidity risks from its participants, settlement banks, nostro agents, custodian banks, liquidity providers, and other entities.

As part of its Enterprise Risk Management program, CDCC has developed a robust and comprehensive framework to manage the liquidity risks which it has identified. As part of the framework, sources of liquidity risk are reviewed on an annual basis and the resulting liquidity risk appetite, principles and risk management processes are affirmed by the Board of Directors on a similar frequency. As part of the review process, the supporting policies and documentation are revised so as to ensure that they remain consistent and reflective of the evolving business practices. Forming part of this ERM program is a dedicated Liquidity Risk Policy whose foundation is the framework that describes the various risks and risk management processes that contribute to mitigating CDCC's overall liquidity risk exposure. Fundamentally, liquidity risk management is composed on two key elements: 1) sufficiency of liquid resources assessment and 2) liquidity risk oversight.

Liquidity risk at CDCC arises from the daily settlement of cash flows as well as due to the funding pressures inherent in the securities settlement process. The latter, will occur on a daily basis but will also peak on quarterly cycles when exchange-traded derivatives are due for final settlement. For liquidity risk management purposes, CDCC will measure its liquidity exposures to include its largest Clearing Member exposure including any and all affiliates, which are also Clearing Members.

Key consideration 2: An FMI should have effective operational and analytical tools to identify, measure, and monitor its settlement and funding flows on an ongoing and timely basis, including its use of intraday liquidity.

All of CDCC's potential sources of liquidity risk are documented within the Liquidity Risk Policy as well as the associated processes for measurement, monitoring and reporting. CDCC has developed a suite of analytical tools that help measure CDCC's risk exposure on a timely basis. These tools include the measurement of intraday liquidity exposures that are incurred as part of the securities settlement process as well as the daily measurement of cash flows due to and from the CDCC as part of the daily settlement process for the exchange-traded derivatives service. Finally CDCC also measures, when circumstances warrant, the daily funding needs that arise due to settlement delivery failures in the fixed income services.

These tools are instrumental in the liquidity risk management process as they are relied upon to measure exposures relative to qualifying liquid resources and its liquidity risk appetite. Any breaches to internal policy limits trigger adjustments to liquidity risk mitigation strategies, such as, size of commercial bank liquidity facilities.

Key consideration 3: A payment system or SSS, including one employing a DNS mechanism, should maintain sufficient liquid resources in all relevant currencies to effect same-day settlement, and where appropriate intraday or multiday settlement, of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation in extreme but plausible market conditions.

Not applicable

Key consideration 5: For the purpose of meeting its minimum liquid resource requirement, an FMI's qualifying liquid resources in each currency include cash at the central bank of issue and at creditworthy commercial banks, committed lines of credit, committed foreign exchange swaps, and committed repos, as well as highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements, even in extreme but plausible market conditions. If an FMI has access to routine credit at the central bank of issue, the FMI may count such access as part of the minimum requirement to the extent it has collateral that is eligible for pledging to (or for conducting other appropriate forms of transactions with) the relevant central bank. All such resources should be available when needed.

Qualifying liquid resources should be highly reliable and have same-day availability. The Bank of Canada Policy Guidance on liquidity risk identifies the assets that are considered qualifying liquid resources and defines standards for arrangements with liquidity providers to be considered as qualifying liquid resources. For the purpose of meeting its minimum liquid resource requirement under normal market conditions, CDCC's qualifying liquid resources are composed of:

I. Cash and Treasury Bills denominated in Canadian dollars; and
II. Committed and uncommitted liquidity facilities eligible under the Bank of Canada Policy Guidance on liquidity risk.

Under stressed market conditions, CDCC may supplement its qualifying liquid resources with other forms of liquid resources to meet the requirements.

As such, the size and composition of the qualifying liquid resources is variable as it is dependent on pre-funded collateral as well as on the size of CDCC's pre-arranged funding sources. It should be noted that CDCC's pre-arranged funding arrangements are structured so as to provide for re-sizing on a quarterly basis, thereby ensuring that CDCC meets its Cover 1 plus affiliates standards at any point in time.

Key consideration 6: An FMI may supplement its qualifying liquid resources with other forms of liquid resources. If the FMI does so, then these liquid resources should be in the form of assets that are likely to be saleable or acceptable as collateral for lines of credit, swaps, or repos on an ad hoc basis following a default, even if this cannot be reliably prearranged or guaranteed in extreme market conditions. Even if an FMI does not have access to routine central bank credit, it should still take account of what collateral is typically accepted by the relevant central bank, as such assets may be more likely to be liquid in stressed circumstances. An FMI should not assume the availability of emergency central bank credit as a part of its liquidity plan.

CDCC has implemented its liquidity risk planning to be consistent with the policy guidance received from the Bank of Canada as it pertains to Principle 7. Liquid resources are therefore defined below:

I. Cash and Treasury Bills in the possession, custody or control of an FMI are qualifying liquid resources for liquidity exposures denominated in the same currency.

II. Committed liquidity facilities are qualifying liquid resources for liquidity exposures denominated in the same currency if the following criteria are met:
A] Facilities are pre-arranged and fully collateralized.
B] There is a minimum of three independent liquidity providers.
C] The FMI conducts a level of due diligence that is as stringent as the risk assessment completed for FMI participants.

III. Uncommitted liquidity facilities are considered qualifying liquid resources for liquidity exposures in Canadian dollars if they meet the following additional criteria:
A] Facilities are pre-arranged and fully collateralized.
B] There is a minimum of three independent liquidity providers.
C] The FMI conducts a level of due diligence that is as stringent as the risk assessment completed for FMI participants.
D] The liquidity provider has access to the Bank of Canada's Standing Liquidity Facility [SLF].
E] The facility is fully collateralized with SLF-eligible collateral.
F] The facility is denominated in Canadian dollars.

Key consideration 7: An FMI should obtain a high degree of confidence, through rigorous due diligence, that each provider of its minimum required qualifying liquid resources, whether a participant of the FMI or an external party, has sufficient information to understand and to manage its associated liquidity risks, and that it has the capacity to perform as required under its commitment. Where relevant to assessing a liquidity provider's performance reliability with respect to a particular currency, a liquidity provider's potential access to credit from the central bank of issue may be taken into account. An FMI should regularly test its procedures for accessing its liquid resources at a liquidity provider.

All of CDCC's pre-arranged funding arrangements involve a consortium of Canadian commercial banks. Each of the pre-arranged funding arrangements involved a detailed due diligence of CDCC's operations as well as the potential risks that may arise when providing CDCC with liquidity in times of stress.

Included as part of its Liquidity Risk Policy is a component of liquidity risk oversight which requires CDCC to monitor the risks associated with each its liquidity providers. Furthermore, the main pre-arranged funding arrangement was structured so as to ensure that individual liquidity providers had the option of turning towards to Bank of Canada for funding in the event of a CDCC drawdown. Finally, as part of either daily operations or through the default management simulations, CDCC does periodically test its access to its pre-arranged funding arrangements.

Key consideration 8: An FMI with access to central bank accounts, payment services, or securities services should use these services, where practical, to enhance its management of liquidity risk.

CDCC maintains a bank account with the Bank of Canada for the purposes of holding cash collateral as well as for the purposes of its daily money settlement activities. At present, there are no other services offered by the Bank of Canada that CDCC qualifies for directly.

Key consideration 9: An FMI should determine the amount and regularly test the sufficiency of its liquid resources through rigorous stress testing. An FMI should have clear procedures to report the results of its stress tests to appropriate decision makers at the FMI and to use these results to evaluate the adequacy of and adjust its liquidity risk-management framework. In conducting stress testing, an FMI should consider a wide range of relevant scenarios. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions. Scenarios should also take into account the design and operation of the FMI, include all entities that might pose material liquidity risks to the FMI (such as settlement banks, nostro agents, custodian banks, liquidity providers, and linked FMIs), and where appropriate, cover a multiday period. In all cases, an FMI should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount and form of total liquid resources it maintains.

The sufficiency assessment considers liquidity exposures and available liquid resources on a daily basis over a time horizon of one year. The purpose is to measure whether liquidity shortfalls would have occurred under normal and stressed market conditions after considering all resources available to CDCC to manage such event. Liquidity shortfalls are measured at the Clearing Member and affiliates level.

Under normal market conditions, liquidity exposures are compared against the amount of qualifying liquid resources available to CDCC given the observed market value of the assets used to generate liquidity flows. Under stressed market conditions, total liquid resources should be adjusted as to reflect the new cash flow requirement that would be obtained after the simulated price shock. CDCC's stress testing program takes into account historical settlement flows and sets its liquidity exposures to reflect the value of the purchases that its expects to make to complete settlement. This is consistent with an RTGS settlement model as well with the market convention that permits delivery failures in securities settlement.

Stress testing is performed on a daily basis with reporting into the CDCC RMC on a monthly basis. In the event that a liquidity shortfall is uncovered, RMC would report the shortfall into the Board and execute its liquidity risk mitigation strategies, one of which is a re-sizing of its re-arranged funding arrangements.

Finally, stress testing assumptions and parameters are reviewed on a monthly basis through a model validation process and are subject to external validation on an annual basis.

Key consideration 10: An FMI should establish explicit rules and procedures that enable the FMI to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations on time following any individual or combined default among its participants. These rules and procedures should address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations. These rules and procedures should also indicate the FMI's process to replenish any liquidity resources it may employ during a stress event, so that it can continue to operate in a safe and sound manner.

The CDCC liquidity risk management program is structured so as to meet the Cover 1 plus affiliates standard and therefore, qualifying liquid resources are sized to ensure that CDCC can continue to meet its payment obligations on the day of default. The Rules and specifically the Default Manual, explicitly clarify how pre-arranged funding arrangements are accessed as well as clarify at what point in the process CDCC has any discretion. The legal agreements supporting the pre-arranged funding arrangements articulate how funds are replenished during a stress event.

Principle 8: Settlement Finality

Principle

An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.

Disclosure

Key consideration 1: An FMI's rules and procedures should clearly define the point at which settlement is final.

CDCC's Rules and Operations Manual clearly define the point at which settlement is final and irrevocable. Specifically, the Operations Manual, which is publicly disclosed, articulates the daily timelines associated with the settlement process. Settlement finality is achieved in two distinct ways: 1) through the use of the Large Value Transfer System (LVTS) for money settlements and/or 2) through the use of a Delivery versus Payment (DvP) mechanism for securities settlements. In both cases settlement is final and irrevocable once executed and where this feature is clearly articulated in the Rules. As a designated system under the Payment, Clearing and Settlement Act (PCSA), CDCC's settlement rules are valid and binding on its participants and any action taken pursuant to such rules (including any payment, delivery or rights or remedy with respect to the collateral granted) cannot be reversed, stayed or set aside notwithstanding anything contrary in any statute or laws of Canada or a province and therefore provide a high degree of legal certainty as to their applicability in the event of challenge.

Key consideration 2: An FMI should complete final settlement no later than the end of the value date, and preferably intraday or in real time, to reduce settlement risk. An LVPS or SSS should consider adopting RTGS or multiple-batch processing during the settlement day.

CDCC's CCP services include both money settlements and securities settlements which cover both the exchange-traded and fixed income marketplace. In the latter, CDCC has adopted an real time gross settlement (RTGS) framework coupled with a DvP mechanism to reduce settlement risk whereas for the exchange-traded markets, CDCC operates in a Deferred Net Settlement (DNS) mode. When in DNS mode, CDCC executes three intraday batches per day and Clearing Members remain accountable for settlement in accordance with the timelines provided in the Operations Manual.

In both RTGS and DNS cases, settlement occurs prior to the end of value date with non-settlement being one potential trigger for default. Clearing Members are notified of the settlement process through real-time messaging and/or reporting throughout the settlement day.

Key consideration 3: An FMI should clearly define the point after which unsettled payments, transfer instructions, or other obligations may not be revoked by a participant.

As part of the settlement process, pursuant to the settlement account agreement between CDCC and each of its Clearing Members, CDCC acts as agent to its Clearing Members accounts and therefore is fully accountable to submit transfer and settlement instructions. Therefore, when coupled with the DvP and LVTS mechanisms for securities and money settlements respectively, revocability by CDCC Clearing Member's is not possible.

Principle 9: Money Settlements

Principle

An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money.

Disclosure

Key consideration 1: An FMI should conduct its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks.

CDCC conducts all of its money settlements vis-à-vis its Bank Clearing Members in central bank money. Settlement flows from transactional activity as well as cash margin pledged to mitigate Clearing Member credit risk reside in a CDCC bank account held at the Bank of Canada and is therefore a claim on the Government of Canada. For Clearing Members that do not have direct LVTS access, CDCC requires that such entities perform their money settlements through select acceptable financial institutions for Settlement Accounts which are subject to CDCC risk management controls, thereby minimizing credit and liquidity risks. All money settlements, for Bank and non-Bank Clearing Members, are ultimately settled through the LVTS to ensure finality of payment.

Although USD settlements are supported, they are not material from a total cash flow perspective.

Key consideration 2: If central bank money is not used, an FMI should conduct its money settlements using a settlement asset with little or no credit or liquidity risk.

For non-Bank Clearing Members, CDCC employs a diversified sample of acceptable financial institutions for Settlement Accounts for money settlements through the LVTS. These acceptable financial institutions for Settlement Accounts are subject to strict risk management criteria such as capital and liquidity concerns as a means of limiting the potential for credit and liquidity risk.

Key consideration 3: If an FMI settles in commercial bank money, it should monitor, manage, and limit its credit and liquidity risks arising from the commercial settlement banks. In particular, an FMI should establish and monitor adherence to strict criteria for its settlement banks that take account of, among other things, their regulation and supervision, creditworthiness, capitalisation, access to liquidity, and operational reliability. An FMI should also monitor and manage the concentration of credit and liquidity exposures to its commercial settlement banks.

As part of its Credit Risk Policy, CDCC has adopted a risk management oversight process for the Settlement Banks that it relies upon for settlements against non-Bank Clearing Members. This oversight process builds on metrics such as capital, credit and operational risks. The oversight process is subject to the RMC and Board of Directors reporting to ensure that all acceptable financial institutions for Settlement Accounts continue to meet the standards required by CDCC. Finally, all in-bound money settlements at CDCC need to be received prior to CDCC providing outbound payments and all are subject to a set settlement schedule in

Eastern Standard Time (EST). This operational requirement which is part of the settlement process contributes to greatly minimizing CDCC's credit and liquidity risks.

Key consideration 4: If an FMI conducts money settlements on its own books, it should minimise and strictly control its credit and liquidity risks.

Not applicable.

Key consideration 5: An FMI's legal agreements with any settlement banks should state clearly when transfers on the books of individual settlement banks are expected to occur, that transfers are to be final when effected, and that funds received should be transferable as soon as possible, at a minimum by the end of the day and ideally intraday, in order to enable the FMI and its participants to manage credit and liquidity risks.

As CDCC acts as agent to all Clearing Member accounts, the CDCC settlement timetable defines the point in time when transfers occur between itself and its Clearing Members. As such, for Clearing Members that do not have direct LVTS access, CDCC does not rely on its acceptable financial institutions for Settlement Accounts to perform any transfers with regards to payments as CDCC is entitled to act as an agent in the Clearing Member account. Rather, acceptable financial institutions for Settlement Accounts provide CDCC with access to non LVTS Clearing Member bank accounts for money settlement purposes.

Principle 10: Physical Deliveries

This principle is not applicable to CDCC.

Principle 11: Central Securities Depositories

This principle is not applicable to CDCC.

Principle 12: Exchange-of-value Settlement Systems

Principle

If an FMI settles transactions that involve the settlement of two linked obligations (for example, securities or foreign exchange transactions), it should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other.

Disclosure

Key consideration 1: An FMI that is an exchange-of-value settlement system should eliminate principal risk by ensuring that the final settlement of one obligation occurs if and only if the final settlement of the linked obligation also occurs, regardless of whether the FMI settles on a gross or net basis and when finality occurs.

As a CCP for both the exchange-traded derivatives and fixed income markets in Canada, CDCC settlement processes rely on a final exchange of cash against securities to satisfy ultimate settlement in many of the products that it clears. In order to risk manage the principal risk associated with linked settlement obligations, CDCC has acquired full participant status with the Canadian Depository for Securities (CDS) which acts as Canada's Securities Settlement System (SSS). As part of its CCP services, CDCC is responsible to submit settlement instructions on behalf of its participants to CDS, thus leveraging the DvP mechanism that is inherent in the SSS operated by CDS.

All novated transactions at CDCC involving DvP settlement at CDS are settled on a gross basis outside of pre-defined netting cycles which are performed twice per day on the books of CDCC. This DvP settlement is simultaneous between CDCC and its Clearing Members and is final and irrevocable once achieved. Therefore, there is an inherent reliance on CDCC's part vis-à-vis the SSS services offered by CDS and this reliance is governed by the participant agreement executed between CDCC and CDS.

Principle 13: Participant Default Rules and Procedures

Principle

An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.

Disclosure

Key consideration 1: An FMI should have default rules and procedures that enable the FMI to continue to meet its obligations in the event of a participant default and that address the replenishment of resources following a default.

The CDCC Rules clearly articulate its default management process. As a designated clearing and settlement system under the PCSA, CDCC rights and actions taken pursuant to a participant default cannot be stayed or reversed notwithstanding any act or statute in Canada or a legislative province. Furthermore, under PCSA, nothing in any law relating to bankruptcy or insolvency nor any order (including foreign laws or order) may prevent CDCC from terminating, netting or settling the payment and delivery obligation nor shall it interfering with CDCC's rights and remedies with respect to collateral granted to it.

CDCC default management process embedded into its Rules and Default Manual, a document which is made publicly available and forms part of its Rules, clearly define the potential triggers that may lead to a Clearing Member default and the powers of the CDCC to act upon it. The notion of default within the CDCC Rules is set out in two distinct modes: a) Non-Conforming status and b) Suspended status. A Clearing Member may be placed into Non-conforming status by CDCC management discretion but only the CDCC Board of Directors may declare a Clearing Member as Suspended.

The triggering events for Non-Conforming status range from payment default at the CDCC or the commencement of insolvency proceedings against either the Clearing Member or one of its affiliates. Non-Conforming status declaration typically requires CDCC management to enter into discussions with the specific Clearing Member so as to ascertain the nature of the issue and the potential for resolution.

Given the nature of a Non-conforming status, discretion is used throughout this process both in the allocation of the status as well as the potential measures taken by management to mitigate the risks associated with a Clearing Member. Potential actions that are subject to management discretion include, but are not limited to the imposition of additional margin requirements, limiting CCP access and/or requiring a reduction in the Clearing Member's risk profile through the liquidation or porting of positions.

In the event that management deems that the issue that caused the default trigger to be enacted is not transitory or not resolvable, management may recommend to the CDCC Board of Directors that such Clearing Member be placed in Suspended status. A Suspended status would then automatically require CDCC to begin executing against the governance practices, risk processes and operational procedures embedded within its Default Manual,. Actions to be taken to contain the potential risks that may arise throughout the default management process are overseen and governed by the internal Default Management Committee (DMC) which is responsible for coordination across the various stakeholders while remaining accountable to the CDCC Board of Directors. The DMC is required to coordinate communications with key stakeholders, including regulators and non-defaulting Clearing Members, coordinating the effective porting of client accounts to alternate Clearing Members. Furthermore, the DMC would be responsible to coordinate the CDCC mechanisms regarding the liquidation of the Suspended Clearing Member accounts, either by way of closed auction with non-defaulting Clearing Members, which is a voluntary process, or through open market operations via its brokerage arrangements. The DMC would also be responsible to ascertain the most effective hedging mechanism to be implemented in the event that accounts are not easily liquidated and/or if it judges that containing the market risk associated with an account would facilitate the auction. Finally, the DMC would oversee the effective porting of client accounts as well as the transfer of open positions to the prevailing bidder in the auction process.

Any losses incurred in the liquidation and/or liquidity management process are meant to be extinguished by the use of collateral provided as margin cover. CDCC Rules provide for full rights over variation and initial margin provided by the Suspended Clearing Member as well as full right of use and re-hypothecation for the entirety of the Clearing Fund (Suspended and non-defaulting Clearing Member alike). The default management waterfall and the order of application of the financial resources are clearly laid out in the Rules, which includes a layer of CDCC default capital which is reserved for this purpose. Finally, the Clearing Fund Rules also describe the process by which any collateral used in the extinguishment of credit losses are replenished and re-paid to non-defaulting Clearing Members.

Key consideration 2: An FMI should be well prepared to implement its default rules and procedures, including any appropriate discretionary procedures provided for in its rules.

Beginning with the Default Manual, CDCC has plans and procedures addressing the default management that are maintained, documented, and regularly revised and tested.

The plans include, among other things, the oversight process and governance arrangements for decision-making in a default, the auction procedure, the liquidation procedure, the account porting process and the process to arrange for the Liquidating Settlement Account. CDCC has developed a detailed communication plan with all of its stakeholders, including non-defaulting Clearing Members (through the Risk Management Advisory Committee) and all of its regulators. These plans have been developed to ensure timely and appropriate communication throughout the default management process, beginning with any determination of a Non-Conforming status through the end of the entire process whereby CDCC would be required to replenish its financial resources. The default management process is reviewed and tested on an annual basis with a particular emphasis and focus on specific components of the broader process.

An appropriate level of flexibility is provided under the Rules and Default Manual to ensure that, in managing a default, CDCC has the authority and sufficient discretion to act, both in terms of decision making process to initiate the process and measures to use to mitigate risk, taking into consideration the very specific nature of each default.

Key consideration 3: An FMI should publicly disclose key aspects of its default rules and procedures.

The Rules and Default Manual are made publicly available through the CDCC website. These documents detail the specific actions that may lead to either a Non-conforming and/or a Suspended status as well as the actions taken by CDCC management as well as the Board of Directors in the default management process.

The Default Management Manual describes the breadth of actions which may be taken with regards to both proprietary and customer positions as well as the actions that management may take regarding the use and disposal of assets used to extinguish credit losses or the management temporary liquidity needs.

Key consideration 4: An FMI should involve its participants and other stakeholders in the testing and review of the FMI's default procedures, including any close-out procedures. Such testing and review should be conducted at least annually or following material changes to the rules and procedures to ensure that they are practical and effective.

Testing of the CDCC default management process is performed at least annually and includes a broad range of stakeholders, including its Clearing Members, regulators and other related FMIs. Generally, the test of the default management process involves the development of a test script and the participation of key Clearing Members which are active actors in the default management simulation. These actors are required to follow industry procedures for elements such as the auction process, the porting process and the liquidity provisioning process, among other key components of the default management exercise.

Test scenarios have, in the past, been limited to a single default event and have covered a comprehensive spectrum of the default management processes. Future plans include, along with other Canadian FMIs, an industry-wide default simulation whereby the failure of a Domestic Systemically Important Banks (D-SIB) will be simulated with impacts across the CCP, securities settlement system and the payment system.

Test results and the resulting post-mortem are presented to the Board of Directors along with any recommended improvements that are an outgrowth of any lessons learned.

Principle 14: Segregation and Portability

Principle

A CCP should have rules and procedures that enable the segregation and portability of positions of a participant's customers and the collateral provided to the CCP with respect to those positions.

Disclosure

Key consideration 1: A CCP should, at a minimum, have segregation and portability arrangements that effectively protect a participant's customers' positions and related collateral from the default or insolvency of that participant. If the CCP additionally offers protection of such customer positions and collateral against the concurrent default of the participant and a fellow customer, the CCP should take steps to ensure that such protection is effective.

CDCC has rules and procedures that enable the segregation and portability of positions of a Clearing Member's customers and the collateral provided to CDCC with respect to those positions. This arrangement aims at offering customer protection from the default or insolvency of the Clearing Member.

Key consideration 2: A CCP should employ an account structure that enables it readily to identify positions of a participant's customers and to segregate related collateral. A CCP should maintain customer positions and collateral in individual customer accounts or in omnibus customer accounts.

CDCC's current account structure and margin methodology as it relates to Futures markets provides for both client omnibus account (*Client Account*) and individual client account (*Netted Client Account*) to hold a participant's customers' positions. In both cases, a net margin methodology is applied by CDCC. CDCC books and records allow for identification of Clearing Member's customers positions while the margin requirements allows CDCC to calculate the associated collateral. CDCC's system allows the Clearing Member to identify positions to a client level using CDCC's account / sub-account structure. While Clearing Members may maintain sub-accounts for client in the client omnibus account, CDCC does not hold information related to the customer's identity and pledged collateral and as such offers only omnibus protection on such accounts. Enhancements are being developed to enable reports to reflect the client level positions and collateral and implement Gross Customer Margin for client omnibus account.

CDCC's current account structure and margin methodology as it relates to Options markets provides for both client omnibus account (*Client Account*) and individual client account (*Netted Client Account*) to hold a participant's customers' positions. In the former case, a gross margin methodology is applied whereas in the latter case, a net margining methodology is applied by CDCC. CDCC books and records allow for identification of Clearing Member's customers positions while the margin requirements allows CDCC to calculate the associated collateral. CDCC's system allows the Clearing Member to identify positions to a client level using CDCC's account / sub-account structure.

Key consideration 3: A CCP should structure its portability arrangements in a way that makes it highly likely that the positions and collateral of a defaulting participant's customers will be transferred to one or more other participants.

The porting of client positions is permitted and possible. However, currently, CDCC finds it necessary to reach out to other entities, including the insolvent Clearing Member and its customers in order to fully ascertain the contents of a c lient omnibus account. The enhanced reports being developed will provide greater predictability and certainty with respect to a customer's ability to port positions by providing CDCC with such information directly, thus limiting the need to involve other parties in that determination.

Key consideration 4: A CCP should disclose its rules, policies, and procedures relating to the segregation and portability of a participant's customers' positions and related collateral. In particular, the CCP should disclose whether customer collateral is protected on an individual or omnibus basis. In addition, a CCP should disclose any constraints, such as legal or operational constraints, that may impair its ability to segregate or port a participant's customers' positions and related collateral.

CDCC Rules and procedures relating to the segregation and portability are made available through CDCC's website. CDCC discloses in it its Rules, policies, and procedures that Customer Collateral is currently protected on an Omnibus basis. CDCC, at a minimum, has a segregation and portability regime that effectively protects Clearing Members' clients' positions and related collateral from the default or insolvency of that Clearing Member.

Principle 15: General Business Risk

Principle

An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialise. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.

Disclosure

Key consideration 1: An FMI should have robust management and control systems to identify, monitor, and manage general business risks, including losses from poor execution of business strategy, negative cash flows, or unexpected and excessively large operating expenses.

CDCC has a robust ERM program designed to identify, monitor and manage general business risks through a comprehensive control system. As part of its broader ERM program, general business risks are identified assessed during the annual risk assessment exercise and monitored throughout the year as part of its core incident management process. Existing or emerging risks due to changes in the external environment or changes to internal business processes will be identified during the annual exercise and rated based on likelihood and impact, with consideration given to the strength of the internal controls in place. Realized incidents, or risk events, are identified, monitored and mitigated as appropriate. General business risks currently identified include an array of operational risks and strategic risks as well as risks introduced in the investment of CDCC assets.

Key consideration 2: An FMI should hold liquid net assets funded by equity (such as common stock, disclosed reserves, or other retained earnings) so that it can continue operations and services as a going concern if it incurs general business losses. The amount of liquid net assets funded by equity an FMI should hold should be determined by its general business risk profile and the length of time required to achieve a recovery or orderly wind-down, as appropriate, of its critical operations and services if such action is taken.

CDCC holds liquid net assets funded by equity in an amount that is equivalent to 12 months' worth of operating expenses (excluding depreciation and amortization). This capital reserve is calibrated to ensure that CDCC may continue to operate as a going concern for a 12 month period in the event that it experiences general business losses.

Currently, CDCC is developing its recovery and wind-down plans further to regulatory guidance received from its regulators. The results of this exercise are expected to further refine its capital reserve for the future.

Key consideration 3: An FMI should maintain a viable recovery or orderly wind-down plan and should hold sufficient liquid net assets funded by equity to implement this plan. At a minimum, an FMI should hold liquid net assets funded by equity equal to at least six months of current operating expenses. These assets are in addition to resources held to cover participant defaults or other risks covered under the financial resources principles. However, equity held under international risk-based capital standards can be included where relevant and appropriate to avoid duplicate capital requirements.

CDCC is currently developing its recovery and/or wind-down plans further to regulatory guidance received in late 2015.

Key consideration 4: Assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow the FMI to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions.

Assets held to cover general business risk are of high quality and sufficiently liquid in order to allow CDCC to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions. CDCC's capital is invested in accordance with the principles embedded in its investment policy. CDCC's investment policy is reviewed on a recurring basis by the CDCC Risk and Audit committee to ensure that it continues to meet the stated goals and objectives. The CDCC Investment Policy includes a section on segregation of CDCC capital which clearly describes the amounts set aside for default management and to support general business losses.

Key consideration 5: An FMI should maintain a viable plan for raising additional equity should its equity fall close to or below the amount needed. This plan should be approved by the board of directors and updated regularly.

As part of the broader TMX Group, the main conduit for additional equity capital would be either its direct parent, MX, or the TMX Group itself. The efforts to develop detailed recovery plans will require a review of the recapitalization strategy, therefore additional refinements may be warranted at such time.

The CDCC's Board of Directors as well as the Risk and Audit Committee would play a role in reviewing and approving any recapitalization plan.

Principle 16: Custody and Investment Risks

Principle

An FMI should safeguard its own and its participants' assets and minimise the risk of loss on and delay in access to these assets. An FMI's investments should be in instruments with minimal credit, market, and liquidity risks.

Disclosure

Key consideration 1: An FMI should hold its own and its participants' assets at supervised and regulated entities that have robust accounting practices, safekeeping procedures, and internal controls that fully protect these assets.

CDCC uses a number of custodians in its business operations. Clearing Member assets which qualify as book-entry securities are held at either the Canadian Depository for Securities (CDS) or with various regulated banks. In the former case, CDS is a designated CSD in Canada subject to the oversight of the Bank of Canada and various provincial securities regulators. In the latter case, only custodians that are subject to the Bank Act are considered acceptable depositories within CDCC's Rules. Entities that are subject to the Bank Act are under the direct oversight of the Office of the Superintendent of Financial Institutions (OSFI) Canada. Finally, for cash collateral, CDCC Rules only permit the use of custodians that are regulated under the Trust and Loans Companies Act, thereby assuring its claim on cash assets held at those institutions.

Furthermore, CDCC's Rules set financial guidelines for the custodians that are considered acceptable and monitors their financial soundness on an annual basis. CDCC relies on the regulatory oversight of these acceptable depositories for the purposes of evaluating their accounting, safekeeping and internal control structure.

Key consideration 2: An FMI should have prompt access to its assets and the assets provided by participants, when required.

All of CDCC's custodians are Canadian legal entities and CDCC's legal arrangements involve a perfected first priority security interest in the relevant assets. As such, CDCC exercises its rights on these assets through control.

Key consideration 3: An FMI should evaluate and understand its exposures to its custodian banks, taking into account the full scope of its relationships with each.

CDCC uses two types of custodian banks for the purposes of safe-keeping of assets provided to satisfy cash and non-cash collateral. Cash collateral is maintained at the Bank of Canada, therefore, eliminating commercial bank risk. Non-cash collateral is held at financial institutions that are subject to OSFI oversight under either the Bank Act or the Trust and Loans Companies Act. As non-cash collateral is in book-entry form and CDCC has a first priority security interest in these assets, any potential risk arising from the failure of the custodian bank is immaterial.

Key consideration 4: An FMI's investment strategy should be consistent with its overall risk-management strategy and fully disclosed to its participants, and investments should be secured by, or be claims on,

high-quality obligors. These investments should allow for quick liquidation with little, if any, adverse price effect.

CDCC does not currently re-invest collateral provided by Clearing Members to satisfy margin requirements, including any cash collateral, which is provided and held within the CDCC bank account at the Bank of Canada as the latter is not an interest-bearing account.

CDCC assets, which form part of firm capital, are subject to a stringent investment policy which includes a variety of limits to manage investment risk. These include, but are not limited to: limits on obligors (credit and wrong-way risks), limits on investment term, limits on credit exposure as well as market risk limits which are structured relative to certain benchmark indices. All of CDCC private investments are subject to liquidity requirements so that assets can be converted into cash as necessary, either via market operations or through the use of one of pre-arranged liquidity lines.

Principle 17: Operational Risk

Principle

An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.

Disclosure

Key consideration 1: An FMI should establish a robust operational risk-management framework with appropriate systems, policies, procedures, and controls to identify, monitor, and manage operational risks.

CDCC currently has in place all of the components for a robust operational risk management (ORM) framework. This ensures that both internal and external sources of risk arising from its operational activities, strategic objectives and management decisions are identified, assessed, managed, monitored and reported.

The basis of the framework is the ORM governance structure. The ORM framework is driven by the Tier 1 ERM Policy, aligned with the ERM framework and supported by the Tier 2 ORM Policy and its set of Tier 3 policies. The policies provide a definition of operational risk and lay down the principles of how business processes, people (including succession planning, security screening and fraud prevention), information technology (including project risk and change management) and external risks are to be identified, assessed, managed, monitored and reported in a way that is consistent with CDCC's risk appetite statement.

The second stage of the framework is the identification and assessment of operational risk. The CDCC risk universe delimits the scope of the ORM framework and is built on internal analysis and external benchmarking. A risk registry documents the key operational risks. An annual risk assessment exercise is conducted to update the risk profile and adjust CDCC's mitigating strategies. A Risk Evaluation Committee ("REC") ensures that before a new business initiative is introduced or undertaken, the inherent operational risk is subject to adequate assessment and/or mitigation procedures.

The third stage of the framework includes core ORM processes. CDCC relies on incident management, business continuity management and total quality management processes to manage risk events arising from its day-to-day operations. To ensure that operational risk arisen from external entities is adequately mitigated, two specific processes are currently being reviewed: 1) the participation requirement, which pertains to the operational standards required from the Clearing Members; and 2) the service level agreement with our main IT supplier. By Q1 2016, the framework will be enhanced with a risk and control self-assessment exercise followed by the development of operational key risk indicators.

The fourth part of the framework is related to operational risk monitoring and delivering reports to management. CDCC has implemented different processes to monitor its risk profile and keep track of its exposure to losses, e.g., monthly risk-event reports, monthly and quarterly ORM dashboards, and monthly operations statistics reports. CDCC is developing additional operational risk metrics and forward-looking tools.

The fifth and last stage of the framework plans for an independent internal audit. CDCC ensures that the implementation of the approved ORM framework is deployed appropriately subjecting the latter to an effective and comprehensive internal audit. Internal audits are performed periodically, or if there is any significant change in the ORM program, by the TMX Internal Audit function.

Key consideration 2: An FMI's board of directors should clearly define the roles and responsibilities for addressing operational risk and should endorse the FMI's operational risk-management framework. Systems, operational policies, procedures, and controls should be reviewed, audited, and tested periodically and after significant changes.

The CDCC Board of Directors endorses, at least annually, the ERM as well as the ORM frameworks and requires that the Chief Risk Officer (CRO) ensures that all risks are managed in line with the ERM policies and risk appetite statement (RAS) of the organization. Furthermore, the risk registry documents the ownership of day-to-day risk management directly with the front-line managers, thereby ensuring a cultural awareness of risk issues across the organization. Finally, the Board of Directors receives from the CRO a quarterly risk/incident report on all enterprise level risks, including the identified operational risks.

The ERM and ORM frameworks are structured along the lines of the three-lines-of-defense where the third line involves an independent audit function of critical business functions. Extensive audit reviews are conducted annually on business process risks, IT risks, business continuity and disaster recovery.

Key consideration 3: An FMI should have clearly defined operational reliability objectives and should have policies in place that are designed to achieve those objectives.

The operational reliability objectives, both qualitative and quantitative, of systems used by CDCC are defined in the following documents: TMX-IT CDCC Service Level Agreement (under review), TMX-IT's CDCC Availability Plan and TMX-IT's Capacity Plan. These objectives aim to ensure a high degree of security and operational reliability as they constitute the main metrics to be monitored and observed on a periodic basis and to be actioned upon if they fail to meet the documented corporate objectives.

Key consideration 4: An FMI should ensure that it has scalable capacity adequate to handle increasing stress volumes and to achieve its service-level objectives.

On an annual basis, CDCC performs a capacity planning exercise to ensure that its systems have scalable capacity to handle volumes which are in line with business planning. On a periodic basis, the capacity planning exercise is expanded to include a wider range of scenarios, including the potential for peak volumes. Any potential capacity shortfalls are reviewed with the potential for mitigations to be introduced.

Key consideration 5: An FMI should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.

The IT Risk Policy, which is a sub-policy of the broader Operational Risk Policy defines the key risks and the associated risk management processes which are in place to measure, monitor and manage the risks associated with change management, project management and physical security risks. These risk management processes are managed by CDCC's IT supplier, TMX-IT, with input from CDCC. Throughout 2016, CDCC will be introducing enhancements to its IT Risk policies and procedures to include emerging threats such as cyber-attacks.

Key consideration 6: An FMI should have a business continuity plan that addresses events posing a significant risk of disrupting operations, including events that could cause a wide-scale or major disruption. The plan should incorporate the use of a secondary site and should be designed to ensure that critical information technology (IT) systems can resume operations within two hours following disruptive events. The plan should be designed to enable the FMI to complete settlement by the end of the day of the disruption, even in case of extreme circumstances. The FMI should regularly test these arrangements.

CDCC has a strong contingency and continuity plan in place ensuring its ability for timely recovery of operations and fulfillment of FMI's obligations, including in the event of a wide-scale or major disruption. The recovery and resumption objectives are defined within its corporate ORM policies with the overall system design targeting a 2-hour recovery time with no data loss. This is achieved via fully mirrored operation with the disaster site located in a distinct and separate geographic location.

The business continuity requirements are reviewed on an annual basis by all CDCC business units and documented in the business impact analysis ("BIA"). The information is complemented by a risk and threat analysis annually conducted by TMX Risk Management.

In addition, a documented collection of procedures and information aims to enable CDCC to continue to deliver its critical services at an acceptable predefined level.

Finally, plans are rigorously tested no less than once yearly (e.g., quarterly remote connectivity access, table-top exercise, chain of command test, annual default simulation test, DR testing with Clearing Members, SIFMA test, BCP Alternate Site test, etc.). This includes the documentation of lessons learned and post-mortem.

Key consideration 7: An FMI should identify, monitor, and manage the risks that key participants, other FMIs, and service and utility providers might pose to its operations. In addition, an FMI should identify, monitor, and manage the risks its operations might pose to other FMIs.

As part of its planned enhancements to its ORM framework in 2016, CDCC is developing additions that will extend and include risks introduced by its Clearing Members as well as risk posed by external service providers.

Principle 18: Access and Participation Requirements

Principle

An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.

Disclosure

Key consideration 1: An FMI should allow for fair and open access to its services, including by direct and, where relevant, indirect participants and other FMIs, based on reasonable risk-related participation requirements.

CDCC's Rules provide the basis for Clearing Member eligibility with all of the requirements for membership made publicly available via its web site. Requirements for membership are broadly categorized within legal, financial and operational categories. All CDCC Clearing Members are required to be Canadian legal entities which are either regulated broker-dealers under the IIROC regime and/or banks subject to the Bank Act (Canada). Furthermore, all Clearing Members are required to satisfy certain financial requirements, such as minimum capital standards, on an on-going basis and remain in good standing with their relevant regulators. Finally, CDCC also requires that certain operational standards be satisfied prior to granting Clearing Member status, ranging from staffing levels during operating times to certification testing prior to membership being activate. These criteria are applied to all Clearing Members and are meant to ensure a fair and equitable access to the CDCC. In fact, the focus on these minimum standards ensures that the CDCC's services are available to potential participants without introducing undue risk to the system. Any excess risk that is introduced by any one particular Clearing Member such that these minimum thresholds are no longer respected are dealt with via other bilateral mechanisms that have been developed to manage the risk of one Clearing Member without penalizing the market as a whole.

Key consideration 2: An FMI's participation requirements should be justified in terms of the safety and efficiency of the FMI and the markets it serves, be tailored to and commensurate with the FMI's specific risks, and be publicly disclosed. Subject to maintaining acceptable risk control standards, an FMI should endeavour to set requirements that have the least-restrictive impact on access that circumstances permit.

As the main eligibility requirements are focused on legal, financial and operational metrics, they act as the first line of defense against systemic risk and are therefore risk-based measures, with no requirements imposed by law or regulation. The financial requirements, although being different for exchange-traded and fixed income participants, are calibrated to ensure that individual Clearing Members can meet the collateral and liquidity requirements required by the individual markets. Finally, the operational requirements target those firms that are not in a position to meet the strict operational guidelines of the CDCC and therefore avoid any downstream consequences that may be realized due to an operational outage at any one Clearing Member.

All prospective Clearing Members are reviewed against the various eligibility requirements currently in force. In the event that a trend is discovered such that any or all of the requirements are overly restrictive, CDCC management would recommend to the Board of Directors that a Rule change be effected to correct the issue, within the confines of CDCC risk tolerances.

Key consideration 3: An FMI should monitor compliance with its participation requirements on an ongoing basis and have clearly defined and publicly disclosed procedures for facilitating the suspension and orderly exit of a participant that breaches, or no longer meets, the participation requirements.

On-going compliance with the legal requirements is achieved in a variety of ways, including the use of an information sharing arrangement with the primary regulator of the Clearing Member and requiring Clearing Members, by Rule, to disclose to the CDCC and material changes in their legal and regulatory status. Financial requirements are monitored on a monthly basis via information provided by the Clearing Members' primary regulatory, under the terms of the information sharing agreement as well as through publicly available information. Operational requirements and any potential incidents that are realized are tracked through the CDCC incident management process and reported to CDCC management. CDCC is currently developing additional participation requirements to manage the potential incidents that may be the result of external risks introduced by Clearing Members.

Any potential suspension or orderly exit by a Clearing Member, that is demonstrating a deteriorating risk profile or who no longer meets the minimum eligibility requirements, is governed under its Rules. CDCC may, at its discretion and/or through authority of its Board of Directors, suspend such Clearing Member and facilitate an orderly wind-down that would be in the best interest of the market.

Principle 19: Tiered Participation Arrangements

Principle

An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.

Disclosure

Key consideration 1: An FMI should ensure that its rules, procedures, and agreements allow it to gather basic information about indirect participation in order to identify, monitor, and manage any material risks to the FMI arising from such tiered participation arrangements.

As part of its services to the exchange-traded derivatives market, CDCC offers Clearing Members the capacity to provide agency clearing services to non-Clearing Member clients. As such, CDCC has a tiered CCP service which provides central counterparty clearing to Clearing Members and non-Clearing Members. Although CDCC does not gather information on non-Clearing Members on a day-to-day basis, the Rules do provide the CDCC with the authority and capacity to audit the books and records of all Clearing Members if the particular circumstances require it.

Clearing Members that do provide non-Clearing Members with agency clearing services do pose an additional credit risk to the CDCC. As such, CDCC has developed an account structure that segregates direct and indirect positions from one another, thereby mitigating this additional credit exposure. Furthermore, CDCC has introduced numerous margin surcharges to mitigate the potential exposure that may be realized if a Clearing Member is introducing, via non-Clearing Member activity, financial risks that are beyond the means of its financial capacity.

Key consideration 2: An FMI should identify material dependencies between direct and indirect participants that might affect the FMI.

As the clearing model adopted by the CDCC is a principal model, the non-Clearing Members introduce additional credit and liquidity risks to the Clearing Members who provide them with agency services. In addition, non-bank Clearing Members introduce liquidity risks to the bank Clearing Members who provide them with money settlement services.

Key consideration 3: An FMI should identify indirect participants responsible for a significant proportion of transactions processed by the FMI and indirect participants whose transaction volumes or values are large relative to the capacity of the direct participants through which they access the FMI in order to manage the risks arising from these transactions.

CDCC's audit rights provide it with the mechanism to identify indirect participants that clear through Clearing Members. This ability will be augmented with the introduction of a Gross Customer Margining regime for the futures market (Principle 14).

Key consideration 4: An FMI should regularly review risks arising from tiered participation arrangements and should take mitigating action when appropriate.

CDCC does have existing mitigations in place to guard against the additional credit and liquidity risks that arise through tiered participations arrangements. However, CDCC is awaiting additional guidance from its regulators regarding this particular principle and will devise tactics, if any are deemed necessary, to meet the additional requirements resulting from that guidance.

Principle 20: FMI Links

This principle is not applicable to CDCC.

Principle 21: Efficiency and Effectiveness

Principle

An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.

Disclosure

Key consideration 1: An FMI should be designed to meet the needs of its participants and the markets it serves, in particular, with regard to choice of a clearing and settlement arrangement; operating structure; scope of products cleared, settled, or recorded; and use of technology and procedures.

CDCC has developed and continues to maintain numerous forums to ensure that its design meets the needs of CDCC's Clearing Members and the markets its serve. These external fora to discuss such aspects as individual services and products include its operational Users' Groups and its Risk Management Advisory Committee (RMAC). Furthermore, CDCC participates in numerous industry working groups in support of industry-wide initiatives and maintains an active communication protocol with market participants through the publication of Notices. Finally, CDCC has published and maintains Services Standards documents which are made available to all Clearing Members. In all cases, CDCC entertains and responds to comments from its Clearing Members and non-Clearing Members with regards to its services.

Key consideration 2: An FMI should have clearly defined goals and objectives that are measurable and achievable, such as in the areas of minimum service levels, risk-management expectations, and business priorities.

The objectives of the CDCC operating model are clearly described in the Service Standards documents which are made available to Clearing Members via its website. In addition, CDCC has adopted a risk management framework which is consistent with the PFMIs. CDCC measures its efficiency and effectiveness relative to its operations and risk management against these benchmarks and receives important feedback on its performance from both its OUG and its RMAC.

Key consideration 3: An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.

Summary reporting from Users' Groups and RMAC meetings is reviewed by CDCC Management as well as the CDCC Board of Directors at least annually and forms part of its process for continued improvement.

Principle 22: Communication Procedures and Standards

Principle

An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.

Disclosure

Key consideration 1: An FMI should use, or at a minimum accommodate, internationally accepted communication procedures and standards.

CDCC uses an array of internationally accepted communication procedures to facilitate the dissemination of information to its Clearing Members and the public. Examples include: E-mail broadcasts, File Transfer Protocol (FTP), web technology to broadcast notices and publish rules/procedures and video-conferencing and teleconferencing equipment to conduct User Groups.

CDCC uses a series of internationally accepted communication standards for message formal and reference data, such as:

- MQ Series for Repo/Fixed Income;
- FiXML for Exchange-traded derivatives
- EBCIDIC and ASCII files for End of Day (EoD) Data Service Files (DSFs)
- ASCII Tag Log Files (TLGs);
- SPAN (Standard Portfolio Analysis of Risk) Risk Arrays for Margining methodology;
- TCP/IP (Transmission Control Protocol/Internet Protocol) for web communications and FTP server file uploads;
- SMTP (Simple Mail Transfer Protocol) for inbound e-mail messaging;
- POP3 (Post Office Protocol 3) for outbound e-mail messaging;
- LVTS (Large Value Transfer System) for Settlement Account processing
- SWIFT (Society for Worldwide Interbank Financial Telecommunication) Access into LVTS for Payments
- Subset of TCP/IP protocols (ex: SecureFTP, FTP, Telnet)
- Introduction of the LEI (Legal Entity Identifier) within the CDCC systems environment.

Principle 23: Disclosure of Rules, Key Procedures and Market Data

Principle

An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed.

Disclosure

Key consideration 1: An FMI should adopt clear and comprehensive rules and procedures that are fully disclosed to participants. Relevant rules and key procedures should also be publicly disclosed.

CDCC's Rules and Operations Manual, including its Risk and Default Manuals, collectively forming the CDCC's Rules, which are binding on the Clearing Members, comprise the rules and procedures under which the clearing system operates. These documents are publicly available on CDCC's website. Upon request, CDCC will provide CDCC Clearing Member Application, Clearing Agreements & Agency Agreements. These documents form and define the legal obligations of both CDCC and its Clearing Members throughout the clearing and settlement process.

As CDCC is regulated by the Bank of Canada as well as the AMF in Québec, the OSC in Ontario and the BCSC in British Columbia, one of the primary regulatory obligations is a public review process regarding all proposed changes to its Rules. All proposed changes are made public via the CDCC website as well as in the web sites of the relevant provincial regulators.

Key consideration 2: An FMI should disclose clear descriptions of the system's design and operations, as well as the FMI's and participants' rights and obligations, so that participants can assess the risks they would incur by participating in the FMI.

Information about the design of CDCC's clearing system and its operating procedures is found within CDCC's Rules. Information about CDCC's clearing operations are included throughout the Rules and procedures. These are publicly disclosed on CDCC's website.

CDCC also makes publicly available "Service Standards & Information" documents for "Exchange Traded & OTC Derivatives" and "Fixed Income". These documents provide the reader a high level understanding of CDCC's system's design and operations. Finally, training material for new Clearing Member employees is also be readily accessed via extranet provided to Clearing Members for this purpose.

CDCC discretionary authority in the clearing and settlement process is clearly articulated in the Rules, where it relates to: a) the declaration of a Non-Conforming status, b) imposition of additional margin surcharges and c) attributing market value to a particular position where no reliable value is readily available.

Key consideration 3: An FMI should provide all necessary and appropriate documentation and training to facilitate participants' understanding of the FMI's rules and procedures and the risks they face from participating in the FMI.

CDCC facilitates its Clearing Members' understanding of its Rules and risks of participation through encouraging their participation in its RMAC and its Users' Groups meetings. These provide forums for discussion on any relevant risk and / or operational issues, and to raise any concerns regarding changes to procedures or rules proposed by CDCC. As these fora involved a detailed discussion of key operational processes and risk management practices, active industry involvement and debate provides the evidence necessary that Clearing Members understand the nature of the Rules, procedures and risks they face through their participation.

Key consideration 4: An FMI should publicly disclose its fees at the level of individual services it offers as well as its policies on any available discounts. The FMI should provide clear descriptions of priced services for comparability purposes.

All information related to fees is publicly disclosed on CDCC's website. Fees modifications are announced via a Notice to Members and are published on an annual basis, providing one month notification period prior to implementation.

Key consideration 5: An FMI should complete regularly and disclose publicly responses to the CPSS-IOSCO disclosure framework for financial market infrastructures. An FMI also should, at a minimum, disclose basic data on transaction volumes and values.

The last publicly disclosed self-assessment that CDCC completed was in 2007. CDCC plans on completing self-assessments at a minimum every two years, or when material changes occur, consistent with the Disclosure Framework required under the PFMI requirements. Quantitative disclosures will be made, consistent with the quantitative disclosure framework as required under the PFMIs, on a quarterly basis.

Principle 24: Disclosure of Market Data by Trade Repositories

This principle is not applicable to CDCC.

VI. List of publicly available resources

CDCC Rules

CDCC Rules: http://www.cdcc.ca/f_rules_en/cdcc_rules_en.pdf
CDCC Operations Manual: http://www.cdcc.ca/f_rules_en/cdcc_operations_manual_en.pdf
CDCC Risk Manual: http://www.cdcc.ca/f_rules_en/cdcc_operations_manual_en.pdf
CDCC Default Manual: http://www.cdcc.ca/f_rules_en/cdcc_operations_manual_en.pdf

CDCC Governance

CDCC By-laws: http://www.cdcc.ca/publications_bylaws_en
CDCC Board Charter: http://www.cdcc.ca/publications_governance_en
CDCC Board Code of Conduct: http://www.cdcc.ca/publications_governance_en
CDCC Governance Committee Charter: http://www.cdcc.ca/publications_governance_en
CDCC Statement of Corporate Governance: http://www.cdcc.ca/publications_governance_en
CDCC Risk and Audit Committee Charter: http://www.cdcc.ca/publications_governance_en

Legal Entity Identifier (LEI): http://www.cdcc.ca/f_en/2014-M61_en.pdf

Member Information

Member Notice: http://www.cdcc.ca/publications_notices_en
Membership List: http://www.cdcc.ca/members_en

Services and Product Information

Service Standard & Information for Industry Clearing Members document on Exchange Traded & Customized Derivatives Products: http://www.cdcc.ca/f_en/standards_et-otc_products_en.pdf
Service Standard & Information for Industry Clearing Members document on Fixed Income: http://www.cdcc.ca/f_en/standards_fixed_income_ccp_en.pdf

Margin Information
SPAN®: http://www.cdcc.ca/spanFiles_en