

# NOTICE TO MEMBERS

<u>No. 2011–081</u> August 4, 2011

# **REQUEST FOR COMMENTS**

# OMNIBUS PROJECT II AMENDMENT TO RULES AND OPERATIONS MANUAL OF CDCC

# Summary

The Board of Directors of Canadian Derivatives Clearing Corporation (CDCC) approved amendments to the Rules and Operations Manual of CDCC. The purpose of the proposed amendment is to:

- 1. Remove the possibility of substitution of the Purchased Securities during the life of a Repurchase Transactions by amending Subsections D-603(1) and (4) as well as deleting Section D-608 of the Rules of CDCC.
- 2. Clarify transfers and payments processes with respect to outstanding Repurchase Transactions by amending Section D-601 as well as Subsection D-606(6) of the Rules of CDCC.
- 3. Specify that on the maturity date of an Acceptable Security, there will be a cash settlement of the Rolling Delivery Obligation at the Security's principal value (net against the Postponed Payment Obligation) and payment of the final Coupon Income, if any, by amending Subsections A-804(1) and (2) of the Rules of CDCC.
- 4. Specify that in the event of a Failed Delivery, CDCC may terminate the daily roll mechanic to effect a buy-in transaction at its sole discretion or pursuant to a formal request by a receiving Clearing Member affected by the fail by amending Subsection A-804(3) of the Rules of CDCC as well as Section 6 (Exercises, Tenders, Assignments and Deliveries) of the Operations Manual of CDCC.
- 5. Add bilateral closeout provisions by amending Sections A-102, A-401, A-402 and A-404 of the Rules of CDCC and by adding new Sections A-409 (Clearing Member Close-Out Rights) and A-410 (Eligible Financial Contracts) to the Rules of CDCC.

- 6. Review CDCC's Rules regarding Deposits by Clearing Members with Approved Depositories by amending Sections A-102, A-212, A-613 and A-708 of the Rules of CDCC as well as Section 1 (Preamble and Definitions) and Schedule B (Depository Agreements) of the Operations Manual of CDCC.
- 7. Review CDCC's Rules regarding Clearing Fund and Forms of Margin by amending Section A-102, Rule A-6 and Section A-709 of the Rules of CDCC.
- 8. Review CDCC's Rules regarding Clearing Members' access to audited financial statements of CDCC by amending Section A-216 of the Rules of CDCC to limit such access to the balance sheet and accompanying notes thereon.
- 9. Update the Operations Manual of CDCC by amending Section 1 (Preamble and Definitions), Section 2 (Time Frames), Section 3 (CDCC Reports), Section 5 (Open Positions), Section 6 (Exercises, Tenders, Assignments and Deliveries), Section 9 (Clearing Fees) and by adding a new Section 10 (Clearing Member Security Officer).
- 10. Amend and restate the Risk Manual of CDCC by removing the Membership in the Corporation and Capital Requirements Section, by amending the Margin Section and by adding a new Monitoring Program Section.
- 11. Amend and restate the Default Manual of CDCC.
- 12. Add an intra-day netting cycle in the morning by amending various sections of Rule A-8 with respect to net payment and delivery obligations resulting from this morning intra-day netting cycle and the afternoon intra-day netting cycle, notably by adding Section A-806, and adding Subsection D-606(11) to specify the occurrences of these cycles and the corresponding settlement obligations. Sections 2 and 6 of the Operations Manual have also been amended accordingly.

Please find enclosed an analysis document as well as the proposed amendments.

# **Process for Changes to the Rules**

CDCC is a recognized self-regulatory organization (SRO) by the Autorité des marchés financiers (AMF) and as such, carries on activities as a clearing house and as an SRO in Québec.

The Board of Directors of CDCC has the power to approve the adoption or amendment of Rules of CDCC. The amendments are submitted to the AMF in accordance with the self-certification process.

Comments on the proposed amendments must be submitted within 30 days following the date of publication of the present notice. Please submit your comments to:

François Gilbert Assistant Secretary Canadian Derivatives Clearing Corporation Tour de la Bourse P.O. Box 61, 800 Victoria Square Montréal, Québec H4Z 1A9 E-mail: legal@m-x.ca

A copy of these comments shall also be forwarded to the AMF to:

Anne-Marie Beaudoin Corporate Secretary Autorité des marchés financiers Tour de la Bourse, P.O. Box 246 800 Victoria Square, 22<sup>nd</sup> Floor Montréal, Québec H4Z 1G3 E-mail: <u>consultation-en-cours@lautorite.qc.ca</u>



## AMENDMENT TO RULES AND OPERATIONS MANUAL OF CDCC

#### A. Overview

On July 8, 2009, the Repurchase (Repo) Subcommittee of Investment Industry Association of Canada ("IIAC") issued a Request for Proposals, entitled: Central Counterparty and Netting Utility for Fixed Income Securities. The Canadian Derivatives Clearing Corporation ("CDCC") filed a proposal on the closing date of August 24, 2009. On December 15, 2009, IIAC publicly announced that CDCC had been selected to develop a central counterparty facility for the fixed income market in Canada.

In addition to clearing fixed income transactions, CDCC also seeks to be designated under the *Payment Clearing and Settlement Act* (Canada) as a "designated clearing and settlement system".

In the context of the above, CDCC amended its Rules and Operations Manual on November 23, 2010 and on July 4, 2011.

CDCC hereby proposes to further amend its Rules and Operations Manual in order to:

- Remove the possibility of substitution of the Purchased Securities during the life of a Repurchase Transactions by amending Subsections D-603(1) and (4) as well as deleting Section D-608 of the Rules of CDCC.
- 2. Clarify transfers and payments processes with respect to outstanding Repurchase Transactions by amending Section D-601 as well as Subsection D-606(6) of the Rules of CDCC.
- Specify that on the maturity date of an Acceptable Security, there will be a cash settlement of the Rolling Delivery Obligation at the Security's principal value (net against the Postponed Payment Obligation) and payment of the final Coupon Income, if any, by amending Subsections A-804(1) and (2) of the Rules of CDCC.
- 4. Specify that in the event of a Failed Delivery, CDCC may terminate the daily roll mechanic to effect a buy-in transaction at its sole discretion or pursuant to a formal request by a receiving Clearing Member affected by the fail by amending Subsection A-804(3) of the Rules of CDCC as well as Section 6 (Exercises, Tenders, Assignments and Deliveries) of the Operations Manual of CDCC.
- Add bilateral closeout provisions by amending Sections A-102, A-401, A-402 and A-404 of the Rules of CDCC and by adding new Sections A-409 (Clearing Member Close-Out Rights) and A-410 (Eligible Financial Contracts) to the Rules of CDCC.
- Review CDCC's Rules regarding Deposits by Clearing Members with Approved Depositories by amending Sections A-102, A-212, A-613 and A-708 of the Rules of CDCC as well as Section 1 (Preamble and Definitions) and Schedule B (Depository Agreements) of the Operations Manual of CDCC.
- 7. Review CDCC's Rules regarding Clearing Fund and Forms of Margin by amending Section A-102, Rule A-6 and Section A-709 of the Rules of CDCC.
- 8. Review CDCC's Rules regarding Clearing Members' access to audited financial statements of CDCC by amending Section A-216 of the Rules of CDCC to limit such access to the balance sheet and accompanying notes thereon.

- Update the Operations Manual of CDCC by amending Section 1 (Preamble and Definitions), Section 2 (Time Frames), Section 3 (CDCC Reports), Section 5 (Open Positions), Section 6 (Exercises, Tenders, Assignments and Deliveries), Section 9 (Clearing Fees) and by adding a new Section 10 (Clearing Member Security Officer).
- 10. Amend and restate the Risk Manual of CDCC by removing the Membership in the Corporation and Capital Requirements Section, by amending the Margin Section and by adding a new Monitoring Program Section.
- 11. Amend and restate the Default Manual of CDCC.
- 12. Add an intra-day netting cycle in the morning by amending various sections of Rule A-8 with respect to net payment and delivery obligations resulting from this morning intra-day netting cycle and the afternoon intra-day netting cycle, notably by adding Section A-806, and adding Subsection D-606(11) to specify the occurrences of these cycles and the corresponding settlement obligations. Sections 2 and 6 of the Operations Manual have also been amended accordingly.

#### B. Analysis

1. Substitution Process

## Nature and Purpose of Proposed Changes:

Subsection D-603(1) of CDCC Rules governs the substitution process as it pertains to Repurchase Transactions. In its Rules, CDCC requires Clearing Members to specify at trade inception, on a pre-novation basis, whether or not substitution rights have been agreed upon in the original transaction details.

All substitution requests need to be made to CDCC as the Central Counterparty ("CCP") to the novated transaction.

CDCC hereby proposes to modify its Rules in order to remove CDCC from the substitution process.

#### Description and Analysis of Impacts:

This proposed change would simplify the Rules of CDCC regarding substitutions as well as simplify the operational management of novated transactions. By excluding this particular functionality, CDCC would no longer be responsible for the day-to-day management of substitution requests.

At the request of the industry and in keeping with current market convention, Clearing Members would manage substitutions either by contacting the original counterparty to the transaction, or by involving the inter-dealer broker that originally brokered the transaction, in the event that the original Repurchase Transaction was brokered on an anonymous basis. In the event that Clearing Members wish to substitute the original security that was exchanged at the outset of the transactions, two transactions would need to be submitted to CDCC for novation: 1) the first transaction would effectively close the original transaction on the substitution date by reversing, on a Delivery-Versus-Payment basis, cash against securities; and 2) entering into a new transaction from that date forward up until the maturity date of the original Repurchase Transaction. The substitute security would need to be considered acceptable to the CDCC in order for novation to occur.

This Rule change would allow market participants to manage substitutions as they currently do, without additional operational processes to be developed or included in their daily operations.

Furthermore, from a CDCC risk management perspective, this change would be beneficial as it would limit the operational risks associated with the management of substitutions.

#### Drafting Process:

The proposed changes were elaborated through an industry consultation process. Through discussions with the IIAC Operations Working Group, a preference regarding the continued use of the current substitution process was expressed. No other alternatives were considered.

#### Impacts on Technological Systems:

The proposed changes should have no impact on the technological systems of CDCC, Clearing Members or other market participants.

#### Benchmarking:

The proposed changes are aligned with the operations of other global CCPs which are active in the Repurchase markets. For example:

• LCH.Clearnet fixed income clearing services ("RepoClear")

Section 2B.3.6 of RepoClear Clearing House Procedures provides for a similar process which allows for clearing members to invoke a securities substitution by contacting their original counterparty or by contacting the relevant marketplace where the original transaction was negotiated.

2B.3.6 Substitution – Eligible repo/bond trades only

There are two methods of effecting a substitution of securities through RepoClear with regard to RepoClear Contracts arising pursuant to Regulation 55 (that is, RepoClear Transactions submitted through an Approved Trade Matching System):

(i) RepoClear Participants can contact their original counterparty and submit RepoClear Transactions in accordance with details in the appendix of the RepoClear Service Description; or

(ii) RepoClear Participants who do not wish to contact their original counterparty should contact Clearing House Operations on +44 (0)20 7426 7660 by 10:00 hours on the morning they wish to negotiate the substitution. Clearing House Operations will respond to Clearing Members by 11:30 hours advising the details of the agreed substitution. RepoClear Participants should then enter RepoClear Transactions, in accordance with details in the appendix of the RepoClear Service Description.

With regard to RepoClear Contracts arising pursuant to Regulation 56 or Regulation 56A (that is, through an Automated Trading System), RepoClear Participants must contact the relevant ATS, and substitution may only be effected in accordance with the rules of the relevant ATS and if the rules so permit.

Reference: http://www.lchclearnet.com/Images/section%202b\_tcm6-43743.pdf

• Fixed Income Clearing Corporation ("FICC")

FICC Government Securities Division Rulebook dated May 16, 2011 ("FICC Rulebook") describes the process by which substitutions are invoked in the definition of "Novation". That definition indicates that substitution requests involve the termination of the original transaction with a simultaneous novation of a new transaction including the substituted collateral.

The term "Novation" means the action by the Corporation, taken pursuant to Section 6 of Rule 11, Section 3 of Rule 14, with respect to GCF Repo Transactions, Section 5 of Rule 20, or with respect to collateral substitutions in connection with Repo Transactions with Rights of Substitution, Section 4 of Rule 18, to terminate deliver, receive, and related payment obligations between Netting Members and replace them with similar obligations to and from the Corporation.

Reference: <u>http://dtcc.com/legal/rules\_proc/gsd\_rules.pdf</u>

## 2. Transfers and Payments

#### Nature and Purpose of Proposed Changes:

Section D-606 of the Rules provides for transfers and payments processes with respect to outstanding Repurchase Transactions.

CDCC hereby proposes to modify its Rules in order to provide for greater understanding of the process underlying these payments by modifying the definitions of MTM Repo Rate Payment, OCF MTM Payment and Net MTM Reversal Requirement as well as by making changes to Section D-606(6) to ensure consistency with the new definitions.

#### Description and Analysis of Impacts:

In keeping with the Committee on Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organization of Securities Commissions (IOSCO) ("CPSS-IOSCO") most recent principles related to transparency of process and documentation, the proposed change would ensure that current and potential Clearing Members understand the methodology by which these payment amounts are determined.

More specifically, the proposed changes would allow CDCC to articulate, in greater detail, the process by which trade Repo Rates are compared to market Repo Rates thereby allowing CDCC to determine a MTM Repo Rate Payment.

#### Drafting Process:

The proposed changes were elaborated through an industry consultation process. During meetings of the Legal Working Group appointed by IIAC to review CDCC's Rules with respect to Fixed Income Transactions, the need for greater transparency and simplification of the language used in describing the mark-to-market Repo Rate Payment process was highlighted.

As CDCC transfers and payments processes with respect to outstanding repurchase transactions are similar to those currently provided for in the FICC Rulebook, Clearing Members suggested that CDCC harmonize its Rules with those of the FICC to which they are currently accustomed.

No other alternatives were considered.

#### Impacts on Technological Systems:

The proposed changes should have no impact on the technological systems of CDCC, Clearing Members or other market participants.

#### Benchmarking:

The FICC Rulebook includes the following definitions which are similar to those proposed hereby:

o Debit/Credit Interest Rate Mark

The term "Debit Interest Rate Mark" means, on a particular Business Day, an Interest Rate Mark that is a negative number, and that a Netting Member is obligated to pay to the Corporation.

The term "Credit Interest Rate Mark" means, on a particular Business Day, an Interest Rate Mark that is a positive number, and that a Netting Member is entitled to collect from the Corporation.

• Debit/Credit Interest Rate Mark Adjustments

The term "Credit Interest Rate Mark Adjustment Payment" means, on a particular Business Day, an Interest Rate Mark Adjustment Payment on the sum of the associated Debit GCF Forward Mark and Debit Interest Rate Mark made on the previous Business Day, which Interest Mark Adjustment Payment a Netting Member is entitled to collect from the Corporation.

The term "Debit Interest Rate Mark Adjustment Payment" means, on a particular Business Day, an Interest Rate Mark Adjustment Payment on the sum of the associated Credit GCF Forward Mark and Credit Interest Rate Mark made on the previous Business Day, which Interest Rate Mark Adjustment Payment a Netting Member is obligated to make to the Corporation.

o Net Interest Rate Mark Adjustment.

The term "Net Interest Rate Mark Adjustment Payment" means the absolute value of the dollar difference on a particular Business Day for a Netting Member between the total of all of Credit Interest Rate Mark Adjustment Payments and the total of all Debit Interest Rate Mark Adjustment Payments is greater than the total of all of the Credit Interest Rate Mark Adjustment Payments, then the Net Interest Rate Mark Adjustment Payment Payment shall be a positive dollar amount owing from the Corporation to the Member. If the total of all of the Credit Interest Rate Mark Adjustment Payments, then the Net Interest Rate Mark Adjustment Payments. If the total of all of the Debit Interest Rate Mark Adjustment Adjustment Payments, then the Net Interest Rate Mark Adjustment Payments is less than the total of all of the Debit Interest Rate Mark Adjustment Payments, then the Net Interest Rate Mark Adjustment Payments hall be a negative dollar amount owing from the Member to the Corporation.

In addition, *Rule 13 – Funds-Only Settlement* of the FICC Rulebook provides additional descriptions to the cash flow payments arising between FICC and its participants. This latter section is also consistent with CDCC's Section D-606 Transfers and Payments.

Reference: <u>http://www.dtcc.com/legal/rules\_proc/gsd\_rules.pdf</u>

# 3. <u>Maturity and Coupon Claim Management</u>

Nature and Purpose of Proposed Changes:

Section A-804 of CDCC's Rules governs failed and partial deliveries.

CDCC has aligned itself with current fixed income market convention regarding Failed Deliveries. At present, market participants do not treat Failed Deliveries as an act of default, but rather, choose to roll the delivery of securities into the subsequent business day's settlement cycle. CDCC introduced this concept in Section A-804 of its Rules through the notion of the Rolling Delivery Obligation.

CDCC hereby proposes to amend its Rules to account for the potential risks that may arise from delivery failures and the subsequent Rolling Delivery Obligations by specifying under Subsections A-804(1) and (2) that on the maturity date of the relevant Acceptable Security, the Rolling Delivery Obligation will be converted into cash settlement obligation, which shall be netted against the Postponed Payment Obligation, and that the value of any final Coupon Income payable on the maturity date with respect to the relevant Acceptable Security shall also be paid.

# Description and Analysis of Impacts:

The proposed changes to CDCC's Rules would allow CDCC to ensure that, as the CCP, offsetting cash flow payments are made between the affected parties such that the failure to deliver does not have a negative economic consequence to the party that did not receive securities prior to the entitlement event.

For failure to deliver the day preceding the Maturity Date of the underlying security, CDCC would net the Postponed Payment Obligation against the Principal Value of the underlying security thereby implicitly providing the receiving party with the economic benefit of the Principal Value even though the delivering party failed to deliver the actual securities.

For failure to deliver the day preceding the Coupon Date of the underlying security, CDCC would debit the amount of the Coupon Payment from the party that failed to deliver and credit the Coupon Payment to the party that did not receive the security thereby implicitly providing the receiving party with the economic benefit of the Principal Value even though the delivering party failed to deliver the actual securities.

The proposed changes to CDCC's Rules would align CDCC's processes with current market conventions in the Canadian fixed income markets. Therefore, there should be no additional conformity costs for Clearing Members.

Additionally, these proposed changes would ensure that in the event of delivery failures, Clearing Members remain economically neutral.

The proposed changes to CDCC's Rules would also ensure greater transparency on operational treatment of cash flows resulting from failed deliveries as required under CPSS-IOSCO principles.

#### Drafting Process:

The conceptualization of these processes and methodologies was driven through an industry consultation period, more specifically within the Operations Working Group of the IIAC.

No other alternatives were considered.

#### Impacts on Technological Systems:

There should be no impacts on Clearing Members' or other market participants' technological systems.

Changes to CDCC technological systems are however necessary. These changes are currently undergoing testing.

#### Benchmarking:

The FICC allows for similar concepts as provided for in the FICC Rulebook under the definition of "System Value":

The term "System Value" means, as regards a Deliver Obligation, a Receive Obligation, a Net Settlement Position, Existing Securities Collateral, or New Securities Collateral, the amount in dollars equal to the par value of each Eligible Netting Security that comprises such Obligation, Position, or Collateral, as applicable, multiplied by its System Price, plus interest that has accrued with regard to each such Eligible Netting Security up to the Business Day for which such dollar amount is calculated. The System Value of a Net Settlement Position that has remained unsettled on the maturity date for the Eligible Netting Securities that comprise such Position shall be the redemption value of such Securities.

Furthermore, the term Coupon Adjustment Payment defines the cash flow adjustment made for failed net settlements the day preceding a Coupon Payment Date:

The term "Coupon Adjustment Payment" means the coupon payments due and owing on each Eligible Netting Security that comprises either a Coupon-Eligible Close Leg or a Fail Net Settlement Position.

Reference: <u>http://www.dtcc.com/legal/rules\_proc/gsd\_rules.pdf</u>

#### 4. Buy-In Process

#### Nature and Purpose of Proposed Changes:

Subsection A-804(3) of CDCC's Rules provides that CDCC has the right to terminate the daily roll mechanic set out under Subsections A-804(1) and (2) to effect a buy-in transaction under Subsection A-804(4) or to exercise any other remedies under the Rules.

CDCC hereby proposes to modify Subsection A-804(3) of its Rules in order to specify that in the event of a failed delivery, CDCC may also terminate the daily roll mechanic to effect a buy-in transaction pursuant to a formal request by a Receiver of Securities affected by a Failed Delivery.

CDCC proposes to modify Subsection A-804(5) of its Rules in order to specify that if CDCC is unable to effect a buy-in transaction or otherwise deems it inappropriate in the circumstances, it will convert the Failed Delivery into a cash settlement obligation at the security's fair market value netted against the Postponed Payment Obligation of the Receiver(s) of Securities.

CDCC also proposes to amend its Operations Manual in order to set forth the process which must be followed by a Receiver of Securities who wants to initiate a buy-in as provided for in proposed Subsection A-804(3).

The purpose of the proposed change is to better reflect the current market conventions of the fixed income marketplace and to ensure an appropriate risk management of the process governing Failed Deliveries when coupled with buy-ins from Clearing Members.

#### Description and Analysis of Impacts:

CDCC has aligned itself with current fixed income market convention regarding Failed Deliveries. At present, market participants do not treat Failed Deliveries as an act of default, but rather, choose to roll the delivery of securities into the subsequent business day's settlement cycle. CDCC introduced this concept in Section A-804 of its Rules through the notion of the Rolling Delivery Obligation.

Furthermore, it is common practice among bilateral market participants who are engaged in a rolling delivery obligation to enjoy the bilateral right of effecting a buy-in in the event that the rolling mechanism persists and securities are required. As a fixed income market participant, CDCC would not be immune to a buy-in from a buying Clearing Member. The risk in this instance would be one of timing, where CDCC could not execute a buy-in of its own as a means of satisfying the buy-in of the buying Clearing Member. This timing issue could potentially expose CDCC to market risk.

Moreover, CDCC recognizes that some Failed Deliveries could prevent a Clearing Member from fulfilling a delivery requirement to a party outside of CDCC. In such a case, the proposed changes would ensure that the Clearing Member is able to meet its delivery obligation.

Upon receipt of a buy-in request, CDCC could effect the buy-in and therefore not be exposed to any potential market risk.

As the incidence of Failed Deliveries in the Canadian marketplace is very low (<1% of total settlement volume), the incidence of buy-in requests in the fixed income marketplace is also quite low. As such, current practice for effecting buy-ins is largely a manual process and entails coordination between the various operations departments. CDCC's process will not be different in that respect and therefore, the proposed changes to CDCC's Rules should not adversely impact the marketplace and/or Clearing Members.

#### Drafting Process:

The proposed changes were elaborated to address key market risk concerns in the context of the existing market convention for Failed Deliveries in the context of the fixed income clearing project. Given the

alignment of the North American fixed income marketplace, the drafting process was driven by the need to remain consistent with other CCPs active in this market segment.

No other alternatives were considered.

#### Impacts on Technological Systems:

There should be no impacts on CDCC's, Clearing Members' or other market participants' technological systems.

#### Benchmarking:

The FICC Rulebook provides for similar processes as the proposed CDCC's Rules changes:

#### Section 13 - Buy- in Notices

If a Netting Member (hereinafter, the "Notifying Netting Member") submits to the Corporation a retransmitted notice of a buy- in with respect to Eligible Netting Securities that comprise an Open Net Long Position (hereinafter, the "Allocated Net Long Position"), the Corporation shall promptly retransmit such notice, on a random basis, to a Netting Member or Members (hereinafter, the "Allocated Netting Member") with an Open Net Short Position or Positions (hereinafter, the "Allocated Net Short Position"): (a) that is comprised of Eligible Netting Securities having the same CUSIP number as the Eligible Netting Securities that are the subject of the notice, (b) that is equal to or greater than, in size, the Allocated Net Long Position (or, if there is no such Allocated Net Long Position at least equal in size to the Allocated Net Short Position, the largest such Allocated Net Long Positions), and (c) that has been unsettled for the longest period of time. The Corporation shall have no obligation to execute on such notice, by buying in securities or in any other manner. If, in accordance with the Buy- in Regulations, a Netting Member that has submitted a notice of retransmitted buy- in informs the Corporation that it has executed on such notice by buying in the Eligible Netting Securities that are the subject of such notice, and provides evidence satisfactory to the Corporation of the price (hereinafter, the "Buy- in Price") at which such Eligible Netting Securities were bought in by such Member, the Corporation shall promptly notify the Allocated Netting Member of such. Notwithstanding anything to the contrary in this Rule or in Rules 12 or 13: (d) the Notifying Netting Member's obligation to settle with the Corporation the Allocated Net Long Position pursuant to these Rules through receipt of the underlying Eligible Netting Securities, and the Allocated Netting Member's obligation to settle with the Corporation the Allocated Net Short Position pursuant to these Rules through delivery of the underlying Eligible Netting Securities, each are terminated as of the time of such notification by the Corporation, and (e) for purposes of settlement pursuant to Rule 13 of the funds-only settlement obligations of the Notifying Netting Member with respect to the Allocated Net Long Position, and the funds-only settlement obligations of the Allocated Netting Member with respect to the Allocated Net Short Position, the Allocated Net Long Position and the Allocated Net Short Position shall be deemed to have been settled among such Members and the Corporation in accordance with this Rule and Rule 12, with the System Value for such purpose being deemed to be, for each Position, equal to the Buy-in Price.

Reference: <u>http://www.dtcc.com/legal/rules\_proc/gsd\_rules.pdf</u>

#### 5. Bilateral Closeout Provisions

Nature and Purpose of Proposed Changes:

Section A-401 of the Rules of CDCC lists actions that CDCC may take against Non-Conforming Members. Among others, CDCC may require such Clearing Members to close out (or close out on behalf of such Clearing Member) existing Transactions.

CDCC hereby proposes to modify its Rules by adding Clearing Member close-out netting rights in Rule A-4 (Enforcement) in order to provide Clearing Members with the ability to terminate all open positions between the Clearing Member and CDCC in case of an Event of Default in respect of CDCC.

CDCC also proposes to modify Rule A-1 to integrate new definitions.

#### Description and Analysis of Impacts:

The proposed changes would align CDCC's Rules with the industry practices followed by global CCPs and, from the perspective of systemic risk management, provide a transparent and orderly scheme for management and close-out of Transactions in case of an Event of Default affecting CDCC which, in the specific case of a Failure to Pay, would likely be caused by the insolvency or failure of a Clearing Member or a market disruption.

Moreover, the proposed changes would provide Clearing Member with rights required for the necessary accounting treatment of netting agreements under current and proposed IFRS standards integrated into Canadian GAAP for publicly accountable enterprises. Hence, Transactions, including Fixed Income Transactions cleared by CDCC, would be considered to be subject to effective netting agreements and given optimal balance sheet treatment.

Finally, the proposed changes would allow Clearing Members to consider CDCC as a counterparty credit risk on a net, rather than on a gross basis, which would ensure that Clearing Members are not required to allocate significant credit lines to operate as Clearing Members as the internal credit risk groups of these Clearing Members will be able to net positive mark-to-market positions against negative mark-to-market positions held against CDCC.

In the event of the exercise of such proposed close-out netting rights by a Clearing Member affected by an Event of Default in respect of CDCC, CDCC, in its role as Calculation Agent, would calculate the cash value (both positive and negative) of each open Transaction and would net positive values against negative values to arrive at the Final Settlement Amount due by either the affected Clearing Member or CDCC. In addition, Clearing Members could set off any obligation to pay the Final Settlement Amount against any actual or contingent claims against CDCC.

CDCC also proposes to add a provision to its Rules confirming that each Transaction constitutes an eligible financial contract and that the Membership Agreement signed by each Clearing Member and the Rules together constitute a master agreement in respect of each such eligible financial contract and, accordingly, also together constitute an eligible financial contract, in each case under applicable Canadian bankruptcy and insolvency legislation.

#### Drafting Process:

The proposed changes were elaborated in consultation with the Accounting, Legal and Credit Working groups of IIAC. Throughout this consultation period, the following key items were highlighted and became central components of proposed Section A-409:

- Defining those events which may be considered Events of Default;
- Determining rights and obligations of Clearing Members further to a CDCC default which may lead to an Event of Default;
- Setting out the termination notice mechanism and defining the rights of an affected Clearing Member and CDCC after a termination date is fixed.
- Designating CDCC as Calculation Agent and the methodology by which an economic value would be attributed to every open Transaction between the affected Clearing Member and CDCC to arrive to the Final Settlement Amount.

The proposed Clearing Member close-out rights in Section A-409 are substantively similar to those provided to LCH.Clearnet and Eurex Clearing AG clearing members. In particular, both LCH.Clearnet and Eurex Clearing AG provide for similar insolvency event and failure to pay definitions and a minimum 30 day cure

period. As for the proposed methodology for calculating the net close-out amount in proposed Section A-409, it is similar to that set out in Eurex's Clearing AG Clearing Conditions.

The provisions of proposed Section A-410 dealing with eligible financial contracts are substantively similar to those found in the rules of CDS.

#### Impacts on Technological Systems:

There should be no impacts on CDCC's, Clearing Members' or other market participants' technological systems.

#### Benchmarking:

Numerous CCPs have included close-out netting rights in favour of their clearing members in their rules. Specifically:

• CME

Section 818 of the Chicago Mercantile Exchange, Inc. Rulebook ("CME Rulebook") provides that a bankruptcy by the Exchange triggers a close out of all open positions and that a default of the Exchange allows clearing members to elect to close their positions.

Reference: http://www.cmegroup.com/rulebook/CME/I/8/

• FICC

Rule 22B of the FICC Rulebook provides that if a "Corporation Default" occurs, all Transactions which have been subject to Novation pursuant to these Rules but have not yet settled and any rights and obligations of the parties thereto shall be immediately terminated and the Board shall determine a single net amount owed by or to each Member with respect to such Transactions by applying the close out and application procedures taking into account the other provisions in these Rules relating to loss allocation, including in the event that any Member is a Defaulting Member.

Reference: <u>http://www.dtcc.com/legal/rules\_proc/gsd\_rules.pdf</u>

LCH.Clearnet

LCH.Clearnet Regulation 39A provides that in the event of a bankruptcy or a default by the Clearing House, Members may specify a Termination Date for the termination and liquidation of all Contracts to which they are party.

• Eurex Clearing AG

Section 9.5 of the Clearing Conditions for Eurex Clearing AG provides for close out netting rights in favour of clearing members if an Insolvency Event or a Failure to Pay occurs in respect of Eurex Clearing AG.

#### Reference:

http://www.eurexchange.com/download/documents/regulations/clearing\_conditions/clearing\_conditions\_en.p df

6. <u>Deposits</u>

Nature and Purpose of Proposed Changes:

Section A-212 of the Rules of CDCC specifies the terms and conditions applicable to Deposits made by Clearing Members with CDCC to assure the performance of their obligations.

Section A-613 of the Rules of CDCC prescribes the conditions that financial institutions must meet to be approved as depositories by CDCC for purposes of Deposits to be made by Clearing Members pursuant to the Rules of CDCC.

Section A-708 excludes from Margin requirements, Clearing Members who have deposited, with CDCC, Underlying Interests or Underlying Interest Equivalents in respect of short positions in Futures or Options.

CDCC hereby proposes:

- To modify its Rules regarding Definitions in order to refer to "Put Escrow Receipts", "Call Underlying Interest Deposits" and "Futures Underlying Interest Deposits" instead of "Safe Custody Receipts", "Futures Margin Receipts" and "Escrow Receipts, to amend definitions of "Approved Depository" and "Margin Deposits", and to add definitions of "Call Underlying Interest Deposit", "Depository Agreement", "Depository Receipt" and "Put Escrow Receipt".
- To modify its Rules regarding Deposits and Withdrawals in order to revise and complement the
  process of using the services of an Approved Depository, the issuance of Depository Receipts (Put
  Escrow Receipts, Call Underlying Interest Deposits and Futures Underlying Interest Deposits) and
  what they entail.
- To modify its Rules regarding Approved Depositories given that Approved Depositories are not used in the context of the Clearing Fund.
- To modify its Rules regarding Underlying Interest and Underlying Interest Equivalent in order to clarify how each Depository Receipt can be used; i.e. for Call Equity Options, for Put Options and for Futures.
- To modify its Operations Manual in order to amend the definition of "Specific Deposit" and provide new templates of Depository Agreements.

The proposed changes concern Short Positions in Options and Futures, i.e. exchange-traded transactions cleared by CDCC and not fixed income transactions. However, they relate to CDCC's risk model as a whole and are thus required in connection with a potential designation of CDCC from the Bank of Canada.

#### Description and Analysis of Impacts:

The proposed changes would provide more robustness to the type of collateral contemplated in Sections A-212 and A-708 of the Rules of CDCC, giving CDCC better assurance that the Put Escrow Receipts and Call and Futures Underlying Interest Deposits constitute adequate and effective financial resources to cover its exposure.

Moreover, the concepts of Put Escrow Receipt, Call Underlying Interest Deposit and Futures Underlying Interest Deposit would be clarified.

With respect to a Put Escrow Receipt, it would be specified that it represents a deposit of cash in the amount of the exercise price of a put option that is held by the approved depository on behalf of the customer who is the writer of the option in trust for CDCC free from any liens, and that such deposit will be released in favour of CDCC on demand immediately if the option is exercised and the customer doesn't otherwise satisfy the relevant payment obligation.

With respect to a Call Underlying Interest Deposit or a Futures Underlying Interest Deposit, it would be specified that it consists of a pledge of securities of the description and quantity specified, in a Call Option or Future Position, as the case may be, from the Approved Depository in favour of CDCC through a central securities depository free from any liens, which CDCC can seize if the option is exercised or the future position is assigned, as the case may be, and the customer doesn't otherwise satisfy the relevant delivery obligation.

Additionally, Approved Depositories would have to review and enter into the Depository Agreement in its new amended and restated form with CDCC and issue Put Escrow Receipts pursuant thereto in the new form.

#### Drafting Process:

The proposed changes were elaborated to address comments received from the Bank of Canada concerning the adequacy and effectiveness of put letters of guaranty to cover specific client positions, as provided for in the Operations Manual of CDCC.

The proposed changes reflect CDCC's review and improvement of its Rules, including of Depository Agreements templates under its Operations Manual, regarding escrow deposits and benchmarked against the Options Clearing Corporation's ("OCC") model.

#### Impacts to Technological Systems:

There should be no impact on CDCC's, Clearing Members' or other market participant's technological systems.

## Benchmarking:

The OCC has a similar practice of accepting escrow deposits as substitution to margin requirements.

Rule 610 – Deposits in Lieu of Margin provides that:

"(a) A Clearing Member [...] may deposit cash and/or short term Government securities in respect of any put option contract included in a short position of such Clearing Member"

# [...]

(d) A Clearing Member may make a deposit hereunder of cash or securities held in the custody of an approved depository by causing the depository to make an escrow deposit for the Clearing Member's account pursuant to Rule 613.

# [...]

(g) [...] only cash and/or short-term Government securities with a total value of not less than 105% of the aggregate exercise price may be deposited in respect of puts.

(h) Short-term Government securities deposited in respect of puts shall be valued at the lesser of par value or 100% of their current market value.

# [...]

(k) If there is a default to pay the exercise price by the Clearing Member (...), the Corporation shall be entitled to receive from the depository on demand (...) in the case of put options, an amount in cash (out of the deposited property or its proceeds) equal to the aggregate exercise price of the exercised puts, plus all applicable commissions and other charges. Also if the OCC closes out the short position (...), the Corporation shall be entitled to receive from the depository an amount in cash (out of the deposited property or its proceeds) equal to the depository an amount in cash (out of the deposited property or its proceeds) equal to the cost of closing transaction(s), including any commissions, financing costs, and other charges incurred by the Corporation.

Reference: <u>http://www.optionsclearing.com/components/docs/legal/rules\_and\_bylaws/occ\_rules.pdf</u>

# 7. Forms of Margin and Clearing Fund

## Nature and Purpose of Proposed Changes:

Rule A-6 of CDCC's Rules governs the deposits that each Clearing Member admitted to clear Transactions at CDCC shall maintain in the Clearing Fund.

Section A-709 of CDCC's Rules lists the acceptable forms of Margin that may be deposited with CDCC.

In keeping with CDCC's work towards aligning its Rules with forthcoming CPSS-IOSCO principles for financial market infrastructures<sup>1</sup>, which place greater emphasis on a CCP's ability to withstand a large default and continue to satisfy its financial obligations same day, CDCC hereby proposes:

- To modify its Rules regarding acceptable forms of Margin Deposits for both Margin and Clearing Funds in order to specify that only Cash and Acceptable Treasury Bills are acceptable for the base and variable deposits to the Clearing Fund and that <sup>2</sup>/<sub>3</sub> of the total Margin required must be covered by Cash and/or Acceptable treasury Bills.
- To modify its Rules regarding the Clearing Fund in order to refer to the methodology set forth in the Risk Manual of CDCC.
- To modify its Rules regarding Clearing Fund Statement in order to specify that the monthly statement is available at the opening of business on the first Business Day of each calendar month.
- To modify its Rules regarding additional Clearing Fund Deposit in order to reduce from "within three days" to "by 2:00 p.m. the following Business Day" the time period granted to a Clearing Member showing a deficit to satisfy such deficit by a deposit.
- To modify its Rules regarding Making Good on Charges to Clearing Fund in order to specify that such obligation must be met "no later than 2:00 p.m. on the Business Day following the date that the amount is paid out".

#### Description and Analysis of Impacts:

As a CCP servicing both exchanges-traded derivatives and fixed income marketplaces, CDCC must ensure that it may satisfy its financial obligations to Clearing Members during normal course and default scenarios. As such, management and planning of its available liquid resources is a key component of CDCC risk management process.

The proposed changes would allow CDCC to follow best practice as well as plan and monitor its liquidity requirements on a more systematic basis by ensuring that CDCC has access to liquid resources on a sameday basis in the event of a Clearing Member default.

To achieve such goal, CDCC must require that Clearing Members deposit a minimum of  $^{2}/_{3}$  of their total Margin requirements (in Margin and Difference Funds) in Cash and/or Treasury Bills to ensure that CDCC is able to meet its financial obligations.

According to historical Margin Deposits by Clearing Member firms, Clearing Members deposits in Cash and Treasury Bills totalled approximately 46% of the Margin and Difference Funds. As the proposed change would impose a minimum of  $^{2}/_{3}$  of the total Margin Deposits in these two funds consisting of Cash and/or Treasury Bills, it should not have a significant impact on Clearing Member operations.

Additionally, CDCC must require that: (i) whenever a Clearing Member's Clearing Fund statement shows a deficit, such Clearing Member shall satisfy the deficit by 2pm the following business day; and (ii) whenever

<sup>&</sup>lt;sup>1</sup> Principles for financial market infrastructures, Consultative Report, March 2011 – BIS and IOSCO

an amount is paid out of the Clearing Fund deposit of a Clearing Member, such Clearing Member shall make good the deficiency if any in its deposit resulting from such payment before 2pm on the Business Day following the date that the amount is paid out in order to limit CDCC's exposure to a Clearing Fund deficit to an intraday risk.

#### Drafting Process:

In keeping with forthcoming changes to CPSS-IOSCO principles, CDCC has undertaken an internal analysis of its liquidity planning and management to determine CDCC optimal level of available liquidity resources.

Pursuant to such analysis, CDCC found that its currently applicable Rules regarding Clearing Fund don't ensure that CDCC has sufficient liquidity resources from which to draw from in the event of a large default. The proposed changes were elaborated to address such deficiency.

No other alternatives were considered.

#### Impacts on Technological Systems:

There should be no impacts on Clearing Members' or other market participants' technological systems.

Changes to CDCC technological systems are however necessary. CDCC is currently working towards the implementation of an automated control infrastructure so that it can monitor Clearing Members' Margin Deposits and ensure that Clearing Members are satisfying CDCC Rules as they pertain to Margin Deposits.

#### Benchmarking:

As the types of Margin Deposits that CDCC may require from Clearing Members which are realizable sameday are functions of Canada's settlement conventions, benchmarking against international CCPs is not relevant considering that settlement conventions vary from one jurisdiction to another.

With respect to replenishment of the Clearing Fund, the CME Rulebook contains provisions similar to those proposed hereby.

Subsection 802.A.2(3) of the CME Rulebook provides that a clearing member in default shall immediately make up any deficiencies in its guaranty fund contribution resulting from such default and in any event no later than the close of business on the banking day following demand by the Clearing House.

Section 802.F of the CME Rulebook provides that in the event it shall become necessary to apply all or part of the guaranty fund contributions to meet obligations to the Clearing House pursuant to this Rule 802, clearing members shall restore their contribution to the guaranty fund to previously required level prior to the close of business on the next banking day.

Reference: http://www.cmegroup.com/rulebook/CME/I/8/

# 8. Financial Statements

#### Nature and Purpose of Proposed Changes:

Section A-216 of the Rules of CDCC provides that CDCC will furnish its audited financial statements to its Clearing Members.

CDCC hereby proposes to amend Section A-216 to provide that it will disclose only the balance sheet of its audited financial statements, together with accompanying notes thereon.

Description and Analysis of Impacts:

The proposed change aims at limiting the scope of the disclosure requirement to information that is relevant for the Clearing Members to assess the creditworthiness of CDCC. The income statement of the audited financial statements is private information of CDCC which is disclosed to its regulators for oversight purposes, but is not pertinent to the financial robustness of CDCC as may be of concern to the Clearing Members. Furthermore, CDCC is proposing to make this change to align itself with other global CCPs that have similar corporate structures and governance models.

Hence, this change should not have any impact on Clearing Members or other market participants.

#### Drafting Process:

The proposed change was elaborated in a general effort to align CDCC's rules and practices with other CCPs that are not member-owned.

No other alternatives were considered.

#### Impacts on Technological Systems:

There is no impact on CDCC's, Clearing Members' or other market participants' technological systems.

#### Benchmarking:

CCPs that are not member-owned (with the exception of Eurex Clearing) do not make their financial statements available. The following CCPs do not disclose their financial statements to their members: CME Clearing, ICE Clearing, IDCG, NYPC, CC&G, SGX Asiaclear, ASX Clearing.

#### 9. Operations Manual

#### Nature and Purpose of Proposed Changes:

The Operations Manual of CDCC complements CDCC's Rules by providing practical details with respect to CDCC's clearing services.

CDCC hereby proposes to make various updates to its Operations Manual in order to reflect the evolution of the proposed central counterparty facility for the fixed income market in Canada.

More specifically, CDCC proposes:

- To amend Section 1 (Preamble and Definitions) in order to add definitions of "Forward Repurchase Transaction", "Net Settlement Position" and "Running Repurchase Transaction".
- To amend Section 2 (Time Frames) in order to remove Failed and partial deliveries intervention by CDCC.
- To amend Section 3 (CDCC Reports) in order to update the existing fixed income reports and add new ones.
- To amend Section 5 (Open Positions) in order to remove trade adjustments from the list of acceptable adjustments for Fixed Income Transactions.

- To amend Section 6 (Exercises, Tenders, Assignments and Deliveries) in order to make housekeeping changes.
- To amend Section 9 (Clearing Fees) in order to (i) specify that with respect to Fixed Income Clearing, the applicable minimum monthly clearing fee shall be charged to Fixed Income Clearing Members upon the request to use this clearing service; and (ii) to provide that settlement cost incurred by CDCC will be charged to the Clearing Member with which CDCC is settling.
- To add a new Section 10 (Clearing Member Security Officer) to provide that Clearing Members shall designate Security Officers within their firms who will be responsible for managing the Clearing Member's User Profile.

#### Description and Analysis of Impacts:

• Time Frames

At the request of the industry and in keeping with current market convention, this proposed change would abolish CDCC's automatic and daily intervention in cases of failed and partial deliveries whereby CDCC meets such delivery requirement(s) with Acceptable Securities from the open market to the Receiver(s) of Security.

The buy-in process will remain available in cases of Failed Deliveries pursuant to Subsection A-804 3) of CDCC's Rules. However, such process is not systematic and is usually initiated only after a certain number of days have passed.

• CDCC Reports:

The proposed addition of new fixed income reports would provide Clearing Members with additional reporting. The new position reports would provide Clearing Members with various views of their Repurchase Transactions positions based on the settlement stage of the underlying interest. The new trade reports would provide details regarding trades accepted and rejected by CDCC. These reports could be used by Clearing Members with respect to trade and position reconciliations.

In addition, the proposed changes to existing fixed income reports titles and descriptions should clarify the purpose and content of the concerned reports.

Adjustments

In CDCC's initial design of the Fixed Income Transactions clearing service, Clearing Members would directly connect to CDCC's clearing application. With such direct connection, CDCC's intention was to allow trade adjustments as long as the beginning settlement instruction had not been submitted to CDS.

When the industry asked CDS and CDCC to work together to allow the Fixed Income Transactions to flow through the existing CDS infrastructure, it became impossible to allow trade adjustments as this functionality occurs post trade and could not be flowed back through CDS to the originator.

The proposed changes would exclude Fixed Income Transactions from the Transactions for which trade adjustments are accepted.

Clearing Fees

The minimum monthly clearing fee charged for exchange-traded derivatives products is currently set at \$500, plus applicable taxes and the minimum monthly clearing fee to be charged for Fixed Income Transactions will be set at \$5,000, plus applicable taxes.

In consideration of the increase of the minimum monthly clearing fee with regards to Fixed Income Clearing, the proposed changes would allow Clearing Members to be charged with such fees only after they duly acknowledge that they are commencing such activity. CDCC has communicated and will continue to inform Clearing Members that they should not proceed with this process until just prior to commencing Fixed Income Clearing.

Moreover, as CDCC will have an active CUID (customer unique identifier) for the settlement of trades at CDS as part of the Fixed Income Clearing, the proposed changes would allow CDCC to recover the settlement costs it will incur.

• Clearing Member Security Officer

The proposed change would add a level of control at the Clearing Members firms with respect to the management of Clearing Members' User Profiles. The Security Officers would be administrators of the Clearing Member's User Profiles and would therefore be able to request the addition or deletion of a User Profile on behalf of the Clearing Member.

#### Drafting Process:

The proposed changes were elaborated either internally, through discussions with Clearing Members and the Bank of Canada representatives or through the Operations Subcommittee of the IIAC.

#### Impacts on Technological Systems:

There should be no impacts on Clearing Members' or other market participants' technological systems.

Changes to CDCC technological systems were however necessary with respect to the changes to CDCC reports.

#### Benchmarking:

The proposed changes were customized for CDCC's operations. Therefore, no benchmarking was done in connection with these changes.

Regarding the proposed appointment of Clearing Member Security Officers, Section 3.1.1 of CDS Participant Rules (Release 3.11) sets out how individuals are authorized to act on behalf of a participant in respect of CDS services.

Reference: http://www.cds.ca/cdsclearinghome.nsf/Downloads/-EN-CDSparticipantrules3.11/\$File/Release+3.11\_EN.pdf?OpenElement=target=%22\_blank

#### 10. Risk Manual

## Nature and Purpose of Proposed Changes:

The Risk Manual of CDCC complements CDCC's Rules by providing details with respect to CDCC's risk management.

CDCC hereby proposes to amend the sections of its Risk Manual regarding Membership in the Corporation and Capital Requirements and Margin and to add a section regarding Monitoring Program in order to clarify and provide greater transparency on CDCC's risk management process, in accordance with CPSS-IOSCO best practices on transparency.

#### Description and Analysis of Impacts:

• Membership in the Corporation and Capital Requirements

This section of the Risk Manual would be removed as CDCC's Rules adequately cover the necessary elements of this topic.

Margin

This section would be re-organized to clarify and provide greater transparency on the margining process.

Within the CDCC risk management process, various types of Margin Deposits are required from Clearing Members in order to collateralize the risks that they bring to the clearinghouse. These types of Margin Deposits each have their own unique purposes and the proposed changes would highlight these purposes as well as clarify the methodologies used in achieving these goals.

The proposed changes would provide for a Margin Fund description, including the elements that make up for the Margin requirements of this fund, i.e. the Initial Margin and the Variation Margin.

The proposed changes would also provide for the methodologies used for each product type with the goal of highlighting differences, if any, across different products.

Account Structure would be included as a section to provide the necessary transparency on the aggregation process for Margin requirements. CDCC wishes to draw particular attention to the differing treatment of gross and net accounts and the impact to the total Clearing Member Margin requirements.

The proposed Difference Fund section would clarify the purpose of this fund and how CDCC monitors the financial condition of its Clearing Members.

Monitoring Program

The proposed monitoring program would provide Clearing Members with information regarding CDCC's back-test and stress-test activities.

The back-testing framework is designed to test the quantitative models that generate Initial Margin at the product, account or Clearing Member level. CDCC would be using its daily back-testing framework to validate its models against its defined objectives and would be using this information as a means of adjusting Margin parameters or by requesting additional Margin from Clearing Members whose risk profile differs from model generated results.

The stress-testing framework would validate, on a daily basis, the resources of CDCC in the event of a default. Such stress testing program would simulate the default of CDCC's largest Clearing Member in extreme but plausible market conditions. As such, the base stress scenario would be a measure of adequacy of the default process. In addition, CDCC would be monitoring the following under the stress-testing framework:

- Multiple defaults (including affiliated Clearing Members)
- Adequacy of CDCC's Margin Deposits profile
- Adequacy of CDCC's liquidity provisioning with consideration of "wrong-way risk".

## Drafting Process:

The proposed changes were elaborated internally to address comments received from the IIAC Risk Committee and Bank of Canada.

The provisions of proposed Margin and Monitoring sections were benchmarked against Eurex Clearing AG and LCH.Clearnet risk management documentation.

#### Impacts on Technological Systems:

There should be no impact on CDCC's, Clearing Members' or other market participant's technological systems.

#### Benchmarking:

• Eurex Clearing AG

Eurex, Clearing Risk Based Margining, September 2007

Reference: http://www.eurexchange.com/download/documents/publications/rbm\_final\_en.pdf

• LCH.Clearnet

LCH.Clearnet, Initial Margin Calculation on Derivative Markets – SPAN® Method, February 2006

#### Reference:

http://www.lchclearnet.com/Images/SPAN\_Deriv%C3%A9s\_GB\_200802%20\_2\_\_tcm6-44568.pdf

#### 11. Default Manual

# Nature and Purpose of Proposed Changes:

The Default Manual of CDCC complements CDCC's Rules by providing details with respect to the actions that CDCC may take with respect to Clearing Members in financial difficulty, potentially in insolvency or in default of their obligations under the Rules of CDCC.

In keeping with CDCC's work towards aligning its Rules with forthcoming CPSS-IOSCO principles for financial market infrastructures, more specifically concerning default management, CDCC hereby proposes an amended and restated version of its Default Manual.

Moreover, CDCC hereby proposes to amend its Rules regarding Non-conforming Members by adding a new Paragraph A-1A04(3)(i) in order to specify that any of the conditions set out in paragraphs (a) to (h) applying to an Affiliate of a Clearing Member also constitutes valid grounds for determining that a Clearing Member is non-conforming.

#### Description and Analysis of Impacts:

• Section 1: Overview of Default Process:

This section of the proposed Default Manual would describe the entire default process of CDCC when a Clearing Member defaults, covering such critical issues as follows:

- Objectives of default management
- Definition of default
- Implications of default on markets and CDCC activities
- Forms of default as defined by CDCC's Rules
- CDCC prerogatives in the default mitigation process
- Financial remedies to cover default-induced losses.
- Section 2: Default Management Governance Procedures:

This section of the proposed Default Manual would set up the key governance protocols for the default management process, delineating responsibilities of the Board, various committees, management and staff. In a time-critical default management situation, it is essential that all parties know their roles and responsibilities, as mapped through a robust decision oversight process. The management hierarchy, as reflected in top down order, would be as follows:

- The CDCC Board of Directors
- The Default Management Committee
- The Emergency Committee

As a means of aligning with forthcoming CPSS-IOSCO principles for financial market infrastructures, this section of the proposed Default Manual would define the key public disclosure requirements of CPSS-IOSCO by clearly attributing the roles and responsibilities in the decision-making process. In addition, this section would also address the key default triggers that would cause CDCC to invoke its default management process which is also a key requirement of the forthcoming CPSS-IOSCO principles for financial market infrastructures.

Furthermore, this section of the proposed Default Manual would describe in further detail the two forms of default: Non-Conforming Member status and suspension of a Clearing Member, the decision-making responsibility attendant to these declarations, and notification protocols to both inside and outside parties such as non-defaulting Clearing Members, regulatory bodies and other central clearing organizations.

• Section 3: Staff Management Responsibilities:

This section of the proposed Default Manual would outline the responsibilities and reporting lines of each CDCC Department that is responsible for some component of front line default management. Key Departments would include:

- o Risk Management
- o Legal
- o Audit
- o Financial

This section of the proposed Default Manual would describe in detail the responsibilities of each of these departments, the manner in which they are to coordinate their activities in the event of a default, and their reporting and recommendation-based responsibilities to management committees and the Board. Such provisions would allow CDCC to satisfy forthcoming CPSS-IOSCO principles for financial market infrastructures as they relate to Management discretion.

Section 4: Financial Remedies to Cover Default-Induced Shortfall:

This section of the proposed Default Manual would describe, in chronological order, the financial resources which the Corporation would bring to bear in the event that a default generates market-related losses. The hierarchical waterfall would be as follows:

- Non-Conforming Member Margin Fund contribution
- Non-Conforming Member Clearing Fund contribution
- CDCC Capital Reserves set aside for this purpose (currently, \$5 million maximum)
- o Assessment Process for non-defaulting Clearing Members' Clearing Fund contributions
- Auction Processes

In addition, this section of the proposed Default Manual would describe the uses and associated limitations of the liquidity resources established by CDCC, which may help to fund, but not cover, losses associated with a default and to ensure that CDCC can continue to fulfill its financial settlement obligations even in the event of a material default. This section of the proposed Default Manual would, when read in conjunction with CDCC's Rules regarding Enforcement would fulfill the forthcoming CPSS-IOSCO principles for financial market infrastructures related to use and sequencing of financial resources as well as the treatment of proprietary positions (which are either Market Maker Accounts or Firm Accounts) and customer positions (Client Accounts).

• Paragraph A-1A04(3)(i)

The proposed change would allow CDCC to declare a Clearing Member as a Non-Conforming Member if any of the grounds for default in subsection A-1A04 apply to an Affiliate of such Clearing Member.

#### Drafting Process

The proposed changes were elaborated internally in accordance with forthcoming CPSS-IOSCO principles for financial market infrastructures.

#### Impacts on Technological Systems:

There should be no impact on CDCC's, Clearing Members' or other market participant's technological systems.

#### Benchmarking:

As other CCPs default management documentation is usually not public information, no benchmarking was done in connection with the proposed changes.

#### 12. Intra-Day Netting Cycle

## Nature and Purpose of Proposed Changes:

The Rules of CDCC provide that Fixed Income Transactions that have a forward Settlement Date (Deferred Settlement Transactions) are netted down to net settlement instructions at the end of the Business Day preceding their Settlement Date and communicated to the Clearing Members and to the Central Securities Depository for settlement on the next Business Day. Settlement of these net delivery versus payment requirements will start as of 4:00 a.m. on the relevant Settlement Date. With respect to Fixed Income Transactions that have a Settlement Date on their Trade Date (Same Day Transactions), the Rules of CDCC provide that they are submitted to the Central Securities Depository for real-time gross settlement. However, to deal with situations where a gross settlement was not occurring because a Clearing Member had two or more opposite positions that would cancel each other out or reduce its settlement requirement, the rules of CDCC provide for a netting cycle at 1:30 p.m. whereby such unsettled items of Same Day Transactions would be set-off and CDCC would send new settlement instructions cancelling and replacing the unsettled ones.

CDCC hereby proposes to amend its Rules and Operations Manual in order to add an intra-day netting cycle in the morning requiring Clearing Members that are Receivers of Securities to have sufficient funds in their cash account at CDS at 10:30 a.m. to meet the instruction sent by CDCC at 10:15, which instruction takes into account any unsettled net payment obligation of Deferred Settlement Transactions settling on that day and any gross payment obligation of Same Day Transactions entered into since the morning that have not settled yet as of that morning netting cycle. CDCC also proposes to push the afternoon netting cycle to 2:15 p.m.

More specifically, CDCC proposes:

- To amend Section A-102 of its Rules to add definitions of "Corresponding CDCC Delivery Requirement", "DVP Settlement Time", "Failed Payment Against Delivery", "Intra-Day Net Payment Instruction(s)", "Intra-Day Net Payment Time" by referring to Section D-601 and "Intra-Day Net Settlement Instruction(s)".
- To amend Subsection A-801(2) of its Rules to clarify that banking settlements are due by the Settlement Time (7:45 am), while the settlements through CDS are due by the DVP Settlement Time (4 pm).
- To amend Section A-803 of its Rules to add references to the Intra-Day Net Payment Instructions (10:15 am) and to the Intra-Day Net Settlement Instructions (2:15 pm).
- To amend Subsection A-804(1) of its Rules to enumerate the different delivery obligations that a Provider of Security may have to comply with by the DVP Settlement Time : Net delivery requirement, Intra-Day Net Settlement Instruction or a Gross Delivery Requirement.
- To amend Subsection A-804(2) of its Rules for consistency purposes with Subsection A-804(1).
- To amend Subsection A-804(4) of its Rules to add a reference to an obligation to deliver pursuant to an Intra-Day Net Settlement Instruction and adding a defined term for "Corresponding CDCC Delivery Requirement" for ease of reading this provision and the following.
- To amend Subsection A-804(5) of its Rules for consistency purposes with Subsection A-804(4).
- To amend Subsection A-806 of its Rules to deal with Failed and Partial Payment Against Delivery, i.e. consequences of failing to meet the 10:30 am Intra-Day Net Payment Time; and failing to meet the 4 pm DVP Settlement Time.
- To amend Section D-601 of its Rules to add definitions of "DVP Settlement Time", "Intra-Day Net Payment Instructions", "Intra-Day Net Payment Time", "Intra-Day Net Settlement Instructions", "Intra-Day Payment Cut-Off Time", "Intra-Day Settlement Cut-Off Time", "Pending Delivery

Requirement(s)", "Pending Payment Against Delivery Requirement(s)" and "Pending Settlement Requirement(s)".

- To amend Subsection D-606(11) of its Rules to specify the occurrences of the 2 intra-day netting cycles and the corresponding settlement obligations of the Clearing Members.
- To amend Section 1 of its Operations Manual to delete the term "Unsettled Items" and refer to "Pending Settlement Requirements" for clarity purposes since these items have not failed to settle by their settlement time (i.e. 4 pm at CDS), rather they are due on that business day but have not settled yet at the relevant intra-day cut-off time.
- To amend Section 2 of its Operations Manual to add an Intra-Day Payment Cut-Off Time at 10:15 am and an Intra-Day Net Payment Time at 10:30 am, to postpone the Intra-Day Settlement Cut-Off Time to 2:15 pm and to clarify that it applies to Pending Settlement Requirements (not only to Same Day Transactions), and to add a DVP Settlement Time at 4 pm.
- To amend Section 6 to clarify that settlements of same day transactions are submitted gross for realtime settlement at CDS, to add language to cover the Morning intra-day net payment process and the Afternoon intra-day net settlement process, and to clarify in the "Delivery" section the processes relating to the two intra-day netting cycles and consequences of failures to pay.

#### Description and Analysis of Impacts:

The proposed changes are designed to mitigate the liquidity risk that CDCC could be exposed to if the buyers (Receivers of Securities) are not in a position to settle their payment obligations when CDCC has the securities available in its securities account at CDS to be delivered. In order to limit the need for usage of CDCC's daylight facility (CDCC settling its payment obligation to Providers of Securities on one side of the trade but not receiving equivalent cash from the Receivers of Securities on the other side), the Clearing Members would be responsible for meeting their morning intra-day net payment instruction by 10:30 am.

#### **Drafting Process:**

The proposed changes were elaborated in consultation with the Risk and Operations Subcommittees of the IIAC as well as through discussions with Clearing Members and the Bank of Canada representatives.

#### Impacts on Technological Systems:

There is no impact on CDCC technological systems.

However, changes to Clearing Members technological systems will be needed to ensure that they have sufficient funds in their CDS cash account for their 10:30 a.m. net payment obligation.

#### Benchmarking:

No other CCPs public documentation provides for multiple intraday netting sessions similar to the proposed changes and therefore no benchmarking was done.

# C. Public Interest

These amendments to the Rules and Operations Manual of CDCC are not contrary to the public interest.

# D. Process

The proposed amendment to the Rules and Operations Manual of CDCC were approved by the Board of Directors of CDCC and transmitted to the *Autorité des marchés financiers* in accordance with the selfcertification process and to the Ontario Securities Commission for information.

# E. Attached Documents

Amended Rules and revised Operations Manual of CDCC (including the Risk Manual, the Default Manual and the Depository Agreement)



# CANADIAN DERIVATIVES CLEARING CORPORATION

RULES

AS OF JULY 4 [•], 2011



# PART A – GENERAL

# **RULE A-1 DEFINITIONS**

#### **Section A-101 Scope of Application**

Unless the context otherwise requires or unless different meanings are specifically defined, for all purposes of these Rules the capitalized terms used herein shall have the meanings given them in Section A-102.

## **Section A-102 Definitions**

"Acceptable Instrument Types" or "Acceptable OTCI" – Over-The-Counter Instruments which are determined by the Corporation as acceptable for clearing with the Corporation.

"Acceptable Underlying Interests" – is an Underlying Interest which is determined by the Corporation as acceptable for clearing by the Corporation.

"Acceptable Marketplace" – a bilateral or multilateral marketplace, other than an Exchange, where buyers and sellers conclude transactions in Acceptable Instrument Types including bilateral trades between two Fixed Income Clearing Members and which meets any of the following requirements (i) in the case of a marketplace which is an alternative trading system ("ATS"), it has qualified as such and complies with the applicable requirements of National Instrument 21-101 – Marketplace Operations ("21-101") and National Instrument 23-101 – Trading Rules ("23-101") as determined by the Corporation, and (ii) in the case of an inter-dealer bond broker ("IDBB"), it has qualified as such and complies with applicable IIROC Rules including IIROC Rule 2800 and applicable requirements of 21-101 and 23-101 as determined by the Corporation, and (iii) in the case of bilateral trades between Fixed Income Clearing Members involving an SRO Clearing Member, the SRO Clearing Member complies with applicable requirements of 21-101 and 23-101 as determined by the Corporation.

"Acceptable Security" – a Security determined by the Corporation as acceptable for purposes of clearing a Transaction, a list of which is updated on a bimonthly basis by the Corporation and communicated by notice to Clearing Members.

"Acceptable Treasury Bills" – A short-term debt instrument sold at a discount by the Government of Canada, having a maturity of less than one year.

"Acceptance Criteria" – the criteria established by the Corporation for acceptance or rejection of an OTCI in accordance with the provisions of Section D-104.

"Additional Deposit" – the additional amount which may be required to be added to a Clearing Fund deposit pursuant to Section A-606.

"Affiliate" – means, in relation to any Clearing Member, any Entity controlled, directly or indirectly, by the Clearing Member, any entity that controls, directly or indirectly, the Clearing Member, or any Entity directly or indirectly under common control with the Clearing Member. For this purpose, "control" of any Clearing Member or Entity means ownership of a majority of the voting power of the Clearing Member or Entity.



"American Option" (or American Style Option) – an Option which can be exercised at any time from issuance until its Expiration Date.

"Application for Membership" – the Application for Membership, which when completed by a Clearing Member candidate and accepted by the Corporation forms the Membership Agreement together with the Rules which are incorporated by reference in and form a part of the Membership Agreement, as such Application for Membership may from time to time be amended, changed, supplemented or replaced in whole or in part.

"Approved Depository" – a financial institution approved under Section A-613 by the Corporation to act in such capacity in accordance with the criteria set forth in Subsection A-212(8).

"Approved Processes" – any system for processing Transactions for clearing by the Corporation. CDCC may make available more than one Approved Process in respect of any clearing service.

"Assigned Position" – the position of the Clearing Member in any account for which such Clearing Member is the assigned Clearing Member in such account.

"At-the-Money Option" – a call Option or a put Option with an Exercise Price that is equal to the Market Price of the Underlying Interest.

"Authorized Representative" – a person for whom the Clearing Member has filed evidence of authority pursuant to Section A-202.

"Bank Clearing Member" – a Clearing Member that is a bank to which the Bank Act (Canada), as amended from time to time, applies.

"Base Deposit" – the minimum Clearing Fund deposit required of each Clearing Member pursuant to Section A-603.

"Board" - the Board of Directors of the Corporation.

"Business Day" – any day on which the Corporation is open for business. The term Business Day shall exclude the Expiration Date of any Options which expires on a Saturday.

"By-laws" – the By-laws of the Corporation as the same may be amended from time to time.

"Calculation Agent" – means the Corporation when calculating certain close-out amounts as provided in subsection A-409(9).

<u>"Call Underlying Interest Deposit" – the deposit by an Approved Depository acting on behalf of a Clearing Member or a client thereof of the Underlying Interest of a call Option to the Corporation through a Central Securities Depository.</u>

"Capital Adequacy Return (CAR)" – the documents specified from time to time by the Office of the Superintendent of Financial Institutions in its guidelines relating to capital adequacy requirements applicable to banks.

"Cash" – money in the lawful currency of Canada.



"Cash Settlement Amount" – means the amount determined by the Calculation Agent in accordance with subsection A-409(6).

"Cash Settlement Payment Default" - has the meaning assigned to this term by subsection A-409(6).

"Cash Settlement Request" - has the meaning assigned to this term by subsection A-409(6).

"Cash Settlement Request Date" – has the meaning assigned to this term by subsection A-409(6).

"CDCC Materials" – any material, data and information developed, created or compiled by the Corporation and provided by the Corporation to the Clearing Members in any form, and including software, trade-marks, logos, domain names, documentation, Approved Processes, technical information, systems, hardware and networks made available by the Corporation to the Clearing Members for the use of the clearing systems and electronic transmission systems provided by the Corporation to the Clearing Members.

"CDS" – CDS Clearing and Depository Services Inc., acting as Central Securities Depository in Canada or acting in any other capacity, or any successor thereof.

"Central Securities Depository" – any central securities depository acceptable to the Corporation, including CDS.

"Class Group" – all Options and Futures relating to the same Underlying Interest.

"Class of Futures" – all Futures covering the same Underlying Interest.

"Class of Options" – all Options of the same style within the same maturity category on the same Underlying Interest.

"Clearing Fund" – the fund established pursuant to Rule A-6 Clearing Fund Deposits.

"Clearing Member" – an applicant who has been admitted to membership in the Corporation.

"Client" – those customers of a Clearing Member who are not Market Makers or trading on behalf of a broker.

"Client Account" – the account or accounts required to be established for Transactions of the Clearing Members' Clients pursuant to Sections B-102, B-103, C-102, C-103, D-102 and D103.

"Clients Settlement Account" – the account established by Section A-403.

"Close of Business" – the time at which the Business Day ends, as specified in the CDCC Operations Manual. The time may, at the sole discretion of the Corporation, be modified to address shortened trading days on Exchanges.

"Closing Buy Transaction" – an Exchange Transaction the result of which is to reduce or eliminate a Short Position in the Series of Futures involved in such transaction.

"Closing Purchase Transaction" – an Exchange Transaction the result of which is to reduce or eliminate a Short Position in the Series of Options involved in such transaction.

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"Closing Sell Transaction" – an Exchange Transaction the result of which is to reduce or eliminate a Long Position in the Series of Futures involved in such transaction.

"Closing Writing Transaction" – an Exchange Transaction the result of which is to reduce or eliminate a Long Position in the Series of Options involved in such transaction.

"Commodity" – any agricultural product, forest product, product of the sea, mineral, metal, hydrocarbon fuel, natural gas, electric power, currency or precious stone or other gem, and any goods, article, service, right or interest, or class thereof, whether in the original or processed state.

"Confirmation Transmission" – the electronic transmission made by a Clearing Member to the Corporation confirming that the Expiry Report detailed in Section B-307 is accepted.

"Consolidated Activity Report" – daily report listing either Options, Futures or OTCI transactions.

"Contract Specifications" – the specifications prescribed by the relevant Exchange with respect to a particular Option or Future.

"Corporation or CDCC" – Canadian Derivatives Clearing Corporation.

"Corresponding CDCC Delivery Requirement" – has the meaning assigned to this term by Subsection A-804(4).

"Coupon Income" – has the meaning assigned to this term by Section D-601.

"CUSIP/ISIN" – acronyms respectively standing for Committee on Uniform Security Identification Procedures and International Securities Identification Number, herein used to refer to a security identifier assigned by CDS to any Acceptable Security.

"Default Manual" – any manual designated as such by the Corporation, as amended from time to time.

"Default Value" – means the value determined by the Calculation Agent in accordance with subsection A-409(6).

"Delivery Agent" – the party through which the Corporation will effect the transfer of the Underlying Interest between the buyer and seller.

"Delivery Default" – has the meaning assigned to this term by subsection A-409(6).

"Delivery Month" – the calendar month in which a Future may be satisfied by making or taking delivery.

"Deposit" – a payment, deposit or transfer, whether of cash, securities, certificates, property, Underlying Interests, Underlying Interest Equivalents or other interests or rights.

"Depository Agreement" – an agreement entered into between the Corporation and an Approved Depository.

"Depository Receipt" – a Put Escrow Receipt, a Call Underlying Interest Deposit or a Futures Underlying Interest Deposit.



"Derivative Instrument" – means a financial instrument, the value of which derives from the value of an Underlying Interest. Without limiting the foregoing, this Underlying Interest may be a commodity or a financial instrument such as a stock, a bond, a currency, a stock or economic index or any other asset.

"Detailed Futures Consolidated Activity Report" – the report created by the Corporation on a daily basis reporting the aggregate position held by a Clearing Member, which also contains the Settlement of Gains and Losses for that Clearing Member for that day.

"DVP Settlement Time" – has the meaning assigned to this term by Section D-601.

"Early Termination Date" – has the meaning assigned to this term by Subsection A-409(7).

"Electronic Communication" – means, in respect of the Corporation, any one or more of the following: the posting of a notice, report or other information on the Corporation's website, the transmission of a notice, report or other information to a Clearing Member by means of electronic mail and the making available on the Corporation's computer, in a form accessible to a Clearing Member, a notice, report or other information.

"Emergency" – Situation resulting from i) riot, war or hostilities between any nations, civil disturbance, acts of God, fire, accidents, strikes, earthquakes, labour disputes, lack of transportation facilities, inability to obtain materials, curtailment of or failure in obtaining sufficient power, gas or fuel, computer malfunction (whether mechanical or through faulty operation), malfunction, unavailability or restriction of the payment, computer or bank wire or transfer system and any other cause of inability that is beyond the reasonable control of the Corporation; ii) any action taken by Canada, a foreign government, a province, state or local government or body, authority, agency or corporation, and any Exchange, Central Securities Depository, Acceptable Marketplace, Market Centre and Delivery Agent ; iii) the bankruptcy or insolvency of any Clearing Member or the imposition of any injunction or other restraint by any government agency, court or arbitrator upon a Clearing Member which may affect the ability of that member to perform its obligations; iv) any circumstance in which a Clearing Member, a Central Securities Depository or any other Entity has failed to perform contracts, is insolvent, or is in such financial or operational condition or is conducting business in such a manner that such Entity cannot be permitted to continue in business without jeopardizing the safety of assets, of any Clearing Member or the Corporation; or v) any other unusual, unforeseeable or adverse circumstance materially affecting the Corporation's operations.

"Entity" – shall include an individual, a corporation, a partnership, a trust and an unincorporated organization or association.

"Escrow Receipts" a receipt, in a form acceptable to the Corporation, issued by an Approved Depository.

"European Option" (or European Style Option) – an Option which can be exercised only on its Expiration Date.

"Exchange" - an exchange whose trades are guaranteed and/or cleared by the Corporation.

"Exchange Transaction" – a transaction through the facilities of an Exchange for:

a) the purchase or writing of an Option or the reduction or elimination of a Long or Short Position in an Option; or



b) the buying or selling of a Future or the reduction or elimination of a Long or Short Position in a Future.

"Exercise Notice" – a notice to the Corporation in the form prescribed by the Corporation, notifying the Corporation of the intent of the Clearing Member executing such notice to exercise an Option.

"Exercised Position" – the position of a Clearing Member in any account in respect of Transactions providing optionality to the holder and which may have been exercised by such Clearing Member in such account.

"Exercise Price" – the specified price per unit at which the Underlying Interest may be purchased (in the case of a call) or sold (in the case of a put) upon the exercise of an Option. (Sometimes referred to as the Strike Price).

"Exercise Settlement Amount" – the amount which must be paid by the Corporation to the Clearing Member exercising a put Option or who has been assigned a call Option, against delivery of the Underlying Interest.

"Exercise Settlement Date" – the date prescribed by the relevant Exchange within Contract Specifications of a particular Option.

"Expiration Date" – unless otherwise specified the Saturday immediately following the third Friday of the month and year in which the Option expires.

"Expiration Time" – the time on the Expiration Date, as fixed by the Corporation, at which the Option expires. Unless changed by the Corporation, the Expiration Time shall be 10:00 p.m. on the Expiration Date.

"Expiry Response Screen" – a computer display also known as the "Expiry Workspace" made available to Clearing Members in connection with Rule B-3.

"Failed Delivery" – has the meaning set out (i) in Subsection A-804(1) with respect to the delivery of an Acceptable Security, (ii) in Section B-407 with respect to the delivery under an Option, (iii) in Section C-512 with respect to the delivery under a Future of an Underlying Interest other than an Acceptable Security, or (iv) in Section D-304 with respect to the delivery under an OTCI that is not a Fixed Income Transaction.

"Failed Payment Against Delivery" – has the meaning assigned to this term by Section A-806.

"Failure to Pay" – has the meaning ascribed to this term by subsection A-409(4).

"Final Amount" – is the amount determined by the Calculation Agent in accordance with subsection A-409(10).

"Final Settlement Amount" – is the amount determined by the Calculation Agent in accordance with subsection A-409(10).

"Firm" – a Clearing Member acting for its own account.



"Firm Account" – the account or accounts required to be established for Firm Transactions of the Clearing Members pursuant to Sections B-102, B-103, C-102, C-103, D-102 and D-103.

"Fixed Income Clearing Member"- has the meaning assigned to this term by Section D-601.

"Fixed Income Transaction" – has the meaning assigned to this term by Section D-601.

"Forward Curve" – the summary representation of the price of a commodity on a forward basis obtained by amalgamating all Reference Prices by tenor as defined in Section D-201.

"Forward Price" – the price extracted from the Forward Curve and used in the daily Mark-to-Market Valuation and margining processes as defined in Section D-202.

"Future" – a contract:

- a) in the case of a Future settled by delivery of the Underlying Interest, to make or take delivery of a specified quantity and quality, grade or size of an Underlying Interest during a designated future month at a price agreed upon when the contract was entered into on an Exchange; or
- b) in the case of a Future settled in cash, to pay to or receive from the Corporation the difference between the final settlement price and the trade price pursuant to standardized terms and conditions set forth by the Exchange where the contract is concluded and which is cleared by the Corporation.

"Futures Underlying Interest Deposit" – the deposit by an Approved Depository acting on behalf of a Clearing Member or a client thereof of the Underlying Interest of a Future to the Corporation through a Central Securities Depository.

# "Futures Margin Receipt" a receipt, in a form acceptable to the Corporation, issued by an Approved Depository.

"Futures Sub-Accounts Consolidated Activity Report" – the report created by the Corporation on a daily basis reporting the aggregate position held by a Clearing Member in each of its sub-accounts, which also contains the Settlement of Gains and Losses for that day with respect to each sub-account.

"Good Deliverable Form" – Underlying Interests shall be deemed to be in good deliverable form for the purposes hereof only if the delivery of the Underlying Interests in such form would constitute good delivery under the Contract Specifications.

-"Gross Delivery Requirement" – the quantity of Acceptable Securities required to be physically delivered through a Central Securities Depository by or to a Clearing Member, expressed on a gross basis, in accordance with Subsection D-606(10).

"Gross Payment Against Delivery Requirement" – the amount required to be paid against physical delivery through a Central Securities Depository by or to a Clearing Member, expressed on a gross basis, in accordance with Subsection D-606(10).

-"Guaranteeing Delivery Agent" – a Delivery Agent who bears the responsibility of guaranteeing the acquisition or delivery of the Underlying Interest in the event of a delivery failure.



"include", "includes" and "including" – where used in these Rules, means "include", "includes" and "including", in each case, without limitation.

"Insolvency Event" - has the meaning assigned to this term by subsection A-409(3).

"Insolvency Proceedings" – has the meaning assigned to this term by subsection A-409(3).

"In-the-Money-Option" – a call Option with an Exercise Price that is less than the Market Price of the Underlying Interest or a put Option where the Exercise Price exceeds the Market Price of the Underlying Interest.

"Instrument" – shall mean a bill, note or cheque within the meaning of the *Bills of Exchange Act* (Canada) or any other writing that evidences a right to the payment of money and is of a type that in the ordinary course of business is transferred by delivery with any necessary endorsement or assignment, but does not include a security.

"Intra-Day Net Payment Instruction(s)" – has the meaning assigned to this term by Section D-601.

"Intra-Day Net Payment Time" - has the meaning assigned to this term by Section D-601.

"Intra-Day Net Settlement Instruction(s)" – has the meaning assigned to this term by Section D-601.

"Joint Regulatory Financial Questionnaire and Report" – the documents required under the applicable rules of the Investment Industry Regulatory Organization of Canada.

"Liquidating Settlement Account" – the account created following the default of a Clearing Member to recognize the value of all gains, losses, and expenses due to or from the Non-Conforming Member during the liquidation of positions and Margin Deposits, in accordance with Section A-402.

"Long Position" – a Clearing Member's interest as:

- a) the holder of one or more Options of a Series of Options; or
- b) the buyer of one or more Futures of a Series of Futures; or
- c) the buyer of an Over-The-Counter Instrument.

"Margin" – any and all the deposits required or made pursuant to Rule A-7 Margin Requirements.

"Margin Deposit" – means, collectively,

- a) any and all Securities, <u>MoneyCash</u>, Instruments, cheques, Underlying Interest, Underlying Interest Equivalent, Long Positions and Short Positions;
- b) any and all of the deposits required or made pursuant to Rule A-6 Clearing Fund Deposits, Rule A-7 Margin Requirements, and Rule B-4 Delivery and Payment with Respect to Options Exercised, Rule C-5 Delivery of Underlying Interest of Futures and Rule D-3 Physical Delivery of Underlying Interest on Over-the-Counter Instruments, including Margin, Base Deposit, Additional Deposit, Variable Deposit, <u>Put Escrow Receipts</u>, <u>Safe Custody Receipts</u>, <u>Call</u> <u>Underlying Interest Deposits</u>, and <u>Escrow Receipts</u>, Futures <u>Margin Underlying Interest</u>



<u>Deposits</u>Receipts, puts and any other form of deposit as from time to time are accepted by the Corporation; and

c) any and all securities pledged or assigned to the Corporation through the facilities of a Central Securities Depository;

deposited by or on behalf of the Clearing Member with the Corporation.

"Mark-to-Market Valuation" – the value determined by the Corporation representing the liquidation value of a Transaction or account held by a Clearing Member as defined in Section D-202.

"Market Centre" – the local facility where the exchange of Underlying Interests occurs.

"Market Maker" – an individual who has been approved by the Exchange on which he trades to trade for his own account or for the account of the Exchange member or non-member by which he is employed or for which he acts as agent in Options or Futures, and may include a futures trader, an options trader, a trader member, a market maker and a market specialist.

"Market Maker Account" – the account or accounts required to be established for Exchange Transactions of the Clearing Member's Market Makers pursuant to Sections B-102, B-103, C-102 and C-103.

"Market Price" – the aggregate price of the Unit of Trading of the Underlying Interest as determined by the Exchange or Exchanges involved.

"Matured Amounts" – any financial cash flows resulting from the expiration of an OTCI.

"Maturity Date" – the date on which final obligations related to a Transaction are executed.

"Money" means the lawful currency of Canada or its equivalent in the lawful currency of any other country of the G-8.

"Multi-Purpose Account" – a Market Maker Account and/or a Netted Client Account.

"Net Daily Premium" – when applied to any account of a Clearing Member for any Settlement Time, means the net amount payable to or by the Corporation at such Settlement Time in respect of all Exchange Transactions of the Clearing Member in Options in such account as a purchasing Clearing Member and a writing Clearing Member.

"Net Daily Settlement" – the amount shown on a report ("Daily Settlement Summary Report").

"Net Delivery Requirement" – with respect to Acceptable Securities, the quantity thereof required to be physically delivered through a Central Securities Depository by or to a Clearing Member, expressed on a net basis, in accordance with Paragraph A-801(2)(c); and with respect to any Underlying Interest of an OTCI that physically settles other than Acceptable Securities, the quantity of such Underlying Interest needed to be delivered through the relevant Delivery Agent by or to a Clearing Member, expressed on a net basis, in accordance with Section D-303.

"Net Payment Against Delivery Requirement" – the amount required to be paid against physical delivery through a Central Securities Depository by or to a Clearing Member, expressed on a net basis, in accordance with Paragraph A-801(2)(b).



"Netted Client Account" - a type of Client Account that requires specific documentation be signed between the Clearing Member and the Corporation, in which the Transactions of a sole Client are held on a net basis.

"Netting Cut Off Time" – means, with respect to a Business Day and a Clearing Member, a time specified in the Operations Manual on such Business Day for purposes of determining, in respect of such Clearing Member, all net payment and delivery obligations owing by or to such Clearing Member in accordance with these Rules on such Business Day.

"Non-Conforming Member" – the meaning assigned to this term by Section A-1A04.

"Non-Payment of the Cash Settlement Amount following a Delivery Default" – has the meaning assigned to this term by subsection A-409(6).

"Notional Quantity" – the size of the OTCI transaction expressed either outright, or in accordance with the Unit of Trading and the number of contracts underlying the OTCI transaction.

"Open Interest" or "Open Position" – the position of a buyer or a seller of an Option, of a Future or of an OTCI.

"Opening Buy Transaction" – an Exchange Transaction the result of which is to create or increase a Long Position in the Series of Futures involved in such transaction.

"Opening Purchase Transaction" – an Exchange Transaction the result of which is to create or increase a Long Position in the Series of Options involved in such Exchange Transaction.

"Opening Sell Transaction" – an Exchange Transaction the result of which is to create or increase a Short Position in the Series of Futures involved in such transaction.

"Opening Writing Transaction" – an Exchange Transaction the result of which is to create or increase a Short Position in the Series of Options involved in such Exchange Transaction.

"Operations Manual" – the manual designated as such by the Corporation and any schedule to the Operations Manual including the Risk Manual, as amended from time to time.

"Option" – a contract which, unless otherwise specified, gives the buying Clearing Member the right to buy (a call) or sell (a put) a specified quantity of an Underlying Interest at a fixed price during a specified time period and which obligates the writing Clearing Member to sell (a call) or buy (a put) the Underlying Interest, pursuant to standardized terms and conditions set forth by the Exchange where the contract is concluded or to the terms determined by the Corporation as acceptable and which is cleared by the Corporation.

"Option Type" – put Option or call Option.

"Options Daily Transaction Report" – a report created by the Corporation providing the net premium payable/receivable.

"Out-of-the-Money Option" – a call Option with an Exercise Price that exceeds the Market Price of the Underlying Interest or a put Option where the Exercise Price is less than the Market Price of the Underlying Interest.



"Over-The-Counter Instrument" or "OTCI" – refers to any bilaterally negotiated transactions as well as any transactions concluded on any Acceptable Marketplaces.

"Payment Default" - has the meaning assigned to this term by subsection A-409(5).

"Postponed Payment Obligation" – with respect to the Corporation, the amount by which its Net Payment Against Delivery Requirement or its Gross Payment Against Delivery Requirement, as the case may be, in favour of a Provider of Securities has been reduced as a result of the Provider of Securities' failure to deliver Acceptable Securities on the Business Day they were due and the payment by the Corporation of such reduction has been postponed until full delivery by the Provider of Securities, the amount by which its Net Payment Against Delivery Requirement or its Gross Payment Against Delivery Requirement, as the case may be, in favour of the Corporation has been reduced as a result of the Corporation's failure to deliver Acceptable Securities on the Corporation has been reduced as a result of the Corporation's failure to deliver Acceptable Securities on the Business Day they were due and the payment by such Clearing Member of such reduction has been postponed until full delivery by the Corporation in accordance with Subsection A-804(2).

"President" – the person appointed by the Board as chief executive officer and chief administration officer of the Corporation.

"Product Type" – the attribute of an OTCI which describes the rights and obligations of the counterparties involved in the transaction insofar as cash flows are concerned.

"Provider of Securities" – a Clearing Member who owes to the Corporation a Net Delivery Requirement with respect to an Acceptable Security in accordance with Subsection D-606(3) and Paragraph A-801(2)(c) or a Gross Delivery Requirement with respect to an Acceptable Security in accordance with Subsection D-606(10), as the case may be.

"Put Escrow Receipt" – a receipt, in a form acceptable to the Corporation, issued by an Approved Depository certifying that it holds Cash in the amount of the Exercise Price of a put Option on behalf of a Clearing Member or a client thereof, in trust for the Corporation.

"Receiver of Securities" – a Clearing Member who is owed by the Corporation a Net Delivery Requirement with respect to an Acceptable Security in accordance with Subsection D-606(3) and Paragraph A-801(2)(c) or a Gross Delivery Requirement with respect to an Acceptable Security in accordance with Subsection D-606(10), as the case may be.

"Reference Price" – the price determined by the Corporation in accordance with Section D-201.

"Registry" – any registry designated by the Corporation which, for the purpose of clearing Futures Contracts on Carbon Dioxide Equivalent ( $CO_2e$ ) Units, has been established in order to ensure the accurate accounting of holding, transfer, acquisition, surrender, cancellation and replacement of the Carbon Dioxide Equivalent ( $CO_2e$ ) Units.

"Risk Limits" – refers to the set of risk management limits imposed by the Corporation on Clearing Members' clearing activities as updated from time to time by the Corporation.

"Risk Manual" – the manual designated as such by the Corporation and any schedule to the Risk Manual including the Default Manual, as amended from time to time.



"Rolling Delivery Obligation" – with respect to a Clearing Member who is a Provider of Securities, the quantity of a given Acceptable Security that it has failed to deliver to the Corporation under a Net Delivery Requirement under Paragraph A-801(2)(c) or Gross Delivery Requirement under Subsection D-606(10), as the case may be, on the Business Day it was due, which is rolled into the calculation of the next Business Day's Net Delivery Requirement (and the Net Delivery Requirement of each subsequent Business Day) of such Clearing Member, in accordance with, and until such time as set out under, Subsection A-804(1); and with respect to the Corporation and a Clearing Member who is a Receiver of Securities, the quantity of a given Acceptable Security that the Corporation has failed to deliver to such Clearing Member under a Net Delivery Requirement under Paragraph A-801(2)(c) or Gross Delivery Requirement under Subsection D-606(10), as the case may be, on the Business Day it was due (as a direct consequence of a Provider of Securities' failure to deliver all or a part of its Net Delivery Requirement or Gross Delivery Requirement, as the case may be, in respect of such Acceptable Security on such Business Day) which is rolled into the calculation of the Corporation's next Business Day's Net Delivery Requirement (and the Net Delivery Requirement of each subsequent Business Day) which is rolled into the calculation of the Corporation's next Business Day in favour of such Clearing Members, in accordance with, and until such time as set out under, Subsection A-804(2).

"Rules" – shall mean the Rules of the Corporation and the Operations Manual, as any such rules, and manual may from time to time be amended, changed, supplemented or replaced in whole or in part.

"SRO Clearing Member" – a Clearing Member that is within the audit jurisdiction of the Investment Industry Regulatory Organization of Canada.

"Safe Custody Receipt" a receipt, in a form acceptable to the Corporation, issued by an Approved Depository.

"Security" – shall mean a document that is

- (a) issued in bearer, order or registered form;
- (b) of a type commonly dealt in upon securities exchanges or markets or commonly recognized in any area in which it is issued or dealt in as a medium for investment;
- (c) one of a class or series or by its terms is divisible into a class or series of documents; and
- (d) evidence of a share, participation or other interest in property or in an enterprise or is evidence of an obligation of the issuer;

and includes such a document, not evidenced by a certificate, the issue and any transfer of which are registered or recorded in records maintained for that purpose by or on behalf of the issuer.

"Series of Futures" – all Futures of the same class covering the same quantity of an Underlying Interest and having the same delivery month.

"Series of Options" – all Options of the same class, the same type, covering the same quantity of an Underlying Interest and having the same Exercise Price and Expiration Date.

"Settlement Accounts" – has the meaning set out in Section A-217.



"Settlement Amount" – the amount calculated in accordance with these Rules payable to the delivering Clearing Member upon delivery of or cash settlement for the Underlying Interest in respect of a Transaction.

"Settlement of Gains and Losses" – the settlement with the Corporation of the gains and losses on Open Positions in Futures pursuant to Section C-302.

"Settlement Price" – the official daily closing price of a Future, as determined in accordance with Section C-301.

"Settlement Time" – means, with respect to a Transaction and a particular Business Day, the time on such Business Day as established by the Corporation in the Operations Manual and if no Business Day is specified, the time on the Business Day immediately following a trade day, a calculation date or a Coupon Payment Date, as applicable, as established by the Corporation in the Operations Manual, by which time Settlement of Gains and Losses, premium payments, all Margin requirements and all other payments in respect of such Business Day, trade day, calculation date or Coupon Payment Date must be submitted to the Corporation.

"Short Position" – a Clearing Member's obligation as:

- a) the writer of one or more Options of a Series of Options; or
- b) the seller of one or more Futures in a Series of Futures; or
- c) the seller of an Over-The-Counter Instrument.

## "Spread Position"

- a) the situation in which there is carried in a Clearing Member's Client Account both an Option in the Short Position and an Option of the same Class of Options in the Long Position; or
- b) the situation in which there is carried in a Clearing Member's Client Account both a Long Position and a Short Position in Futures.

"Straddle Position" – an equal number of call and put Options covering the same Underlying Interest and having the same Exercise Price and Expiration Date.

"Style of Options" – the classification of an Option as either an American Option or a European Option. (Parts A and B of these Rules shall apply to both Styles of Options unless a specific Style of Option is designated).

"Tender Notice" – a notice to the Corporation in the form prescribed by the Corporation, notifying the Corporation of the intent of the Clearing Member executing such notice to deliver the Underlying Interest of the Future.

"Termination Date" has the meaning assigned to this term by Subsection A-409(7).

"Termination Value" – means the amount determined by the Calculation Agent in accordance with subsection A-409(10).



"Trade Confirmation" – the official document issued to a Clearing Member which details the attributes of the OTCI transaction and which signals the acceptance of the transaction for clearing by the Corporation.

"Trade Price" – the price agreed upon for the Future when the contract is entered into on an Exchange.

"Transactions" – All Futures, Options and Over-The-Counter Instruments which are determined by the Corporation as acceptable for clearing.

"Type of Options" – the classification of an Option as either a "put" or a "call".

"Uncovered Residual Risk" – The amount of risk determined by the Corporation to be uncovered by the Margin model, resulting from an estimation of the loss the Corporation would face in an extreme but plausible market stress test scenario. This Uncovered Residual Risk is calculated and attributed to Clearing Members through their Clearing Fund contribution.

"Underlying Interest" – Asset which underlies and determines the value of a Derivative Instrument or of an OTCI. The Underlying Interest may be a commodity or a financial instrument such as a stock, a bond, a currency, a stock or economic index or any other asset.

"Underlying Interest Equivalent" – the items specified in Section A-708.

"Unit of Trading" – in respect of any Series of Futures and Series of Options and any Fixed Income Transaction means the number of units of the Underlying Interest which has been designated by the Corporation and the Exchange on which the Derivative Instrument is traded (as applicable) as the number to be the subject of a single Future or Option contract or of the Acceptable Security, as applicable.

"Variable Deposit" – the Clearing Fund deposit which may be required in addition to a Base Deposit pursuant to Section A-603.



# RULE A-1A MEMBERSHIP IN THE CORPORATION

## Section A-1A01 – Eligibility for Membership

- (a) In order to apply for membership, an applicant must be:
  - i) a member or approved participant in good standing with an exchange recognized in a Canadian province; or
  - ii) a bank or an authorized foreign bank to which the Bank Act (Canada), as amended from time to time, applies.

(b) A Clearing Member that intends to submit Stock Options or Share Futures to the Corporation for clearing must be a full member participant in good standing with CDS.

(c) A Clearing Member that intends to submit bond Options and/or bond Futures to the Corporation for clearing, must be a full member participant in good standing with CDS.

(d) A Clearing Member that intends to submit physically settled OTCI transactions to the Corporation for clearing, must ensure that it and/or its Client is in good standing and remains as such at all times with the appropriate Market Centres and/or Delivery Agents. Furthermore, and where appropriate, the Clearing Member and/or its Client need to ensure access to a transportation system for the physical transport of the Underlying Interest to the appropriate Market Centres and/or Delivery Agents.

(e) A Clearing Member that intends to submit Futures Contracts on Carbon Dioxide Equivalent (CO2e) Units with physical settlement to the Corporation for clearing must ensure that at all times it and/or its client is and remains in good standing with the Registry as this term is defined in Section A-102 of the Rules.

(f) A Clearing Member that intends to submit Fixed Income Transactions to the Corporation for clearing must be a full member participant in good standing with CDS.

The Corporation may in its sole discretion waive the requirements set forth in clauses (b), (c), (d), (e) or (f) if the Clearing Member enters into an agency agreement with another Clearing Member, which agency agreement shall be in form and substance satisfactory to the Corporation, pursuant to which such other Clearing Member agrees to act as the first Clearing Member's agent for the purpose of fulfilling such Clearing Member's obligations to the Corporation under these Rules and the Application for Membership.

## Section A-1A02 Standards of Membership

Every applicant to become a Clearing Member must meet such standards as may be adopted from time to time by the Board, including the following:

(a) the applicant must meet the minimum capital requirements then in effect, in accordance with Section A-301;

(b) the applicant must be engaged, or propose to engage, in the clearance of Options or Futures which are the subject of Exchange Transactions or in the clearance of Fixed Income Transactions or other OTCI transactions through the facilities of the Corporation;



(c) the applicant shall demonstrate to the Corporation that it maintains adequate operations facilities and staff and has sufficient and competent personnel for the expeditious and orderly transactions of business with the Corporation and other Clearing Members, and to meet the requirements of these Rules; and

(d) the applicant has deposited with the Corporation its initial deposit with the Clearing Fund in the amount and at the time required by the Rules and has signed and delivered to the Corporation an agreement in such form as the Board shall require.

### Section A-1A03 Admission Procedure

Applications for membership shall be in such form and contain such information as the Board shall from time to time prescribe. Officers of the Corporation shall review applications for membership and shall recommend approval or disapproval thereof to the Board. The Corporation may but is not obligated to examine the books and records of any applicant, and take such evidence as it may deem necessary or employ such other means as it may deem desirable or appropriate to ascertain relevant facts bearing upon the applicant's qualifications. If the officers of the Corporation propose to recommend to the Board that an application for membership be disapproved, it shall first notify the applicant of its proposed recommendation and the grounds therefore, and shall afford the applicant an opportunity to be heard and to present evidence on its own behalf.

If the applicant fails to request a hearing or if, after a hearing, officers of the Corporation still propose to recommend disapproval, officers of the Corporation shall make their recommendation to the Board in writing, accompanied by a statement of the grounds therefore, and a copy thereof shall be furnished to the applicant on request.

The Board shall independently review any recommendation by officers of the Corporation, and if the applicant so requests, afford the applicant further opportunity to be heard and to present evidence. If the Board disapproves the application, written notice of its decision, accompanied by a statement of the grounds thereof, shall be provided to the applicant.

An applicant shall have the right to present such evidence as it may deem relevant to its application.

Nothing contained herein shall be construed as derogating or attempting to derogate from the right of any applicant whose application has been disapproved to avail itself of any right of appeal which is provided to such applicant by applicable law.

## Section A-1A04 Non-Conforming Member

(1) A Clearing Member who is or may become insolvent or unable to meet its obligations shall immediately notify the Corporation of its situation by telephone. Such notice shall be confirmed by the Clearing Member by notice in writing to the Corporation sent by facsimile transmission within the next business day.

(2) A Clearing Member who, in the judgement of the Corporation or pursuant to notification to the Corporation under Subsection (1), is or may be insolvent or unable to meet its obligations, becomes a Non-Conforming Member.

(3) Without limiting the application of this Rule, any one of the following events, whether actual or anticipated by the Corporation, constitutes a reasonable ground for the Corporation to determine in its judgement that a Clearing Member is a Non-Conforming Member:



- (a) breach of any term, eligibility, qualification, standard or condition of the Application for Membership or any other violation of these Rules;
- (b) breach of a rule of an Exchange, a Central Securities Depository, an applicable selfregulatory organization or regulatory agency, or of any other recognized, designated or foreign investment exchange or clearing agency;
- (c) refusal of an application for membership, breach of the terms of membership or contractual agreement, or suspension, termination or expulsion from membership of an Exchange, a Central Securities Depository, an applicable self-regulatory organization, Market Centres and/or Delivery Agents, the Registry, or any other recognized, designated or foreign investment exchange or clearing agency;
- (d) refusal of a licence, breach of the terms of its licence or withdrawal or suspension of such licence by a regulatory agency;
- (e) contemplated, threatened or actual action by a regulatory agency, a court of justice or administrative authority against or in respect of the Clearing Member under any provision or process of law or regulation;
- (f) default in a payment, deposit, delivery or acceptance of delivery required or payable under the Application for Membership or these Rules;
- (g) an order, arrangement, proposal, distress or execution is presented, made or approved in any jurisdiction to or by a court of competent jurisdiction relating to the bankruptcy, insolvency, winding up of the Clearing Member or the appointment of an administrator, receiver manager, trustee, or person with similar power in connection with the Clearing Member;
- (h) the determination on reasonable grounds by the Corporation that the Clearing Member is in such financial or operating condition that its continuation as a Clearing Member in good standing would jeopardize the interests of the Corporation or other Clearing Members;-or
- (i) any of the conditions set out in paragraphs (a) to (h) applies to an Affiliate of a Clearing <u>Member; or</u>
  - (ij) such other event as the Board or, if time does not permit action by the Board, the Corporation in its sole discretion reasonably determines to constitute reasonable grounds for such determination.

(4) If a Clearing Member is late in making a payment at Settlement Time, the Corporation shall impose fines and may deem that Clearing Member a Non-Conforming Member, in accordance with Section 7 of the Operations Manual. In addition, the Board may take disciplinary measures set forth in Rule A-5 against the Non-Conforming Member.

(5) Except where the Corporation has been notified under Subsection (1), the Corporation shall, in writing or by telephone, notify a Clearing Member that it has become a Non-Conforming Member. The Corporation may also, in its sole discretion, notify the Board, all Clearing Members, the Exchanges, the appropriate self-regulatory organization or regulatory agency that the Clearing Member is a member of, the regulatory agency of the Corporation, and such other Entities as the Corporation may consider appropriate.



(6) The Corporation can revert the status of a Non-Conforming Clearing Member to a Clearing Member in good standing if the Clearing Member resolves, to the satisfaction of the Corporation, the issue(s) which led to its Non-Conforming status.

### Section A-1A05 Suspension

(1) The Board may suspend a Non-Conforming Member, taking into consideration whether the suspension may protect the integrity of the market.

(2) Upon such suspension, the Corporation shall cease to act for the suspended Non-Conforming Member.

(3) The suspension may be total or may be for any function with respect to a particular security or class of securities, with respect to a particular transaction or class of transactions, or with respect to securities or transactions generally. Any suspension may be limited to a particular location or office of the Non-Conforming Member.

(4) The Board may lift the suspension of the Non-Conforming Member if the Corporation in its sole discretion determines that the Non-Conforming Member has corrected the situation which caused the Corporation to suspend the Non-Conforming Member in such a manner that it is unlikely to occur again.

(5) A suspended Non-Conforming Member shall remain liable to the Corporation for all obligations, costs and expenses, including all Margin requirements, including calls whether occurring before or after suspension, and other requirements, arising out of or in connection with such Non-Conforming Member's positions, and shall cooperate fully with the Corporation in respect of all matters arising out of or relating to the settling of or dealing with such positions.

## Section A-1A06 Notice of Suspension to Clearing Members

Upon the suspension of a Non-Conforming Member, the Corporation shall notify all Clearing Members, the Exchanges, and the suspended Non-Conforming Member's applicable self-regulatory organization or regulatory agency, the regulatory agency of the Corporation and such other Entities as the Corporation may consider appropriate. Such notice shall state, in general terms, how pending Exchange Transactions, Open Positions, tendered Exercise Notices or Tender Notices, Exercised Positions, Assigned Positions, and other pending matters will be affected, what steps are to be taken in connection therewith, and the right of the suspended Non-Conforming Member to appeal the suspension before the Board.

## Section A-1A07 Appeal of Suspension

A Non-Conforming Member suspended pursuant to Section A-1A05 shall receive from the Corporation a written statement of the grounds for its suspension, and shall have the right to appeal its suspension within ten business days from the effective date of the suspension.

Where a suspended Non-Conforming Member appeals its suspension, the Board shall give the appellant the opportunity to be heard as promptly as possible, and in no event more than 14 days after the filing of the notice of appeal.

The appellant shall be notified of the time, place and date of the hearing not less than three business days in advance of such date. At the hearing, the appellant shall be afforded an opportunity to be heard



and to present evidence on its own behalf and may, if it so desires, be represented by counsel. As promptly as possible after the hearing the Board shall, by the vote of a majority of its members, affirm or reverse the suspension, and then instruct the Secretary of the Corporation to notify the appellant in writing of the decision. If the decision shall have been to affirm the suspension, the appellant shall be given a written statement of the grounds thereof.

The filing of an appeal of a suspension shall not impair the validity or stay the effect of the suspension appealed from. The reversal of a suspension shall not invalidate any acts of the Corporation taken prior to such reversal pursuant to such suspension and the rights of any person which may arise out of any such acts shall not be affected by the reversal of such suspension.

Nothing contained herein shall be construed as derogating or attempting to derogate from the right of any Clearing Member the suspension of which has been affirmed by the Board to avail itself of any right of appeal which is provided to such Clearing Member by applicable law.

## Section A-1A08 Termination of Membership

(1) The Board shall, at its next meeting following the calendar month in which the Non-Conforming Member is suspended, or if an appeal is heard pursuant to Section A-1A07, following the calendar month in which the Board has affirmed the decision to suspend, lift the suspension or terminate the membership in the Corporation of a suspended Non-Conforming Member.

(2) A Non-Conforming Member shall be given the opportunity to be heard by the Board before its membership is terminated.

(3) Fifteen business days before the meeting of the Board at which the termination of a suspended Non-Conforming Member is to be considered, the Corporation shall give to the suspended Non-Conforming Member notice in writing of the meeting and a summary of the reasons for the proposed termination.

(4) A committee of the Board shall not exercise the powers of the Board under this Rule, and the Board and the suspended Non-Conforming Member may mutually agree on a variation of such notification and meeting date.

(5) The suspended Non-Conforming Member shall cease to be a Clearing Member as of the date and hour specified in the written decision of the Board.

(6) The Corporation shall notify the regulatory bodies which have jurisdiction over the Corporation when a meeting of the Board is called to authorize the termination of the membership of a suspended Non-Conforming Member.

(7) The Corporation shall promptly notify other Clearing Members, the Exchanges, the suspended Non-Conforming Member's applicable self-regulatory organization or regulatory agency, the regulatory agency of the Corporation and such other Entities as the Corporation may consider appropriate, that the Board has terminated the membership of a suspended Non-Conforming Member, indicating the effective date of the termination.

#### Section A-1A09 Voluntary Withdrawal



(1) A Clearing Member which shall include a Non-Conforming Member (whether or not suspended) may at any time notify the Corporation in writing of its withdrawal as a Clearing Member and shall cease to be a Clearing Member thirty days following said notification.

(2) The Corporation shall promptly notify the Board, the other Clearing Members, the Exchanges, the suspended Non-Conforming Member's applicable self-regulatory organization or regulatory agency, the regulatory agency of the Corporation and such other Entities as the Corporation may consider appropriate, that it has received notice of the Clearing Member's withdrawal from membership in the Corporation and the effective withdrawal date.

### Section A-1A10 Transfer/Survival of Obligations

(1) A Clearing Member may not allocate or transfer any rights or obligations under any Transaction confirmed in its name except as otherwise expressly provided in these Rules or with the prior consent of the Corporation, in its sole discretion.

(2) The liabilities and obligations of a Clearing Member to the Corporation and to other Clearing Members, and of the Corporation and other Clearing Members to the Clearing Member, arising from its membership shall survive the suspension, termination or withdrawal of the Clearing Member's membership as though the former Clearing Member were still a Clearing Member.

(3) Nothing contained herein shall be construed as derogating or attempting to derogate from the right of any suspended or terminated Non-Conforming Member to avail itself of any right of appeal which is provided by applicable law.

## Section A-1A11 Reinstatement of membership

(1) A Clearing Member which has withdrawn as a Clearing Member or had its membership terminated may at any time be considered for reinstatement by the Board provided that the Clearing Member, if it is then eligible for membership, re-applies to become a Clearing Member, pays any entrance or reinstatement fee determined by the Board, meets the standards and qualifications for membership, demonstrates to the satisfaction of the Board that it has discharged all of its liabilities and indebtedness to the Corporation and the other Clearing Members, and the application for membership is accepted by the Board.

(2) The Board may, in its sole discretion and on terms and conditions determined by the Board, approve or reject the new application for membership from a terminated or withdrawn Clearing Member. A committee of the Board shall not exercise the powers of the Board under this Rule.



# **RULE A-2 MISCELLANEOUS REQUIREMENTS**

#### Section A-201 Offices

Every Clearing Member shall maintain an office at a location approved by the Corporation. A representative of the Clearing Member authorized in the name of the Clearing Member to sign all instruments and take all action necessary for conducting business with the Corporation shall be present at such office on every Business Day between such hours as may be specified from time to time by the Corporation. Such representative shall be subject to the approval of the Corporation and shall be authorized to act on behalf of the Clearing Member by a written power of attorney in the case of a partnership or by a resolution of the board of directors in the case of a corporation. Such power of attorney or resolution, as the case may be, shall be in a form approved by the Corporation.

## Section A-202 Evidence of Authority

- (1) Every Clearing Member shall file with the Corporation a certified list of the signatures of the representatives ("Authorized Representatives") of such Clearing Member (including partners and officers) who are authorized to sign certificates, cheques, agreements, receipts, orders and other papers necessary for conducting business with the Corporation, together with an executed copy of the powers of attorney, resolutions or other instruments giving such authority.
- (2) Any Clearing Member who has given a person a power of attorney or other authorization to transact business with the Corporation shall, immediately upon the withdrawal, retirement, resignation or discharge of such person or the revocation of his power to act, give written notice of such fact to the Corporation.
- (3) (a) where a document is presented by a Clearing Member to the Corporation which bears an authorization stamp of a Clearing Member in the form approved by the Corporation or,
  - (b) where data is transferred electronically from a Clearing Member to the Corporation,

the Corporation shall be entitled to assume the authenticity of the authorization stamp and the authority of the person presenting the document or initiating the electronic transfer to do so on behalf of the Clearing Member.

(4) The Corporation shall be entitled to rely and act upon any instruction given hereunder. The Corporation shall be under no obligation to ensure the genuineness or validity of any signature purporting to be that of an authorized signatory of the Clearing Member, of any stamp purporting to be an authorized stamp, or of the authority of any person initiating any electronic data transfer. The Corporation shall have no responsibility in the event that any such signature, stamp or data is forged, unauthorized or otherwise invalid or ineffective.

### Section A-203 Receipt of Documents

(1) A box or other facility at an office of the Corporation (or of a designated agent of the Corporation) will be assigned to each Clearing Member for the distribution of forms, papers, documents, notices, statements and such other items as the Corporation deems appropriate. An item deposited in Clearing Member's box shall be deemed received by such Clearing Member when deposited.



(2) Every Clearing Member shall be responsible for sending an Authorized Representative at an office of the Corporation for receipt of cheques, drafts and all items placed in the box of the Clearing Member at such intervals as may be necessary for the Clearing Member to perform all obligations and duties required by these Rules.

### Section A-204 Documents and Other Items Submitted to the Corporation

All reports, documents, papers, statements, notices, cheques, drafts, certificates of deposit and other items required by the Rules to be submitted to the Corporation shall, except as may otherwise be specifically prescribed by the Rules, be delivered to the designated office of the Corporation or its agent at such times, on such forms and in such manner as the Corporation shall prescribe. Each item delivered to the Corporation shall clearly indicate the identity of the Clearing Member making such submission.

#### INTERPRETATION AND POLICIES

- 01. Every Clearing Member shall be required to use an authorization stamp, in a form approved by the Corporation, in lieu of manual signatures, on such reports, documents, papers, statements, notices, and other items as the Corporation shall from time to time prescribe.
- 02. The Corporation shall provide each Clearing Member with two authorization stamps at no charge. Any additional authorization stamps requested by a Clearing Member will be charged by the Corporation to such Clearing Member based upon the Corporation's costs. In lieu of an authorization stamp provided by the Corporation, a Clearing Member may use a member-selected authorization stamp, provided that the stamp meets such requirements as the Corporation may from time to time impose with respect to format and content and the Clearing Member files with the Corporation such documentation as the Corporation may require authenticating the member-selected authorization stamp.
- 03. Each Clearing Member shall be bound by all such reports, documents, papers, statements, notices and other items as the Corporation shall prescribe pursuant to Paragraph 01. above, bearing the Clearing Member's authorization stamp.

#### Section A-205 Records

- (1) Every Clearing Member shall keep up to date records showing, with respect to each Transaction:
  - (a) the names of the parties to the Transaction;
  - (b) the trade date;
  - (c) the name of the client;
  - (d) if in respect of a Future, the Class and Series of Futures, the Underlying Interest, the number of contracts, the contract price, the delivery month and year, whether the transaction was a buy or sell transaction and whether it was an opening or closing transaction;
  - (e) if in respect of an Option, the Class and Series of Options, the Underlying Interest, the number of contracts, the premium, the Exercise Price, the expiry month, whether the transaction was a purchasing or a writing transaction and whether it was an opening or a closing transaction;



- (f) if in respect of any OTCI the trade details as specified in the Trade Confirmation, and
- (g) such other information as may from time to time be required by law, regulation, an Exchange or the Corporation.
- (2) Every Clearing Member shall retain and keep readily accessible to the Corporation in a form acceptable to the Corporation, all records required by these Rules, including without limitation, the records referred to in Subsection A-205(1), for at least seven (7) years from the end of the calendar year to which such records relate in such form as the Corporation may authorize. The Corporation shall be entitled to inspect or take temporary possession of any such records at any time upon demand. All reports shall be available to the Corporation no later than 8:00 a.m. on the Business Day immediately following the report date. A Clearing Member must file any information requested by the Corporation within the time period specified in such demand.

### Section A-206 Notices and Reports by the Corporation

- (1) (a) Unless otherwise specifically provided for in any other Rule, the Corporation may give notice to a Clearing Member in such manner as the Corporation deems appropriate in the circumstances of the notice being given, including by telephone, by hand delivery, by fax and by Electronic Communication.
  - (b) Each Clearing Member shall by notice in writing signed by a Clearing Member's Authorized Representative provide to the Corporation the names of at least two individuals and their positions for the purposes of telephone communications. The Corporation shall attempt to contact such individuals (or any other persons at the Clearing Member holding such positions) (the "CDCC Contacts") in connection with all telephone communications during business hours. If the CDCC Contacts are not available, the Corporation shall be entitled, during business hours, to provide telephone communications to any person answering the telephones at the Clearing Member. All telephone communications by the Corporation will be logged, electronically or manually, by the Corporation in one or more files ("Notice Files") kept for that purpose, recording the time and subject matter of the call, the individual at the Corporation who made the call and the individual at the Clearing Member who received the call. The Notice File, absent manifest error, shall be deemed to be correct.
  - (c) Telephone communications given in accordance with Paragraph A-206(1)(b) or in accordance with Subsection A-206(6) shall constitute full and proper notice notwithstanding the absence of any written or electronic confirmation of same.
  - (d) For the purposes of this Section A-206, "business hours" shall mean from 8:00 a.m. to the Close of Business on any Business Day.
- (2) The Corporation may from time to time prescribe the form of reports to be given by the Corporation to Clearing Members. These reports may be sent by hand delivery, fax or Electronic Communication.
- (3) Each Clearing Member shall maintain a computer system at the Clearing Member's designated office capable of obtaining, displaying and receiving Electronic Communications from the Corporation. Each Clearing Member shall have an obligation to review promptly each report, notice, instruction, data or other information made available by the Corporation to such Clearing Member through Electronic Communication. Each Clearing Member shall be responsible for advising the Corporation



by telephone (confirmed in writing), fax or hand delivered notice on the Business Day on which a report is deemed to have been received or the Expiration Date of any item requiring change for any reason and the failure to report any such required change by such time shall constitute a waiver of the Clearing Member's right to have such item changed.

- (4) Upon the Corporation delivering or making available a notice or report in accordance with this Section A-206, the Corporation's obligation to furnish, issue or deliver such notice or report shall have been fulfilled.
- (5) Subject to Subsection A-206(6):
  - (a) a notice given by telephone shall be deemed to have been received by a Clearing Member as of and to be effective from the time of the telephone call to an individual in accordance with Paragraph A-206(1)(b) or Subsection A-206(6), as the case may be, as recorded in the relevant Notice File, unless the notice or another Rule specifically provides otherwise;
  - (b) a notice given or report sent by fax shall be addressed to one or more of the CDCC Contacts and shall be deemed to have been received as of and, unless otherwise stated, to be effective from and after the time of the fax on the day it is sent, unless the notice or another Rule specifically provides otherwise;
  - (c) a notice or report given by Electronic Communication shall be addressed to one or more of the CDCC Contacts and shall be deemed to have been received on and to be effective as of the day it is sent, unless the notice or another Rule specifically provides otherwise; and
  - (d) a notice given by mail shall be addressed to one or more of the CDCC Contacts and shall be deemed to have been received and to be effective on the fifth day after mailing and a notice given or report sent by hand delivery shall be addressed to one or more of the CDCC Contacts and shall be deemed to have been received and to be effective on the earlier of when it actually is received by the Clearing Member and the next Business Day immediately following the date it was sent.
- (6) Where a notice is given or a report is sent by any means out of business hours or on a day that is not a Business Day, the notice or the report, as the case may be, shall be deemed to have been received on the earlier of
  - (a) the time the Corporation confirms it has actually been communicated to a responsible individual with the Clearing Member; and
  - (b) the beginning of the next following Business Day.

For greater certainty, under Paragraph A-206(6)(b), where a notice is given or report is received prior to 9:00 a.m. on a Business Day, it shall be deemed to have been received not later than 9:15 a.m. on that Business Day. The Corporation shall maintain a list of emergency contact telephone and/or fax numbers of not less than three responsible individuals employed by each Clearing Member with whom the Corporation can communicate out of ordinary business hours if the Corporation determines such communication is necessary or advisable. It shall be the responsibility of each Clearing Member to ensure that the individuals so selected can be readily contacted outside of ordinary business hours, and that the contact numbers for them are kept current.



### Section A-207 Payment of Fees and Charges

- (1) The Corporation may levy such fees and charges related to such services provided to Clearing Members as it deems appropriate. All or any part of the proceeds from such levy may be applied to such purposes as the Corporation shall determine from time to time.
- (2) Fees and charges owing by a Clearing Member to the Corporation shall be due and payable within 30 days following the date of the invoice.

### Section A-208 Force majeure or Emergency

On the happening of a *force majeure* or an Emergency, the Corporation is entitled to take such action as it deems necessary and appropriate or require any Clearing Member to take such action as the Corporation may direct in respect of the same. In taking such action, the Corporation reserves the right, with regards to the settlement of a Transaction, to make a cash settlement in lieu of the delivery of the Underlying Interest.

### Section A-209 Time

All times herein are Eastern Time prevailing in Montreal and Toronto at the time of the event.

### Section A-210 Distribution of Information, Confidentiality and Use of CDCC Materials

- (1) Clearing Member Information
  - (a) The Corporation may provide, on a confidential basis, any information regarding a Clearing Member to the Exchange(s) of which the Clearing Member is a member, the Clearing Member's applicable self-regulatory organization or regulatory agency, as the case may be, other clearing organizations of which the Clearing Member is a member, Market Centres, Delivery Agents, any Central Securities Depository, any Acceptable Marketplace, the Corporation's auditors and any regulatory authority having jurisdiction over the Corporation, and such other persons and organizations as the Corporation may consider appropriate, when, in the opinion of the Corporation, such information is relevant to the preservation of the integrity of the securities industry and derivative markets or the provision of such information is in the public interest.
  - (b) The Corporation may also receive, on a confidential basis, any information regarding a Clearing Member from the Exchange(s) of which the Clearing Member is a member, the Clearing Member's applicable self-regulatory organization or regulatory agency, as the case may be, other clearing organizations of which the Clearing Member is a member, Market Centres, Delivery Agents, any Central Securities Depository, any Acceptable Marketplace, the Corporation's auditors and any regulatory agency having jurisdiction over the Corporation, and such other persons and organizations as the Corporation may consider appropriate. Where in the opinion of the Corporation such information is relevant, the Corporation shall be entitled to rely upon such information for the purposes, among others, of Rule A-3, Capital Requirements.
  - (c) Each Clearing Member, by virtue of its membership in the Corporation, is deemed to have authorized the Corporation to provide any information regarding the Clearing Member to the Exchange(s) of which the Clearing Member is a member, the Clearing Member's applicable



self-regulatory organization or regulatory agency, as the case may be, other clearing organizations of which the Clearing Member is a member, Market Centres, Delivery Agents, any Central Securities Depository, any Acceptable Marketplace, the Corporation's auditors and any regulatory agency having jurisdiction over the Corporation, and such other persons and organizations as the Corporation may consider appropriate.

- (d) Each Clearing Member, by virtue of its membership in the Corporation, is deemed to have authorized the Corporation to receive any information regarding the Clearing Member from the Exchange(s) of which the Clearing Member is a member, the Clearing Member's applicable self-regulatory organization or regulatory agency, as the case may be, other clearing organizations of which the Clearing Member is a member, Market Centres, Delivery Agents, any Central Securities Depository, any Acceptable Marketplace, the Corporation's auditors and any regulatory agency having jurisdiction over the Corporation, and such other persons and organizations as the Corporation may consider appropriate.
- (e) Each Clearing Member, by virtue of its membership in the Corporation, is deemed to have authorized the Corporation to release any information regarding the Clearing Member that is in a statistical summary or other format, provided the information does not specifically identify a particular Clearing Member.
- (f) The Clearing Member, by virtue of its membership in the Corporation, is deemed to have released the Corporation and each of its directors, officers and employees from any and all liability whatsoever which may arise by virtue of information being furnished to the Corporation or any organization considered appropriate, for such purposes, by the Corporation.
- (2) Corporation Confidential Information
  - (a) A Clearing Member will not disclose any Confidential Information to any person and will not copy, reproduce or store in a retrieval system or data base any Confidential Information except for such copies and storage as may be required by the Clearing Member for its own internal use when employing the Corporation's Clearing System.
  - (b) The Confidential Information will remain the exclusive property of the Corporation or the relevant third party.
  - (c) A Clearing Member will take reasonable security measures and use reasonable care to protect the secrecy of, and to avoid the disclosure to or use by third parties of, Confidential Information.
  - (d) Upon ceasing to be a Clearing Member or at any time upon the request of the Corporation, the Clearing Member will delete any Confidential Information from all retrieval systems and data bases or destroy same as directed by the Corporation and provide the Corporation with an officer's certificate attesting to such deletion or destruction.

For the purposes of this Subsection A-210(2), "**Confidential Information**" means all information relating to the Corporation, including all CDCC Material and any other information relating to its Clearing System such as trading data or procedures furnished by or on behalf of the Corporation to a Clearing Member, regardless of the manner in which it is furnished (whether oral or in writing or in any other form or media), but does not include:



- (b) information that is already published or otherwise is or becomes readily available to the public, other than by a breach of the Rules;
- (c) information that is rightfully received by the Clearing Member from a third party not in breach of any obligation of confidentiality to the Corporation;
- (d) information that is proven to be known by the Clearing Member on a non-confidential basis prior to disclosure by the Corporation; or
- (e) information that is proven to be developed by the Clearing Member independent of any disclosure by the Corporation.
- (3) Use of CDCC Materials
  - (a) The Corporation grants each Clearing Member a limited, non-exclusive, revocable and nontransferable license to use CDCC Materials only for uses directly related to the Clearing Member's use of the Corporation's Clearing System. The Clearing Member will not use CDCC Materials or any information obtained or derived from CDCC Materials except in accordance with this license. The Clearing Member acknowledges and agrees that all ownership right in the CDCC Materials belongs to the Corporation or its suppliers.
  - (b) If a Clearing Member (with CDCC's permission) discloses CDCC Materials or any information obtained or derived from CDCC Materials to a client (including to any of its Affiliates) receiving services from a Clearing Member, the Corporation may require the Clearing Member to obtain an undertaking from such client to comply with Section A-210 in its use of CDCC Materials or any information obtained or derived from CDCC Materials.
  - (c) Except as provided in Paragraphs (a) and (b) of this Subsection A-210(3), a Clearing Member will not: (i) copy or modify the CDCC Materials; (ii) sell, sublicense or otherwise transfer the CDCC Materials to any third party; (iii) reverse engineer or create derivative works based on the CDCC Materials; or (iv) use, disclose or communicate CDCC Materials or any information obtained or derived from CDCC Materials to or for the benefit of any third party or any Affiliate of the Clearing Member by any means whatsoever whether as a back-office service provider, outsourcer, or wholesaler to any third party or Affiliate of the Clearing Member or for the benefit of any joint venture or partnership to which the Clearing Member is a party.
- (4) For the purposes of this Section, the term "Clearing System" shall have the meaning ascribed to it in Subsection A-215(3).

#### Section A-211 Notice of Proposed Amendments to Rules

As required by law, the Corporation shall provide all Clearing Members with the text of any proposed rule change and a statement of its purpose and effect on Clearing Members. This Section A-211 shall not require the Corporation to provide Clearing Members with any proposed rule change in the cases where notice is not required by law including (i) the Corporation is of the opinion that an emergency requires the rule change without public consultation, (ii) the change is in respect of a new derivative, (iii) where the impact of a change on a Clearing Member is minor, (iv) the change pertains to a routine operational process or an administrative practice, (v) the change is intended for purposes of



harmonization or compliance with an existing rule or with legislation, or (vi) the change corrects an error of form, a clerical error, a mistake in calculation or makes stylistic changes. The non-receipt by any Clearing Member of proposed rule changes under this Section A-211 shall not affect the validity, force or effect of any action taken by the Corporation pursuant thereto.

### Section A-212 Deposits and Withdrawals

### (1) General

- (a) From time to time, each Clearing Member will be required to make payments, deposits or transfers of <u>cashCash</u>, Securities, certificates, property, Underlying Interests, Underlying Interest Equivalents or other interests or rights to the Corporation under these Rules, to assure the performance of the obligations of such Clearing Member or to fulfil such Clearing Member's obligations to the Corporation hereunder.
- (b) Each payment, deposit or transfer, whether of eashCash, Securities, certificates, property, Underlying Interests, Underlying Interest Equivalents or other interests or rights (a "Deposit") shall be deemed to have been made at the time that (i) the Deposit has been delivered to and accepted by the Corporation, (ii) where the Corporation has the authority or under these Rules is entitled to transfer or apply any monies, securities or position from any Clearing Member's account, whether such account is held at the Corporation or elsewhere, at the time such transfer or application is effected by the Corporation, or (iii) a Safe Custodya Put, Escrow or Futures Margin Receipt, a Call Underlying Interest Deposit or a Futures UnderlyingMargin Interest Deposit has been accepted by the Corporation.
- (c) At the time of any Deposit hereunder, the Clearing Member shall indicate on the appropriate form filed with the Corporation the details and purpose of the Deposit.
- (2) Deposits of Safe Custody Put Custody Receipts, Escrow Receipts, Call Underlying Interest Deposits or Futures Margin-Underlying Interest DepositsReceipts will be accepted only if the Approved Depository has agreed in writing in the form prescribed by the Corporation, that:
  - (a) the Deposit has been received by such Approved Depository and is in Good Deliverable Form;
  - (b) the Deposit shall be immediately delivered to the order of the Corporation in accordance with the terms and conditions of <u>athe depository Depository agreement Agreement made</u> between such Approved Depository and the Corporation (i) with respect to a Put Escrow Receipt, on demand at any time during the period the Corporation holds the Safe Custody Put Receipt, Escrow Receipt, and (ii) with respect to a Call Escrow ReceiptUnderlying Interest Deposit or Futures Margin Underlying ReceiptInterest Deposit, by being pledged to the Corporation through a Central Securities Depository during the life of the relevant call Option or FutureReceipt;
  - (c) the Deposit shall remain (i) with respect to a Put Escrow Receipt, on deposit with the Approved Depository in trust for the Corporation until either the Safe Custody Put Escrow Receipt, Escrow Receipt or Futures Margin Receipt therefor is returned to the Approved Depository, or the Deposit is delivered to the order of the Corporation in accordance with Paragraph (b) hereof on demand in accordance with the relevant Put Escrow; and



- ) the Corporation shall have the right to hold the Safe Custody-Receipt and the terms of the Depository Agreement; and (ii) with respect to a Call Underlying Interest Deposit or Futures Underlying Interest Deposit, on deposit with the Corporation through a Central Securities Depository until the Call Underlying Interest Deposit or Futures Underlying Interest Deposit is returned to the Approved Depository, or the Deposit is seized by the Corporation in accordance with the terms of the Depository Agreement; and
- (d) the Corporation shall have the right to hold the <u>Safe Custody Put Escrow Receipt, Call</u> <u>Underlying Interest Deposit or Futures Underlying Interest Deposit, Escrow Receipt or</u> <u>Futures Margin Receipt</u> until the Corporation is satisfied, following the filing of a withdrawal request pursuant to this Section, that all <u>margin Margin</u> required has been deposited with the Corporation.
- (3) The Clearing Member shall deliver the Deposit or the original of the Safe Custody Receipt, Escrow Receipt or Futures Margin Receipt to the Corporation (together with such covering forms as the Corporation may require), between the hours specified by the Corporation. Clearing Members shall ensure that at all times their Margin Deposits are not held by them but by the Corporation or an Approved Depository.
- (4) A Deposit or a Safe Custody Receipt, Escrow Receipt or Futures Margin Receipt may be withdrawn by a Clearing Member between the hours specified by the Corporation; provided, however, that the Corporation may continue to hold a Deposit, or a Safe Custody Receipt, Escrow Receipt or Futures Margin Receipt:
  - (a) following the Expiration Date of the relevant Options until all obligations of the Clearing Member arising from the assignment of Exercise Notices have been performed; or
  - (b) following the acceptance of a Tender Notice until all obligations of the Clearing Member arising from the delivery of or payment for the Underlying Interest have been performed.;
- (c) in relation to a Deposit in a Clearing Fund, until all obligations of the Clearing Members have been performed.

A Clearing Member seeking to withdraw a Deposit or a Safe Custody Receipt, Escrow Receipt or Futures Margin Receipt shall submit a duly completed withdrawal request in the form prescribed by the Corporation and must comply with the applicable notice requirements as set out in the Operations Manual.

- (5) Safe Custody-Put Receipts and Escrow Receipts, Call Underlying Interest Deposits and Futures UnderlyingEscrow ReceiptsInterest Deposits which relate to the Underlying Interests and shall be deemed Underlying Interest Equivalents detailed in accordance within Section A-708. for equity, bond, cash settlement and short term money market vehicle Options shall be acceptable. In addition Safe Custody Receipts which relate to Deposits in a Clearing Fund under Section A-608 and to Margin Deposits under Section A-709 shall also be acceptable.
- (6) **Deposits**



- (a) At the time of the delivery of a Deposit-other than a Safe Custody Receipt or Escrow Receipt, the Clearing Member shall indicate on the appropriate form filed with the Corporation whether the Deposit is a 'bulk deposit' or a 'specific deposit'.
- (b) A bulk deposit may be made in respect of any number of unspecified Option Short Positions or unspecified Futures <u>Short Pp</u>ositions held in the account of the Clearing Member for which the Deposit is made.
- (c) A specific deposit may be made only of Underlying Interest or Underlying Interest Equivalent held for the account of a named depositor in respect of a specified <u>put or</u> call Option Short Position or specified Futures <u>Short Pposition</u> held by the Clearing Member for such depositor. The Clearing Member shall maintain a record of each specific deposit, identifying the depositor, the account in which the Underlying Interest or Underlying Interest Equivalent is held and the specified positions for which the specific deposit has been made.
- (d) No Underlying Interest or Underlying Interest Equivalent held for the account of a Client may be deposited hereunder in respect of a position in any account other than a Client Account. No Underlying Interest or Underlying Interest Equivalent held for any Market Maker may be deposited hereunder in respect of a position in any account other than such Market Maker Account.
- (e) The Deposit hereunder by a Clearing Member of any Underlying Interest or Underlying Interest Equivalent held for the account of any Client may be made only to the extent permitted by applicable law, regulations and policies of the Corporation and shall constitute the certification of the Clearing Member to the Corporation that such Deposit does not contravene any provision of applicable law, regulations or policies of the Corporation.
- (f) The Clearing Member shall not deposit hereunder more Underlying Interest or Underlying Interest Equivalent held for a Client Account than is fair and reasonable in light of the indebtedness of the Client to such Clearing Member and the Client's positions with the Clearing Member.
- (g) The Corporation shall not use any Underlying Interest or Underlying Interest Equivalent in bulk deposit in a Client Account or a Market Maker Account, or the proceeds therefrom, to satisfy any obligation of the Clearing Member to the Corporation other than an obligation arising out of such Client Account or Market Maker Account.

## (7) Safe Custody Receipts

-Safe Custody Receipts shall be used only for:

(a) deposits made in respect of any number of unspecified Option Short Positions, unspecified Futures positions held in the account of the Clearing Member for which the Deposit is made, or

(b) deposits made in respect of a Clearing Fund.

(8<u>7</u>) **Escrow Depository Receipts** 



- (a) A Clearing Member may file an Escrowa Depository Receipt issued by an Approved Depository (in the form approved by the Corporation) which certifies that the Underlying Interest or Underlying Interest Equivalent described therein is held by such Approved Depository to the order of in trust for the Corporation (in the case of a Put Escrow Receipt) or is pledged to the Corporation through a Central Securities Depository (in the case of a Call Underlying Interest Deposit or Futures Underlying Interest Deposit) on the instructions of a named depositor.
- (b) Pending the issuance of an Escrow Receipt by an Approved Depository a Clearing Member may deposit with the Corporation a letter of guaranty issued by such Approved Depository. Such letter of guaranty shall be in the form prescribed by the Corporation.
- (eb) In the event any Short Position in a call Option for which an Escrow Depository Receipt has been deposited is closed out by a Closing Purchase Transaction or by a Closing Buy <u>Transaction, as the case may be</u>, the Clearing Member making such Deposit <u>mayshall</u> promptly request the withdrawal of the <u>Escrow Depository</u> Receipt evidencing such Deposit.
- (dc) If an Exercise Notice is assigned to a Clearing Member in respect of a call Option included in a Short Position of a Client Account maintained by such Clearing Member, no Escrow Receipt may thereafter be deposited in respect of such Option. If an Escrow Receipt shall previously have been deposited by such Clearing Member in respect of such Option, the Clearing Member shall be obligated to deposit with the Corporation no later than Settlement Time on the second Business Day immediately following the day on which the Exercise Notice was assigned, margin in respect of such Option or a Future withdrawal of a Depository Receipt issued in respect of a put or call Option or a Future while it is still outstanding, it may do so subject to satisfying the Margin requirement with respect thereof. When such margin Margin is deposited, the Corporation will release and return the Escrow Depository Receipt previously filed in respect of such put or call Option or Future, as the case may be.

## (8) Approved Depositories

<u>Clearing Members acknowledge and agree that the Corporation will accept that Deposits be made</u> through an Approved Depository in accordance with these Rules on the basis that the Approved Depository meets the following criteria:

- (a) It is (i) a trust company to which the *Trust and Loan Companies Act* (Canada) applies or subject to the *Loan and Trust Corporations Act* (Ontario) or *An Act Respecting Trust Companies and Savings Companies* (Quebec) or equivalent legislation of other provinces of Canada, or (ii) such other institution as the Board may, in its sole discretion, approve from time to time;
- (b) It has a minimum capital of \$25,000,000, for which current audited financial statements are available;
- (c) It enters into a Depository Agreement with the Corporation in acceptable form;
- (d) It enters into an agreement with the depositor (either a Clearing Member or a client of a Clearing Member) wishing to make Deposits in the form of Cash to be held in trust for the A-31



Corporation and certified by Put Escrow Receipts, and/or Call Underlying Interest Deposits and/or Futures Underlying Interest Deposits to be pledged to the Corporation through a Central Securities Depository pursuant to Section A-708, which agreement shall clearly set forth the conditions under which the Approved Depository will handle such Deposits, issue Depository Receipts and honour the Corporation's demands for release in respect of Put Escrow Receipts, consistent with the terms of the Depository Agreement;

- (e) It holds each Deposit that is the object of a Put Escrow Receipt as custodian for the account of the depositor in trust for the Corporation with the express authority from the depositor to act in such capacity in respect of a specific put Option:-
- (f) It holds each Deposit that is the object of a Put Escrow Receipt free from liens or encumbrances and does not subject it or any part of it to any right (including any right of set-off), charge, security interest, lien or claim of any sort in its own or in any third party's favour;
- (g) It is duly authorized by the depositor to release a Deposit that is the object of a Put Escrow Receipt in favour of the Corporation in accordance with the terms of the Depository Agreement;
- (h) It pledges on behalf of the depositor each Deposit that is the object of a Call Underlying Interest Deposit to the Corporation through a Central Securities Depository with the express authority from the depositor to effect such pledge of the relevant Underlying Interest in respect of a specific a call Option;
- (i) It pledges on behalf of the depositor each Deposit that is the object of a Call Underlying Interest Deposit free from liens or encumbrances and does not subject it or any part of it to any right (including any right of set-off), charge, security interest, lien or claim of any sort in its own or any third party's favour;
- (j) It pledges on behalf of the depositor each Deposit that is the object of a Futures Underlying Interest Deposit to the Corporation through a Central Securities Depository with the express authority from the depositor to effect such pledge of the relevant Underlying Interest in respect of a specific Future; and
- (k) It pledges on behalf of the depositor each Deposit that is the object of a Futures Underlying Interest Deposit free from liens or encumbrances and does not subject it or any part of it to any right (including any right of set-off), charge, security interest, lien or claim of any sort in its own or any third party's favour.

## (9) Futures Margin Receipts

The Clearing Member may file a Futures Margin Receipt issued by an Approved Depository (in the form approved by the Corporation) which certifies that the security described therein is held by such Approved Depository to the order of the Corporation on the instructions of a named depositor.

## Section A-213 Accounts with Financial Institutions



Every Clearing Member shall designate an account or accounts established and maintained by it in a Canadian financial institution acceptable to the Corporation for each currency of the Transactions that it enters into.

### Section A-214 Electronic Interfaces

As many functions previously conducted by the movement of paper between the Corporation and Clearing Members are now, or will in the future be, executed by electronic transfers of data to and from the Corporation, the words "access", "deliver", "furnish", "instruct", "issue", "make available", "notify", "receive", "submit" and "tender" shall include, where appropriate, the movement of information by electronic means between the Corporation and a Clearing Member.

## Section A-215 Liability

- (1) Notwithstanding anything to the contrary in the Rules, all obligations of the Corporation described in the Rules are solely to its Clearing Member. For greater certainty, the Rules are not to be interpreted or construed to imply that the Corporation has any obligation to any Entity other than its Clearing Members. Without limiting the generality of the foregoing, the Corporation is also not liable for obligations of a non-Clearing Member, or of a Clearing Member to a non-Clearing Member, of a Clearing Member to another Clearing Member who is acting for it as an agent, or obligations to a Client by a Clearing Member, nor shall the Corporation become liable to make deliveries to or accept deliveries from any such Entity.
- (2) Notwithstanding the fact that a Clearing Member may not be a member of an Exchange on which Options or Futures trade, such Clearing Member shall nonetheless be subject to the position limits, exercise limits and any risk limits established by such Exchange.
- (3) For the purposes of this Section, the term "Clearing System" shall mean both clearing systems and electronic data transmission systems and includes the CDCC Materials and all the facilities and services provided by the Corporation to Clearing Members in connection with the acceptance and/or clearance of Transactions including, but not limited to, clearing and settlement, margining, holding of deposits and the preservation or communication of data in or through any computer or electronic data transmission system.
- (4) The Corporation shall not be required to perform any obligation under the Rules or make available its Clearing System nor shall it be held liable for any failure or delay in the performance of its obligations to any Clearing Member due to the unavailability of the Clearing System, if, as a result of *force majeure* or Emergency, it becomes impossible or impracticable to perform such obligation or make available its Clearing System, and where the Corporation could not, after using reasonable efforts (which would not require the Corporation to incur a loss other than immaterial, incidental expenses), overcome such impossibility or impracticability.
- (5) The Corporation shall not be liable to a Clearing Member for any direct or indirect or consequential loss, damage, loss of anticipated profit, loss of bargain, cost, expense, or other liability or claim suffered or incurred by or made against a Clearing Member as a result of the use by the Clearing Member of the Corporation's Clearing System or any failure of the Corporation's Clearing System or any act or omission of the Corporation, its directors, officers or employees, or members of any standing or ad hoc committee formed by the Corporation, regardless of whether such act or omission constitutes negligence. By making use of the Corporation's Clearing System, Clearing Members



expressly agree to accept any and all such loss, damage, cost, expense, or other liability or claim arising from the use of such Clearing System.

- (6) The Corporation shall not be liable to a Clearing Member for any indirect or consequential loss, damage, loss of anticipated profit, loss of bargain, cost, expense, or any other liability or claim suffered or incurred by or made against a Clearing Member as a result of the failure by the Corporation to pay a Settlement Amount owing in respect of a transaction, regardless of whether such failure constitutes negligence.
- (7) In the event any legal proceeding is brought by any person against the Corporation seeking to impose liability on the Corporation as a direct or indirect result of the use by a Clearing Member of the Corporation's Clearing System, the Clearing Member shall reimburse the Corporation for:
  - (a) all expenses and legal fees incurred by the Corporation in connection with the proceeding;
  - (b) any award pronounced against the Corporation in any judgment in the event it is found to be liable; and
  - (c) any payment made by the Corporation, with the consent of the Clearing Member, in settlement of any such proceeding.
- (8) The exemption from liability of the Corporation set out in this Section A-215 shall not extend to, nor limit liability for damages caused through an intentional or gross fault as defined in Article 1474 of the Civil Code of Québec.

## Section A-216 Audited Statements of the Corporation

Within 120 days of director approval of its audited financial statements at the annual meeting of, the Corporation shall furnish at its expense to each Clearing Member one copy of:

- (a) <u>the balance sheet forming part of its audited financial statements for such fiscal year, with accompanying notes related to the balance sheet;</u>
- (b) the report of the Corporation's independent auditor thereon;
- (c) the report of the Corporation's independent auditors on the suitability of the system of internal controls of the Corporation with the objectives of internal control stated by the Corporation pertaining to its:
  - (i) administration;
  - (ii) information technology;
  - (iii) trading/assignment/exercise; and
  - (iv) margin and collateral.

## Section A-217 Corporation as Agent Re Settlement Accounts



Each Clearing Member will establish a separate bank account for settling Transactions in each currency in which the Clearing Member trades (the "Settlement Accounts"). Each Clearing Member hereby appoints the Corporation to act as its agent, and the Corporation hereby accepts such appointment upon the terms and conditions hereof, solely for the purpose of effecting, on behalf of such Clearing Member, electronic payment instructions from the Settlement Accounts for the purpose of paying all amounts owing by the Clearing Member to CDCC. Nothing herein shall abrogate a Clearing Member's obligations hereunder to maintain sufficient funds in the Settlement Accounts for the purposes of ensuring complete and timely settlement of the Clearing Member's obligations hereunder.

#### Section A-218 Waiver of Immunity

Each Clearing Member irrevocably waives, with respect to itself and all of its revenues and assets, all immunity on the grounds of sovereignty or other similar grounds from suit, jurisdiction of any court, relief by way of injunction, order for specific performance or for recovery of property, attachment of its assets (whether before or after judgment) and execution or enforcement of any judgment to which it or its revenues or assets might otherwise be entitled in any proceedings in the courts of any jurisdiction and irrevocably agrees that it will not claim any such immunity in any proceedings.

### Section A-219 Paramountcy

In the event of any conflict between the Operations Manual (including any Schedule to the Operations Manual) and these Rules (without reference to the Operations Manual), the terms and conditions of the Rules (without reference to the Operations Manual) will govern to the extent of such inconsistency.

## Section A-220 Governing Law

The Rules shall be governed by and construed in accordance with the laws of the province of Quebec and the federal laws of Canada applicable therein. Each Clearing Member, by virtue of its membership in the Corporation, attorns to the jurisdiction of the courts of Quebec.



# **RULE A-4 ENFORCEMENT**

#### Section A-401 Action against a Non-Conforming Member

- (1) In addition to a measure made available to the Corporation under the Rules and the Application for Membership to remedy a specific or general default of a Clearing Member, where a Clearing Member is a Non-Conforming Member, the Corporation may take any one of the actions prescribed by the Rules in respect of such Clearing Member including, but not limited to:
  - (a) prohibiting and/or imposing limitations on the acceptance and/or clearance of Transactions by such Clearing Member;
  - (b) requiring such Clearing Member to reduce or close out (or closing out on behalf of such Clearing Member) existing Transactions in such Clearing Member's accounts with the Corporation and, upon such close out, converting all amounts into Canadian currency and calculating one net amount (taking into account the Corporation's rights with respect to the Margin Deposit of such Clearing Member) owing to such Clearing Member by the Corporation or by such Clearing Member to the Corporation;
  - (c) requiring such Clearing Member to transfer any account maintained by such Clearing Member with the Corporation, any position maintained in any such account, or any account carried by such Clearing Member, to another Clearing Member;
  - (d) applying the Margin Deposit (including, without limitation, Margin and Clearing Fund) of the Non-Conforming Member against the obligations of the Non-Conforming Member to the Corporation, subject to Subsection A-402(3) and, for such purpose, selling, transferring, using or otherwise dealing or disposing of any property deposited as Margin Deposit at any time, without prior notice to the Non-Conforming Member;
  - (e) sanctioning, reprimanding, fining or imposing a penalty on it;
  - (f) prevent or restrict the Clearing Member's right to withdraw any excess in Margin Deposits pursuant to Section A-607 or Section A-704; and
  - (g) suspending the Non-Conforming Member.
- (2) The actions contemplated by the Rules in respect of Non-Conforming Members may be taken in any sequence the Corporation deems appropriate.

## Section A-402 Creation of Liquidating Settlement Account

(1) Upon the suspension of a Clearing Member, the Corporation may convert to cash all Margin Deposits with the Corporation by such Clearing Member in all accounts (including Securities held in bulk deposit but excluding Securities held in specific deposit) including all of such Clearing Member's contributions to Clearing Funds. For purposes of making any such conversion to cash of Margin Deposits, the Corporation may sell, transfer, use or otherwise deal or dispose of any property deposited as Margin Deposit at any time, without prior notice to such Clearing Member. These and all other funds of the suspended Clearing Member subject to the control of the Corporation shall be placed by the Corporation in a special account, to be known as the Liquidating Settlement Account, for the purposes hereinafter specified.



- (2) Notwithstanding the provisions of Subsection A-402(1), if the Corporation shall determine in its sole discretion, taking into account the size and nature of a suspended Clearing Member's Margin Deposits, the market condition prevailing at the time, the potential market effects of liquidating transactions that might be directed by the Corporation, and such other circumstances that the Corporation deems relevant, that the conversion to cash of some or all of the suspended Clearing Member's Margin Deposits would not be in the best interest of the Corporation, other Clearing Members or the general public, such deposits need not be converted to cash, provided that any determination made pursuant to this Subsection shall be reported to the Board within 24 hours.
- (3) Notwithstanding the provisions of Subsection A-402(1) and Subsection A-402(2), Margin Deposits with respect to a Client Account shall only secure the performance by the Clearing Member of its obligations in respect of that Client Account, and Margin Deposits with respect to a Market Maker Account shall only secure the performance by the Clearing Member of its obligations in respect of that Market Maker Account; provided, however, that if the Clearing Member does not identify its Deposits with respect to each of its accounts, the Corporation shall use Margin Deposits without distinction as securing all the obligations of the Clearing Member in respect of all its accounts.

## Section A-403 Pending Transactions

- (1) Transactions submitted by a Clearing Member after it has been suspended shall be accepted or rejected by the Corporation in accordance with the regulations, rules and policies of the Exchange or Acceptable Marketplace on which they took place, and in the event that an Exchange Transaction is rejected, it shall be closed by the Clearing Member thereto in accordance with the Rules or in accordance with the regulations, rules and policies of the Exchange or Acceptable Marketplace on which the transaction was effected.
- (2) With respect to Open Positions and accepted Transactions:
  - (a) monies payable to the suspended Clearing Member in Settlement of Gains and Losses and/or Mark-to-Market Valuation in the Client Account shall be deposited by the Corporation in a Clients Settlement Account for remittance to the suspended Clearing Member or its representative for distribution to the persons entitled thereto in accordance with applicable law;
  - (b) monies payable to the suspended Clearing Member in Settlement of Gains and Losses in the respective Market Maker Accounts shall be held in such accounts pending the closing of all Open Positions and transactions in such accounts for application in accordance with the applicable Market Maker Account agreement;
  - (c) monies payable to the suspended Clearing Member in Settlement of Gains and Losses and/or Mark-To-Market Valuation in the Firm Account (as well as in the Market Maker Accounts) shall be credited by the Corporation to the Liquidating Settlement Account;
  - (d) monies owed to the Corporation in Settlement of Gains and Losses and/or Mark-To-Market Valuation in any account shall be withdrawn by the Corporation from the Liquidating Settlement Account;
  - e) monies owed to the Corporation in Settlement Amounts for settlements not yet paid, will remain in the Liquidating Settlement Account in the form of Margin Deposits until the next



available Settlement Time consistent with the Transaction from which the Settlement Amounts were derived;

f) monies payable to the suspended Clearing Member in Settlement Amounts for settlements not yet paid, will remain in the Liquidating Settlement Account in the form of Margin Deposits until the next available Settlement Time consistent with the Transaction from which the Settlement Amounts were derived.

### Section A-404 Open Positions

- (1) Open Positions of a suspended Clearing Member, may, in the Corporation's sole discretion, be closed by the Corporation at such price as the Corporation deems reasonable, transferred to another Clearing Member in accordance with the auction process set forth in the Operations Manual, or maintained by the Corporation. Amounts payable to the Corporation in Settlement of Gains and Losses and/or Mark-to-Market Valuation, as a result of closing transactions effected by the Corporation shall be withdrawn from the suspended Clearing Member's Liquidating Settlement Account; provided, however, that amounts payable to the Corporation in Settlement of Gains and Losses in a Market Maker Account shall first be withdrawn from the funds available in such account and only the amount of any deficit therein shall be withdrawn from the Liquidating Settlement Account. Amounts receivable by the suspended Clearing Member in Settlement of Gains and Losses and/or Mark-to-Market Valuation as a result of a closing transaction effected by the Corporation or the transfer of an Open Position shall be credited to the suspended Clearing Member's Liquidating Settlement Account. Clients affected by any closing or transfer of an Open Position shall be notified as promptly as possible.
- (2) With respect to Options:
  - (a) Open Long Positions in the Client Account of a suspended Clearing Member shall be maintained by the Corporation. The Corporation shall promptly use its best efforts to identify each Client having a Long Position in such account, to transfer each such Client's Long Position to another Clearing Member, and to notify each such Client of such transfer; in the event that notwithstanding the best efforts of the Corporation any Long Position in a Client Account of a suspended Clearing Member cannot promptly be transferred to another Clearing Member, such Long Position may be closed by the Corporation in the most orderly manner practicable and the proceeds shall be deposited in a Clients Settlement Account;
  - (b) Open Long Positions in any Market Maker Account of a suspended Clearing Member shall be closed by the Corporation in the most orderly manner practicable and the proceeds of such closing transactions shall be held in such account pending the closing out of all Open Positions and transactions for application in accordance with the applicable Market Maker Account Agreement;
  - (c) Open Long Positions in a suspended Clearing Member's Firm Account shall be closed by the Corporation in the most orderly manner practicable, and the proceeds of such closing transactions shall be credited by the Corporation to the suspended Clearing Member's Liquidating Settlement Account; and
  - (d) Open Short Positions in any account of a suspended Clearing Member may, in the Corporation's sole discretion, be closed by the Corporation at such price as the Corporation deems reasonable, transferred to another Clearing Member, or maintained by the A-42



Corporation. Amounts payable to the suspended Clearing Member in settlement of Closing Purchase Transactions effected by the Corporation shall be withdrawn from the suspended Clearing Member's Liquidating Settlement Account; provided, however, that amounts payable to the suspended Clearing Member in settlement of Closing Purchase Transactions in a Market Maker Account shall first be withdrawn from the funds available in such account and only the amount of any deficit therein shall be withdrawn from the Liquidating Settlement Account. Clients affected by any closing or transfer of a Short Position, if known to the Corporation, shall be notified as promptly as possible.

- (3) If the Corporation elects or is required pursuant to this Section A-404 to close both Long Positions and Short Positions in the same series of Options or Futures or Fixed Income Transactions with respect to the same Acceptable Security carried by a suspended Clearing Member, the Corporation may, in lieu of closing such positions through closing transactions on an Exchange, offset such positions against each other, reducing the Open, Long and Short Positions of the Clearing Member in such series by the same number of Option contracts or Futures contracts or, as applicable, the Fixed Income Transactions with respect to the same Acceptable Security. If the Corporation closes positions in any series of Options or Futures or Fixed Income Transactions with respect to the same Acceptable Security by offset pursuant to the foregoing sentence, the Corporation shall notify the suspended Clearing Member or its representative thereof, and such positions shall be deemed to have been closed at a price equal to the closing Market Price as determined by the Exchange involved for such series on the date when the positions were offset in the case of Options or Futures or at a price determined by the Corporation in the case of Fixed Income Transactions with respect to the same Acceptable Security.
- (4) Notwithstanding the provisions of Subsection A-404(3), if the Corporation, through an officer or designated representative, shall determine in its sole discretion, taking into account the size and nature of a suspended Clearing Member's positions, the market conditions prevailing at the time, the potential market effects of liquidating Transactions that might be directed by the Corporation, and such other circumstances as the Corporation deems relevant, that the closing out of some or all of the suspended Clearing Member's Transactions would not be in the best interests of the Corporation, other Clearing Members or the general public, such positions need not be closed out, provided that any determination made pursuant to this Subsection shall be reported to the Board within 24 hours.
- (5) If the Corporation, through an officer or its other designated representative shall:
  - (a) determine that the Corporation is unable, for any reason, to close out in a prompt and orderly fashion, any Transactions or to convert to cash any Margin Deposits of a suspended Clearing Member, or
  - (b) elect pursuant to Subsection A-404(4) not to close out any such Transactions or pursuant to Subsection A-402(2) not to convert to cash any such Margin Deposits, the Corporation may authorize the execution from time to time for the account of the Corporation, solely for the purpose of reducing the risk to the Corporation resulting from the continued maintenance of such positions or the continued holding of such Margin Deposits, of hedging transactions, including, without limitation, the purchase or sale of Underlying Interests or interests deemed similar thereto or Transactions on any such Underlying Interests or similar interests. The Corporation may delegate to specified officers or agents of the Corporation the authority to determine, within such guidelines, if any, as the Corporation may prescribe, the nature and timing of such hedging transactions. Any authorizing of hedging transactions



shall be reported to the Board within 24 hours, and any such transactions that are executed shall be reported to the Board on a daily basis. Hedging transactions effected for the account of the Corporation pursuant to this Paragraph shall be closed out or exercised promptly as the positions to which they relate are eliminated, whether by expiration, transfer, close out or assignment. Any cost or expenses, including losses sustained by the Corporation in connection with Transactions effected for its account pursuant to this Paragraph shall be charged to the Liquidating Settlement Account of the suspended Clearing Member, and any gains realized on such Transaction shall be credited to such Liquidating Settlement Account; provided, however, that costs, expenses and gains related to the hedging of positions in a Market Maker Account or a Client Account shall be charged or credited, as the case may be, to that account, and only the excess, if any, of such costs and expenses over the funds available in that account shall be charged to the Liquidating Settlement Account. Reasonable allocations of costs, expenses and gains among accounts made by the Corporation for the purpose of implementing the proviso to the preceding sentence shall be binding on the Clearing Member and any persons claiming through the Clearing Member and the respective successors and assigns.

### Section A-405 Exercised Options and Tender Notices

Unless the Corporation stipulates otherwise in a particular case, exercised Options to which a suspended Clearing Member is a party or Futures which have been the subject of Tender Notice to which a suspended Clearing Member is a party shall be closed through the procedures set forth in Sections B-404, B-405, C-510 and C-511, respectively, except that the Corporation may decide not to buy-in or sell-out, as the case may be, in the event that the Corporation is informed that the Underlying Interest is in transit or transfer. All losses and gains on such buy-ins and sell-outs shall be paid from or credited to, as the case may be, the Liquidating Settlement Account of the suspended Clearing Member; provided, however, that all losses on such buy-ins and sell-outs in a Market Maker Account shall first be paid from such account to the extent there are funds available in such account and only the amount of any deficit therein shall be paid from the Liquidating Settlement Account.

#### Section A-406 Amounts Payable to the Corporation

The Corporation shall be entitled promptly to recover from a suspended Clearing Member, any amount payable to the Corporation in accordance with these Rules, including all costs and expenses, including legal expenses, incurred by the Corporation, from such Clearing Member's Liquidating Settlement Account with the Corporation upon completion of the liquidation of such Clearing Member's positions in accordance with this Rule A-4.

#### Section A-407 Member Claims

All claims upon the Liquidating Settlement Account of a suspended Clearing Member by other Clearing Members resulting from losses incurred when closing pending transactions, or closing Open Positions or in the delivery of Underlying Interests or buying in or selling out exercised Options in accordance with this Rule A-4 shall be filed with the Corporation in the form prescribed. Such claims shall be paid as follows:

(1) Claims for losses incurred when closing pending transactions with a suspended Clearing Member that are rejected for clearance shall be subordinate to all other claims upon the Liquidating Settlement Account. The Corporation shall pay such claims, to the extent funds are available, from A-44



the Liquidating Settlement Account of the suspended Clearing Member only after payment of all other applicable claims, and such claims shall not constitute a claim upon the Clearing Fund contributions of other Clearing Members; and

(2) Claims for losses incurred on buy-ins and sell-outs, and the closing of Open Positions, shall be senior to all other claims upon the Liquidating Settlement Account. If a buy-in, sell-out or closing transaction does not occur by the close of the first full Business Day immediately following the issuance of the notice of suspension, the claim thereon shall be limited to the amount that would have been recoverable if, in the case of a buy-in or sell-out, the buy-in had been made at the highest price or the sell-out at the lowest price at which the Underlying Interest traded in the market in which it trades, on the first full Business Day or, in the case of the closing of Open Positions, if the positions had been closed by the close of the first full Business Day.

## Section A-408 No Waivers

No failure by the Corporation to exercise, nor any delay on its part in exercising, any of its rights (in whole or in part) under these Rules shall operate as a waiver of the Corporation's rights or remedies upon that or any subsequent occasion, nor shall any single or partial exercise of any right or remedy prevent any further exercise thereon or any other right or remedy.

# Section A-409 Clearing Member Close-Out Rights

- (1) The provisions of this Section A-409 apply to all Transactions. In the event of any inconsistency between the provisions of this Section A-409 and the other provisions of the Rules, the provisions of this Section A-409 will prevail.
- (2) The occurrence of either of the following events in respect of CDCC will constitute an event of default (an "Event of Default"):
  - (a) an Insolvency Event within the meaning of Subsection A-409(3)(a); and
  - (b) a Failure to Pay within the meaning of Subsection A-409(4).
- (3) (a) An "Insolvency Event" occurs if:
  - (i) CDCC commences an Insolvency Proceeding with respect to it or an Insolvency Proceeding is commenced with respect to CDCC; provided, however, that an "Insolvency Event" will not occur if a Clearing Member institutes any action as a result of a Failure to Pay by CDCC which results in the commencement of an Insolvency Proceeding;
  - (ii)any regulatory or governmental authority having jurisdiction over CDCC in<br/>Canada (a "Competent Authority") institutes any action which results in the<br/>commencement of an Insolvency Proceeding; or
    - (iii) a Competent Authority takes any action under any derivatives, securities, payment or clearing or similar law of Canada (or any province of territory thereof) which prevents CDCC from performing when due its payment or delivery obligations to Clearing Members under the Rules.



- (b) Each Clearing Member agrees to not institute any action as a result of a Failure to Pay by <u>CDCC</u> which may result in the commencement of an Insolvency Proceeding with respect to CDCC.
- (c) "Insolvency Proceedings" means proceedings for the purpose of liquidating, restructuring or reorganizing the assets and liabilities of CDCC under the *Bankruptcy and Insolvency Act* (Canada) ("BIA"), under the *Companies' Creditors Arrangement Act* (Canada) ("CCAA"), under a court-supervised interim receivership under the BIA, or under a court-supervised receivership in accordance with rules of the common law or other laws of general application relative to the powers of the courts.
- (d) For the purposes of the Rules, Insolvency Proceedings shall be deemed to commence at the following times:
  - (i) bankruptcy proceedings under the BIA commence on the day that (A) CDCC
     files an assignment in bankruptcy; (B) a bankruptcy order is made in respect of
     CDCC; or (C) in connection with proposal proceedings, CDCC is deemed to
     have made an assignment in bankruptcy, including (x) if CDCC gives notice of
     intention to file a proposal but no cash flow statement as required by the BIA or
     no proposal is filed within the applicable time period allowed following the
     notice of intention to file a proposal, which is the date that the applicable time
     period expires, (y) if a filed proposal is rejected by creditors, which is the date
     that the creditors refuse the proposal, or (z) if an approved proposal is later
     annulled by the court, which is the date of the annulment order;
    - (ii) proposal proceedings under the BIA commence on the day the notice of intention to file a proposal is made or, if no notice is filed, on the day the proposal is filed;
  - (iii) proceedings under the CCAA commence on the day that a court makes an order under the CCAA with respect to the affairs of CDCC; and
  - (iv) court-supervised receivership proceedings commence on the date that the court makes an order placing the assets of CDCC under the control of its interim receiver, receiver or receiver-manager.
- (4) A "Failure to Pay" means:
  - (a) a Payment Default within the meaning of Subsection A-409(5); or
  - (b) a Non-Payment of the Cash Settlement Amount following a Delivery Default within the meaning of Subsection A-409(6).
- (5) A "Payment Default" occurs if:
  - (a) CDCC fails to make when due any payment (including a payment under Subsection A-804(5) but excluding a payment of a Cash Settlement Amount following a Delivery Default under Subsection A-409(6)) in respect of a payment claim of a Clearing Member against CDCC under a Transaction;
  - (b) such Clearing Member notifies CDCC in writing of such failure (a "Payment Notice");



- (c) CDCC's failure to make such payment to such Clearing Member continues for a period of more than 30 days after the date of the Payment Notice; and
- (d) such Clearing Member is neither a Non-Conforming Member nor a suspended Clearing Member.
- (6) (a) A "Non-Payment of the Cash Settlement Amount following a Delivery Default" occurs if a "Delivery Default" occurs within the meaning of paragraph A-409(6)(b) and a "Cash Settlement Payment Default" also occurs within the meaning of paragraph A-409(6)(c).
  - (b) A "Delivery Default" occurs if:
    - (i) CDCC fails to perform, when due, any delivery obligation to a Clearing Member arising from a Transaction which is an Option, a Future or an OTCI that is not a Fixed Income Transaction;
    - (ii) such Clearing Member has requested CDCC in writing to fulfill such delivery obligation (a "Delivery Request");
    - (iii) after the expiry of a period of not less than 30 days following the date of the Delivery Request, if CDCC's failure to perform is continuing, the affected Clearing Member requests in writing cash settlement of the unsatisfied delivery obligation from CDCC (a "Cash Settlement Request"); and
    - (iv) such Clearing Member is neither a Non-Conforming Member nor a suspended Clearing Member.

From the date of a Cash Settlement Request (a "Cash Settlement Request Date"), CDCC will no longer be obliged to make any delivery under the relevant Transaction. This obligation will be replaced by an obligation of CDCC to pay the Clearing Member the Cash Settlement Amount.

- (c) A "Cash Settlement Payment Default" occurs if:
  - (i) after the expiry of a period of not less than five days following the Cash Settlement Request Date, the Clearing Member which made such request has requested CDCC in writing to pay the Cash Settlement Amount (a "Cash Settlement Payment Request");
- (ii)after the expiry of a period ending on a Business Day which is not less than two<br/>days after the date of the Cash Settlement Payment Request, CDCC fails to pay<br/>such Clearing Member the Cash Settlement Amount; and
  - (iii) such Clearing Member is neither a Non-Conforming Member nor a suspended Clearing Member.
  - (d) For the purpose of this Subsection A-409(6), "Cash Settlement Amount" means an amount determined by the Calculation Agent as follows:



- (i) the Default Value of the assets which are the subject of the Delivery Default (the "Non-delivered Assets") and the amount of the corresponding payment obligation of the Clearing Member will be determined by the Calculation Agent;
- (ii) on the basis of the amounts so determined, the amounts due from one party will be set off against the amounts due from the other under the relevant Transaction and only the net amount will be payable by the party having the claim valued at the lower amount on the next following day which is a Business Day, such that the Cash Settlement Amount shall be equal to any such net amount which is owed by one party to the other; and
- (iii) "Default Value" means with respect to any Non-delivered Assets, the value of such assets determined by the Calculation Agent using the following method:

The basis of the calculation will be the settlement price for Transactions to which the Non-delivered Assets relate on the Business Day prior to the Cash Settlement Request Date. If CDCC has not determined such a settlement price on the Business Day prior to the Cash Settlement Request Date or such settlement price does not accurately reflect the value of such Transactions because the relevant market is not operating normally, the Calculation Agent will use the average of three quoted prices from Clearing Members other than the affected Clearing Member which participate in the relevant market and which shall determine a market price of the Non-delivered Assets. The average of the quoted prices (mid market offer) will be the Default Value of the Non-delivered Assets. If less than three quotations are provided as requested, the Calculation Agent will determine a settlement price for Transactions to which the Non-delivered Assets relate acting in good faith and by using commercially reasonable procedures expected to produce a commercially reasonable result.

- (7) If at any time an Event of Default has occurred and is then continuing, the affected Clearing Member, in the case of an Event of Default which stems from a Failure to Pay or a Delivery Default, or any Clearing Member, in the case of an Event of Default which stems from an Insolvency Event, may by giving no less than two and not more than five Business Days' written notice to CDCC, designate an early termination date ("Early Termination Date") in respect of all Transactions to which such Clearing Member is a party.
- (8) Upon the effective designation of an Early Termination Date pursuant to Subsection A-409(7), neither CDCC nor the relevant Clearing Member will be obliged to make any further payment or delivery under the applicable Transactions which would have become due on or after the Early Termination Date. These obligations will be replaced by an obligation of either CDCC or the relevant Clearing Member, as applicable, to pay a Final Settlement Amount for all Transactions entered into in respect of Client Accounts and a Final Settlement Amount for all Transactions entered into in respect of Firm Accounts, all in accordance with Subsection A-409(10).
- (9) The Calculation Agent is CDCC which will be responsible for calculating any Cash Settlement Amount under Subsection A-409(6) and any Final Settlement Amount under Subsection A-409(10).
- (10) Upon the effective designation of an Early Termination Date pursuant to Subsection A-409(7), the Calculation Agent will as soon as practicable calculate the Final Settlement Amount using the following method:



"Final Settlement Amount" means the amount determined by the Calculation Agent to be equal to, as of the Early Termination Date, (a) the sum of all Transaction Values which are positive for it and the Amounts Due owed to it less (b) the absolute value of the sum of the amounts of all Transaction Values which are negative for it and the Amounts Due owed by it. When determining the Final Settlement Amount, the Calculation Agent shall act in good faith and by using commercially reasonable procedures expected to produce a commercially reasonable result. The Calculation Agent will calculate a Final Settlement Amount for all Transactions entered into in respect of Client Accounts and a Final Settlement Amount for all Transactions entered into in respect of Firm Accounts. The Final Settlement Amount in respect of Client Accounts and that in respect of Firm Accounts will not be netted or set-off.

"Transaction Value" means, with respect to any Transaction or group of Transactions, an amount equal to (i) the loss incurred (expressed as a positive number) or gain realized (expressed as a negative number) by the Calculation Agent as a result of the designation of the Early Termination Date in respect of such Transaction(s), determined with due regard to (ii) the arithmetic mean of the quotations for replacement or hedge transactions on the Quotation Date obtained by the Calculation Agent from not less than two leading market participants, including Clearing Members other than the affected Clearing Member. In the case of (ii), each such quotation Date if such market participant would pay or receive on the Quotation Date if such market participant were to assume, as from the Quotation Date, the rights and obligations of the other party (or their economic equivalent) under the relevant Transaction(s). The resulting amount shall be expressed as a positive number if it would be payable to the market participant, and shall otherwise be expressed as a negative number.

"Quotation Date" means the Early Termination Date.

"Amounts Due" owed by a party means the sum of (i) any amounts that were required to be paid by such party under any Transaction on or prior to the Early Termination Date, but not paid (expressed as a negative number if such amounts were to be paid by the Calculation Agent and otherwise as a positive number), (ii) the Termination Value, as of the agreed delivery date, of each asset that was required to be delivered by such party on or prior to the Early Termination Date under any Transaction, but not delivered (in either case regardless of whether or not the party was entitled to withhold such payment or delivery), and (iii) interest calculated daily based on the applicable CORRA Rate (provided, however, that for any day which is not a Business Day, the CORRA Rate applicable on the immediately preceding Business Day shall be used for such purpose) on the amounts specified in (i) and (ii) from (and including) the due date of the relevant payment or delivery to (but excluding) the Early Termination Date.

"Termination Value" means, in respect of any assets on any given date, an amount equal to the market price (including fees and expenses) which the Calculation Agent would have reasonably incurred in purchasing assets of the same kind and quantity in the market on such date (expressed as a negative number if such assets were to be delivered by the Calculation Agent and otherwise as a positive number); provided, however, that if a market price for such assets cannot be determined, an amount which the Calculation Agent determines in good faith to be its total losses and costs (or gains, in which case expressed as a negative number) in connection with such assets.

(11) The Final Settlement Amount in respect of Client Accounts, as calculated by the Calculation Agent, will be paid (i) to the Calculation Agent by the Clearing Member if it is a positive number and (ii) by the Calculation Agent to the Clearing Member if it is a negative number; in the latter case the



amount payable shall be the absolute value of such Final Settlement Amount. The Final Settlement Amount in respect of Firm Accounts, as calculated by the Calculation Agent, will be paid (i) to the Calculation Agent by the Clearing Member if it is a positive number and (ii) by the Calculation Agent to the Clearing Member if it is a negative number; in the latter case the amount payable shall be the absolute value of such Final Settlement Amount.

- (12) The Calculation Agent will notify the affected Clearing Member in writing as soon as practicable of the Final Settlement Amount calculated by it and provide a statement setting forth in reasonable detail the basis on which the Final Settlement Amount was determined. The Final Settlement Amount is payable by CDCC or the Clearing Member, as applicable, immediately upon receipt of such notice.
- (13) The affected Clearing Member may set off its obligation (if any) to pay the Final Settlement Amount against any actual or contingent claims ("Counterclaims") which it has against CDCC arising from CDCC's obligations to that Clearing Member under the Rules. For the purpose of calculating the value of the Counterclaims, the Clearing Member shall (i) to the extent that they are contingent or unascertained, take into account for such calculation their potential amount, if ascertainable, or otherwise a reasonable estimate thereof, (ii) to the extent that they are claims other than for the payment of money, determine their value in money and convert them into a money claim and (iii) to the extent that they are not yet due and payable, determine their present value (also having regard to interest claims).
- (14) When CDCC must determine a Cash Settlement Amount for Non-delivered Assets, CDCC will be entitled to terminate, on a *pro rata* basis, Transactions with Clearing Members from which CDCC has a claim to receive assets of the same kind until CDCC has terminated Transactions up to the same amount of assets to cover the original Transaction in respect of which CDCC is required to pay a Cash Settlement Amount. With respect to any such terminated Transaction, the applicable Clearing Member shall not be required to perform its obligation to deliver the relevant assets to CDCC and the Calculation Agent will determine, in accordance with Subsection A-409(6), an amount equal to the Cash Settlement Amount which would be payable by one party to the other if there had occurred a Delivery Default under such terminated Transaction and such amount shall be paid by the applicable party to the other party in accordance with Subsection A-409(6).
- (15) (a) A Clearing Member's close-out rights under this Section A-409 supersede its right to voluntarily withdraw as a Clearing Member set out in Section A-1A09. For greater certainty, an affected Clearing Member cannot exercise its right to withdraw from its membership if an Event of Default has occurred or any circumstance or event has occurred which, with the giving of notice or the lapse of time or both, would constitute an Event of Default.
  - (b) A Failure to Pay will be deemed not to have occurred if the Failure to Pay occurs as a result of a circumstance within the meaning of clause i) of the definition of an Emergency in Section A-102 or which is otherwise a force majeure.

# <u>Section A-410 – Eligible Financial Contracts</u>

(1) CDCC and each Clearing Member acknowledge that:



- (a) the payment and delivery obligations of a Clearing Member and of CDCC arising from a Transaction constitute an eligible financial contract between CDCC and the Clearing Member; and
- (b)
   each of the Membership Agreement and the Rules constitute master agreements in respect

   of such eligible financial contracts and accordingly are also eligible financial contracts

   between CDCC and each Clearing Members.
- (2) The Rules and the Membership Agreement shall be interpreted so as to ensure that CDCC or a Clearing Member, as the case may be, is accorded the rights and powers of a party to an eligible financial contract pursuant to the *Bankruptcy and Insolvency Act* (Canada), the *Companies'* Creditors Arrangement Act (Canada), the Winding-Up and Restructuring Act (Canada), the Canada Deposit Insurance Corporation Act or any similar legislation.



## RULE A-6 CLEARING FUND DEPOSITS

#### Section A-601 Clearing Fund Maintenance and Purpose

- (1) The Corporation shall establish a Clearing Fund relating to all Transactions cleared by the Corporation. Each Clearing Member admitted to clear Transactions at the Corporation shall maintain a deposit in the Clearing Fund of the amounts from time to time required by the Rules. The Clearing Fund shall be used for the purposes set out in Section A-609 and Subsection A-701(2).
- (2) The Clearing Fund base deposits are as follows:

(a)	Options Clearing Base Deposit	- \$25,000 <u>Money Cash</u> or equivalent value (as set out in Section A-608) of <u>Government</u> <u>Securities acceptable to the Corporation and with</u> <u>less than 1 year to maturity Acceptable Treasury</u> <u>Bills</u> .
(b)	Futures Clearing Base Deposit	- \$75,000 <u>MoneyCash</u> or equivalent value (as set out in Section A-608) of <u>Government Securities</u> acceptable to the Corporation and with less than 1 year to maturity <u>Acceptable Treasury Bills</u> .
(c)	OTCI Clearing Base Deposit (other than Fixed Income Transactions)	- \$100,000 <u>MoneyCash</u> or equivalent value (as set out in Section A-608) of <u>Government</u> <u>Securities acceptable to the Corporation and with</u> <u>less than 1 year to maturityAcceptable Treasury</u> <u>Bills</u> .
(d)	Fixed Income Transactions Clearing Base Deposit	- \$1,000,000 <u>MoneyCash</u> or equivalent value (as set out in Section A-608) of <u>Government</u> <u>Securities acceptable to the Corporation and with</u> <u>less than 1 year to maturityAcceptable Treasury</u> <u>Bills</u> .

#### Section A-602 Amount of Clearing Funds

The aggregate amount of the Clearing Funds to be deposited by all Clearing Members at the close of each calendar month shall be equivalent to the Uncovered Residual Risk. The amount of the Clearing Funds to be deposited by each Clearing Member shall be calculated according to Section A-603.

### Section A-603 Amount of Deposit

- (1) The required deposit of each Clearing Member to the Clearing Fund shall be an amount equal to the total of:
  - (a) an Options Clearing Base Deposit, if the Clearing Member has been accepted to clear Options;
  - (b) a Futures Clearing Base Deposit, if the Clearing Member has been accepted to clear Futures;

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- (c) an OTCI Clearing Base Deposit, if the Clearing Member has been accepted to clear OTCI transactions other than Fixed Income Transactions;
- (d) a Fixed Income Transactions Clearing Base Deposit, if the Clearing Member has been accepted to clear Fixed Income Transactions; and
- (e) a Variable Deposit equal to the amount by which (i) the Clearing Member's contribution to the Corporation's Total–Uncovered Residual Risk exceeds (ii) such Clearing Member's Base Deposits.
- (2) Each Clearing Member's contribution shall be determined by imposing a market-driven stress test on their portfolio and calculating tagainst the Uncovered Residual Risk. The total amount of the Clearing Fund is equal to the maximum average Uncovered Residual Risk over the last 60 Business Day period. Each Clearing Member's contribution to the Clearing Fund is determined according to the relative weight of the average Uncovered Residual Risk attributable to all its positions over that period in relation to the sum of Uncovered Residual Risk of all Clearing Members for that period, in accordance with the methodology set forth in the Risk Manual.
- (3) During the first 60 Business Days of membership, the Uncovered Residual Risk will be pro-rated by the number of days in the month that the clearing membership was effective. The average margin requirement over the number of days that the clearing membership was effective will be used.

#### Section A-604 Changes in Requirement

The required amount of Base and Variable Deposits made by Clearing Members may be altered from time to time by the Corporation<u>as a result of an amendment to the Rules</u>. If the deposit to the Clearing Fund to be made by a Clearing Member is <u>thereby</u> increased<u>as a result of an amendment to the Rules</u>, the increase shall not become effective until the Clearing Member is given 3 Business Days prior written notice of such amendment. Unless a Clearing Member notifies the Corporation in writing that it wishes to terminate its membership and closes out or transfers all of its aggregate positions in the relevant instrument before the effective date of such amendment, such Clearing Member shall be liable to make the increased deposit whenever it is required of all Clearing Members.

#### Section A-605 Clearing Fund Statement

Within 10 days after the close of <u>At the opening of business on the first Business Day of</u> each calendar month, the Corporation shall issue to each Clearing Member a Clearing Fund statement that shall list the current amount of such Clearing Member's deposit to the Clearing Fund and the amount of deposit required of such Clearing Member on the basis of the preceding 60 days' Uncovered Residual Risk amount (from the close of the previous calendar month). Any surplus over and above the amount required or any deficit to be satisfied will also be shown.

#### Section A-606 Additional Clearing Fund Deposit

Whenever a Clearing Member's Clearing Fund statement shows a deficit, such Clearing Member shall satisfy the deficit by a deposit in a form approved by the Corporation within 3 Business Days of no later than 2:00 p.m. on the Business Day followingdate of the issuance of such a the relevant Clearing Fund statement.

## Section A-607 Withdrawals

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In the event that the Clearing Fund statement of the Clearing Member shows a surplus, a Clearing Member may request the withdrawal of such surplus by submitting a withdrawal request in the form and delay prescribed by the Corporation.

#### Section A-608 Form of Deposits

- (1) Other than dIn addition to Base Deposits deposits made pursuant to the requirements of Subsection A-601(2) for Clearing Fund Base Deposits, dVariable Deposits deposits to the Clearing Fund shall also be in the form of Ceash and/eash or in Acceptable Treasury Billssuch Government Securities acceptable to the Corporation, which are freely negotiable and which shall be valued at a discounted rate, as determined by the Corporation from time to time in accordance with the Operations Manual the methodology set forth in the Risk Manual, of their market value; if no market value is generally available for such Government Securities, they shall be valued at an amount determined by the Corporation. Substitutions may be made with the prior approval of the Corporation. Deposits in Ceash shall not be used by the Corporation as working capital but any interest or gain received or accrued on the investment of such funds shall belong to the Corporation.
- (2) The Clearing Fund deposit shall be deemed to be deposited with the Corporation at the time the Corporation accepts the <u>Ceash and/or Acceptable Treasury Billscash</u>, Government Securities or an <u>Approved Depository's Safe Custody Receipt for such deposit</u>. All interest or gain received or accrued on any <u>Government SecuritiesAcceptable Treasury Bills</u>, prior to any sale, negotiation or pledge thereof, shall belong to the depositing Clearing Member.
- (3) Government Securities deposited by the Clearing Member with an Approved Depository shall be deposited under arrangements:
- (a) permitting the Government Securities to be promptly sold by or upon the order of the Corporation for the account of the Clearing Member without notice; and
- (b) requiring the Clearing Member to pay all fees and expenses incidental to the ownership or sale of such Government <u>Securities or the arrangement with the Depository</u>.

### Section A-609 Application of Clearing Fund

- (1) The Corporation shall apply the Non-Conforming Member's Margin Deposit (including, without limitation, Margin and Clearing Fund), or, when the Corporation deems necessary, the Clearing Fund <u>deposits</u> of other Clearing Members in accordance with Subsection A-609(2), as set out in Subsection A-701(2) and in accordance with the methodology set forth in the Default Manual. ).s
- (2) If the amount of the undischarged obligation, payment, loss or expense exceeds the total value of the Non Conforming Member's Margin Deposit (including, without limitation, Margin and Clearing Fund), and if the Clearing Member fails to pay the Corporation the amount of the deficiency on demand, the amount of the deficiency shall be paid out of the Clearing Fund and charged pro rata, based on the size of each of the other Clearing Members' Clearing Fund deposits at that time, against all other Clearing Members' Clearing Fund deposits, subject to and in accordance with the methodology set forth in the Default Manual. Notwithstanding such pro rata charges made against each of the other Clearing Members, the Non-Conforming Member who failed to pay the deficiency shall remain liable to the Corporation for the full amount of such deficiency until repayment thereof.-



(3) Whenever any pro rata charges are made against Clearing Members' deposits to the Clearing Fund, the Corporation shall promptly notify all Clearing Members of the amount of the charge and the reasons therefor. For the purposes of this Section A-609, the amount of any loss sustained by the Corporation shall be determined without reference to the possibility of any subsequent recovery in respect thereof, through insolvency proceedings or otherwise, but the net amount of any such recovery shall be applied in accordance with Section A-612.

#### Section A-610 Making Good on Charges to Clearing Fund

Whenever an amount is paid out of the Clearing Fund deposit of a Clearing Member, whether by pro-rata charge or otherwise, such Clearing Member shall be liable promptly to make good the deficiency if any in its deposit resulting from such payment no later than 2:00 p.m. on the Business Day following the date that the amount is paid out. Notwithstanding the foregoing, if the payment is made as a result of a pro-rata charge, a Clearing Member will not be liable to make good more than an additional 100% of the amount of its Base Deposit and Variable Deposits to the Clearing Fund deposit then prescribed by the Rules with respect to the default of any one Clearing Member, if:

- (i) within 3 Business Days following the pro-rata charge, the Clearing Member notifies the Corporation that it is terminating its membership;
- (ii) no <u>Transaction increasing its Open Position</u> <u>Opening Purchase Transaction or Opening</u> Writing Transaction is submitted for clearance through any of the Clearing Member's accounts after the giving of such notice; and
- (iii) the Clearing Member closes out or transfers all of its Open Positions as promptly as practicable after the giving of such notice.

### Section A-611 Deposit Refund

- (1) Whenever a Clearing Member ceases to be a Clearing Member with respect to all Transactions covered by the Clearing Fund, the amount of its <u>Base DClearing Fund depositDeposit</u>, relating to the Transactions no longer being cleared, to the Clearing Fund shall be returned, subject to the time limit specified in this-SubsectionSection A-611(2), but not until all Transactions of the Clearing Member from which losses or payments chargeable to the Clearing Fund might result have been fulfilled or closed, or with the approval of the Corporation, another Clearing Member has been substituted thereon. All amounts chargeable against a Clearing Member's deposit in the Clearing Fund on account of <u>T</u>transactions effected whilst a Clearing Member, including pro-rata charges, shall be deducted from the amount to be returned.
- (2) Thirty days after all outstanding items have been eliminated from the Clearing Member's accounts with the Corporation the balance of the Clearing Fund <u>deposit</u> owed to the former Clearing Member will be paid to that former member.

#### Section A-612 Recovery of Loss

(1) If a loss charged pro-rata against the <u>deposits</u> <u>deposit</u> of Clearing Members in the Clearing Fund is afterward recovered by the Corporation from the Clearing Member whose failure to pay led to the loss being charged, in whole or in part, the net amount of such recovery shall be paid or credited to the Clearing Members against whose deposit the loss was charged in proportion to the amount charged against their respective deposits, whether or not they are still Clearing Members.



(2) Any Clearing Member that has had a loss charged against its deposit under Section A-609(2) or Section A-610, shall have the right to claim from the Clearing Member whose failure to pay a deficiency led to the loss being charged and the Clearing Member shall be obligated to reimburse such other Clearing Member, the amount so charged against the Clearing Member's deposit.

#### Section A-613 Approved Depositories

- (1) Prior to approving a financial institution, as hereinafter defined, as a depository for the safe custody of Securities, certificates, Underlying Interest and Underlying Interest Equivalent, the institution shall have agreed with the Corporation that it will meet the conditions prescribed by the Corporation for an Approved Depository.
- (2) Clearing Members may enter into a safe custody agreement, in a form approved by the Corporation, with an Approved Depository for the safekeeping of Securities, certificates, Underlying Interest and Underlying Interest Equivalent.
- (3) Approved Depositories will issue Safe Custody Receipts, Escrow Receipts and Futures Margin Receipts in a form approved by the Corporation.
- (4) The following financial institutions may apply for recognition as an Approved Depository.
  - (a) a bank to which the *Bank Act* (Canada) applies, which has a minimum paid-up capital and surplus of \$25,000,000 and for which current audited financial statements are available;
  - (b) a trust company which is subject to legislation of Canada or of any province of Canada similar to the Loan and Trust Corporations Act (Ontario) or An Act Respecting Trust Companies and Savings Companies (Quebec) which has minimum paid up capital and surplus of \$25,000,000 and for which current audited financial statements are available;
- (c) the Corporation and any subsidiary of the Corporation;
- (d) <u>a Central S</u>securities <u>D</u>depositoryies;
- (d) securities depositories;

(e) such other institution as the Board may, in its sole discretion, approve from time to time, provided that in no case shall approval be given to an institution having less than \$25,000,000 paid up capital and surplus, which does not have the required power under its charter or other constituting documents to act as a fiduciary or for which current audited financial statements are not available.



## **RULE A-7 MARGIN REQUIREMENTS**

#### Section A-701 Margin Maintenance and Purpose

- (1) Prior to the Settlement Time on every Business Day, every Clearing Member shall be obligated to deposit Margin with the Corporation, as determined by the Corporation, in respect of
  - (a) each Long Position,
  - (b) each Short Position,
  - (c) each Assigned Position,
  - (d) each exercised Option position, and
  - (e) each tendered Futures position.

in each account maintained by such Clearing Member with the Corporation at the opening of such Business Day, including each such position that arises out of a Transaction having a Settlement Time on such Business Day, but excluding Options-Short Positions and Assigned Positions for which either the <u>underlying Underlying</u> Interest or the Underlying Interest Equivalent as specified in Section A-708 has been deposited with the Corporation. When determining whether additional Margin is required from a Clearing Member, the Corporation shall take into account, subject to Subsection A-704(2), all Margin Deposits deposited by or on behalf of such Clearing Member with the Corporation (and not returned to such Clearing Member).

- (2) The Corporation shall apply the Non-Conforming Member's Margin Deposit (including, without limitation, Margin and Clearing Fund), subject to Subsection A-701(3), to the discharge of:
  - (a) the Non-Conforming Member's obligation with respect to any Transaction accepted by the Corporation, whether such failure is caused or not by the Non-Conforming Member;
  - (b) a failure or anticipated failure to make any payment to the Corporation required of a Non-Conforming Member, whether such failure is attributable to the Non-Conforming Member or not;
  - (c) any loss or expense anticipated or suffered by the Corporation upon the liquidation of the Non-Conforming Member's position;
  - (d) any loss or expense anticipated or suffered by the Corporation pertaining to the Non-Conforming Member's obligations in respect of exercised Options or tendered Futures or OTCI for which settlement has not yet been made or in connection with hedging transactions effected for the account of the Corporation pursuant to Rule A-4 in respect of the Non-Conforming Member's positions in Options, Futures and OTCI;
  - (e) any protective or hedging transaction effected for the account of the Corporation pursuant to Rule A-4 in respect of the Non-Conforming Clearing Member's positions in Options and Futures;



- f) any protective or hedging transaction effected for the account of the Corporation pursuant to Rule A-4 in respect of the Non-Conforming Clearing Member's positions in any OTCI; or
- (g) any other situation determined by the Board.

(3)Each Clearing Member grants to and in favour of the Corporation a first ranking pledge of, lien on and security interest and hypothec in, all property including, without limitation, property deposited as Margin Deposit (including, without limitation, Margin and Clearing Fund) deposited by the Clearing Member with the Corporation or which may, from time to time be in the possession or control of the Corporation, or in the possession or control of a person acting on behalf of the Corporation, to secure the performance by the Clearing Member of all of its obligations to the Corporation, provided, however, that Margin Deposits with respect to a Client Account shall only secure the performance by the Clearing Member of its obligations in respect of that Client Account, and Margin Deposits with respect to a Market Maker Account shall only secure the performance by the Clearing Member of its obligations in respect of that Market Maker Account. Notwithstanding the foregoing, if the Clearing Member does not identify its Deposits with respect to each of its accounts, the Corporation shall use all Margin Deposits without distinction as securing all the obligations of the Clearing Member in respect of all its accounts. The Clearing Member shall execute and deliver to the Corporation such other documents as the Corporation may from time to time request for the purpose of confirming or perfecting the pledge, lien, security interest and hypothec provided to the Corporation by the Clearing Member; provided that the failure by the Corporation to request or by the Clearing Member to execute and deliver such documents shall not limit the effectiveness of the foregoing sentence.

(4) Without limiting the rights of the parties under Subsection A-701(2) and Section A-704, at the sole discretion of the Corporation, all property deposited with the Corporation as Margin Deposit (including, without limitation, Margin and Clearing Fund) by the Clearing Member may be pledged, repledged, hypothecated, rehypothecated or transferred by the Corporation as security for, or in connection with, the Corporation's own obligations to any person. The Corporation shall be deemed to continue to hold all Margin Deposit deposited with the Corporation, regardless of whether the Corporation has exercised its rights under this Subsection 701(4).

### Section A-702 Discretionary Margin Rule

The amount of Margin which a Clearing Member may otherwise be required to deposit with the Corporation pursuant to this Rule A-7 may be varied by the Corporation at any time and from time to time without advance notice whenever the Corporation, in its sole discretion, considers such variation necessary or advisable for the protection of the Corporation, Clearing Members or the investing public.

### Section A-703 Daily Margin Activity Report

- (1) Each Business Day, the Corporation shall issue to each Clearing Member for each account maintained by the Clearing Member with the Corporation a report ("Daily Margin Activity Report") which shall show the amount of Margin required to be deposited with the Corporation by virtue of the Clearing Member's positions. All Margin requirements shall be satisfied by Settlement Time on each Business Day notwithstanding any error in such report.
- (2) If for any reason the Daily Margin Activity Report is not available to a Clearing Member, it shall be the responsibility of that Clearing Member to ascertain from the Corporation the amount of Margin required to be deposited with the Corporation, so that the Margin requirements are met before Settlement Time each Business Day.



### Section A-704 Withdrawals of Margin

(1) Subject to Subsection A-704(2), in the event that on any particular day the amount of a Clearing Member's Margin on deposit exceeds the amount required to be deposited by such Clearing Member on such day pursuant to this Rule A-7, as shown by a report ("Deposits/Withdrawals Report") for such day, the Corporation shall authorize the withdrawal of the amount of the excess upon the submission to the Corporation, by such Clearing Member during the hours specified by the Corporation, of a withdrawal request in the form prescribed by the Corporation provided that the Clearing Member shall provide the Corporation with sufficient prior notice of such withdrawal request as set out in the Operations Manual.

(2) If a Clearing Member has excess Margin deposited in respect of any Firm Account, the Corporation shall be entitled to apply such excess (or a portion thereof) as is necessary to meet the Margin requirements in respect of a Client Account or Market Maker Account. If a Clearing Member has excess Margin deposited in respect of any Client Account or any Market Maker Account, the Clearing Member shall not be entitled to apply such excess (or a portion thereof) to meet the Margin requirements in respect of a Firm Account; provided, however, that if the Clearing Member does not identify its Deposits with respect to each of its accounts, the Corporation shall apply the Margin deposited by a Clearing Member indistinctively to meet the Margin requirements in respect of all its accounts.

### Section A-705 Intra-Day Margin Calls

- (1) The Corporation may require the deposit of supplementary Margin by any Clearing Member in any account at any time during any Business Day which the Corporation, in its sole discretion, considers necessary or advisable to reflect changes during such day in the Market Price of any Underlying Interest, or changes in the financial position of the Clearing Member or to protect the Corporation, Clearing Members or the public.
- (2) Subject to Subsection A-704(2), if a Clearing Member has excess Margin on deposit with the Corporation, the Corporation shall be entitled, upon determining that supplementary Margin is required, immediately to apply such portion of the excess Margin as is necessary to meet the supplementary Margin requirements. The Corporation shall notify the Clearing Member as soon as practicable of such application. If there is no excess Margin then on deposit, the Corporation will notify the Clearing Member of the amount of supplementary Margin required. Such supplementary Margin shall be deemed to be owing upon a Clearing Member receiving notice thereof and shall be deposited by the Clearing Member within one hour of the Clearing Member receiving such notice, or such longer time as may be permitted by the Corporation. Credit for all such supplementary Margin deposits, shall be reflected on a report ("Daily Settlement Summary") on the following Business Day.

#### Section A-706 Margin Calculations

Corporation uses SPAN® for its risk-based Margin system which analyzes Options and Futures positions in each account of each Clearing Member. The system projects a liquidating value for each such account and collects sufficient Margin to cover the Corporation's projected costs in the event that such a liquidation should be required. Offsetting positions are considered and, where determined prudent, the Corporation may reduce its Margin requirements.

The Corporation uses a proprietary margining system for the purposes of margining any OTCI transactions presented to the Corporation for clearing. The components of margin for all OTCI transactions are as follows:



- (a) Outstanding settlement amounts not yet paid;
- (b) Mark-to-Market Valuation from current Open Positions within each account; and
- (c) A worst-case liquidating value for each account.

Margin off-sets are considered in the margining process and where determined prudent, the Corporation may reduce the Margin Requirements for specific accounts.

The Corporation provides Clearing Members with information on the calculation of Margins on request.

### Section A-707 Margin on Options Spread Positions Carried in Client Accounts

- (1) Where a Clearing Member maintains an Options Spread Position in its Client Account, the Clearing Member may inform the Corporation of this fact with a view to reducing the Margin required on the positions held in that account by filing a report ("Options Spread Position Report") with the Corporation.
- (2) Each Clearing Member shall maintain a record of each Spread Position held for in its Client Account identifying the client, the Client Account in which the Spread Position is held, and the specified Long Positions and Short Positions making up the Spread Position.
- (3) Prior to the time established by the Corporation, on every Business Day, each Clearing Member shall inform the Corporation, in the form prescribed, of the quantity and composition of any additions to or deletions from the Spread Positions carried for individual clients.
- (4) No Clearing Member shall inform the Corporation of a Spread Position or permit a Spread Position to remain recorded by the Corporation unless the Clearing Member is simultaneously carrying in the relevant Client Account Long and Short Positions for an equal number of Options of the same Class of Options and the margin required to be deposited by such client in respect of such positions has been reduced accordingly. The filing by a Clearing Member of an Options Spread Position Report shall constitute the certification by the Clearing Member to the Corporation that such filing is authorized, is in accordance with the foregoing and is in compliance with all applicable laws and regulations.
- (5) If a Client Account with the Corporation has Spread Positions for a Series of Options in respect of which the Corporation has been notified and the total Long Position in such Series of Options is reduced by the filing of an Exercise Notice or the execution of a closing transaction in such account, such reduction shall also be applied by the Corporation against the Spread Position in such account. If the Clearing Member wishes such reduction to be applied in a different manner, it shall so instruct the Corporation by filing an appropriate spread instruction.

### Section A-708 Underlying Interest and Underlying Interest Equivalent

Clearing Members shall NOT be required to deposit Margin in respect of <u>short-Short positions</u> <u>Positions</u> in Futures or Options for which they have deposited the Underlying Interest or Underlying Interest Equivalent as herein defined.

(1) For **CALL OPTIONS** the Underlying Interest or Underlying Interest Equivalent shall mean:



- (i) the underlying Security or any Security exchangeable or convertible without restriction, other than the payment of <u>MoneyCash</u>, into the underlying Security shall be acceptable, provided that neither the Security nor the right to exchange or convert lapses throughout the life of the Option. Where the payment of money is a condition of conversion such <u>MoneyCash</u> shall be deposited with the Corporation at the same time as the convertible Security. This provision applies to warrants, rights, and convertible Securities.
- (ii) a Call Underlying Interest Deposit issued by an Approved Depository in favour of the Corporation.

In case of a stock split, a Clearing Member may make a deposit hereunder by depositing certificates representing the underlying Security and by filing with the Corporation a letter of undertaking executed by the Clearing Member in the form prescribed by the Corporation. Each deposit shall be deemed only to occur and continue so long as both the certificates are on deposit and the letter of undertaking duly executed, complete and unexpired is filed with the Corporation.

- (b) Bond Options Government of Canada Bonds (excluding Canada Savings Bonds) which:
  - (i) are the underlying bond; or
  - (ii) have been determined by the Corporation as acceptable on the basis that they:-

INTERPRETATION AND POLICY

A list of acceptable bonds will be published from time to time. Acceptable bonds for Margin against a series of bond Options will normally be bonds which:

\_(i)\_\_\_\_have higher coupon rates;

<u>\_(ii)</u>\_\_\_\_\_have an aggregate face value at maturity of at least \$1,000,000,000;

\_(iii)\_\_\_\_\_\_trade at a premium of \$5 greater than the underlying bond; and

\_(iv)\_\_\_\_\_mature no sooner than 2 years prior to the underlying bond.

- (c) Silver Options silver certificates issued by organizations acceptable to the Corporation.
- (d) Cash Settlement Options
  - (i) Government Securities as specified in Section A-709 equal in value to the aggregate current value (which for the purposes of this Section have the meaning attributed thereto in Section B-1001 as the context requires) of the Option at the close of trading on the Business Day prior to the deposit.



- (ii) If the value of the government Securities deposited for each contract falls below the value of the aggregate current value on any Business Day the Corporation may call for an additional deposit or Margin.
- (e) Options on short term money-market instruments expiring in one year or less

The Underlying Interest or any other instrument acceptable to the Corporation.

- (f) Futures Options Government of Canada Bonds (excluding Canada Savings Bonds) which:
  - (i) are the underlying bond; or
  - (ii) have been determined by the Corporation as acceptable.
- (g) Gold Options gold certificates issued by organizations acceptable to the Corporation.
- (2) For **PUT OPTIONS** Underlying Interest and Underlying Interest Equivalent shall mean:
  - (a) Cash deposited at the Corporation in the amount of the relevant Exercise Price,
  - (b) Government Securities as specified in Section A-709, or<u>a Put Escrow Receipt deposited with</u> issued by an Approved Depository in favour of the Corporation.

(c) Puts Guaranty Letter - a guaranty letter in the form approved by the Corporation, issued by an Approved Depository which states that it is being deposited to serve as Margin for puts positions in a Client Account and that such guaranty letter shall not constitute Margin for any other account maintained by the Clearing Member.

### **INTERPRETATION AND POLICY**

The Corporation will only accept a puts guaranty letter from a bank and trust company which is an Approved Depository and which meets the Bourse de Montréal Inc.'s requirements of an "Acceptable Institution" or "Acceptable Counterparty" as from time to time amended.

### (3) For **FUTURES** Underlying Interest and Underlying Interest Equivalent shall mean:

#### With respect to FUTURES the Clearing Member may deposit

- (a) any Underlying Interest or Underlying Interest Equivalent-which would be considered to be in <u>Ggood Ddeliverable Formygood delivery</u> on the corresponding Futures contracts. For cash settlement Futures, the Corporation may impose from time to time at its sole discretion margin requirements on the Underlying Interest or Underlying Interest Equivalent as determined by the Corporation.
- (b) For FUTURES, the Underlying Interest or Underlying Interest Equivalent shall mean the physical Underlying Interesta Futures Underlying Interest Deposit issued by an Approved Depository in favour of the Corporation. or Underlying Interest Equivalent which has been determined acceptable by the Corporation.



For cash settlement Futures, the Corporation may impose from time to time at its sole discretion Margin requirements on the Underlying Interest or Underlying Interest Equivalent as determined by the Corporation.

#### Section A-709 Forms of Margin

Required Margin may be deposited with the Corporation, subject to Section A-212, in one or more of the following forms:

- (1) Cash Clearing Members may deposit cash-Cash by way of an irrevocable funds transfer, a certified cheque or bank draft drawn on a bank acceptable to the Corporation and payable to the Corporation or such other funds as may be acceptable to the Corporation. Funds so deposited may, from time to time, be partially or wholly invested by the Corporation for its account and, to the extent not so invested, shall be deposited to the credit of the Corporation in such financial institutions as the Board may select. Any interest or gain received or accrued on the investment of such funds shall belong to the Corporation. Subject to Subsection A-701(4), such funds shall not be used by the Corporation as working capital.
- (2) Government Securities Clearing Members may deposit, as hereinafter provided, <u>Acceptable Treasury Bills and such other government Securities as may be specified by the Corporation, which are freely negotiable and which shall be valued at a discounted rate to their market value, as determined by the Corporation from time to time in accordance with the Operations Manualthe methodology set forth in the Risk Manual for government Securities. Such valuation rate shall be applied to the Market Value of the relevant Securities. "Market value" as used in this Subsection A-709(2) shall be determined on the close of each Business Day by the Corporation through reference to one or more data supply services retained by the Corporation for such purpose. If a market value is required to be determined on a non-Business Day, and the data supply service does not provide a market value for such day, the market value on the immediately preceding Business Day shall be used. If no market value is generally available for any government Securities accepted by the Corporation as a form of Margin, such Securities shall be valued at an amount determined by the Corporation.</u>

The government <u>securities Securities</u> shall be deemed to be deposited with the Corporation at the time the Corporation accepts the government Securities as Margin or an Approved Depository's Safe Custody Receipt or Futures Margin Receipt in respect of such government Securities. All interest or gain received or accrued on such government Securities prior to any sale or negotiation thereof shall belong to the depositing Clearing Member and such interest will be paid to such depositing Clearing Member by the relevant issuer.

For each Clearing Member, at least two thirds of the total Margin required against all of its accounts combined must be covered by Cash, Acceptable Treasury Bills or any combination thereof.

Government Securities deposited by the Clearing Member with an Approved Depository shall be deposited under arrangements:

(a) permitting the government Securities to be promptly sold by or upon the order of the Corporation for the account of the Clearing Member without notice; and



requiring the Clearing Member to pay all fees and expenses incidental to the ownership or sale of such government securities or the arrangement with the Approved Depository.

## (3) Valued Securities

- (a) In addition to the Underlying Interest and Underlying Interest Equivalent which may be deposited under Section A-708, Clearing Members may deposit any Security listed on any an-duly recognized Canadian Exchange (such Security, a "Valued Security"), against their total Margin requirements. This Margin shall be deemed to be deposited with the Corporation at the time the Corporation either-accepts the Securities, accepts a Safe Custody Receipt issued in respect of the Securities by an Approved Depository or accepts notification from an Approved Depository of a position in the security segregated to the order of the Corporation.
- (b) No value will be given for any Valued Security on any one day when the closing price thereof or, if there was no trading in such Valued Security on such day on any applicable Exchange, the previous closing price is less than \$10 on any applicable Exchange.
- (c) Valued Securities so deposited will be marked-to-the-market daily and 50% of this daily value applied against the total Margin required against all accounts combined.
- (d) No more than 10% of the total Margin required against all accounts combined may be covered by any one Valued Security.
- (e) For each Clearing Member, no more than 15% of the total Margin required against all of its accounts combined may be covered by Valued Securities.
- (f) No value will be given for any Valued Securities deposited by a Clearing Member if such Valued Securities are issued by an Affiliate of such Clearing Member.
- (4) Other Forms of Margin Deposit The Corporation may from time to time accept other forms of Margin deposit as determined in its sole discretion. The Corporation may alter any such accepted form of deposit and may at any time cease accepting any alternative form of deposit previously accepted by it. Where a previously accepted form of deposit is determined to be no longer acceptable by the Corporation, it shall notify all Clearing Members who shall promptly replace all such unacceptable forms of deposit with forms of deposit acceptable to the Corporation.

### Section A-710 Daily Capital Margin Monitoring Calls

The Corporation will monitor the Margin requirement of a Clearing Member as a percentage of its capital. In the event that this ratio exceeds 100%, an-additional margin in the amount of the excess over the ratio of 100% will be collected from the Clearing Member in the form of acceptable Margin in accordance with Section A-709.



## **RULE A-8 DAILY SETTLEMENT**

#### Section A-801 Daily Settlement Summary

(1) Each Business Day the Corporation shall issue to each Clearing Member a report ("Daily Settlement Summary") which will summarize:

- (a) the debit and credit premium for each account as shown on Consolidated Activity Reports;
- (b) the net gains and losses for each account as shown on Consolidated Activity Reports;
- (c) the net settlement for Exercised and Assigned Positions of cash settled Options;
- (d) the net payment for Settlement Amounts resulting from OTCI;
- (e) the debit or credit determined as necessary by the Corporation resulting from any adjustment reported by the Clearing Member;
- (f) the net Margin required for each account as shown on a report ("Daily Margin Activity Report");
- (g) the total Margin deposits held by the Corporation; and
- (h) the net amount due to or from the Corporation.
- (2) For greater certainty, subject to any Rule which expressly prohibits netting, on each Business Day as of the applicable Netting Cut Off Time;
  - (a) the Corporation shall have the right to net all payments owing to a Clearing Member on such Business Day, other than payments owing to a Clearing Member which are settled through a Central Securities Depository, against all payments owing by a Clearing Member on such Business Day, other than payments owing by a Clearing Member which are settled through a Central Securities Depository, such that one net amount shall be payable to or from such Clearing Member by the relevant Settlement Time;
  - (b) subject to Subsection D-606(10), the Corporation shall have the right to net all payments owing to a Clearing Member on such Business Day which are settled through a Central Securities Depository, including without limitation, any due and payable Postponed Payment Obligation, against all payments owing by a Clearing Member on such Business Day which are settled through that same Central Securities Depository, including without limitation, such that one Net Payment Against Delivery Requirement shall be payable to or from such Clearing Member for settlement at such Central Securities Depository by the relevant DVP Settlement Time;
  - (c) subject to Subsection D-606(10), the Corporation shall have the right to net all settlement obligations for the same CUSIP/ISIN number for an Acceptable Security owing to a Clearing Member on such Business Day, including without limitation, any Rolling Delivery Obligation in respect of such Acceptable Security, against all settlement obligations for such Acceptable Security owing by a Clearing Member on such Business Day, including without limitation, any Rolling Delivery Obligation in respect of such Acceptable Security, such



that one Net Delivery Requirement in respect of such Acceptable Security is owing to or from such Clearing Member by the relevant DVP Settlement Time;

(d) subject to Subsection A-704(2), the Corporation shall have the right to net Margin requirements owing by a Clearing Member in respect of one product on such Business Day against excess Margin delivered by such Clearing Member and available in respect of another product on such Business Day such that Margin in one net amount is required to be delivered by the Clearing Member on such Business Day or one net amount is available for withdrawal by such Clearing Member on such Business Day under Section A-704.

#### Section A-802 Daily Settlement

- (1) On or before Settlement Time on each Business Day, as determined by the Bank of Canada to be a settlement day, each Clearing Member shall be obligated to pay the Corporation, in the MoneyCash applicable to the Transaction, by irrevocable funds transfer or any other method as may be approved by the Corporation from time to time, the amount of any Net Daily Settlement in an account shown to be due to the Corporation on a report ("Daily Settlement Summary") (notwithstanding any error in such report).
- (2) If for any reason the Daily Settlement Summary is not available to the Clearing Member, it shall be the responsibility of that Clearing Member to ascertain from the Corporation the amount of any Net Daily Settlement, so that payment may be made before Settlement Time each Business Day.
- (3) Provided all applicable conditions precedent have been satisfied, one hour after Settlement Time of each Business Day the Corporation shall be obligated to pay a Clearing Member the amount of any Net Daily Settlement in an account shown to be due from the Corporation to such Clearing Member on the Daily Settlement Summary for such account for such day. The Corporation may make such payment to the Clearing Member by uncertified cheque or electronic funds transfer in the amount of such Net Daily Settlement.
- (4) When the banks in a city where the Corporation has an office are closed on a Business Day, settlement shall nevertheless occur through the method of irrevocable funds transfer or any other method as may be approved by the Corporation from time to time on such Business Day if it has been determined by the Bank of Canada to be a settlement day.

### Section A-803 Physical Settlement

Where the Corporation will effect the transfer of Acceptable Securities (other than a stock or other equity security which is an Underlying Interest of an Exchange traded Option or of an OTCI that is an Option) through a Central Securities Depository, the Corporation shall be exclusively responsible for the communication of Net Delivery Requirements, and Gross Delivery Requirements and Intra-Day Net Settlement Instructions consisting of obligations to deliver Acceptable Securities to such Central Securities Depository and will bear no responsibility for the replacement of the Acceptable Securities in the event that the Clearing Member fails to perform on the physical delivery obligation. The Corporation will, however, bear the responsibility of guaranteeing the Settlement Amounts derived from the physical delivery process up to the time a CSD Confirmation is issued, and, for greater certainty, has no liability in respect of such Settlement Amounts at any time after the issuance of such CSD Confirmation in respect of such Settlement Amounts. A "CSD Confirmation" means in respect of settlement instructions relating to a Net Delivery Requirement, or an Intra-Day Net Settlement Instruction consisting of an obligation to deliver Acceptable Securities, as the case may be, a trade confirmation



issued by the applicable Central Securities Depository confirming that the applicable Provider of Securities' securities account with such Central Securities Depository has been debited with Acceptable Securities in accordance with such settlement instructions; and in respect of settlement instructions relating to a Net Payment Against Delivery Requirement—or, a Gross Payment Against Delivery Requirement, an Intra-Day Net Payment Instruction or an Intra-Day Net Settlement Instruction consisting of an obligation to pay against the delivery of Acceptable Securities, as the case may be, a trade confirmation issued by the applicable Central Securities Depository confirming that the applicable Clearing Member's cash account with such Central Securities Depository has been debited in accordance with such settlement instructions.

### **Section A-804 Failed and Partial Deliveries**

(1) If a Clearing Member who is a Provider of Securities does not deliver Acceptable Securities (other than a stock or other equity security which is an Underlying Interest of an Exchange traded Option or of an OTCI that is an Option) pursuant to a Net Delivery Requirement, an Intra-Day Net Settlement Instruction consisting of an obligation to deliver Acceptable Securities or a Gross Delivery Requirement resulting from a Same Day Transaction submitted after the Intra-Day Settlement Cut-Off Time as it is required to do under these Rules, or only partially delivers such Acceptable Securities required to be delivered by it pursuant to these Rules, by the DVP Settlement Time (in either case, a "Failed Delivery"), the reciprocal payment obligation of the Corporation in favour of that Clearing Member shall be reduced accordingly. The quantity of such Acceptable Securities that has not been delivered shall constitute a Rolling Delivery Obligation of the failing Clearing Member for purposes of calculating the next Business Day's Net Delivery Requirement under Section A-801(2)(c), and the Net Delivery Requirement of each subsequent Business Day, until the quantity of such Acceptable Securities due are delivered in full, at which time the Corporation's Postponed Payment Obligation shall become due and payable. Notwithstanding the foregoing, a failed or partialFailed Dpartial delivery will not be rolled beyond the maturity date of the relevant Acceptable Security. On the maturity date of the relevant Acceptable Security, the Rolling Delivery Obligation of the Provider of Securities will be converted into a cash settlement obligation at the Acceptable Security's principal value at maturity, which amount shall be netted against the Corporation's Postponed Payment Obligation. The value of any final Coupon Income payable on the maturity date with respect to the relevant Acceptable Security shall also be paid by the Provider of Securities to the Corporation.

(2) As a direct consequence of a Clearing Member Member' Failed Delivery failing to deliver or partially delivering such Acceptable Securities pursuant to a Net Delivery Requirement, the Corporation will force a failed or partial delivery of the same quantity of Acceptable Securities prorata, in accordance with the Operations Manual, among Clearing Members who are Receivers of Securities with respect to such Acceptable Securities on the relevant Business Day from the Corporation. In the case of a Failed Delivery with respect to a Gross Delivery Requirement, the Corporation will force a failed or partial delivery of the same quantity of Acceptable Securities on the Clearing Member who is the Receiver of Securities with respect to the relevant Same Day Transaction. The reciprocal Net Payment Against Delivery Requirement, Intra-Day Net Settlement Instruction consisting of an obligation to pay against the delivery of Acceptable Securities or Gross Payment Against Delivery Requirement, as the case may be, of such Receivers of Securities in favour of the Corporation shall be reduced accordingly and the quantity of such Acceptable Securities that has not been delivered shall constitute a Rolling Delivery Obligation of the Corporation for purposes of calculating next Business Day's Net Delivery Requirement, and the Net Delivery Requirement of each subsequent Business Day, until the quantity of Acceptable Securities due are delivered in full, at which time the Receiver of Securities' Postponed Payment Obligation shall become due and payable. Notwithstanding the foregoing, on the maturity date of the relevant Acceptable



Security, the Rolling Delivery Obligation of the Corporation will be converted into a cash settlement obligation at the Acceptable Security's principal value at maturity, which amount shall be netted against the Receiver of Securities' Postponed Payment Obligation. The value of any final Coupon Income payable on the maturity date with respect to the relevant Acceptable Security shall also be paid by the Corporation to the Receiver of Securities.

(3) Notwithstanding any other provision of this Section A-804, the Corporation in its sole discretion has the right, but not the obligation, pursuant to a formal request by a Receiver of Securities affected by a Failed Delivery as set forth in Subsection A-804(2) or on its own initiative, to terminate the daily roll mechanic set out under Subsection A-804(1) and Subsection A-804(2) to and effect a buy-in transaction under Subsection A-804(4) or to exercise any other remedies under the Rules.

(4) Upon the exercise of its right to terminate the daily roll mechanic set out under Subsection A-804(1) and A-804(2), the Corporation may, in its sole discretion, satisfy its Net Delivery Requirement. its obligation to deliver Acceptable Securities against an Intra-Day Net Settlement Instruction consisting of a payment obligation of the Clearing Member or Gross Delivery Requirement (in either case, the "Corresponding CDCC Delivery Requirement"), as the case may be, to Receivers of Securities, by purchasing the missing quantity of such Acceptable Securities on the open market on such terms as the Corporation deems commercially reasonable in the circumstances. The difference between the price paid by the Corporation to purchase the missing quantity on the open market (including associated costs incurred) and the Purchase Price (or Repurchase Price, as the case may be) of the relevant Transaction(s) shall be charged to the Provider of Securities who was responsible for a Failed Delivery of such Acceptable Securities.

(5) If the Corporation is unable to satisfy its Net Delivery Requirement or Gross Delivery Requirement, as the case may be, Corresponding CDCC Delivery Requirement to the Receiver(s) of Securities of such Acceptable Securities under Subsection A-804(4) because they are unavailable on the open market or the Corporation determines in its sole discretion, taking into account the size and nature of the Failed Delivery, the market conditions prevailing at the time, the potential market effects of purchasing the missing quantity on the open market and associated costs, and such other circumstances that the Corporation, in its sole discretion, deems relevant, that such buy-in transaction would not be in the best interest of the Corporation, other Clearing Members or the general public, the Corporation will fail to satisfy its Net Delivery Requirement or Gross-Corresponding CDCC Delivery Requirement, as the case may be, to such Receiver(s) of Securities and will convert the relevant Failed Delivery into a cash settlement obligation at the of-Acceptable Securities Security's fair market value, as determined by the Corporation in a commercially reasonable manner, netted against the , in which case, the corresponding Net Payment Against Delivery Requirement or Gross Payment Against Delivery Requirement, as the case may be, of Receiver(s) of Securities' Postponed Payment Obligation. shall be reduced accordingly. Any direct costs (which, for greater certainty, do not include any indirect or consequential loss or damage) incurred by such Receivers of Securities as a result of the Failed Delivery by the Corporation shall be promptly assessed and notified to the Corporation who will promptly reimburse such direct costs to such Receivers of Securities and Such cash settlement amount shall be credited (or charged, as the case may be) by the Corporation to the relevant Receiver(s) of Security and simultaneously charged (or credited, as the case may be) them by the Corporation to the Provider of Securities responsible for such Failed Delivery. Failure by the Provider of Securities responsible for the Failed Delivery, or by the relevant Receiver(s) of Securities, as the case may be, to reimburse pay such cash settlement amount to the Corporation shall constitute a payment default, upon which the Corporation may determine that the



Clearing Member is a Non-Conforming Member and take such actions and remedies provided under these Rules against such Non-Conforming Member.

#### Section A-805 Final and Irrevocable Payment

When the settlement of a payment obligation of a Clearing Member or the Corporation is made through an entry to or a payment out of an account as provided in Section A-802 or through an entry to or a payment out of an account as provided in Section A-803, such settlement of the payment obligation of a Clearing Member or the Corporation shall be final and irrevocable.

#### Section A-806 Failed and Partial Payments Against Delivery

(1) If a Clearing Member who is a Receiver of Securities does not have sufficient funds in its cash account at the Central Securities Depository to satisfy an Intra-Day Net Payment Instruction by the Intra-Day Net Payment Time or only partially settles such payment obligation (in either case, a "Failed Payment Against Delivery"), the Corporation shall impose a fine and may determine that the Clearing Member is a Non-Conforming Member, in accordance with Section 6 of the Operations Manual. In addition, the Board may take disciplinary measures set forth in Rule A-5 against the Non-Conforming Member.

(2) If a Clearing Member who is a Receiver of Securities does not have sufficient funds in its cash account at the Central Securities Depository to satisfy any Intra-Day Net Settlement Instruction consisting of an obligation to pay against the delivery of Acceptable Securities or a Gross Payment Against Delivery Requirement by the DVP Settlement Time or only partially settles such payment obligation (also, in either case, a Failed Payment Against Delivery), the Clearing Member shall be deemed a Non-Conforming Member in accordance with Section 6 of the Operations Manual and the Board may take disciplinary measures set forth in Rule A-5 against the Non-Conforming Member.



## **RULE D-6 CLEARING OF FIXED INCOME TRANSACTIONS**

The Sections of this Rule D-6 are applicable only to the clearing of Fixed Income Transactions by the Corporation and to those Clearing Members who are required to make a base deposit to the Clearing Fund for Fixed Income Clearing as set out in Paragraph A-601(2)(d).

#### **Section D-601 Definitions**

Notwithstanding Section A-102, for the purposes of Fixed Income Clearing, the following terms are defined as follows:

"Accrued Coupon Income" – with respect to a Repurchase Transaction, the Coupon Income paid by an issuer of Purchased Securities and held by a Net Buyer under Paragraph D-606(9)(b) plus the accrued interest on such Coupon Income calculated at the Repo Rate for such Repurchase Transaction for the period from and including the date such Coupon Income was paid by such issuer up to and excluding the Repurchase Date.

"Accrued Coupon Value" – with respect to any Purchased Security, the proportion of the Coupon Income payable by the issuer of the relevant Security on the next Coupon Payment Date corresponding to the number of days that have elapsed since the immediately preceding Coupon Payment Date up to the applicable calculation date [calculated based on a calendar year of 365 days].

"Cash Buy or Sell Trade" – a transaction by which a Fixed Income Clearing Member buys (Cash Buy Trade) or sells (Cash Sell Trade) an Acceptable Security.

"Close Leg" – means, with respect to a Repurchase Transaction, the second part of a Repurchase Transaction where either (i) a Repo Party agrees to buy back Acceptable Securities from a Reverse Repo Party at a Repurchase Price to be paid by the Repo Party to the Reverse Repo Party, or (ii) a Reverse Repo Party agrees to sell back Acceptable Securities to a Repo Party at a Repurchase Price to be paid to the Reverse Repo Party by the Repo Party.

"CORRA Rate" – The weighted average of rates on overnight general collateral repo transactions conducted through designated interdealer bond brokers between 06:00 and 16:00, as determined by the Bank of Canada.

"Coupon Income" – the interest amount payable to the holder of a Security by its issuer on a Coupon Payment Date.

"Coupon Payment Date" – a date on which the issuer of a Security pays Coupon Income to the holder of the Security.

"Deferred Settlement Transaction" – means a Cash Buy or Sell Trade or an Open Leg of a Repurchase Transaction, in each case, having a Purchase Date later than the Trade Date, or a Close Leg of a Repurchase Transaction.

"DVP Settlement Time" – means the time specified in the Operations Manual at which the Fixed Income Clearing Member must have satisfied all its Intra-Day Net Settlement Instruction(s) and any Gross Delivery Requirement(s) and Gross Payment Against Delivery Requirement(s) resulting from Same Day

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Transactions submitted after the Intra-Day Settlement Cut-Off Time and before the Submission Cut-Off Time, in accordance with Paragraph D-606(11)(c).

"Economic Terms" – means the transactional details of a Fixed Income Transaction as set out in Subsection D-603(1).

"Equivalent Security" – an Acceptable Security that is equivalent to the Purchased Security in that it is of the same issue, part of the same issue, of an identical type, nominal value, description and (except where otherwise specified by the Corporation) amount as the Purchased Security.

"Fixed Income Clearing" – the provision of clearing services by the Corporation of Fixed Income Transactions.

"Fixed Income Clearing Member" – an applicant which meets the criteria set out in Section A – 1A01 and Subsection A-301(3) and is approved by the Corporation for Fixed Income Clearing.

"Fixed Income Transaction(s)" – Repurchase Transaction(s) and/or Cash Buy or Sell Trade(s).

"Floating Price Rate" – means, in respect of a Repurchase Transaction, the overnight index swap ("OIS") rate as published by Bloomberg for a term that is the same as the Term of such Repurchase Transaction (and if an OIS rate is not available for the applicable Term, such Floating Price Rate will be determined by interpolating the OIS rate between the two terms published by Bloomberg that are closest to the applicable Term), as determined by the Corporation in accordance with its customary practices for purposes of calculating mark-to-market payments and margin payments. For the purposes of this definition, "Term" shall mean the remaining number of days between the applicable calculation date and the Repurchase Date of the relevant Repurchase Transaction.

"Intra-Day Net Payment Instructions" – means settlement instructions sent to the Central Securities Depository at the Intra-Day Payment Cut-Off Time cancelling and replacing all then Pending Payment Against Delivery Requirements, in accordance with Paragraph D-606(11)(a).

"Intra-Day Net Payment Time" – means the time specified in the Operations Manual at which the Fixed Income Clearing Member must satisfy its Intra-Day Net Payment Instruction, in accordance with Paragraph D-606(11)(c).

"Intra-Day Net Settlement Instructions" – means settlement instructions sent to the Central Securities Depository at the Intra-Day Settlement Cut-Off Time cancelling and replacing all then Pending Settlement Requirements, in accordance with Paragraph D-606(11)(b).

"Intra-Day Payment Cut-Off Time" – means the time specified in the Operations Manual at which the Corporation cancels all then Pending Payment Against Delivery Requirements sent to the Central Securities Depository and replaces them with Intra-Day Net Payment Instructions, in accordance with Paragraph D-606(11)(a).

"Intra-Day Settlement Cut-Off Time" – means the time specified in the Operations Manual at which the Corporation cancels all then Pending Settlement Requirements sent to the Central Securities Depository and replaces them with Intra-Day Net Settlement Instructions, in accordance with Paragraph D-606(11)(b).



"Market Value" – with respect to any Purchased Securities as of any time on any date, the current price as of such date for the relevant Purchased Securities as determined by the Corporation on the basis of then available price source quotations or alternative market information, as determined by the Corporation plus the Accrued Coupon Value in respect of such Purchased Securities to the extent not included in such current price.

"MTM Repo Rate Payment" – represents a mark-to-market payment made in respect of a change in the current Floating Price Rate and means, in respect of a Repurchase Transaction, an amount that is payable to the Corporation by a Fixed Income Clearing Member that is a party to such Repurchase Transaction, or by the Corporation to a Fixed Income Clearing Member that is a party to such Repurchase Transaction, due to changes in by comparing the Floating Price Rate from the last time a MTM Repo Rate Payment was calculated (the "Previous Floating Price Rate") in respect of such Repurchase Transaction (or, in the case of the first such calculation, due to changes in the Repo Rate initially agreed between the parties), by comparing the Previous Floating Price Rate orto the Repo Rate, as the case may be, to the then current Floating Pricing Rate.

"N-Day Term Repurchase Transaction" – means a Repurchase Transaction with a term longer than one Business Day.

"Net Buyer" – a Fixed Income Clearing Member whose aggregate net sum of Net Funds Transfer Requirement, Net Funds Reversal Requirement, any applicable Postponed Payment Obligation(s) and any other payment obligation against delivery of an Acceptable Security due by such Fixed Income Clearing Member to the Corporation on a given Business Day are greater than the aggregate net sum of Net Funds Transfer Requirement, Net Funds Reversal Requirement, any applicable Postponed Payment Obligation(s) and any other payment obligation against delivery of an Acceptable Security due by the Corporation to such Fixed Income Clearing Member on such Business Day, as determined by the Corporation pursuant to Paragraph A-801(2)(b).

"Net Delivery Obligation" – in respect of a Fixed Income Clearing member, the quantity of a given Acceptable Security which is the aggregate net quantity of any Net Securities Transfer Requirement deliverable by or to such Fixed Income Clearing Member to or by the Corporation and any Net Securities Reversal Requirement deliverable by or to such Fixed Income Clearing Member to or by the Corporation, and any Rolling Delivery Obligation deliverable by or to such Fixed Income Clearing Member to or by the Corporation, as the case may be, with respect to such Acceptable Security, on a given Business Day, calculated in accordance with Subsection D-606(3).

"Net Funds Transfer Requirement" – the amount which is the aggregate net sum of Purchase Prices payable by a Fixed Income Clearing Member to the Corporation or by the Corporation to a Fixed Income Clearing Member, as the case may be, calculated in accordance with Subsection D-606(1).

"Net Funds Reversal Requirement" – the amount which is the aggregate net sum of Repurchase Prices payable by a Fixed Income Clearing Member to the Corporation or by the Corporation to a Fixed Income Clearing Member, as the case may be, calculated in accordance with Subsection D-606(2).

"Net MTM Repo Rate Payment" – means, on any day the amount which is the aggregate net sum of all MTM Repo Rate Payments payable by a Fixed Income Clearing Member to the Corporation or by the Corporation to a Fixed Income Clearing Member, as the case may be, calculated in accordance with Subsection D-606(5).



"Net MTM Reversal Requirement" – means-in respect of a Fixed Income Clearing Member, on any day, the amount which is the aggregate net sum of (i) allprevious Business Day's Net MTM Repo Rate Payments made by such the Fixed Income Clearing Member in respect of its Repurchase Transactions, net of (ii) all Net MTM Repo Rate Payments made to such Fixed Income Clearing Member in respect of its Repurchase Transactions to the Corporation or by the Corporation to the Fixed Income Clearing Member, as the case may be, to be returned in accordance with Subsection D-606(6).

"Net OCF MTM Payment" – means, on any day, the amount which is the aggregate net sum of all OCF MTM Payments payable by a Fixed Income Clearing Member to the Corporation or by the Corporation to a Fixed Income Clearing Member, as the case may be, calculated in accordance with Subsection D-606(7).

"Net Payment Obligation" – in respect of a Fixed Income Clearing Member, the amount which is the aggregate net sum of any Net Funds Transfer Requirement payable by or to such Fixed Income Clearing Member to or by the Corporation and any Net Funds Reversal Requirement payable by or to such Fixed Income Clearing Member to or by the Corporation, and any Postponed Payment Obligation due and payable by or to such Fixed Income Clearing Member to or by the Corporation and any Postponed Payment Obligation due and payable by or to such Fixed Income Clearing Member to or by the Corporation, as the case may be, on a given Business Day, calculated in accordance with Subsection D-606(3).

"Net Seller" – a Fixed Income Clearing Member whose aggregate net quantity of Net Securities Transfer Requirement, Net Securities Reversal Requirement, any applicable Rolling Delivery Obligation(s) and any other delivery obligation in respect of a given Acceptable Security due by such Fixed Income Clearing Member to the Corporation on a given Business Day are greater than the aggregate net quantity of Net Securities Transfer Requirement, Net Securities Reversal Requirement, any applicable Rolling Delivery Obligation(s) and any other delivery obligation in respect of a given Acceptable Security due by the Corporation to such Fixed Income Clearing Member on such Business Day, as determined by the Corporation pursuant to Paragraph A-801(2)(c).

"Net Securities Transfer Requirement" – the aggregate net quantity of an Acceptable Security due by a Fixed Income Clearing Member to the Corporation or by the Corporation to a Fixed Income Clearing Member, as the case may be, calculated in accordance with Subsection D-606(1).

"Net Securities Reversal Requirement" – the aggregate net quantity of an Acceptable Security due by a Fixed Income Clearing Member to the Corporation or by the Corporation to a Fixed Income Clearing Member, as the case may be, calculated in accordance with Subsection D-606(2).

"OCF MTM Payment" – represents an opportunity cost of funds payment in respect of an MTM Repo Rate Payment made and means, with respect to any Repurchase Transaction on any calculation date-and in respect of all MTM Repo Rate Payments made by or to a Fixed Income Clearing Member in respect of such Repurchase Transaction, an amount equal to one day's interest, calculated by the applying the CORRA Rate determined on such calculation date (provided if such calculation date is not a Business Day, on the immediately following Business Day) to such MTM Repo Rate Payment on a 365 day basis, provided that if such Fixed Income Clearing Member had to pay an MTM Repo Rate Payment, the interest amount calculated in respect of such MTM Repo Rate Payment shall be payable by the Corporation to the Fixed Income Clearing Member, and if such Fixed Income Clearing Member received an MTM Repo Rate Payment, the interest amount calculated in respect of such MTM Repo Rate Payment shall be payable by the Fixed Income Clearing Member to the Corporation.



"Open Leg" – means, with respect to a Repurchase Transaction, the first part of a Repurchase Transaction where either (i) a Repo Party agrees to sell Acceptable Securities to a Reverse Repo Party at a Purchase Price to be paid by the Reverse Repo Party to the Repo Party, or (ii) a Reverse Repo Party agrees to buy Acceptable Securities from a Repo Party at a Purchase Price to be paid to the Repo Party by the Reverse Repo Party.

"OTCI Clearing Platform" – the dedicated trade input screens for clearing and settlement of OTCI operated and/or used by the Corporation.

"Pending Delivery Requirement(s) – any Gross Delivery Requirement(s) and/or any Net Delivery Requirement(s) which are due on such Business Day and have not yet settled at the Intra-Day Settlement Cut-Off Time.

"Pending Payment Against Delivery Requirement(s)" – any Gross Payment Against Delivery Requirement(s) and/or any Net Payment Against Delivery Requirement(s) which are due on such Business Day and have not yet settled at the Intra-Day Payment Cut-Off Time or at the Intra-Day Settlement Cut-Off Time, as the case may be.

"Pending Settlement Requirement(s)" – collectively any Pending Delivery Requirement(s) and/or any Pending Payment Against Delivery Requirement(s) at the Intra-Day Settlement Cut-Off Time.

"Price Differential" – with respect to any Repurchase Transaction, an amount payable by the Repo Party equal to an amount obtained by application of the Repo Rate for such Repurchase Transaction to the Purchase Price for such Repurchase Transaction (on a 365 day basis), for the actual number of days of the term of such Repurchase Transaction.

"Purchase Date" – with respect to any Repurchase Transaction, the date on which Purchased Securities are sold by the Repo Party to the Corporation and by the Corporation to the Reverse Repo Party; and with respect to any Cash Buy or Sell Trade, the date on which it settles, provided that if such date is not a Business Day, the Purchase Date shall be the immediately following day.

"Purchase Price" – with respect to any Fixed Income Transaction, the amount at which the Purchased Securities are sold or to be sold by the Seller to the Corporation and by the Corporation to the Buyer.

"Purchased Securities" – with respect to any Fixed Income Transaction, the Acceptable Securities sold or to be sold by the Seller to the Corporation and by the Corporation to the Buyer.

"Quantity of Purchased Securities" – with respect to a Fixed Income Transaction, an amount equal to the Purchase Price for such Fixed Income Transaction on the Trade Date of such Fixed Income Transaction divided by the Market Value per dollar of the Specified Denomination of the relevant Purchased Securities, rounded up to the nearest whole number.

"Repurchase Transaction" – A) a trade originally entered into between two Fixed Income Clearing Members which is submitted to the Corporation for clearing in which either (i) a Repo Party agrees to sell Acceptable Securities to a Reverse Repo Party at a Purchase Price to be paid by the Reverse Repo Party to the Repo Party, with a simultaneous agreement by the Repo Party to purchase Equivalent Securities from the Reverse Repo Party at a future date at a Repurchase Price to be paid to the Reverse Repo Party by the Repo Party, or (ii) a Reverse Repo Party agrees to buy Acceptable Securities from a Repo Party at a Purchase Price to be paid to the Reverse Repo Party at a Purchase Price to be paid to the Reverse Repo Party at a Purchase Price to be paid to the Reverse Repo Party at a Purchase Price to be paid to the Reverse Repo Party at a Purchase Price to be paid to the Reverse Repo Party at a Purchase Price to be paid to the Reverse Repo Party at a Purchase Price to be paid to the Reverse Repo Party at a Purchase Price to be paid to the Reverse Repo Party at a Purchase Price to be paid to the Reverse Repo Party at a Purchase Price to be paid to the Reverse Repo Party at a Purchase Price to be paid to the Reverse Repo Party by the Reverse Repo Party, with a simultaneous agreement

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by the Reverse Repo Party to sell Equivalent Securities to the Repo Party at a future date at a Repurchase Price to be paid by the Repo Party to the Reverse Repo Party, and, as appropriate in the circumstances, B) the Transaction resulting from the novation of the trade described in A) pursuant to Section D-605 of the Rules,.

"Repo Party" or "Seller" – in respect of a Fixed Income Clearing Member, such Fixed Income Clearing Member who is the seller under a Fixed Income Transaction and who becomes the seller to the Corporation upon acceptance of the Fixed Income Transaction by the Corporation, and in respect of the Corporation, the Corporation when it has assumed the position of the seller under a Fixed Income Transaction pursuant to Section D-605. The term "Repo Party" will be used when referring specifically to a Repurchase Transaction, whereas the term "Seller" will be used when referring to a Cash Buy or Sell Trade or to Fixed Income Transactions generally.

"Repo Rate" – with respect to any Repurchase Transaction, the per annum fixed pricing rate agreed by the Repo Party and the Reverse Repo Party.

"Repurchase Date" – with respect to any Repurchase Transaction, a day on which Equivalent Securities are to be sold by a Reverse Repo Party to the Corporation and by the Corporation to a Repo Party, in accordance with Section D-606; provided that if such date is not a Business Day, the Repurchase Date shall be the immediately following Business Day.

"Repurchase Price" – with respect to any Repurchase Transaction, the sum of the Purchase Price and the Price Differential.

"Reverse Repo Party" or "Buyer" – in respect of a Fixed Income Clearing Member, such Fixed Income Clearing Member who is the buyer of a Fixed Income Transaction and who becomes the buyer to the Corporation upon acceptance of the Fixed Income Transaction by the Corporation, and in respect of the Corporation, the Corporation when it has assumed the position of the buyer under a Fixed Income Transaction pursuant to Section D-605. The term "Reverse Repo Party" will be used when referring specifically to a Repurchase Transaction, whereas the term "Buyer" will be used when referring to a Cash Buy or Sell Trade or to Fixed Income Transactions generally.

"Specified Denomination" – with respect to an Acceptable Security, the denomination in which it was issued.

"Same Day Transaction" – means a Cash Buy or Sell Trade or an Open Leg of a Repurchase Transaction, in each case, having the same Trade Date and Purchase Date.

"Submission Cut-Off Time" – means a time specified in the Operations Manual as the deadline on any Business Day for submitting Same-Day Transactions for clearance to the Corporation.

"Trade Date" – the date on which a Fixed Income Transaction is submitted to the Corporation for clearance provided that (i) for a Deferred Settlement Transaction, if such date is not a Business Day or the Fixed Income Transaction is submitted after the Netting Cut-Off Time on that Business Day, the Trade Date shall be deemed to be the immediately following Business Day; and (ii) for a Same Day Transaction, if such date is not a Business Day or the Same Day Transaction is submitted after the Submission Cut-Off Time on a date that is a Business Day, the Corporation will not accept the Same Day Transaction for clearing.



Any capitalized term used in this Rule D-6 that is not defined in this Section D-601 shall have the meaning assigned to it in Section A-102.

### Section D-602 Paramountcy

In the event of any inconsistency between the provisions of this Rule D-6 and the other provisions of the Rules, the provisions of this Rule D-6 will prevail.

#### Section D-603 Essential Terms of Fixed Income Transactions

(1) In addition to and not in lieu of the Acceptance Criteria set forth in Section D-104, the following Economic Terms of a Fixed Income Transaction shall be required to be submitted to the Corporation:

- Seller
- Buyer
- Purchased Securities (CUSIP/ISIN)
- Quantity of Purchased Securities
- Trade Date
- Purchase Price
- Purchase Date
- Repurchase Date (as applicable)
- Repo Rate (as applicable)

•Substitution (indicate whether applicable or not)

• Coupon Income (indicate whether payable when received, or payable only on Repurchase Date).

(2) Subject to conditions set forth herein, once a Trade Confirmation has been issued by the Corporation, the Corporation shall assume the position of the Seller and become a seller to Buyer and shall assume the position of the Buyer and become the buyer to Seller under all Fixed Income Transactions in each case, as principal to such Fixed Income Transactions, as a result of the novation process set forth in Subsection D-605(3).

(3) On the Purchase Date of each Fixed Income Transaction, the Seller shall transfer the Purchased Securities on such Purchase Date against payment of the Purchase Price by the Buyer. On the Repurchase Date of each Repurchase Transaction, the Reverse Repo Party shall transfer the Equivalent Securities against payment of the Repurchase Price by the Repo Party. The transfer and payment obligations referred to in this provision shall be subject to netting and settlement processes set forth in Section D-606.



(4) Notwithstanding the use of expressions such as "Repurchase Date", "Repurchase Price", and "margin" and "substitution" or any other Rule, all right, title and interest (free from liens, claims, charges, encumbrances) in and to the Purchased Securities and Equivalent Securities and money transferred or paid under these Rules shall pass to the party receiving such Purchased Securities, Equivalent Securities and money upon transfer or payment, and no security interest or hypothec is created in the Purchased Securities and Equivalent Securities and money transferred or paid. Each Fixed Income Clearing Member shall execute and deliver all necessary documents and take all necessary steps to procure that all right, title and interest in any Purchased Securities and in any Equivalent Securities shall pass to the party to which transfer is being made upon transfer of the same in accordance with these Rules, free from all liens, claims, charges and encumbrances, and such transfer will not violate any agreement to which such Fixed Income Clearing Member may be a party or by which such Fixed Income Clearing Member's property may be bound.

(5) For purposes of the *Interest Act* (Canada), if any rate of interest payable under any Fixed Income Transaction is expressed to be calculated on the basis of a period less than a full calendar year, the yearly rate of interest to which such rate is equivalent is the product obtained by multiplying such rate by a fraction, the numerator of which is the actual number of days in the calendar year and the denominator of which is the number of days comprising such other basis.

## Section D-604 Trade Reception and Validation

(1) Any Repurchase Transaction or Cash Buy or Sell Trade must be submitted for clearing to the Corporation through an Acceptable Marketplace (whether bilateral or multilateral) or through the CDS trade matching facility. The Corporation may require evidence as it deems reasonably acceptable that a Fixed Income Clearing Member is a duly authorized participant of any multilateral Acceptable Marketplace. The Corporation shall not bear any responsibility or liability for any error, delay, misconduct, negligence, or any other act or omission, by the multilateral Acceptable Marketplace or the CDS trade matching facility, as applicable.

(2) Once a Repurchase Transaction or Cash Buy or Sell Trade is received by the Corporation, a variety of validations will occur in accordance with the OTCI Clearing Platform procedure. These validations are designed to ensure that all Economic Terms match and all Acceptance Criteria set forth in Section D-104 are satisfied, and the Corporation does not accept any Repurchase Transaction or Cash Buy or Sell Trade bearing attributes that are determined by the Corporation as not acceptable for clearing. The Corporation will not accept a Repurchase Transaction with a Repurchase Date later than the maturity date of the applicable Purchased Securities.

(3) Any Same Day Transaction submitted after the Submission Cut-Off Time specified in the Operations Manual shall not be accepted by the Corporation for clearance and may be submitted by Fixed Income Clearing Members to the Central Securities Depository independently without being novated to the Corporation. Any Deferred Settlement Transaction submitted after the Netting Cut-Off Time specified in the Operations Manual shall be deemed received by the Corporation for clearance on the following Business Day.

(4) If the Acceptable Marketplace used for submitting a Repurchase Transaction or Cash Buy or Sell Trade for clearing is a multilateral facility, each Fixed Income Clearing Member transacting as Buyer or Seller shall be responsible for timely affirming the Fixed Income Transactions on the OTCI Clearing Platform, as directed by the Corporation.



#### Section D-605 Confirmation and Novation

(1) Once all validations have occurred and the Fixed Income Transactions are either (i) duly affirmed by the Fixed Income Clearing Members on the OTCI Clearing Platform or (ii) received for clearing by the Corporation from the CDS trade matching facility, the Corporation shall issue a Trade Confirmation with respect to each individual Fixed Income Transaction and send it to the transacting Fixed Income Clearing Members. A Fixed Income Clearing Member shall be bound by the terms of a Fixed Income Transaction for which the Corporation has issued a Trade Confirmation in its name. The Corporation shall not bear any responsibility or liability for any error, delay, misconduct, negligence or other act or omission by the CDS trade matching facility.

(2) The Corporation shall reject the Repurchase Transaction or Cash Buy or Sell Trade if (i) Economic Terms listed in Section D-603 are determined by the Corporation in its sole discretion as incorrect or incomplete when the Repurchase Transaction or Cash Buy or Sell Trade is submitted to the Corporation by or on behalf of a Fixed Income Clearing Member, or (ii) the Economic Terms submitted by or on behalf of the two Fixed Income Clearing Members that are parties to a Repurchase Transaction or Cash Buy or Sell Trade do not match, or (iii) any other Acceptance Criteria set forth in Section D-104 is not met. Such Repurchase Transaction or Cash Buy or Sell Trade will remain in effect solely between the persons party thereto in accordance with any terms agreed between them, and the Corporation shall have no further obligation or liability with respect to such Repurchase Transaction or Cash Buy or Sell Trade.

(3)Upon the issuance of a Trade Confirmation by the Corporation under Subsection D-605(1) and notwithstanding the fact that the transacting Fixed Income Clearing Members may not have received such Trade Confirmation, the Repurchase Transaction or Cash Buy or Sell Trade shall be automatically novated to the Corporation, such that the original Repurchase Transaction or Cash Buy or Sell Trade between the two Fixed Income Clearing Members is cancelled and replaced by two equivalent Fixed Income Transactions, one between the Seller and the Corporation where the Corporation is substituted as the Buyer, and one between the Buyer and the Corporation where the Corporation is substituted as the Seller. In respect of the Economic Terms, the Fixed Income Clearing Member that is a Seller under such original Repurchase Transaction or Cash Buy or Sell Trade shall have the same rights against, and owe the same obligations to, the Corporation under such Repurchase Transaction or such Cash Buy or Sell Trade to which it is a party as the selling party had and owed in respect of its counterparty under the original Repurchase Transaction or Cash Buy or Sell Trade, as the case may be. For purposes hereof, a reference to the "same" rights or obligations is a reference to rights or obligations falling due for exercise or performance after the time at which a Trade Confirmation is issued in respect of a Fixed Income Transaction, and which are the same in nature and character as the rights or obligations arising from the Economic Terms of the original Repurchase Transaction or Cash Buy or Sell Trade (it being assumed, for this purpose, that such Repurchase Transaction or Cash Buy or Sell Trade was a legal, valid, binding and enforceable obligation of the parties thereto and that the Economic Terms thereof were as presented to the Corporation for clearing), notwithstanding the substitution in the person entitled to them or obliged to perform them and subject to any changes thereto as a result of the operation of these Rules.

(4) Fixed Income Clearing by the Corporation is subject to, and contingent upon, the occurrence of the novation described in Subsection 605(3) above. Effective as at the time of such novation, Fixed Income Clearing Members that were parties to the original Repurchase Transaction or Cash Buy or Sell Trade shall be released and discharged from their respective obligations to each other and the resulting Fixed Income Transactions shall be governed by these Rules.



(5) If a Repurchase Transaction or a Cash Buy or Sell Trade is revoked, voided or otherwise declared invalid for any reason after the Economic Terms of it have been accepted by the Corporation for clearing, that revocation, avoidance or invalidity shall not affect any Fixed Income Transaction arising out of this Section D-605.

## **Section D-606 Transfers and Payments**

(1) In respect of any Deferred Settlement Transaction, excluding a Close Leg of a Repurchase Transaction, at the applicable Netting Cut Off Time on a Purchase Date, the Corporation shall calculate with respect to each Fixed Income Clearing Member (i) the Net Securities Transfer Requirement with respect to each Acceptable Security by aggregating the Purchased Securities of such Acceptable Security due by each Fixed Income Clearing Member on such Purchase Date and netting them against the Purchased Securities of such Acceptable Security due by the Corporation to such Fixed Income Clearing Member on such Purchase Date and netting them against the Purchase Prices due by each Fixed Income Clearing Member to the Corporation and netting them against all Purchase Prices due by the Corporation to such Fixed Income Clearing Member to the Corporation and netting them against all Purchase Prices due by the Corporation to such Fixed Income Clearing Member across all its Fixed Income Transactions.

(2) In respect of any Close Leg of a Repurchase Transaction, at the applicable Netting Cut Off Time on each Repurchase Date, the Corporation shall calculate with respect to each Fixed Income Clearing Member (i) the Net Securities Reversal Requirements with respect to each Acceptable Security by aggregating the Equivalent Securities of such Acceptable Security due by each Fixed Income Clearing Member on such Repurchase Date and netting them against the Equivalent Securities of such Acceptable Security due by the Corporation to such Fixed Income Clearing Member on such Repurchase Date; and (ii) the Net Funds Reversal Requirements by aggregating all Repurchase Prices less all Accrued Coupon Income deductible pursuant to Paragraph D-606(9)(b), due by each Fixed Income Clearing Member to the Corporation and netting them against all Repurchase Prices less all Accrued Coupon Income deductible pursuant to Paragraph D-606(9)(b), due by the Corporation to such Fixed Income Clearing Member across all of its Repurchase Transactions.

(3) At the applicable Netting Cut Off Time on each Business Day, for each Fixed Income Clearing Member, the Corporation shall calculate (i) the Net Delivery Obligation with respect to an Acceptable Security by aggregating and netting the Net Securities Transfer Requirement, the Net Securities Reversal Requirement, and any Rolling Delivery Obligation, as applicable, owing to or by the Fixed Income Clearing Member with respect to such Acceptable Security on such Business Day (which Net Delivery Obligation shall be subject to further netting pursuant to Paragraph A-801(2)(c) and the other provisions of Rule A-8 to determine the Net Delivery Requirement, the Net Funds Reversal Requirement, any Coupon Income payable pursuant to Paragraph D-606(9)(a), and any Postponed Payment Obligation, as applicable, owing to or by the Fixed Income Clearing Member, provided, however, these amounts shall not be netted against any other payment owing to or by a Fixed Income Clearing Member other than as prescribed under Paragraph A-801(2)(b) and the other provisions of Rule A-8 to determine the Net Payment other provisions for by a Fixed Income Clearing Member, provided, however, these amounts shall not be netted against any other payment owing to or by a Fixed Income Clearing Member other than as prescribed under Paragraph A-801(2)(b) and the other provisions of Rule A-8 to determine the Net Payment Against Delivery Requirement.

(4) At the applicable Netting Cut Off Time on each Business Day, the Net Delivery Obligations and the Net Payment Obligations will be netted against all other payment and delivery obligations with respect to Acceptable Securities to determine the Net Delivery Requirements and the Net Payment Against Delivery Requirements pursuant to Paragraphs (b) and (c) of Subsection A-801(2), and



communicated by the Corporation to Fixed Income Clearing Members that are Net Sellers with respect to a given Acceptable Security and/or Net Buyers. Fixed Income Clearing Members are responsible for ensuring that there are sufficient funds and sufficient Acceptable Securities in their cash and securities accounts at CDS to satisfy their Net Delivery Requirement and/or Net Payment Against Delivery Requirement, as applicable, as they become due in accordance with the rules of the Central Securities Depository.

(5) At the end of each Business Day, the Corporation shall calculate the Net MTM Repo Rate Payment for each Fixed Income Clearing Member, which shall be due and payable at Settlement Time, by aggregating all MTM Repo Rate Payments due by each Fixed Income Clearing Member to the Corporation and netting them against all MTM Repo Rate Payments due by the Corporation to such Fixed Income Clearing Member across all its Repurchase Transactions provided that a MTM Repo Rate Payment shall not be calculated in respect of a Repurchase Transaction where such Business Day is the Repurchase Date of such Repurchase Transaction.

(6) At the end of each Business Day, an amount in respect of the Net MTM Reversal Requirement will be calculated, which shall be due and payable at Settlement Time to a Fixed Income Clearing Member by the Corporation if the amount in clause (i) of the definition of "Net MTM Reversal Requirement" is greater than the amount in clause (ii) of such definitionprevious Business Day's Net MTM Repo Rate Payment was paid by the Fixed Income Clearing Member to the Corporation, and will be paid by such Fixed Income Clearing Member to the Corporation, and will be paid by such Fixed Income Clearing Member to the Corporation, and will be paid by such Fixed Income Clearing Member to the Corporation, and will be paid by such Fixed Income Clearing Member to the Corporation, and will be paid by such Fixed Income Clearing Member to the Corporation, and will be paid by such Fixed Income Clearing Member to the Corporation the amount in clause (ii) of such definition; provided that this Subsection D-606(6) shall not apply if such Fixed Income Clearing Member is a Non-Conforming Member.

- (7) (a) The payment of MTM Repo Rate Payments on a daily basis potentially distorts the pricing mechanisms for a Repurchase Transaction and in order to minimize the impact of such MTM Repo Rate Payments, the Corporation will, for each Fixed Income Clearing Member that is a party to a Repurchase Transaction, either charge interest on such MTM Repo Rate Payments received or pay interest on such MTM Repo Rate Payments paid, as determined pursuant to Paragraph D-606(7)(b).
  - (b) At the end of each Business Day, an amount in respect of the Net OCF MTM Payment will be calculated, which shall be due and payable at Settlement Time (i) to a Fixed Income Clearing Member by the Corporation if it is determined on such day that a Net MTM Reversal Requirement is payable to such Fixed Income Clearing Member by the Corporation, or (ii) by a Fixed Income Clearing Member to the Corporation if it is determined on such day that a Net MTM Reversal Requirement is payable by such Fixed Income Clearing Member to the Corporation. The amount of such Net OCF MTM Payment shall be determined by aggregating all OCF MTM Payments due by each Fixed Income Clearing Member to the Corporation in respect of its Repurchase Transactions and netting them against all OCF MTM Payments due by the Corporation to such Fixed Income Clearing Member in respect of its Repurchase Transactions.

(8) Notwithstanding anything to the contrary herein, all payments to be made hereunder to a Fixed Income Clearing Member or to the Corporation in respect of a Net MTM Repo Rate Payment, a Net OCF MTM Payment, and a Net MTM Reversal Requirement which are due and payable at the same Settlement



Time, shall be aggregated and netted against each other such that only one net payment shall be made either to a Fixed Income Clearing Member by the Corporation or to the Corporation by a Fixed Income Clearing Member in respect of such amounts, as may be further netted in accordance with, and otherwise subject to, Paragraph A-801(2)(a) and the other provisions of Rule A-8.

- (9) (a) In respect of any Repurchase Transaction where the parties have agreed on the Trade Date that Coupon Income will be paid to a Seller as it is received, in each case, any Coupon Income paid by an issuer of Purchased Securities that has been transferred by a Net Seller to the Corporation and by the Corporation to a Net Buyer shall be paid on the Coupon Payment Date by the Net Buyer to the Corporation and by the Corporation to the Net Seller.
  - (b) In respect of any Repurchase Transaction where the parties have agreed on the Trade Date that Coupon Income will not be paid to a Seller as it is received, any Coupon Income paid by an issuer of Purchased Securities that has been transferred by a Net Seller to the Corporation, and by the Corporation to a Net Buyer, shall be held by the Net Buyer until the applicable Repurchase Date. On such Repurchase Date, the Repurchase Price otherwise payable by a Net Seller to the Corporation and by the Corporation to a Net Buyer in respect of such Repurchase Transaction shall be reduced by the Accrued Coupon Income.

(10) In respect of any Same Day Transaction, payment of the Purchase Price by the Buyer and delivery of the Quantity of Purchased Securities by the Seller will be settled on a gross basis on the applicable Trade Date immediately following the novation of each Same Day Transaction under Subsection D-605(3). Fixed Income Clearing Members who submit Same Day Transactions are responsible for ensuring that there are sufficient funds and sufficient Acceptable Securities in their cash and securities accounts at CDS to satisfy their Gross Delivery Requirement and/or Gross Payment Against Delivery Requirement, as applicable, as they become due in accordance with the rules of the Central Securities Depository.

(11) (a) Notwithstanding the foregoing, at the Intra-Day Payment Cut-Off Time, the Corporation shall send Intra-Day Net Payment Instructions to the Central Securities Depository reducing any Pending Payment Against Delivery Requirements of a Fixed Income Clearing Member in favour of the Corporation by any Pending Payment Against Delivery Requirements of the Corporation in favour of the same Fixed Income Clearing Member.

(b) Notwithstanding the foregoing, at the Intra-Day Settlement Cut-Off Time, the Corporation shall send Intra-Day Net Settlement Instructions to the Central Securities Depository reducing any Pending Delivery Requirements of a Fixed Income Clearing Member in favour of the Corporation by any Pending Delivery Requirements of the Corporation in favour of the same Fixed Income Clearing Member in respect of the same Acceptable Security, and/or reducing any Pending Payment Against Delivery Requirement of a Fixed Income Clearing Member in favour of the Corporation by any Pending Payment Against Delivery Requirement of a Fixed Income Clearing Member in favour of the Corporation by any Pending Payment Against Delivery Requirement of a Fixed Income Clearing Member in favour of the Same Fixed Income Clearing Member.

(c) Each Fixed Income Clearing Member is responsible for ensuring that there are sufficient funds in its cash account at the Central Securities Depository to satisfy its Intra-Day Net Payment Instruction by the Intra-Day Net Payment Time and that there is sufficient funds and sufficient Acceptable Securities in its cash and securities accounts at the Central Securities Depository to



satisfy its Intra-Day Net Settlement Instruction(s) and any Gross Delivery Requirement(s) and Gross Payment Against Delivery Requirement(s) resulting from Same Day Transactions submitted after the Intra-Day Settlement Cut-Off Time and before the Submission Cut-Off Time, by the DVP Settlement Time, and otherwise comply with the rules of the Central Securities Depository.

## Section D-607 Margin Requirements

(1) In respect of all Repurchase Transactions to which a Fixed Income Clearing Member is a party, on each day that is a Business Day, the Corporation shall determine whether, due to changes in the Market Value of the Purchased Securities, additional Margin is required to be delivered by such Fixed Income Clearing Member by the Settlement Time on such Business Day.

(2) In respect of all Repurchase Transactions to which a Fixed Income Clearing Member is a party, on each day that is a Business Day, the Corporation shall determine whether, due to changes in the Floating Price Rate and taking into account rate volatility and expected liquidation periods as determined in the Corporation's sole discretion, additional Margin is required to be delivered by such Fixed Income Clearing Member by the Settlement Time on such Business Day.

(3) In respect of all Cash Buy or Sell Trades to which a Fixed Income Clearing Member is a party, on each Business Day commencing on the applicable Trade Date and ending on (but excluding) the applicable Purchase Date, the Corporation shall determine whether, due to changes in the Market Value of the applicable Acceptable Security, additional Margin is required to be delivered by such Fixed Income Clearing Member by the Settlement Time on such Business Day.

(4) The delivery of Margin under this Section D-607 shall be subject to the netting provisions of Paragraph A-801(2)(d) and to Rule A-7 and the other provisions of Rule A-8.

### Section D-608 Substitution

(1) In respect of a Repurchase Transaction that is an N-Day Term Repurchase Transaction, where the parties have agreed on the Trade Date that the Repo Party shall have the right, upon providing notice to the Corporation, to substitute Purchased Securities for another Acceptable Security, such Repurchase Transaction may be varied in accordance with the provisions of the Operations Manual by the transfer by the Reverse Repo Party to the Repo Party of Equivalent Securities in exchange for the transfer by the Repo Party to the Reverse Repo Party of New Purchased Securities, being securities having a Market Value at the date of the variation at least equal to the Purchase Price. Such Repurchase Transaction varied under this Section shall thereafter continue in effect as though the Purchased Securities in respect of such Repurchase Transaction consisted of the New Purchased Securities instead of the securities in respect of which Equivalent Securities were transferred to the Repo Party.



# CANADIAN DERIVATIVES CLEARING CORPORATION CORPORATION CANADIENNE DE COMPENSATION DE PRODUITS DÉRIVÉS

# **OPERATIONS MANUAL**

AS OF [ • ] JULY 4, 2011



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# PREAMBLE AND DEFINITIONS

# PREAMBLE

This Amended and Restated Operations Manual cancels and supersedes the previous versions thereof.

CDCC and its Clearing Members are contractually bound by the Membership Agreement which is constituted by the Application for Membership when accepted by CDCC, as may be amended from time to time, which incorporates by reference the Rules of CDCC, as may be amended from time to time. The Rules of CDCC include this Operations Manual, as may be amended from time to time. In the case of conflict, the provisions of the Rules (excluding the Operations Manual) prevail over this Operations Manual. The provisions of the Rules (including this Operations Manual), in the case of conflict, prevail over the provisions of the Application for Membership.

The Operations Manual provides practical details with respect to (i) certain definitions, (ii) timelines, (iii) reports, (iv) trade processing, (v) open positions, (vi) exercises, tenders, assignments and delivery, (vii) settlement, (viii) additional margin processing, and (ix) clearing fees. The Operations Manual contains two schedules which are integral parts thereof: (a) the Risk Manual providing practical details with respect to margin and other risk management processes, including the Default Manual as an Appendix, and (b) the templates of depository agreements.

All times specified in this Operations Manual refer to Eastern Time, unless otherwise indicated.

All amounts specified in this Operations Manual refer to Canadian currency, unless otherwise indicated.

All capitalized terms used in this Operations Manual shall have the meanings assigned to them in the Rules unless the context otherwise requires or unless specifically defined differently herein.

#### DEFINITIONS

"Acceptable Collateral" – Margin Deposits by Clearing Members in a form that is acceptable to CDCC as set forth in Section A-709 of the Rules.

**"Assignee"** – a Clearing Member that holds a Short Position in an Options contract or a Futures contract and which is assigned by CDCC the obligation to make delivery of the Underlying Interest, resulting from the submission of an Exercise Notice or a Tender Notice by another Clearing Member (referred to as Exerciser or Tenderer) holding a Long Position in the relevant Series of Options or Series of Futures.

"Automatic Exercise" – a process by which the CDCC Clearing Application will exercise In-the-Money Options at a pre-determined threshold.

"CDCC Clearing Application" – CDCC's system including currently SOLA Clearing and all the processes associated with it, as may be supplemented or otherwise changed from time to time.

"Closing Transaction" – any Transaction that is either a Closing Buy Transaction, a Closing Purchase Transaction, a Closing Sell Transaction or a Closing Writing Transaction, as such terms are defined in the Rules, and in all cases that reduces or eliminates the Clearing Member's Open Interest.

*"Converge"* – marketing brand of the portion of the CDCC Clearing Application that captures and processes OTCI Transactions, including Fixed Income Transactions.

**"Difference Fund"** – any and all deposits from a Clearing Member to CDCC as additional Margin, in accordance with Sections A-702, A-705, A-710, B-412, C-303, C-517 or D-307 of the Rules, or otherwise as set forth in Section 8-2 hereof.



# PREAMBLE AND DEFINITIONS

**"Exerciser"** – a Clearing Member that holds a Long Position in a particular Series of Options and submits an Exercise Notice to CDCC.

"Expiry Saturday" – the Saturday following the third Friday of the month.

**"FIFO Period"** – the quarterly delivery period for Futures contracts on Government of Canada bonds, in accordance with Contract Specifications of the relevant Exchange.

**"Forward Repurchase Transaction"** – a Repurchase Transaction with respect of which the Open Leg has not settled yet at the time of the relevant report.

**"FTP Downloads"** – Clearing Members' access to files and reports on an FTP server that is part of the CDCC Clearing Application.

"Inquiry Screen" – Graphical User Interface (GUI) view of the CDCC Clearing Application.

**"Large Value Transfer System" or "LVTS"** – an electronic wire system introduced by the Canadian Payments Association in February 1999 to facilitate the transfer of irrevocable payments in Canadian dollars across the country.

"Mini Futures Contract" – a Future that has the same Underlying Interest as a Standard Futures Contract but having a Unit of Trading that is a ratio of the Standard Futures Contract in accordance with applicable Contract Specifications.

"Net Settlement Position" – All the future Net Delivery Requirements and Net Payment Against Delivery Requirements of a Clearing Member, as reported by CDCC on a daily basis, taking into account all Fixed Income Transactions that have settled during the day and all new Fixed Income Transactions that have been novated to CDCC.

**"Open Position File"** – database of the CDCC Clearing Application which compiles the Open Positions of all Clearing Members. Each Clearing Member can access the information pertaining to his accounts only, not to other Clearing Members' accounts.

**"Opening Transaction"** – any Transaction that is either an Opening Buy Transaction, an Opening Purchase Transaction, an Opening Sell Transaction or an Opening Writing Transaction, and in all cases that create or increase the Clearing Member's Open Interest.

"Operational Notices" – formal notifications to the Clearing Members, representing items that are not published on CDCC's website. These documents are available on the Secured Website.

**"OTCI Equity Options"** – over the counter options on an equity, bearing characteristics that differ from Exchange traded Options and are cleared by CDCC through *Converge*.

**"Position Transfer"** – this is the CDCC Clearing Application function to move a position from one Clearing Member to another.

**"Production Schedule"** – sum of time lines that are followed by CDCC, as set forth in Section 2 of this Operations Manual.

**"Request for Standard vs Mini Offset"** – the request by a Clearing Member, in such form as prescribed by CDCC, to offset one (1) or more Long Position(s) on a Standard Futures Contract against the equivalent number of Short



# PREAMBLE AND DEFINITIONS

Positions on the corresponding Mini Futures Contract (totalling the same quantity of the Underlying Interest in accordance with the ratio prescribed in the Contract Specifications of the Mini Futures Contract), having the same Delivery Month and booked in the same Clearing Member's account, or the other way around.

**"Running Repurchase Transaction"** – a Repurchase Transaction with respect of which the Open Leg has already settled at the time of the relevant report.

**"Secured Website"** – Clearing Members only secured web site that requires a sign on and password, where CDCC publishes Operational Notices as well as documents that are meant only for the Clearing Members.

**"Specific Deposit"** – <u>a Put</u>Margin Deposits (in the forms of Escrow Receipt, <u>a Call Underlying Interest Deposit or a</u> <u>Futures Underlying Interest Deposit</u>s, put and call letters of guaranty, bulk and specific collateral) which are accepted by CDCC <u>as Underlying Interest Equivalent</u> to cover a specific <u>Short Position</u>.

"Standard Futures Contract" – a Future in relation to which a Mini Futures Contract exists.

**"Tenderer"** – a Clearing Member that holds a Short Position in a particular Series of Futures and submits a Tender Notice, or is deemed to do so in accordance with the Rules, to CDCC.

"Unsettled Items" - Any Underlying Interest that is not settled by its Settlement Time.



# TIME FRAMES

#### **ON-LINE ACCESS**

Clearing Members must be connected to the CDCC Clearing Application using their PC terminals to perform a variety of functions. (Clearing Members must supply their own PC terminals and Internet connection, at their own cost).

All instructions (corrections, Open Position changes, Position Transfers, Deposits, withdrawals, and submission of Exercise Notices and Tender Notices) must be entered on-line.

The CDCC Clearing Application allows Clearing Members to view their current information throughout the day electronically (except during scheduled maintenance or unforeseen outages). In addition, Clearing Members can download their reports from 6:00 a.m. to 3:00 p.m. every day using the FTP Download function.

Should a Clearing Member not have electronic access (due to technical issues) to the CDCC Clearing Application, CDCC can perform instructions on behalf of the Clearing Member. This requires a phone call from the Clearing Member to CDCC, along with the appropriate form faxed or scanned and e-mailed to CDCC. Such form must be authorized with the approved Clearing Member's stamp.

The regular business hours of CDCC are 7:00 a.m. to 5:30 p.m. on every Business Day.

With respect to operational activity related to Options with an Expiration Date on Saturday, CDCC staff members are on-site from 8:00 a.m. to forty-five (45) minutes after delivery of the Options Exercised and Assigned Report (MT02).



# TIME FRAMES

# TIME FRAMES FOR ON-LINE ACCESS

# ON EVERY BUSINESS DAY

Activity	Deadlines
Settlement Time with respect to Ppayments for overnight settlement	7:45 a.m.
<u>Fixed Income Transactions – Intra-Day Payment Cut-Off Time in respect of any</u> <u>Pending Payment Against Delivery Requirements (Intra-Day Net Payment Instructions</u> sent to CDS for settlement by Intra-Day Net Payment Time)	10:15 a m
Intra-Day Net Payment Time	<u>10:15 a.m.</u> 10:30 a.m.
Intra-day margin call	10:30 a.m.
Fixed Income Transactions – (Same Day Transactions) – Intra-Day Gross-Settlement Cut-Off Time in respect of any Unsettled Items Pending Settlement Requirements (Netted settlement instructions of Unsettled Items-Intra-Day Net Settlement Instructions sent to CI settlement by DVP Settlement Time)	DS for <del>same day</del> <del>1:30<u>2:15</u> p.m.</del>
Intra-day margin call process – Specific Deposits (same day withdrawal day valuation)	1:30 p.m.
Cash Deposits (Margin and Clearing Fund) – under \$2,000,000 (same day deposit)	2:45 p.m.
Cash Deposits (Margin and Clearing Fund) – of and over \$2,000,000 (2 Business Days notice)	2:45 p.m.
Cash withdrawal requests - under \$2,000,000 (same day withdrawal)	2:45 p.m.
Cash withdrawal requests - of and over \$2,000,000 (2 Business Days notice)	2:45 p.m.
Fixed Income Transactions – (Same Day Transactions) – Submission Cut-Off Time	3:30 p.m.
All assets deposits (other than cash)	3:30 p.m.
All assets withdrawal requests (other than cash) for same day withdrawal	3:30 p.m.
Failed and partial deliveries CDCC intervention starts	<del>- 3:00 p.m.</del>
Failed and partial deliveries CDCC intervention ends	<del>- 3:55 p.m.</del>
Specific Deposits (overnight valuation)	3:30 p.m.
DVP Settlement Time	4:00 p.m.
OTCI (other than Fixed Income Transactions) – Unmatched entry	4:00 p.m.
Position Transfers	5:25 p.m.
Trade corrections	5:30 p.m.



# TIME FRAMES

Open Position changes	5:30 p.m.
Fixed Income Transactions (Deferred Settlement Transactions) – Netting Cut Off Time (Netted settlement instructions (Net Delivery Requirements and Net Payment Against Delivery Requirements) sent to CDS for settlement on the next business day)	5:30 p.m.



# TIME FRAMES

# TIME FRAMES FOR ON-LINE ACCESS (continued)

# **ON EVERY BUSINESS DAY (continued)**

Activity	Deadlines
Futures - Request for Standard vs Mini Offset	5:00 p.m.
Futures – Tender Notices submission	5:30 p.m.
Options – Exercise Notices submission	5:30 p.m.
CDCC Clearing Application shutdown – Close of Business	5:30 p.m.
Fixed Income Transactions – available (next Business Day start)	7:00 p.m.
Unsettled Item	
Confirmation of settled items to be sent to CDCC	4:15 p.m.
Daily Capital Margin Monitoring Calls	
CDCC notifies Clearing Members of additional Margin required	9:30 a.m.
Clearing Member's obligation to cover any deficit	12:00 (noon)

TIME FRAMES FOR ON-LINE ACCESS (continued on next page)



# TIME FRAMES

# TIME FRAMES FOR ON-LINE ACCESS (continued)

# EXPIRY SATURDAY

Activity	Deadlines
<ul> <li>Reports available (FTP Download):</li> <li>Expiry Report (MX01)</li> <li>Expiry Options Daily Transaction Report (MT01)</li> <li>List of Options/Cash Adjustments (MT03)</li> </ul>	6:00 a.m.
<ul> <li>CDCC Clearing Application available for:</li> <li>Trade corrections</li> <li>Open Position changes</li> <li>Position Transfers</li> <li>Changes to Automatic Exercises</li> <li>Exercise Notices input</li> <li>Cancel / correct previous (Friday) exercises</li> </ul>	6:00 a.m. to 10:00 a.m.
CDCC Clearing Application shutdown: CDCC processes expiry entries	10:01 a.m.
<ul> <li>Reports available (FTP Download):</li> <li>List of Expiry Adjustments Report (MX02)</li> <li>Expiry Difference Report (MX03)</li> </ul>	10:15 a.m. to 11:30 a.m.
<ul> <li>CDCC Clearing Application available again for:</li> <li>Review of expiry entries</li> <li>Corrections to expiry entries</li> </ul>	10:15 a.m. to 10:30 a.m.
CDCC Clearing Application shutdown ➤ Close of Business	10:30 a.m.
<ul> <li>Reports available (FTP Download):</li> <li>&gt; Options Exercised and Assigned Report (MT02)</li> <li>&gt; Other reports and files also available</li> </ul>	11:45 a.m.

# TIME FRAMES FOR ON-LINE ACCESS (continued on next page)



# TIME FRAMES

#### TIME FRAMES FOR ON-LINE ACCESS (continued)

# **FIFO PERIOD**

Activity	Deadlines
Daily reporting by Clearing Members of the Long Positions in each of their accounts in chronological order	5:30 p.m.
Submission of Tender Notices	5:30 p.m.

# PLEDGING

Clearing Members must input requests for deposit or withdrawal of Acceptable Collateral on the pledging screen of the CDCC Clearing Application.

CDCC monitors the pledging screens between 9:00 a.m. and 3:30 p.m. on Business Days.

CDCC verifies the validity of each deposit made by Clearing Members and ensures that withdrawals do not create deficits in the Clearing Members' accounts (Margin, Clearing Fund or Difference Fund). Any request for the withdrawal of a Specific Deposit should be entered prior to when the intra-day margin call process runs as deposits are valued at this time. Any withdrawal of this type entered after such time will not be processed as such withdrawal cannot be properly valued.

The entries on the pledging screen of the CDCC Clearing Application are matched by CDCC to corresponding entries on the reporting system of the relevant Central Securities Depository.

In some cases an exchange of document at a CDCC Office by the Clearing Members (accompanied by a screen print of the entry bearing the Clearing Member's stamp) may be accepted by CDCC as constituting a physical deposit or withdrawal.

After performing all the validation processes, CDCC confirms within the CDCC Clearing Application the Clearing Members' deposits and/or withdrawals.

Deposits, withdrawals and changes thereto will be reflected on the immediately following Business Day Deposits and Withdrawals Report (MA01). In accordance with CDCC's Rules, any discrepancies that the Clearing Member notices against its own records should be reported to CDCC immediately.



# **CDCC - REPORTS**

# **REPORT REFERENCES**

Clearing Member reports contain the following information:

Transactions	Reports relating to Clearing Member's Transactions such as trade entries, trade corrections, trade rejections and exercises/tenders. These reports start with the alpha code MT.	
Fees	Report relating to the collection of service fees from the Clearing Member. These reports start with the alpha code MB.	
Settlements	Reports relating to Premiums, Settlement of Gains and Losses, and Margin. These reports start with the alpha code MS.	
Assets	Reports relating to the maintenance of Clearing Member assets as well as depository information. These reports start with the alpha code MA.	
Delivery	Reports relating to delivery obligations and unsettled deliveries. These reports start with the alpha code MD.	
Positions	Reports relating to positions held by Clearing Members separately for Futures, Options, OTCI and Fixed Income Transactions. These reports start with the alpha code MP.	
Expiry	Reports used by Clearing Members to verify expiring positions and automatic exercises. These reports start with the alpha code MX.	
Risk	Reports relating to risk management. These reports start with the alpha code MR.	



# **CDCC - REPORTS**

# **REPORT DETAILS**

Report Code	Report Name	Report Description
Daily:		
MA01	Deposits and Withdrawals Report	Details on Clearing Member's deposits and withdrawals for Margin, Clearing Fund and Difference Fund. (Note: will find the letters D, W and PW next to the date of deposit)
MD01	Options Unsettled Delivery Report	Lists unsettled deliveries for Options.
MD51	Futures Unsettled Delivery Report	Lists unsettled deliveries for Futures - the issue and number of Futures contracts which must be delivered - the account to which the delivery has been assigned and the opposite Clearing Member - the Settlement Amount and settlement date
MD70	Fixed Income <u>Net</u> Settlement <u>Delivery</u> Status Report	Status of Clearing Member's <u>settlement</u> <u>delivery versus payment</u> activity <u>at the Central Securities Depository</u> with respect to Acceptable Securities on that day.
MP01	Options Open Positions Report	Lists the Clearing Member's Open Positions for puts and calls.
MP02	Sub-Account Options Open Positions Report	Lists all Options Open Positions in sub-accounts of the Clearing Member's Client Account(s), Firm Account(s) and Multi-Purpose Account(s).
MP21	Contract Adjustment Report	Lists the Clearing Member's Long Positions and Short Positions before and after the relevant contract adjustment.
MP51	Futures Open Positions Report	Lists the Clearing Member's Futures and Options on Futures Open Positions for all accounts.
MP70	Fixed Income Forward Repo Activity Position Activity Report	Lists the Clearing Member's outstanding Repurchase Transactions accepted for clearing by CDCC. Acceptable Security.
<u>MP71</u>	Fixed Income Repo Conversion Position Report	Lists all of the Clearing Member's Repurchase Transactions that have progressed from Forward Repurchase Transactions to Running Repurchase Transactions on that day.
<u>MP73</u>	Fixed Income Running Repo Open Positions Report	Lists all of the Clearing Member's Running Repurchase Transactions as of that day.
<u>MP75</u>	Fixed Income Forward Net Settlement Positions Report	Lists all of the Clearing Member's forward Net Settlement Positions obligations.
<u>MP79</u>	Daily Repo Rate Mark to Market Report	Lists the Clearing Member's MTM Repo Rate Payments, OCF MTM Payments and Net MTM Reversal Requirement for that day.
MR05	OTCI (Converge) Position Limits Usage Report	Lists Clearing Member's percentage of OTCI ( <i>Converge</i> ) Position Limits used.
MR50	Daily Capital Margin Monitoring Report	Lists Clearing Member's Margin and capital requirements. Identifies if additional Margin is required.
MS01	Daily Settlement Summary Report	Lists assets balances with Margin requirements and cash settlement in Canadian and U.S. dollars.
MS03	Trading and Margin Summary Report	Lists Options Premiums, Settlement of Gains and Losses, Futures Premiums and Margin requirements for each sub-account. <b>Note:</b> Does not include trade adjustments (T+ 1)
MS05	SPAN Performance Bond Summary Report	The report shows the Performance Bond (Margin) requirements for each Clearing Member by type of account.
MS07	Intra-Day Margin Report	Margin call details with Margin requirements by account.
MS08	Daily Margin Activity Report	Lists details of positions by Class Group with Margin requirements.



# **CDCC - REPORTS**

MS70	Fixed Income Net Settlement	Lists all of the Clearing Member's Fixed Income Transactions
	Position Activity Report	activities that contribute to its Net Settlement Position. Lists details of
		the net settlement position of the Clearing Member with respect to
		Acceptable Securities.
MS75	Fixed Income End of Day Daily	Detail of Clearing Member's Indicates the net settlement instructions
	Settlement Instruction Report	to beof the Clearing Member, as sent to the Central Securities
		Depository after Netting Cut-Off Time. (i.e. Net Delivery
		Requirements with respect to Acceptable Securities and/or Net
		Payment against Delivery Requirement).
MT01	Options Daily Transaction	Lists details for all Option contracts from previous Business Day.
	Report	1 1 5
MT02	Options Exercised and Assigned	Lists totals for Options Exercised Positions and Assigned Positions by
	Report	Series of Options (including the debit and credit dollar values of the
	1	Transactions).
MT03	List of Options/Cash	Lists all trade adjustments and Open Position changes including cash
	Adjustments Report	adjustments and Position Transfers.
MT05	Options Consolidated Activity	Lists all positions with activity including Option Premiums.
	Report	
MT06	Options Sub-Account	Lists positions with activity including Option Premiums for only the
	Consolidated Activity Report	sub-accounts of Client, Firm and Multi-Purpose.
MT10	Unconfirmed Items Report	Lists all items that remained unconfirmed by the opposite member at
		the end of the current Business Day.
MT29	Trades Rejection Modification	Lists all original and modified trade rejections for the Clearing
	Report	Member.
MT51	Final Futures Daily Transaction	Lists trade details for all Futures and Options on Futures activity.
	Report	
MT52	Futures Tenders and	Lists all Tender Notices and Assigned Positions details.
	Assignments Report	
MT53	List of Futures/Cash	Lists details on all Futures and Options on Futures trade adjustments,
	Adjustments Report	Open Position changes, including cash adjustments and Position
		Transfers.
MT54	Futures Trading Summary	Lists all Series of Futures and Options on Futures and prices, and
	Report	volumes at which each were traded. Lists number of contracts bought
		and sold for each Series of Futures Trade Prices.
MT66	Futures Sub-Account	Lists Futures and Options on Futures positions with activity including
	Consolidated Activity Report	Settlement of Gain and Losses and Futures Premiums respectively, for
		the sub-accounts of Client, Firm and Multi-Purpose.
MT70	Fixed Income Novated Daily	Lists the Detail of Clearing Member's daily Fixed Income Transactions
	Transactions Report	novated to CDCC in accordance with the CDCC Clearing Application.
<u>MT71</u> MT75	Fixed Income CSD Novated	Lists the data transmitted to CDCC by the Central Securities
	Trades Daily Trade Adjustments	Depository with respect to the Clearing Member's daily Fixed Income
	Report	Transactions submitted for clearing. Lists the daily adjustments
		(including corrections, cancellations, rejected trades) made by the
		Clearing Member with respect to Fixed Income Transactions.
<u>MT73</u>	Fixed Income Trade Rejection	Lists details of Clearing Member's daily Fixed Income Transactions
	Report	that were rejected (DK) by CDCC or by the Clearing Member itself.
<u>MT74</u>	Fixed Income Not-Novated	Lists the Clearing Member's daily Fixed Income Transactions that
I <u> </u>	Transactions Report	were not novated to CDCC, including all rejected and orphaned trades.
MT92	Options on Futures Exercised &	Lists totals for Options on Futures Exercised Positions and Assigned
	Assigned Report	Positions by Series.
		Note: Futures Options Exercised Positions and Assigned Positions



# **CDCC - REPORTS**

		value is nil
MT99	Detailed Futures Consolidated	Detailed list of all Futures position with activity, including Settlement
	Activity Report	of Gains and Losses. Detailed list of all Options on Futures positions
		and activity including Futures Premiums.
Monthly:		
MA71	Clearing Fund Statement	Identifies the Clearing Member's Clearing Fund obligation. Lists the
		Clearing Member's current Deposits within the Clearing Fund and
		what is owed.
MB01	Monthly Clearing Fees Details	This report contains the following four sub-reports:
	Report	"Fees" – this is product by sub-account.
		"Summary by Category" – this is summarization by product.
		"Summary by Account Operation Type" – this is a summary of the
		operational charges by sub-account.
MB02	Monthly Clearing Fees Invoice	This report contains summarization of the monthly clearing fees in an
		invoice format – THIS IS NOT TO BE PAID. The system automatically
		includes the collection of the fees within the daily settlement on the
		morning of the fifth business day of the month.
MB03	Monthly Fixed Income Clearing	This report details the clearing fees that are due with respect to Fixed
	Fees Invoice	Income Transactions by each Clearing Member.
MT40	Broker Ranking by Account	Individual Clearing Member ranking within CDCC for contracts,
	Report	value traded and transactions (trade only) by month with year to date.
FIFO Period:		
MP56	FIFO Position Report	Lists Series of Futures with positions in chronological order, contracts
		in positions.
MP60	FIFO Declaration vs. Open	Lists Clearing Member's Futures positions and FIFO long positions
	Position Report	declaration.
Options on Fu		1
MT51	Final Futures Daily Transaction	Lists trade details for all Futures and Options on Futures activity.
	Report	
MX11	Futures Options Expiry Report	Lists all expiring Options on Futures with In-the-Money Options or
		Out-Of-the-Money Options amounts and Automatic Exercise positions
		for Expiry.
MX12	Futures Options Expiry	Lists all trade adjustments and Open Positions changes on expiring
	Adjustments Report	Series only.
MX13	Futures Options Expiry	Lists all reported changes, deletions and/or additions to exercises on
	Difference Report	the Futures Options Expiry Report (MX11).
	y (Saturday Morning):	
MT01	Options Daily Transaction	Lists details for all Option contracts from previous Business Day.
MTOO	Report	
MT02	Options Exercised and Assigned	Lists totals for Options Exercised Positions and Assigned Positions by
	Report	Series of Options (including the debit and credit dollar values of the
<b>N</b> ( <b>N</b> (0)1		transactions).
MX01	Expiry Report	Lists all expiring Options with In-the-Money Options or Out-of-the-
MYOO	List of Engline A Buston and	Money Options amounts and Automatic Exercise positions for Expiry.
MX02	List of Expiry Adjustments	Lists all trade adjustments and Open Positions changes on expiring
MYOO	Report	Series of Options only.
MX03	Expiry Difference Report	Lists all reported changes, deletions and/or additions to exercises on
OTCL F		the Expiry Report.
OTCI Expiry:	Erroim Demont	Liste all consistence on the last the Marco Oction of the first
MX01	Expiry Report	Lists all expiring Options with In-the-Money Options or Out-of-the-
		Money Options amounts and Automatic Exercise positions for Expiry.



# **CDCC - REPORTS**

Business Day following Expiry:		
MP11	Expired Options Positions	Lists the Clearing Member's balance of expired Options positions
	Report	following the Saturday Expiry process.
MP12	Expired Futures Options	Lists the Clearing Member's balance of expired Futures Options
	Positions Report	positions following the Friday Expiry process.



# TRADE PROCESSING

# INTRODUCTION

All Exchange Transactions are processed electronically. In all cases both the selling and buying trade data is sent to the relevant Exchange's electronic trading system, which then transmits the matched trades to CDCC. The CDCC Clearing Application verifies the trade information and, if incorrect, rejects it for correction and resubmission. If the trade information is valid, the Clearing Members' Open Positions are immediately updated. The Exchange Transaction is reported on the Options Daily Transaction Report (MT01) or on the Final Futures Daily Transaction Report (MT51), as the case may be.

OTCI Transactions (other than Fixed Income Transactions) are also submitted electronically. Clearing Members submit their individual trade details onto the trade capture screens of *Converge*, which will match, validate and confirm the transactional details to the submitting Clearing Members. OTCI Options are reported on the Options Daily Transaction Report (MT01). No corrections will be permitted for OTCI Transactions after CDCC issues a Trade Confirmation.

Fixed Income Transactions can be transmitted through Acceptable Marketplaces to CDCC through a number of methods. The Clearing Members must use one of the following methods:

- 1. use the trade capture screens of *Converge*
- 2. transmit trade legs through other electronic means for matching within *Converge*
- 3. transmit matched trades through other electronic means acceptable to CDCC
- 4. trade at an ATS which will transmit matched trades through acceptable electronic means to CDCC 5. trade at an IDB which will use the trade capture screens of *Converge*
- 5. trade at an IDB which will transmit matched trades through acceptable electronic means to CDCC
- 6. use the CDS trade matching facility routing matched trades to CDCC

Fixed Income Transactions are reported on the Fixed Income <u>CSD Information</u> Daily Transactions Report (<u>MT71</u> MT70).

The reports referred to herein are available for FTP Downloads on the morning of the Business Day after Transactions are submitted for clearing to CDCC. In accordance with CDCC's Rules, Clearing Members must verify that such reports are correct.



#### TRADE PROCESSING

#### **EXCHANGE TRANSACTIONS (OPTIONS AND FUTURES)**

Positions of each Clearing Member are carried by CDCC for Client Account(s), Firm Account(s) and Multi-Purpose Account(s), each of which is maintained separately. CDCC supplies reports for each account.

Such separation requires that each Clearing Member designates whether a Transaction is submitted for a "Client", "Firm" or "Multi-Purpose" when submitting a Transaction for clearing. Furthermore, if separate sub-accounts are maintained for each account type, each Transaction must be coded to indicate the appropriate sub-account information.

It is required that a Closing Transaction for a Client Account be designated as such on the trade input. Such designation is not required for a Netted Client Account, a Multi-Purpose Account or a Firm Account, as CDCC carries net position records in the Open Position File for each of these accounts.

All Transactions for a Client Account which are not specifically designated as Closing Transactions shall be processed by CDCC as Opening Transactions. Opening Purchase Transactions increase the Long Position and Opening Writing Transactions increase the Short Position, in the particular Series of Options involved, as reported in the Clearing Member's Client Account. Opening Buy Transactions increase the Long Position and Opening Sell Transactions increase the Short Position, in the particular Series of Futures involved, as reported in the Clearing Member's Client Account.

Conversely, all Transactions designated as Closing Transactions decrease the Short Position and Long Position, respectively, for the particular Series of Options or Series of Futures in the reporting Clearing Member's Client Account. The CDCC Clearing Application verifies that all the Closing Transactions are valid and if the volume of a Closing Transaction exceeds the Open Position, the CDCC Clearing Application will reject it and replace it by a Closing Transaction not exceeding the Open Position.

The designation of a Transaction as "opening" or "closing" can be modified by the Close of Business.

CDCC maintains both the Long Position and the Short Position for each Series of Options and Series of Futures for Client Accounts but only maintains a net Long Position <u>or</u> net Short Position for each Series of Options and Series of Futures for Netted Client Accounts, Multi-Purpose Accounts and Firm Accounts.



## TRADE PROCESSING

#### FIXED INCOME TRANSACTIONS

Positions of each Clearing Member are carried by CDCC for Client Account(s), Firm Account(s) and Multi-Purpose Account(s), each of which is maintained separately. CDCC supplies reports for each account.

Such separation requires that each Clearing Member designates whether a Transaction is submitted for a "Client", "Firm" or "Multi-Purpose" when submitting a Transaction for Clearing. Furthermore, if separate sub-accounts are maintained for each account type, each Transaction must be coded to indicate the appropriate sub-account information.

All Repurchase Transactions and Cash Buy or Sell Trades must be submitted for clearing to CDCC through an Acceptable Marketplace or through the CDS trade matching facility routing matched trades to CDCC.

Once a Repurchase Transaction or Cash Buy or Sell Trade is received by CDCC, a variety of validations will occur. These validations ensure that all transactional details match and CDCC does not accept any Repurchase Transaction or Cash Buy or Sell Trade bearing attributes that are not acceptable for clearing.

Upon issuance of a Trade Confirmation by CDCC, the Repurchase Transaction or Cash Buy or Sell Trade is novated to CDCC, such that the original Repo or Cash Buy or Sell Trade between the two Fixed Income Clearing Members is cancelled and replaced by two equivalent Fixed Income Transactions, one between the Seller and CDCC and one between the Buyer and CDCC.



# **OPEN POSITIONS**

## INTRODUCTION

Having accepted a Transaction, the next step in the CDCC Clearing Application is the determination of the Open Position. Each Clearing Member can view all the information related to their accounts on the Open Position File which records the open Long Position and Short Position for each Series of Options and Series of Futures, OTCI and Fixed Income Transactions for each account type, updating the information as each Transaction is accepted.

Each Clearing Member is responsible for reconciling the information recorded on the Open Position File and all relevant reports issued by CDCC against their internal records. Careful attention must be paid to account designation and whether the Transaction is coded as "opening" or "closing" in the relevant file or report. Reports are available for FTP Download as per Section 2 of this Operations Manual.

Open Interest is updated automatically as each Transaction, Exercise Notice and Tender Notice is processed.

# ADJUSTMENTS OF OPEN POSITIONS

## GENERAL

Occasionally the need will arise to adjust an already processed Transaction. In such cases, the adjustment will affect the Clearing Member's Open Position accordingly. For example, an adjustment designed to change the original Opening Buy Transaction (or Opening Purchase Transaction) to a Closing Buy Transaction (or Closing Purchase Transaction) will result in a decrease in the Long Position and in the Short Position in the Series of Futures (or Series of Options) involved equal to the volume of the original Transaction. Any Settlement of Gains and Losses (or Premium) adjustments will be shown as adjustments on the relevant report.

Generally this situation will occur when:

- 1. The transactional details were incorrectly recorded, e.g. Clearing Member number, price, series and volume.
- 2. Information pertaining to only one side of the Transaction such as the opening/closing or account designation was erroneously reported on the original trade.
- 3. The source document of the relevant Exchange was input incorrectly.
- 4. Transfer of Open Positions from one account to another account of a Clearing Member.
- 5. Transfer of Open Positions from an account of one Clearing Member to an account of another Clearing Member.

#### **Types of Adjustments**

The following adjustments are acceptable for Exchange Transactions and OTCI (other than Fixed Income Transactions):

- 1. <u>Same Day Trade Adjustment (T)</u>. Same day trade corrections are only permitted on account type, sub-account designation and opening/closing and no corrections are permitted on OTCI Transactions after a Trade Confirmation has been issued by CDCC.
- 2. <u>Trade Date + 1 Adjustment (T+1)</u>. Modifications of any type are subject to approval by the relevant Exchange and no corrections permitted on OTCI Transactions.



# **OPEN POSITIONS**

- 3. <u>Open Position Change</u>. For OTCI Transactions, these will be performed through the Position Transfer function of the CDCC Clearing Application.
- 4. <u>Position Transfers.</u> Specific function of the CDCC Clearing Application to move positions from one Clearing Member to another on a post trade basis.
- 5. <u>Standard vs Mini Offset.</u> Upon the receipt of a Request for Standard vs Mini Offset in the prescribed form, CDCC will offset (i) one or more existing Standard Futures Contract Long Position(s) against the equivalent number of existing Mini Futures Contract Short Positions (totalling the same quantity of the Underlying Interest in accordance with the ratio prescribed in the Contract Specifications of the Mini Futures Contract) having the same Delivery Month and booked in the same Clearing Member's account, or (ii) a number of existing Mini Futures Long Positions against one or more Standard Futures Short Position(s) (totalling the same quantity of the Underlying Interest in accordance with the ratio prescribed in the Contract Specifications of the Mini Futures Contract) having the same Delivery Month and booked in the same Clearing Member's account, or (ii) a number of existing Mini Futures Contract) having the same Delivery Month and booked in the same Clearing Member's account, or (ii) a number of existing Mini Futures Contract) having the same Delivery Month and booked in the same Clearing Member's account, based on the instructions provided in the Request for Standard s Mini Offset. Such Long Positions and Short Positions shall be offset at the previous day's Settlement Price, with the effect of reducing the Open Positions that the Clearing Member has on the relevant Series of Futures in the relevant account.

The following adjustments are acceptable for Fixed Income Transactions:

- 1. <u>Trade Date Adjustment (T)</u>. Same day trade corrections are permitted on all fields except the identity of the opposite Clearing Member. These corrections cannot be made to impact a Same Day Transaction.
- <u>Trade Date + 1 Adjustment (T+1)</u>. Corrections are permitted on all fields except the identity of the opposite Clearing Member. These corrections cannot be made to impact a Deferred Settlement Transaction that settles that day after Netting Cut Off Time.
- <u>3.1.</u> Open Position Change. These will be performed through the Position Transfer function of the CDCC Clearing Application.
- <u>4.2.</u> <u>Position Transfers.</u> Specific function of the CDCC Clearing Application to move positions from one Clearing Member to another on a post trade basis.

# Conditions applicable to adjustments:

If there are any adjustments that affect another Clearing Member (on the opposite side of the original Transaction), both Clearing Members must come to an agreement as to the adjustments to be implemented. If one Clearing Member does not enter any changes through the CDCC Clearing Application, the Transaction will stay as is with respect to both Clearing Members.

Notification of all adjustments must be completed prior to the time specified in Section 2 of this Operations Manual. All completed adjustments are processed when they have been verified and validated by CDCC.



## EXERCISES, TENDERS, ASSIGNMENTS AND DELIVERIES

#### **INTRODUCTION**

## **OPTIONS**

At the time of exercise of an Option, CDCC is responsible for issuing settlement records that will facilitate the delivery of the Underlying Interest to the Clearing Member who chooses to exercise that Option (in case of the exercise of a call Option) or the payment of the relevant Exercise Price (in the case of the exercise of a put Option). When a Clearing Member exercises an Option, CDCC assigns the delivery obligation to a Clearing Member who is the writer of Options in the same Series of Options in any one of its Client Account(s), Firm Account(s), or Multi-Purpose Account(s).

Assignment is made specifically to one of these accounts by CDCC. If assignment is made to a Client Account, the Clearing Member is responsible for allocating it to a specific client. If assignment is made to a Multi-Purpose Account, the Clearing Member must allocate it to the specific Multi-Purpose Account designated by CDCC.

Delivery of the Underlying Interest and payment of the Exercise Price is to be effected by Clearing Members through the settlement method instructed by CDCC.

# FUTURES

All Futures which have not been closed out by the last trading day will be marked-to-market up to and including the close of the last trading day. In addition, the seller of a Future must submit a Tender Notice in the Delivery Month in accordance with applicable Contract Specifications.

When a seller of a Future submits a Tender Notice to CDCC, CDCC assigns it to a Clearing Member which is the buyer of a Future in the same Series of Futures in any one of its accounts. Assignment is made specifically to one of these accounts by CDCC. If assignment is made by CDCC to a Client Account, the Clearing Member is responsible for allocating it to a specific client. If assignment is made to a specific Multi-Purpose Account, the Clearing Member must allocate it to the specific Multi-Purpose Account designated by CDCC.



#### EXERCISES, TENDERS, ASSIGNMENTS AND DELIVERIES

# EXPIRY PROCEDURES

Operations Notices are sent to Clearing Members setting forth the expiry procedures and it is the responsibility of Clearing Members to ensure that they have adequate processes in place to meet requirements and timelines prescribed by CDCC.

## OPTIONS

For all information pertaining to the Option expiry procedures, Clearing Members should refer to the Operational Notices which are issued approximately two (2) weeks prior to the Expiration Date.

#### **CDCC's Responsibilities on Expiry Saturday**

- 1. Review/modify Underlying Interest prices and notify the Clearing Members of any changes.
- 2. Notify Clearing Members (via e-mail) of any changes in the Production Schedule.
- 3. Notify Clearing Members (via e-mail) of the status of expiry processes.
- 4. Assist Clearing Members.

#### **Clearing Members' Responsibilities on Expiry Saturday**

- 1. Ensure that the staff responsible for expiry is familiar with all expiry procedures and processes.
- 2. Validate entries using the Inquiry Screens or the relevant reports:
  - a. Verify that all Open Positions and adjustments match internal records, enter any new Transaction or Open Position adjustments accordingly.
  - b. Verify that the number of Options that will be automatically exercised on Expiration Date are correct.
  - c. For any changes, indicate on the Expiry Response Screen under the "Override" column the total number of Options for each Series of Options to be exercised.
  - d. Verify any Out-Of-The-Money Options or At-the-Money Options to be exercised and enter the number of Options under the "Override" column.
- 3. Validate changes using the reports and/or the on-line access to CDCC Clearing Application (in accordance with timeframes set forth in Section 2 of this Operations Manual).
- 4. If required, make any allowed modifications (in accordance with timeframes set forth in Section 2 of this Operations Manual).

#### **Daily Expirations (other than Expiry Saturday)**

When CDCC receives Underlying Interests' closing and opening prices from the relevant Exchange, the prices are specified on the relevant Expiry Report and are used to determine the In-the-Money Options and the Out-of-the-Money Options.

Clearing Members have until the Close of Business on any Business Day up to the Expiration Date to submit an Exercise Notice with respect to American Style Options to CDCC. European Style Options can only be exercised on their Expiration Date.

OTCI Options can expire on any Business Day.

Typically, exercise instructions must be entered online on the CDCC Clearing Application by Clearing Members. However, if unavailable, the following manual process can be used to submit Exercise Notices to CDCC:



#### EXERCISES, TENDERS, ASSIGNMENTS AND DELIVERIES

- 1. The proper CDCC Exercise Notice form must be used.
- 2. The authorization stamp of the Clearing Member must be affixed on the form.
- 3. The properly delivered Exercise Notice will be accepted at any CDCC office.
- 4. The Exercise Notice must be properly delivered by five minutes before Close of Business.
- 5. The Clearing Member staff who deliver the Exercise Notice must be available until CDCC processes the exercise.

The CDCC Clearing Application will ensure that there are sufficient Options of the relevant Series of Options in the relevant account of the Clearing Member for exercising the relevant Exercise Notice; if not, CDCC will reject the Exercise Notice. If there are sufficient Options, the Clearing Member's Long Position is immediately reduced by the number of Options exercised.

AN EXERCISE NOTICE CAN BE CANCELLED UNTIL CLOSE OF BUSINESS ON THE DAY IT IS SUBMITTED.



# EXERCISES, TENDERS, ASSIGNMENTS AND DELIVERIES

# **OPTIONS**

#### Exercises

Delivery and payment on Exercised Positions are due on the Exercise Settlement Date.

Until Exercise Settlement Date, CDCC continues to require sufficient Margin to ensure that, if a Clearing Member defaults, any Exercise Notice submitted by it or assigned to it, as the case may be, will be completed.

Exercised Positions and Assigned Positions are reported to Clearing Members through relevant reports listed in Section 3 of this Operations Manual.

#### Assignments

After the Close of Business on any Business Day on which an Exercise Notice is submitted to CDCC, assignment of such Exercise Notice is made on a random selection basis, in which each account of a Member is treated separately. The reason for the separation is to ensure that each Clearing Member's Client Account(s), Firm Account(s), and Multi-Purpose Account(s) have the same probability of being assigned Exercise Notices. When a Clearing Member is assigned an Exercise Notice for a given account (e.g. the Firm Account) it may not allocate that assignment to another account (e.g. a Client Account).

An attempt will be made by CDCC to assign an Exercise Notice for more than 10 Options contracts in blocks not exceeding 10 contracts in each Series of Options.

Exercise Notices assigned to a Clearing Member's Client Account shall be allocated by the Clearing Member to any of its clients based on any method which is equitable and consistent with the rules of the relevant Exchange.

#### **Automatic Exercise - Options and Options on Futures**

To safeguard Clearing Members from possible errors, CDCC has instituted an Automatic Exercise procedure for expiring Series of Options. In simple terms, all In-the-Money Options and Options on Futures over predetermined thresholds are automatically exercised by CDCC, unless Clearing Members instruct otherwise.

CDCC establishes predetermined thresholds and informs Clearing Members that every Option and Option on Future above that threshold will be automatically exercised. CDCC will not automatically exercise any At-the-Money Option. CDCC provides a method for Clearing Members to make changes to the Automatic Exercise function of the CDCC Clearing Application. This allows Clearing Members to either opt in or opt out of the Automatic Exercise with respect to the Options and Options on Future they hold. For example, a Member can choose not to exercise an Option that is above the predetermined threshold but to exercise another Option that is At-the-Money or Out-of-the-Money.



## EXERCISES, TENDERS, ASSIGNMENTS AND DELIVERIES

# **Exercised and Assigned Option Contracts**

# a) **Exercised Positions**

A Clearing Member who has exercised an Option has an obligation to either deliver the Underlying Interest (in the case of a Put Option) or pay the Exercise Price (in the case of a Call Option).

#### b) Assigned Positions

A Clearing Member who has been assigned an Exercise Notice has the obligation to pay the Exercise Price upon delivery of the Underlying Interest (in the case of a Put Option) or to deliver the Underlying Interest against payment (in the case of a Call Option).



## EXERCISES, TENDERS, ASSIGNMENTS AND DELIVERIES

# FUTURES

## Submission of Tender Notices

Tender Notices must be submitted before Close of Business during the relevant FIFO Period (which, subject to any contract adjustment by the Exchange, shall be as follows):

- CGB, CGF and LGB three Business Days prior to the first Business Day of the Delivery Month up to and including the fourth to last Business Day of the Delivery Month.
- CGZ two Business Days prior to the first Business Day of the Delivery Month up to and including the third to last Business Day of the Delivery Month.
- MCX before Close of Business on the last trading day.

All outstanding Short Positions in BAX, SXF, SXM, SCF, Sectorial Indices, Options on Futures are automatically tendered on the last trading day, as per Contract Specifications, after Close of Business.

All outstanding Short Positions in ONX are automatically tendered on the first Business Day of the contract month, as per Contract Specifications, after Close of Business.

#### Assignment of Tender Notices

CDCC assigns all Tender Notices to open Long Positions <u>on a random basis</u> with the exception of the Government of Canada Bond Futures (CGB, LGB, CGF and CGZ). Assignments for the CGB, LGB, CGF and CGZ Futures are processed <u>on a First-In-First-Out (FIFO) basis</u>.

Delivery of the Underlying Interest and payment of the Settlement Price is effected by Clearing Members as instructed by CDCC.

#### FIRST-IN-FIRST-OUT (FIFO) ASSIGNMENT PROCESS

#### **Description of Procedures**

The Delivery Months for the CGB, CGF, LGB and CGZ Futures contracts are March, June, September and December as prescribed by the Exchange. When a Member submits a Tender Notice with respect to a Short Position, a Long Position is assigned on a First-In-First-Out (FIFO) basis. CDCC sends out an Operational Notice prior to each relevant FIFO Period to remind Clearing Members of the procedures involved.

On the sixth Business Day prior to the first Business Day of the Delivery Month, each Clearing Member holding Long Positions in the relevant Series of Futures must declare on the CDCC Clearing Application its Long Positions in chronological order for each of its accounts. The entries must include the date the position was opened, the number of contracts and the account. When CDCC assigns a Tender Notice, the Long Position with the oldest date will be assigned first and the Long Position with the most recent date will be assigned last.



# EXERCISES, TENDERS, ASSIGNMENTS AND DELIVERIES

During the FIFO Period, Clearing Members must ensure that they update their declarations on a daily basis before Close of Business.

#### FIXED INCOME TRANSACTIONS

CDCC acts as central counterparty to all Fixed Income Transactions that are submitted by Clearing Members to CDCC for clearing. All Fixed Income Transactions shall be submitted for clearing to CDCC through an Acceptable Marketplace or through the CDS trade matching facility routing matched trades to CDCC. As a result of these Transactions being novated to CDCC, CDCC will be either the buyer or the seller of all settlement records that are sent to the Central Securities Depository.

Various <u>transmissions</u>batches of settlement records will be sent by CDCC to the Central Securities Depository on a daily basis.

#### Same Day Transactions gross settlement records

For Same Day Transactions, two settlement records consisting of settlement instructions (Gross Delivery Requirements and Gross Payment Against Delivery Requirements) will be sent <u>gross</u> to the Central Securities Depository <u>to be settled</u> on a <u>real-time gross</u>-basis throughout the day immediately after each Same Day Transaction is novated to CDCC until the Submission Cut-Off Time specified in Section 2 of this Operations Manual.

#### **Unsettled Items intra-day process**

In respect of any Unsettled Items of Same Day Transactions, at the Intra Day Gross Settlement Cut Off Time specified in Section 2 of this Operations Manual, CDCC shall send new settlement records to the Central Securities Depository reducing any Gross Delivery Requirement of a Clearing Member in favour of CDCC pursuant to a Same Day Transaction by any Gross Delivery Requirement of CDCC in favour of the same Clearing Member in respect of the same Acceptable Security pursuant to another Same Day Transaction, and/or reducing any Gross Payment Against Delivery Requirement of CDCC in favour of the same Day Transaction by any Gross Payment Against Delivery Requirement of CDCC in favour of the same Day Transaction by any Gross Payment Against Delivery Requirement of CDCC in favour of the same Clearing Member pursuant to another Same Day Transaction.

# **Deferred Settlement Transactions net settlement records**

For Deferred Settlement Transactions, two settlement records consisting of net settlement instructions (Net Delivery Requirements and Net Payment Against Delivery Requirements) will be sent to the Central Securities Depository on a net basis at the Netting Cut Off Time specified in Section 2 of this Operations Manual for settlement on the next Business Day.

#### Pre-settlement Deferred Settlement Transactions netting process

With respect to each Clearing Member who submits Deferred Settlement Transactions, CDCC determines the Net Delivery Obligation(s) and/or the Net Payment Obligation as set forth in Subsection D-606(3) of the Rules. Any other delivery and payment obligation between a Clearing Member and CDCC under any Futures contract settling at the relevant Central Securities Depository will be aggregated to and netted against the Net Delivery Obligation(s) and/or the Net Payment Obligation as set forth in paragraphs (b) and (c) of Subsection A-801(2) of the Rules, such that CDCC shall send to the relevant Central Securities Depository netted settlement instructions (Net Delivery Requirements and Net Payment Against Delivery Requirements) at the Netting Cut Off Time.

Morning intra-day net payment process



# EXERCISES, TENDERS, ASSIGNMENTS AND DELIVERIES

In respect of any Pending Payment Against Delivery Requirements at the Intra-Day Payment Cut-Off Time specified in Section 2 of this Operations Manual, CDCC shall send new settlement records (Intra-Day Net Payment Instructions) to the Central Securities Depository reducing any Pending Payment Against Delivery Requirements of a Clearing Member in favour of CDCC by any Pending Payment Against Delivery Requirements of CDCC in favour of the same Clearing Member. The Clearing Member shall have sufficient funds in its cash account at CDS to satisfy its Intra-Day Net Payment Instruction by the Intra-Day Net Payment Time specified in Section 2 of this Operations Manual.

# Afternoon intra-day net settlement process

In respect of any Pending Settlement Requirements at the Intra-Day Settlement Cut-Off Time specified in Section 2 of this Operations Manual, CDCC shall send new settlement records (Intra-Day Net Settlement Instructions) to the Central Securities Depository reducing any Pending Delivery Requirements of a Clearing Member in favour of CDCC by any Pending Delivery Requirements of the same Clearing Member in respect of the same Acceptable Security, and/or reducing any Pending Payment Against Delivery Requirements of a Clearing Member in favour of the same Clearing Member. The Clearing Member shall have sufficient funds and sufficient Acceptable Securities in its cash and securities accounts at CDS to satisfy its Intra-Day Net Settlement Instructions by the DVP Settlement Time specified in Section 2 of this Operations Manual.

## Delivery

Securities delivery against payment is effected on a DVP basis through the Central Securities Depository.

In the event of a failed or partial delivery, CDCC will take appropriate action in accordance with Section A-804 of the Rules.

CDCC shall determine the net settlement instructions by Clearing Member, CUSIP/ISIN and Settlement Date for all Transactions comprised in the pre-deferred settlement transactions netting process (as specified in the above section entitled as such) submitted to CDCC for clearing as of the Netting Cut Off Time. These settlement instructions shall be submitted to the relevant Central Securities Depository on a daily basis and in the form and settlement tranche acceptable to the Central Securities Depository for this purpose.

For Same Day Transactions, CDCC shall determine the gross settlement instructions (Gross Delivery Requirements and Gross Payment Against Delivery Requirements) by Clearing Member and the applicable CUSIP/ISIN, and submit such instructions to the relevant Central Securities Depository (in the form and settlement tranche acceptable to such Central Securities Depository) immediately after each Same Day Transaction is novated to CDCC for real-time settlement. Notwithstanding the foregoing, at the Intra-Day <u>Net-Payment Gross Settlement</u>-Cut-Off Time, CDCC shall cancel previously issued <u>Pending Payment Against Delivery Requirementsgross settlement instructions</u> and replace them by <u>Intra-Day Net Payment Instructions</u>off setted settlement instructions by Clearing Member and the applicable <u>CUSIP/ISIN for all Unsettled Items comprised in the Unsettled Items intra day process</u> (as specified in the above section entitled <u>"Morning intra-day net payment process"</u>as such).

In the event of a Failed Delivery for a particular settlement tranche to a Net Delivery Requirement<u>or to an Intra-Day</u> <u>Net Settlement Instruction consisting of an obligation to deliver Acceptable Securities by the DVP Settlement Time</u> <u>specified in Section 2 of this Operations Manual</u>, CDCC shall, on a best efforts basis, attempt to coordinate a partial delivery among those Receivers of Securities for that particular settlement tranche of the relevant Acceptable Security. In the event that no partial settlement is possible, the settlement tranche will be included in the Rolling Delivery Obligation of the failing Clearing Member and CDCC shall re-attempt settlement of the failed settlement tranche on the next Business Day. In the case of a Failed Delivery with respect to a Gross Delivery Requirement<u>resulting from a</u> <u>Same-Day Transaction submitted after the Intra-Day Settlement Cut-Off Time and before the Submission Cut-Off</u> <u>Time to be settled by the DVP Settlement Time</u>, CDCC will force a failed or partial delivery of the same quantity of



# EXERCISES, TENDERS, ASSIGNMENTS AND DELIVERIES

Acceptable Securities on the Clearing Member who is the Receiver of Securities with respect to the relevant Same Day Transaction.

In the event that a Clearing Member who is Receiver of Securities fails to take receipt of a portion or all of the settlement tranche as determined by a Net Payment Against Delivery Requirement or a Gross Payment Against Delivery Requirement, as the case may be, the Clearing Member determined by CDCC to be in a fail to receive position shall be required to pay to CDCC any charges which are levied on CDCC for the overnight financing of this failed to receive position, in addition to any other remedies that CDCC may apply to such situation in accordance with the Rules.

In the event of a Failed Payment Against Delivery at the Intra-Day Net Payment Time specified in Section 2 of this Operations Manual, CDCC shall impose a fine on the Clearing Member corresponding to the charges which are levied on CDCC for the usage of its daylight credit facility as a result of this Failed Payment Against Delivery. If the Clearing Member still has not settled the relevant Intra-Day Net Payment Instruction by 11:00 a.m., the Clearing Member shall be deemed a Non-Conforming Member, in addition to any other remedies that CDCC may apply to such situation in accordance with Subsection A-806(1) of the Rules.

In the event of a Failed Payment Against Delivery at the DVP Settlement Time specified in Section 2 of this Operations Manual, the Clearing Member shall be deemed a Non-Conforming Member and shall be required to pay to CDCC any charges which are levied on CDCC for the overnight financing of this Failed Payment Against Delivery, in addition to any other remedies that CDCC may apply to such situation in accordance with Subsection A-806(2) of the Rules.

# **Buy In Process**

As set forth in Subsection A-804(3) of the Rules, CDCC may effect a buy-in transaction on its own initiative or pursuant to a formal request by a Receiver of Securities affected by a Failed Delivery by purchasing the missing quantity of the relevant Acceptable Securities on the open market.

When initiated by a Receiver of Securities, the buy-in process shall be as followed:

- 1. The Receiver of Securities who wants to initiate a buy-in must send to CDCC the appropriate Buy-In Scan Form (which is accessible on CDCC's Secured Website) duly completed, with the following information:
  - a. <u>Clearing Member's Name;</u>
  - b. <u>Clearing Member's Number</u>
  - c. The Acceptable Security (ISIN) involved;
  - d. The total quantity of the Failed Delivery;
  - e. The quantity requested in the buy-in;
  - f. <u>The buy-in delivery date</u>, which shall be the current Business Day + not less that two (2) complete Business Days.

The Buy-In Scan Form must be submitted to CDCC in the prescribed format with the authorization stamp of the Clearing Member properly affixed on the form (with initials).

- 2. Upon receiving the duly completed Buy-In Scan Form from a Receiver of Securities, CDCC will work with the Provider(s) of Securities responsible for the Failed Delivery in order to validate if the delivery can be made within the number of Business Days specified in the Buy-In Scan Form (the "Buy-In Notice Delay").
- 3. <u>At the expiry of the Buy-In Notice Delay, if the Provider(s) of Securities has not delivered the relevant</u> <u>Acceptable Securities, CDCC will initiate a cash trade on the open market.</u>
- 4. <u>Once delivery is received by CDCC on the cash trade, CDCC will deliver the Acceptable Securities to the Receiver of Securities that requested the buy-in transaction.</u>



# EXERCISES, TENDERS, ASSIGNMENTS AND DELIVERIES

5. All fees incurred to CDCC, including all costs with respect to the buy-in transaction shall be charged to the Provider(s) of Securities responsible for the Failed Delivery. Such fees will be included on the Monthly Clearing Fees Details Report (MB01) of the second Business Day of each month as a separate pay figure, payable to CDCC on the 5th Business Day of each month through LVTS or any other payment method approved by CDCC.



## SETTLEMENT

# INTRODUCTION

CDCC provides the mechanism for a single cash settlement with respect to amounts which are not settled through a Central Securities Depository due by a Clearing Member to CDCC and by CDCC to such Clearing Member on a daily basis, as prescribed in Paragraph A-801(2)(a) of the Rules. Clearing Members are able to make a single payment to CDCC or receive a single payment from CDCC that represents the net value of their purchases, sales, gains and losses and on a monthly basis clearing fees. Additionally, the CDCC Clearing Application incorporates the amounts due from the Clearing Members for Margin and the exercise/assignment Settlement Amounts of cash settled Transactions.

Settlement of trading in a given currency is kept separate throughout the clearing procedure. All payments in the Canadian currency to and from CDCC are collected via an irrevocable payment processing system, known as the Large Value Transfer System (LVTS), or any other payment method approved by CDCC. Any US dollar payments are collected via a payment processing system known as Financial Electronic Data Interchange (FEDI). As described in the Risk Manual, the amount of Margin due from the Clearing Member is computed on the basis of that day's Open Positions shown on the relevant report.

# SETTLEMENT COMPUTATION

The calculation of a Clearing Member's Net Daily Settlement amount is based on Transactions (including adjustments, exercises, tenders and assignments) and Margin requirements, and on a monthly basis clearing fees.

The Net Daily Settlement amount for each Clearing Member is determined in the following manner:

- (i) Total Margin required and any additional margin requirements for each account is compared with Margin Deposits.
- (ii) The premiums, gains and losses, exercise/assignment Settlement Amounts, and cash adjustment for each account type (Client Account(s), Firm Account(s) and Multi-Purpose Account(s)) are netted to a single pay or collect figure.
- (iii) If additional margin is required, CDCC will instruct the Clearing Member to facilitate payment to CDCC.
- (iv) Miscellaneous charges such as clearing fees are also included on a monthly basis. In addition, applicable fines or any other amounts due would be collected on a monthly basis.

All cash settlements to CDCC are to be made to CDCC's settlement account at the Bank of Canada, or to any other account of CDCC with a Schedule I bank, as designated by CDCC.

# FINES

CDCC applies fines with regards to late payments to discourage Clearing Members from being late in the performance of their payment obligations.



#### SETTLEMENT

## **Overnight Settlement**

Payments for overnight settlement (mark-to-market, premiums, margin shortfalls etc.) must be received by 7:45 a.m. the next Business Day.

If a payment is late, CDCC will notify the Clearing Member that it is being fined. The fine structure is as follows: Based on a rolling thirty days – if there has been a prior occurrence within the preceding thirty days, it is the second occurrence.

If the late payment is caused by an infrastructure problem, fines will not be imposed.

#### First occurrence of a late payment:

- if CDCC has the payment in its Bank of Canada account by 7:55 a.m. the next Business Day, there will be no fine.
- if the payment is received by 8:30 a.m. the next Business Day, CDCC will impose a \$1,000 fine.
- if the payment is received by 8:59 a.m. the next Business Day, CDCC will impose a \$2,500 fine.
- if the payment is not received by 9:00 a.m. the next Business Day, CDCC will deem the Clearing Member Nonconforming

On the second or more occurrences of a late payment:

- if CDCC has the payment in its Bank of Canada account by 7:55 a.m. the next Business Day, CDCC will impose a \$1,000 fine
- if the payment is received after 7:55 a.m. but before 8:30 a.m. the next Business Day, CDCC will impose a \$5,000 fine.
- if the payment is received by after 8:30 a.m. but before 8:59 a.m. the next Business Day, CDCC will impose a \$10,000 fine.
- if the payment is not received by 9:00 a.m. the next Business Day, CDCC will deem the Clearing Member Nonconforming.

# **Intraday Margin Calls**

CDCC encourages its Clearing Members to cover intraday Margin calls with collateral other than cash.

Clearing Members have one (1) hour from notification to cover an intraday Margin call. If the payment is late, the following fines shall apply:

- if the payment is received later than 1 hour after but before 1 hour and 15 minutes from notification, CDCC will impose a \$500 fine.
- if the payment is received later than 1 hour and 15 minutes but before 1 hour and 30 minutes from notification, CDCC will impose a \$1,000 fine.
- if the payment is not received by 1 hour and 30 minutes from notification, CDCC will deem the Clearing Member Non-conforming

#### **Collection of Fines**

CDCC will collect any applicable fines with the month-end clearing fee billing.



#### ADDITIONNAL MARGIN PROCESSING

#### **CLEARING FUND**

Each Clearing Member approved to clear Exchange Transactions and/or OTCI Transactions and/or Fixed Income Transactions shall maintain a deposit in the Clearing Fund of the amounts from time to time required by the CDCC in accordance with Rule A-6. The Clearing Fund has been established to protect CDCC and its members from potential defaults and other market events.

Each Clearing Member's contribution includes a required Base Deposit and a Variable Deposit, calculated on a monthly basis. The details of the Base and Variable Deposits are set forth in Rule A-6.

#### **Clearing Fund Statement Report**

On the first Business Day of each month, CDCC will issue to each Clearing Member a Clearing Fund Statement that lists the current amount of the Clearing Member's Deposits and the amount of Deposit required on the basis of the monthly calculation of the Variable Deposit.

Any deficit between the amounts held on deposit and the monthly requirement must be satisfied by the 3rd Business Day of the month.

#### Deposits

Deposits to the Clearing Fund shall be in cash or in Government Securities, subject to the same criteria as the Margin, as set forth in Schedule A hereof, the Risk Manual.

Deposits to the Clearing Fund are made and valued in the same manner and are subject to the same deadlines as for Margin deposits, as set forth in Section 2 of this Operations Manual.

#### Withdrawals

Clearing Members may request to withdraw any surplus amount from the Clearing Fund, subject to applicable deadlines, as set forth in Section 2 of this Operations Manual.

#### Substitutions

Substitutions of assets in the Clearing Fund are made in the same manner and subject to the same deadlines as Margin deposits and withdrawals.



# ADDITIONNAL MARGIN PROCESSING

#### **DIFFERENCE FUND**

The Difference Fund is Margin Deposits held by CDCC as discretionary margin, such as: (1) Unsettled Items Margin, (2) Daily Capital Margin Monitoring, (3) Advance calls for settlement of losses, (4) OTCI Additional Margin, (5) Banking Holidays Additional Margin, and (6) Intra-Day Margin. CDCC accepts only Cash or Government Securities as Deposits to the Difference Fund Deposits to the Difference Fund in the forms of Margin set forth in Section A-709 of the Rules, in the proportions specified therein.

#### (1) Unsettled Items Margin

Security Funds, as such term is defined in Sections B-401, C-501 and D-301 of the Rules, corresponding to an amount equal to not less than 105% of the market value of the Underlying Interest which a Clearing Member has failed to timely deliver, in accordance with Sections B-412, C-517 and D-307 respectively of the Rules.

# (2) Daily Capital Margin Monitoring

The amount by which the Margin requirements of a Clearing Member exceeds its capital, in accordance with Section A-710 of the Rules.

## (3) Advance Calls for Settlement of Losses

An amount that CDCC estimates will be needed to meet losses resulting from particular marked conditions or price fluctuations, in accordance with Section C-303 of the Rules.

#### (4) OTCI Additional Margin

An amount representing the premium value collected from the Buyer before an OTCI Option is confirmed, which amount shall be available for withdrawal the morning after the Transaction has been processed, in accordance with Section D-107 of the Rules.

#### (5) Banking Holidays Additional Margin

An amount corresponding to 10% of Margin requirements is required to be posted as additional margin by Clearing Members on banking holidays, which is released on the morning of the following Business Day.

#### (6) Intra-Day Margin

Additional margin may be requested from a Clearing Member, at CDCC's sole discretion at any time and from time to time as it deems appropriate, due to some adverse change in the market of a given Underlying Interest or in the financial position of the Clearing Member, in accordance with Section A-705 of the Rules.

#### Deposits, Withdrawals, Substitutions

Deposits, withdrawals and substitutions of assets in the Difference Fund are made in the same manner and subject to the same deadlines as Margin Fund deposits, withdrawals and substitutions, in accordance with Section 2 of this Operations Manual.

#### Note:

Information with respect to the Margin Fund is to be found in the Risk Manual, Schedule A of this Operations Manual.



Section: 9-1

# **CLEARING FEES**

#### **Clearing services fees**

Clearing fees are charged to both Clearing Members submitting a Transaction for clearing to CDCC and are based on the number of contracts involved. There is a minimum monthly clearing fee charge with respect to each product type (Futures, Options, OTCI (other than Fixed Income Transactions), Fixed Income Transactions). Once a Clearing Member, otherwise eligible to do so in accordance with the Rules, starts using a particular clearing service by submitting a first Transaction of such product type, the applicable minimum monthly clearing fee shall be charged to the Clearing Member thereafter whether the Clearing Member actually uses the services or not during any given month, until the Clearing Member duly notifies CDCC in writing that it wishes to withdraw from the clearing services for that product type, effective sixty (60) days after CDCC receives such notice, provided there is no outstanding Transaction of such product type standing to an account of the Clearing Member at such time. Notwithstanding the foregoing, with respect to Fixed Income Clearing, the applicable minimum monthly clearing fee shall be charged to the Fixed Income Clearing Member upon the request to use this clearing service being submitted by the Clearing Member in the form prescribed by CDCC and countersigned by CDCC. Clearing Members should refer to the CDCC website www.cdcc.ca for a complete list of applicable fees.

Clearing fees are included on the Daily Settlement Summary Report (MS01) of the second Business Day of each month as a separate pay figure. These fees are payable to CDCC on the 5th Business Day of each month through LVTS or any other payment method approved by CDCC.

#### Fees for additional services

There are a number of discretionary services available to Clearing Members, in addition to the normal clearing services. These are published periodically as an Operational Notice to Members and can be viewed on the Secured Website. CDCC issues a statement on a monthly basis for these services. The fees are collected as per the date on the statement through LVTS or any other payment method approved by CDCC.

Fees for cost incurred at CDS (or other Central Securities Depository)

Any settlement cost incurred by CDCC within CDSX (or the settlement platform of another Central Securities Depository) will be charged to the Clearing Member with which CDCC is settling. Such cost will be included on the Monthly Clearing Fees Details Report (MB01) of the second Business Day of each month as a separate pay figure, payable to CDCC on the 5th Business Day of each month through LVTS or any other payment method approved by CDCC.

<u>Clearing Members shall designate up to three (3) individuals within their firm who will be responsible for handling the Clearing Member's User Profiles ("Security Officers"). The designation of Securities Officers is done by filing with CDCC a SOLA Clearing – Security Officer Identification form, which form shall be renewed on an annual basis.</u>

Once duly designated, a Security Officer shall submit a SOLA Clearing User Profile Request form to request that CDCC add or delete a User Profile (this form is accessible on CDCC's Secured Website).

The Security Officer must complete this form with the authorization stamp of the Clearing Member properly affixed on the form (with initials). When the form is complete, the Clearing Member can either scan the form and send it to the Member Services group e-mail address: cdccops@cdcc.ca, or fax the form to one of CDCC's offices.

Upon receipt of the form, the process for the addition / deletion is performed by one of CDCC's senior managers.

# Schedule A



# **Risk Manual**

August 2011

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## Glossary

**Margin Interval:** Parameter established by the Corporation which reflects the maximum price fluctuation that the Underlying Interest could be expected to have during the liquidation period. The Margin Interval (MI) calculations are based on the historical volatility of the Underlying Interest and these calculations are re-evaluated on a monthly basis. If necessary, the Corporation may update the Margin Intervals more frequently. The Margin Interval is used to calculate the Initial Margin of every Derivative Instrument.

**Haircut:** Percentage discounted from the market value of Securities pledged as collateral for Margin Deposit. The discount reflects the price movement volatility of the collateral pledged. Thus, this reduction assures that even if the collateral's market value declines, there is time to call for additional collateral to adjust its value to the required level.

**Initial Margin:** The Initial Margin covers the potential losses that may occur over the next liquidation period as a result of market fluctuations. The Initial Margin amount is calculated using the historical volatility of the Underlying Interest return for Options contracts, futures prices for Futures contracts and yield-to-maturity (YTM) of the on-the-run security for Fixed Income Transactions.

**Variation Margin:** The Variation Margin takes into account the portfolio's liquidating value (this is also known as the Replacement Cost or RC) which is managed through the Mark-to-Market daily process.

**Price Scan Range:** The maximum price movement reasonably likely to occur, for each Derivative Instrument or, for Options, their Underlying Interest. The term PSR is used by the Risk Engine to represent the potential variation of the product value and it is calculated through the following formula:

PSR = Underlying Interest Price x MI x Contract Size

**Volatility Scan Range:** The maximum change reasonably likely to occur for the volatility of each Option's Underlying Interest price.

**Risk Array:** A Risk Array (RA) is a set of 16 scenarios defined for a particular contract specifying how a hypothetical single position will lose or gain value if the corresponding risk scenario occurs from the current situation to the near future (usually next day).

**Combined Commodity:** The Risk Engine divides the positions in each portfolio into groupings called Combined Commodities. Each Combined Commodity represents all positions on the same ultimate Underlying Interest – for example, all Futures contracts and all Options contracts ultimately related to the S&P/TSX 60 Index.

**Scanning Risk:** The Risk Engine chooses the difference between the current market value of an Underlying Interest and its most unfavourable projected liquidation value obtained by varying the values of the Underlying Interest according to several scenarios representing adverse changes in normal market conditions.

Active Scenario: The number of the Risk Arrays scenario that gives the largest amount (worst case scenario).

**Short Option Minimum:** Rates and rules to provide coverage for the special situations associated with portfolios of deep out-of-the-money short option positions. This amount will be called if it is higher than the result of the Risk Arrays.

**Liquidity Interval:** The Liquidity Interval is calculated based on the historical bid-ask price spread of the Underlying Interest according to the same formula for Margin Interval.

**Buckets:** All Acceptable Securities of Fixed Income Transactions that behave in a similar manner are grouped together into "Buckets" and each Bucket behaves as a Combined Commodity. Acceptable Securities are bucketed according to their remaining time to maturity and issuer. Due to the nature of the bucketing process, the Acceptable Securities' assignation will be dynamic in that they will change from one Bucket to the other as the Acceptable Security nears maturity.

**MTM Price Valuation:** The MTM Price Valuation is the difference between the market value of the Security and the funds borrowed. This amount is collateralized and should be credited (or debited) to the Repo Party's Margin Fund and debited (or credited) to the Reverse Repo Party's Margin Fund.

**Intra-Commodity (Inter-Month) Spread Charge:** Underlying Interests' prices, from a maturity month to another are not perfectly correlated. Gains on a maturity month should not totally offset losses on another. To fix this issue, the Risk Engine allows the user to calculate and to apply a margin charge relative to the Inter-Month spread risk in order to cover the risk of these two positions.

**Inter-Commodity Spread Charge:** The Corporation considers the correlation that exists between different classes of Futures contracts when calculating the Initial Margin. For example, different interest rate Futures contracts are likely to react to the same market indicators, but at different degrees. For instance, a portfolio composed of a long position and a short position on two different interest rate Futures contracts will be likely less risky than the sum of the two positions taken individually.

Clearing Engine: The Corporation uses SOLA® Clearing as its Clearing Engine.

**Risk Engine:** The Corporation uses the Standard Portfolio Analysis system (SPAN®) as its Risk Engine.

The terms and concepts herein defined, as used in this Risk Manual, are derived from the CME Group proprietary SPAN® margin system, adapted for CDCC's licensed use thereof.

## Summary

The Corporation applies rigorous risk management methods to protect their Clearing Members.

The main aspects of risk management that are specifically addressed in this manual are as follows:

- > The acceptability of Underlying Interests;
- The Margin calls that occur when a member's potential loss exceeds its Margin Deposit;
- The monitoring of each Clearing Member's credit risk by regular tracking of Margin Deposit and Capital;
- > The Clearing Member's contribution to the Clearing Fund;
- The management of the forms of collateral accepted for Margin Deposit and the calculation of the Haircuts that apply to these assets;
- The monitoring program;
- > The adjustments in contract terms; and
- The default management process.

## ACCEPTABILITY OF UNDERLYING INTERESTS

## ACCEPTABLE UNDERLYING INTERESTS OF EQUITY OPTIONS

- Section B-603 of the Rules sets out the eligibility criteria for Equity Options.
- Section B-604 of the Rules sets out the ineligibility criteria for Equity Options.

CDCC reviews and publishes quarterly the eligibility threshold and deficiency threshold in terms of market capitalization and volume (expressed as an average daily volume of the last 20 business days) for clearing Equity Options.

## ACCEPTABLE UNDERLYING INTERESTS OF SHARE FUTURES

- Section C-1503 of the Rules sets out the eligibility criteria for Share Futures.
- Section C-1504 of the Rules sets out the ineligibility criteria for Share Futures.

CDCC reviews and publishes quarterly the eligibility threshold and deficiency threshold in terms of market capitalization and volume (expressed as an average daily volume of the last 20 business days) for clearing Share Futures.

## ACCEPTABLE UNDERLYING INTERESTS OF OTCI

• Section D-104 of the Rules sets out the acceptance criteria for OTCI.

CDCC reviews and publishes quarterly on its website a list of the single name equities and ETFs that are Acceptable Underlying Interests for clearing OTCI.

Between two quarterly publications of the list of Acceptable Underlying Interests, a Clearing Member who wishes to clear OTCI for which an Underlying Interest is not included on the list must obtain the Corporation's prior approval. The Underlying Interest must at least meet the acceptance criteria prescribed in *Section D-104* of the Rules.

### ACCEPTABLE UNDERLYING INTERESTS OF CASH BUY OR SELL TRADES

For the application of *Sections D-104* and *D-603* of the Rules, Securities are acceptable for Cash Buy or Sell Trades clearing if they meet the following criteria:

- The issuer must be eligible, which includes the following issues:
  - Bonds and Treasury bills issued by the Government of Canada, including real return issues;
  - Canada Mortgage and Housing Corporation debt securities;
  - Bonds issued by Business Development Bank of Canada;

- Bonds issued by Export Development Canada;
- Bonds issued by Farm Credit Canada;
- Bonds issued by Canada Post; and
- Bonds issued by the Canadian Wheat Board;
- The bonds must be repayable at maturity;
- The bonds must be denominated in Canadian dollars;
- The coupon type must be fixed, real return, step-up or zero (Treasury bills are eligible);
- The net amount outstanding<sup>1</sup> must be greater than or equal to \$250 million;
- The bonds' prices must be issued by a source that is acceptable to the Corporation.

## ACCEPTABLE UNDERLYING INTERESTS OF REPURCHASE TRANSACTIONS

For the application of the provisions of *Sections D-104* and *D-603* of the Rules, Securities are eligible for clearing of Repurchase Transaction if they meet the following criteria:

- The Underlying Interest must be an Acceptable Security;
- The Purchase Date of the Repurchase Transaction must be no earlier than the Trade Date;
- The Repurchase Date of the Repurchase Transaction must not be more than 365 days later than the Purchase Date of the Repurchase Transaction and must be no later than the maturity date of the Acceptable Security.

<sup>&</sup>lt;sup>1</sup> The net amount outstanding is defined as the outstanding amount issued on the market minus the stripped coupon bonds and issuer repurchases.

## **MARGIN DEPOSIT**

The Corporation has three different funds for margining purposes and each serves a specific purpose:

- Margin Fund
- Difference Fund
- Clearing Fund

#### MARGIN FUND

The Margin Fund is composed of the Initial Margin and the Variation Margin. The Initial Margin covers the potential losses and market risk that may occur as a result of future adverse price movements across the portfolio of each Clearing Member under normal market conditions. Furthermore, in the event of a default, the Corporation is faced with closing out the defaulters' portfolio within a short period (the liquidation period). In a complementary manner, Variation Margin is a daily payment process that covers the market risk due to the change in price since the previous day, ahead of the default of one of its Clearing Members. Variation Margin is settled in cash for Futures contracts and collateralized for Options contracts, OTCI and Fixed Income Transactions.

#### INITIAL MARGIN

As fundamental inputs to calculate the Initial Margin, the Corporation uses the following parameters: 1) confidence level (to reflect normal market conditions), 2) assumed liquidation period and 3) historical volatility over a specific period.

Specifically, the Corporation uses three standard deviations to consider a confidence level over 99% under the normal distribution's assumption. The Corporation also considers a variable number of days as an acceptable liquidation period. The Initial Margin amount is calculated using the historical volatility of the daily price returns of the Underlying Interests for Options contracts, the daily price returns of the futures prices for Futures contracts and the yield-to-maturity (YTM) daily variation of the on-the-run security for Fixed Income Transactions. The historical volatility, combined with the liquidation period and the confidence level gives the Margin Interval (MI) as described below.

#### MARGIN INTERVAL (MI) CALCULATION

The Margin Interval calculations are re-evaluated regularly. However, the Corporation may use its discretion and update the Margin Intervals more frequently if necessary. The Margin Intervals are used to calculate the Initial Margin for each Derivative Instrument.

The Margin Interval (MI) is calculated using the following formula:

$$MI = 3 \times \sqrt{n} \times Max \left[ \sigma_{20 \ days}, \sigma_{90 \ days}, \sigma_{260 \ days} \right]$$

Where 'n' is the number of liquidation days<sup>2</sup>, ' $\sigma$ ' is the standard deviation of the daily variation over 20, 90 and 260 days, and 3 is equivalent to 99.87% for a one-tail confidence interval under the normal distribution's assumption.

#### Price Scan Range (PSR) Calculation

In order to calculate the most unfavourable projected liquidation value, the Risk Engine uses the MI of the above formula to calculate the Price Scan Range (PSR) and to run several scenarios through its Risk Array calculation (for a detailed description refer to the section on Risk Arrays below).

A Risk Array is a set of 16 scenarios defined for a particular contract specifying how a hypothetical single position will lose or gain value if the corresponding risk scenario occurs from the current situation to the near future (usually next day).

PSR is the maximum price movement reasonably likely to occur, for each Derivative Instrument or, for Options contracts, their Underlying Interest. The term PSR is used by the Risk Engine to represent the potential variation of the product value and it is calculated through the following formula:

PSR = Underlying Interest Price x MI x Contract Size.

#### INITIAL MARGIN CALCULATION

To calculate the Initial Margin, the Risk Engine uses the MI which is converted to the Scanning Risk parameter. The Scanning Risk parameter represents the difference between the current market value of a Derivative Instrument (for Exchange Transactions) or of an Acceptable Security (for Fixed Income Transactions) and its most unfavourable projected liquidation value obtained by varying the values of the Underlying Interest according to several scenarios representing adverse changes in normal market conditions. The Scanning Risk is always calculated at the Combined Commodity level.

For contracts belonging to the same Combined Commodity, the Risk Engine adds up the Risk Arrays results of all contracts under the same risk scenario. It should be noted that in the situation where the Risk Engine does not consider other variables, the Scanning Risk is the Initial Margin for the Combined Commodity.

However, in some cases other variables can increase or decrease the Scanning Risk. For example, variables such as the Intra-Commodity (Inter-Month) Spread Charge which tends to increase the Initial Margin and the Inter-Commodity Spread Charge which tends to decrease the Scanning Risk to take advantage of the correlations between the different constituents of the Combined Commodity. Another example is the specific case of short deeply out-of-the-money options wherein the Risk Engine calculates a minimum amount called Short Option Minimum (SOM)

<sup>&</sup>lt;sup>2</sup> For Fixed Income Transactions, Futures contracts and Options contracts, the Corporation uses 2 days as an acceptable liquidation period. For OTCI options, the Corporation uses 5 days.

which otherwise attracts little or no Initial Margin. Finally, in the case of OTCI with Physical Settlement/Delivery, the Corporation calculates an additional Liquidity Interval and adds it to the Margin Interval.

It should also be noted that, as described in the following sections, the determination of the Initial Margin is slightly different for Options contracts, Futures contracts and Fixed Income Transactions. The following table summarizes the list of variables used to calculate the Initial Margin by cleared product category:

Input variables to calculate the Initial Margin	Options contracts (including OTCI options)	Futures contracts	Fixed Income Transactions
Scanning Risk	•	•	•
Intra-Commodity (Inter-Month) Spread Charge		•	•
Inter-Commodity Spread Charge		•	•
Short Option Minimum (SOM) amount	•		
Liquidity Interval	● (for OTCI options with Physical Settlement/Delivery only)		

### **INITIAL MARGIN FOR OPTIONS CONTRACTS**

This section describes how the Initial Margin is calculated for the Options contracts, which include the equity options, index options, currency options, exchange-traded-fund options and options on futures.

The Risk Arrays are obtained by varying the Underlying Interest (eight scenarios) and the option's implied volatility (eight scenarios). The term PSR for Options contracts is calculated through the following formula:

#### *PSR* = Underlying Interest Price x MI x Contract Size

For equity options contracts, the contract size is usually equal to 100.

#### **RISK ARRAYS**

Each Risk Array scenario represents losses or gains due to hypothetical market conditions:

- ➤ The (underlying) price movement: upward (+) and downward (-) with corresponding scan range fraction (0, 1/3, 2/3, 3/3 or 2)
- The (underlying) volatility movement: upward (+) and downward (-) with corresponding scan range fraction (0 or 1).

Since some scenarios consider large movements on the Underlying Interest price, the whole difference (gain and loss) between the new (simulated) theoretical option price and the actual option price will not be considered. For scenarios 15 and 16, since their probability of occurrence is low, only a fraction of 35% of the difference is considered. The purpose of these two additional extreme scenarios is to reduce the problem of short option positions that are highly out of the money near expiration. If the Underlying Interest price varies sharply, these positions could then be in the money.

A scan range is a fluctuation range of the Underlying Interest price and volatility defined for each Combined Commodity.

Risk Scenarios	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Underlying Price Variation *	0	0	1/3	1/3	-1/3	-1/3	2/3	2/3	-2/3	-2/3	1	1	-1	-1	2	-2
Volatility Variation *	1	-1	1	-1	1	-1	1	-1	1	-1	1	-1	1	-1	0	0
Weight Fraction Considered	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	35%	35%

The Risk Engine calculates 16 Risk Array scenarios as follows:

Each Risk Array value is calculated as the current contract price less the theoretical (simulated) contract price obtained for the corresponding scenario by using the valuation model. (The Risk Engine uses different valuation models including Black 76, Black-Scholes, Generic Merton, Barone-Adesi-Whaley (BAW) and others).

However, since the Initial Margin driven by Option contracts is relatively small with respect to the total Initial Margin that includes all cleared products, the Corporation does not consider the Volatility Scan Range (VSR) in its risk model. This means that the Corporation does not vary the option implied volatility up and down (+1 and -1) eight times, but varies only the Underlying Interest price in order to simulate the potential losses for each position. Therefore, the Risk Engine produces eight different scenarios as shown in the table below.

Risk Scenarios	1	2	3	4	5	6	7	8
Underlying Price Variation*	1/3	-1/3	2/3	-2/3	1	-1	2	-2
Weight Fraction Considered	100%	100%	100%	100%	100%	100%	35%	35%
* Expressed in scan range								

For Options contracts belonging to the same Combined Commodity, the Risk Engine first calculates the Risk Arrays for each Option contract and for each one of the eight

risk scenarios. The Risk Engine then adds up the Risk Arrays results of all Options contracts under the same risk scenario. For example, for two Options contracts O1 and O2 on the Underlying Interest XX, the same scenarios are performed for each Option contract, and then, they are added up. Therefore, the Risk Array value for O1 under the risk scenario 1 is added up to the Risk Array value for O2 under the risk scenario 2 is added up to the Risk Array value for O2 under the risk scenario 2 is added up to the Risk Array value for O2 under the risk scenario 2 is added up to the Risk Array value for O2 under the risk scenario 2, and so on. The largest total Risk Array value amongst the eight values is the Scanning Risk of this Combined Commodity. The details of this method are described in the section on Risk Arrays.

For a better explanation of the Risk Engine methodology used by the Corporation, here are the steps to calculate the Initial Margin for an Option contract using the Risk Array:

#### Example 1:

Let's assume that the price of an Option contract is  $X_0$ , its Underlying Interest price is  $P_0$  and its Margin Interval is MI. Using the formula described above, we can calculate the Price Scan Range (PSR) of the option which represents the fluctuation range of the Underlying Interest as follows:

$$PSR = MI \times P_0 \times Contract Size.$$

Since the contract size of an Option contract is generally 100, the formula becomes:

$$PSR = MI \times P_0 \times 100$$

For the clarity of the table below, please note that the PSR used in the following steps does not include the contract size, i.e.  $PSR = MI \times P_0$ .

#### Scenario 1:

Step 1: calculate the Underlying Interest price variation. To accomplish this, the Risk Engine varies the Underlying Interest price by 33% (or 1/3) to the upper range of its MI. If for example the MI is 30%, the Underlying Interest price moves to the upper range by 33% of the 30% which leads to a move by 10% to the up. Therefore, the Underlying Interest price variation is +33% of the PSR.

Step 2: calculate the new (simulated) Underlying Interest price by adding the Underlying Interest price variation calculated in the last step to the original Underlying Interest price.

Step 3: calculate the new (simulated) theoretical option price with Barone-Adesi & Whaley (1987) model<sup>3</sup> using the new (simulated) Underlying Interest price.

Step 4: calculate the option's gain or loss by subtracting the new (simulated) theoretical option price from the original option price.

<sup>&</sup>lt;sup>3</sup> The Corporation uses BAW (1987) model since most of the listed equity options that are cleared are American style.

Step 5: multiply the gain or loss by the considered weight fraction (the last row of the above table) to get the Risk Array amount associated to the scenario 1.

After repeating the above steps for the remaining seven scenarios, the Risk Engine chooses the largest amount of (the weighted) gain or loss as the most unfavourable projected liquidation value (worst case) of the option. This amount is called the Scanning Risk.

Here is the same table as before but with the formulas of each step:

Risk Scenarios	1	2	3	4	5	6	7	8
Underlying Price Variation	1/3 * PSR	-1/3 * PSR	2/3 * PSR	-2/3 * PSR	PSR	-1 * PSR	2 * PSR	-2 * PSR
New Underlying Price	P <sub>1</sub> = P <sub>0</sub> + 1/3 * PSR	P <sub>2</sub> = P <sub>0</sub> - 1/3 * PSR	P <sub>3</sub> = P <sub>0</sub> + 2/3 * PSR	P <sub>4</sub> = P <sub>0</sub> - 2/3 * PSR	P₅ = P₀+ PSR	P <sub>6</sub> = P <sub>0</sub> - PSR	P <sub>7</sub> = P <sub>0</sub> + 2 * PSR	P <sub>8</sub> = P <sub>0</sub> -2 * PSR
New Option Price (BAW)	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X4	X5	X <sub>6</sub>	X <sub>7</sub>	X <sub>8</sub>
Gain / Loss	P&L <sub>1</sub> = X <sub>0 -</sub> X <sub>1</sub>	P&L <sub>2</sub> = X <sub>0 -</sub> X <sub>2</sub>	P&L <sub>3</sub> = X <sub>0 -</sub> X <sub>3</sub>	P&L <sub>4</sub> = X <sub>0-</sub> X <sub>4</sub>	P&L <sub>5</sub> = X <sub>0 -</sub> X <sub>5</sub>	P&L <sub>6</sub> = X <sub>0-</sub> X <sub>6</sub>	P&L <sub>7</sub> = X <sub>0-</sub> X <sub>7</sub>	P&L <sub>8</sub> = X <sub>0 -</sub> X <sub>8</sub>
Weight Fraction Considered	100%	100%	100%	100%	100%	100%	35%	35%
Risk Arrays Results	RA₁₌ 100%*P&L₁	RA <sub>2=</sub> 100%*P&L <sub>2</sub>	RA <sub>3=</sub> 100%*P&L <sub>3</sub>	RA₄₌ 100%*P&L₄	RA <sub>5=</sub> 100%*P&L <sub>5</sub>	RA <sub>6=</sub> 100%*P&L <sub>6</sub>	RA <sub>7</sub> ₌ 35%*P&L <sub>7</sub>	RA <sub>8=</sub> 35%*P&L <sub>8</sub>

The table above shows all details about the Risk Engine method used by the Corporation to calculate the worst potential loss of an Option contract. The last row has the eight Risk Arrays outcomes. The largest amount (positive amount) amongst the eight amounts is the Scanning Risk which will be, in most cases, the Initial Margin of this position.

It is important to note that the above calculations are performed at the Combined Commodity level, implying that when there is more than a single contract with the same Underlying Interest, the Risk Engine method calculates the Risk Arrays for all contracts belonging to the same Combined Commodity and then sums up the Risk Arrays results thus calculated for all contracts for the same scenario. In other words, the RA<sub>1</sub> of the first contract is added up to the RA<sub>1</sub> of the second contract and to the RA<sub>1</sub> of the n<sup>th</sup> contract that belong to the same Combined Commodity. Then, the RA<sub>2</sub> of the first contract is added up to the RA<sub>2</sub> of the n<sup>th</sup> contract that belong to the second contract and to the RA<sub>1</sub> of the same Combined Commodity. Then, the RA<sub>2</sub> of the first contract is added up to the RA<sub>2</sub> of the second contract and to the RA<sub>1</sub> of the same Combined Commodity in order to get the total RA<sub>2</sub> for the same Combined Commodity in order to get the total RA<sub>2</sub> for the same Combined Commodity in order to get the total RA<sub>2</sub> for the Combined Commodity. And so forth for obtaining the total RA<sub>3</sub>, RA<sub>4</sub>, RA<sub>5</sub>, RA<sub>6</sub>, RA<sub>7</sub> and RA<sub>8</sub>. Finally, the Risk Engine considers the largest amount of the eight total Risk Arrays as the Scanning Risk.

#### Example 2:

Let's assume a portfolio with three different positions: a short position in ten (10) Futures contracts on the S&P/TSX 60 Index, a long position in six (6) call Options contracts on the same index and a short position in three (3) put Options contracts on the same Underlying Interest (the expiry date for these three Options contracts might be the same or different).

In addition, the contract size and the price of the Futures contract are respectively 200 and  $F_0$  and its Margin Interval is  $MI_F$ . The price of the call option is  $X_0$ , the price of the put option is  $Y_0$  and the contract size of these two Option contracts is 100, whereas the price of the Underlying Interest S&P/TSX 60 Index is  $P_0$  and its Margin Interval is  $MI_I$ . The  $MI_F$  and the  $MI_I$  values are almost the same but not exactly equal since the first is calculated using the historical volatility of the future's returns, whereas the second is calculated using the historical volatility of the index's returns. However, since the index and the Futures contracts are strongly correlated, both Margin Interval values must be almost similar. Using the calculated Margin Intervals, we can calculate the Price Scan Range (PSR<sub>F</sub>) of the Future contract, which represents the fluctuation range of the fluctuation range of the underlying index as follows:

$$PSR_F = MI_F x F_0 x$$
 Contract Size

and,

$$PSR_{I} = MI_{I} \times P_{0} \times Contract Size$$

Thus, since this Futures contract size is 200 and the contract size of the index option is 100, the previous formulas become:

$$PSR_F = MI_F \times F_0 \times 200$$

and,

$$PSR_{l} = MI_{l} \times P_{0} \times 100$$

For the clarity of the table below, please note that the  $PSR_F$  and the  $PSR_I$  do not include the contract size, i.e.  $PSR_F = MI_F \times F_0$  and  $PSR_I = MI_I \times P_0$ .

This is the Risk Arrays table of this example:

Risk Scenario	1	2	3	4	5	6	7	8
10 Index Futures Contracts								
Futures Price Variation	10 x 200 x 1/3 x PSR <sub>F</sub>	-10 x 200 x 1/3 x PSR <sub>F</sub>	10 x 200 x 2/3 x PSR <sub>F</sub>	-10 x 200 x 2/3 x PSR <sub>F</sub>	10 x 200 x PSR <sub>F</sub>	-10 x 200 x PSR <sub>F</sub>	10 x 200 x 2 x PSR <sub>F</sub>	-10 x 200 x 2 x PSR <sub>F</sub>
Weight Fraction Considered	100%	100%	100%	100%	100%	100%	35%	35%
Total Weighted Profit and Loss	P&L <sub>F1</sub> = 2000 / 3 x PSR <sub>F</sub>	P&L <sub>F2</sub> = -2000 / 3 x PSR <sub>F</sub>	P&L <sub>F3</sub> = 4000 / 3 x PSR <sub>F</sub>	P&L <sub>F4</sub> = -4000 / 3 x PSR <sub>F</sub>	P&L <sub>F5</sub> = 2000 x PSR <sub>F</sub>	P&L <sub>F6</sub> = -2000 x PSR <sub>F</sub>	P&L <sub>F7</sub> = 1400 x PSR <sub>F</sub>	P&L <sub>F8</sub> = -1400 x PSR <sub>F</sub>
6 Index Call Option Contracts								
Index Price Variation	1/3 x PSR	-1/3 x PSR <sub>i</sub>	2/3 x PSR	-2/3 x PSRI	PSR	-PSRI	2 x PSR	-2 x PSRI
New Index Price	P <sub>1</sub> = P <sub>0</sub> + 1/3 * PSR <sub>1</sub>	P <sub>2</sub> = P <sub>0</sub> - 1/3 * PSR <sub>1</sub>	P <sub>3</sub> = P <sub>0</sub> + 2/3 * PSR <sub>I</sub>	P <sub>4</sub> = P <sub>0</sub> - 2/3 * PSR <sub>I</sub>	P₅ = P₀ + PSR₁	P <sub>6</sub> = P <sub>0</sub> - PSR <sub>I</sub>	P <sub>7</sub> = P <sub>0</sub> + 2 * PSR <sub>1</sub>	P <sub>8</sub> = P <sub>0</sub> - 2 * PSR <sub>I</sub>
New Call Option Price (BAW)	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>	X <sub>5</sub>	X <sub>6</sub>	X <sub>7</sub>	X <sub>8</sub>
Weight Fraction Considered	100%	100%	100%	100%	100%	100%	35%	35%
Total (6 x 100) Weighted Profit and Loss	P&L <sub>X1</sub> = 600 x (X <sub>0</sub> - X <sub>1</sub> )	P&L <sub>x2</sub> = 600 x (X <sub>0</sub> - X <sub>2</sub> )	P&L <sub>X3</sub> = 600 x (X <sub>0</sub> - X <sub>3</sub> )	P&L <sub>X4</sub> = 600 x (X <sub>0</sub> - X <sub>4</sub> )	P&L <sub>x5</sub> = 600 x (X <sub>0</sub> - X <sub>5</sub> )	P&L <sub>X6</sub> = 600 x (X <sub>0</sub> - X <sub>6</sub> )	P&L <sub>X7</sub> = 600 x (X <sub>0</sub> - X <sub>7</sub> )	P&L <sub>X8</sub> = 600 x (X <sub>0</sub> - X <sub>8</sub> )
3 Index Put Option Contracts								
New put Option Price (BAW)	Y <sub>1</sub>	Y <sub>2</sub>	Y <sub>3</sub>	Y <sub>4</sub>	Y <sub>5</sub>	Y <sub>6</sub>	Y <sub>7</sub>	Y <sub>8</sub>
Weight Fraction Considered	100%	100%	100%	100%	100%	100%	35%	35%
Total (-3 x 100) Weighted Profit and Loss	P&L <sub>Y1</sub> = -300 x (Y <sub>0</sub> - Y <sub>1</sub> )	P&L <sub>Y2</sub> = -300 x (Y <sub>0</sub> - Y <sub>2</sub> )	P&L <sub>Y3</sub> = -300 x (Y <sub>0</sub> - Y <sub>3</sub> )	P&L <sub>Y4</sub> = -300 x (Y <sub>0</sub> - Y <sub>4</sub> )	P&L <sub>Y5</sub> = -300 x (Y <sub>0</sub> - Y <sub>5</sub> )	x P&L <sub>Y6</sub> = -300 x (Y <sub>0</sub> - Y <sub>6</sub> )	P&L <sub>Y7</sub> = -300 x (Y <sub>0</sub> - Y <sub>7</sub> )	-300 x (Y <sub>0</sub> - Y <sub>8</sub>
Combined Commodity Risk Arrays Results	RA <sub>1</sub> = P&L <sub>F1</sub> + P&L <sub>X1</sub> + P&L <sub>Y1</sub>	$RA_{2} =$ $P\&L_{F2} + P\&L_{X2} +$ $P\&L_{Y2}$	RA <sub>3</sub> = P&L <sub>F3</sub> + P&L <sub>X3</sub> + P&L <sub>Y3</sub>	RA <sub>4</sub> = P&L <sub>F4</sub> + P&L <sub>X4</sub> + P&L <sub>Y4</sub>	RA <sub>5</sub> = P&L <sub>F5</sub> + P&L <sub>X5</sub> + P&L <sub>Y5</sub>	RA <sub>6</sub> = P&L <sub>F6</sub> + P&L <sub>X6</sub> + P&L <sub>Y6</sub>	RA <sub>7</sub> = P&L <sub>F7</sub> + P&L <sub>X7</sub> + P&L <sub>Y7</sub>	RA <sub>8</sub> = P&L <sub>F8</sub> + P&L <sub>X8</sub> + P&L <sub>Y8</sub>

The largest amount (positive number) of the eight Risk Arrays results is the Scanning Risk which will be the Initial Margin of a portfolio with these three positions.

By convention, Risk Array values are given for a single long position. For a short position (as for the short Put option of the previous example), the calculated profit and loss is multiplied by the negative sign (-1). Losses for long positions are expressed as positive numbers and gains as negative numbers.

In the case of all the eight Risk Arrays values being negative (i.e. all corresponding to a gain) or zero (no risk), the Scanning Risk amount is set to zero.

The number of the Risk Arrays scenario that gives the largest amount (worst case scenario) for the option is called the Active Scenario. If two scenarios have the same figure, the one with the lowest scenario number is the Active Scenario. For example, if scenarios 5 and 7 give the largest and similar results, scenario 5 will be defined as the Active Scenario.

The Risk Engine calculates the Initial Margin for each Combined Commodity, for each member's account and sub-account. Thus, the Initial Margins calculated for each Combined Commodity account and sub-account are then sent to the Clearing System in order to be aggregated at the Clearing Member level.

In the event of a sharp variation of the Underlying Interest price, short option positions can lead to significant losses. Therefore, the Risk Engine calculates a minimum amount called Short Option Minimum (SOM)<sup>4</sup> for short positions in each Combined Commodity. This amount will be called if it is higher than the result of the Risk Arrays.

Risk Arrays values are denominated in the same currency as the specific contract.

The Corporation's Risk Arrays file is published every day on the Chicago Mercantile Exchange (CME) website.

#### OTCI TRANSACTIONS FOR WHICH THE UNDERLYING INTEREST IS A SECURITY

The Initial Margin calculation process for OTCI Transactions for which the Underlying Interest is an Acceptable Security is the same as for listed options, except that the Corporation uses a theoretical price calculated using an in-house program, instead of the contractual option price.

#### Theoretical Price Calculation

The Corporation uses the Barone-Adesi and Whaley (BAW) model to evaluate the Options that have an American style and the Black and Scholes (BS) model to evaluate the Options that have a European style. In order to evaluate the Option price, we need to determine the implied volatility to be used. For this, two different methodologies are used depending whether the Option is an Exchange traded Option.

If the Option contract is an Exchange traded Option, the Corporation uses the Option's data (the entire Option series for one expiry month) available at the Exchange and builds a Smile Volatility Curve using a Cubic Spline function. After building the Smile Curve, the Corporation determines the implied volatility that corresponds exactly to the strike price of the Option to be assessed. If the expiry date of the Option does not correspond to the ones of the listed series, the Corporation builds two Smile Volatility Curves, one using the Option series with an expiry date that is right after the one of the assessed Option and one using the series of Options with an expiry date that is right before the one of the assessed Option to be evaluated.

<sup>&</sup>lt;sup>4</sup> At the Corporation, the Short Option Minimum (SOM) is equal to 25% of the Price Scan Range.

Then, the volatility that corresponds to the strike price of the Option to be evaluated is determined on each curve. Finally, a linear interpolation is done to determine the volatility that corresponds to the strike and to the expiry date of the Option to be evaluated. However, if the expiry date of the Option to be evaluated is before (after) the first (last) expiry date of the listed Options series, the Corporation uses the volatilities of the Smile Volatility Curve of the first (last) expiry date of the listed Option series.

If the Option is not listed and no data is available for it, the Corporation uses the yearly historical volatility of the Option's Underlying Interest price as a proxy for the implied volatility.

#### Liquidity Interval

To calculate the Margin Interval for OTCI transactions for which the Underlying Interest is an Acceptable Security, the Corporation may apply a different number of liquidation days. In addition, for OTCI with Physical Settlement/Delivery, the Corporation calculates an additional Liquidity Interval and adds it to the Margin Interval.

The assumptions under which the Liquidity Interval is calculated are similar to the assumptions the Corporation uses to calculate the Margin Interval, i.e., the confidence interval over 99% is obtained by using 3 standard deviations (based on the normal distribution's assumptions). The Liquidity Interval is calculated based on the historical bid-ask price spread of the Underlying Interest according to the same formula for Margin Interval.

#### **UNSETTLED ITEMS**

Options contracts with physical delivery that have been exercised or expired in the money without being settled (i.e. the Underlying Interest is not delivered yet) are considered as Unsettled Items and the Corporation has to manage the settlement risk associated with these products until the whole quantity of the Underlying Interest is completely delivered/settled. For instance, when such Option contract expires in the money, the Underlying Interest is delivered three days after the expiry date consistent with current market settlement conventions. The Corporation has to charge a Margin requirement to cover the Replacement Cost (RC) of the Option contract and its Potential Future Exposure (PFE) as well. The procedure is as follows:

To cover the Replacement Cost of the Option contract, the Corporation requests a Margin requirement equal to the intrinsic value of the Option times the position (quantity of Options). However, when the writer of a put Option has deposited a Put Escrow Receipt to cover the total amount of the strike price in accordance with Section A-708 of the Rules, the Corporation will not require Margin on the relevant put Option. In the same manner, when the writer of a call Option has deposited a Call Underlying Interest Deposit to cover the total quantity of the Underlying Interest deliverable thereunder in accordance with Section A-708 of the Rules, the Corporation will not require Margin on the relevant deliverable thereunder in accordance with Section A-708 of the Rules, the Corporation will not require Margin on the relevant call Option.

To cover the Potential Future Exposure of the Option contract, the Corporation requests a margin requirement amount to cover any potential Underlying Interest

price movement over two days and within three standard deviations (under the normal distribution's assumption).

#### INITIAL MARGIN FOR FUTURES CONTRACTS

This section describes how the initial margin is calculated for the Futures contracts, which includes the Index Futures, Interest Rate Futures, Government of Canada Bonds Futures and Shares Futures.

The first part of the example # 2 of the previous section on Risk Arrays shows how the Scanning Risk is calculated. The Scanning Risk represents the most unfavourable projected liquidation value of the futures position. The calculated Scanning Risk is the Initial Margin for a Futures contract. However, since the Futures contract prices are linear with respect to their Underlying Interest prices, the Active Scenario for a Futures contract is always the one with the positive amount between scenario 5 and scenario 6. In other words, the Initial Margin for a Futures contract is always equal to its Price Scan Range (PSR).

However, when the holder of a short position on a Futures contract has deposited a Futures Underlying Interest Deposit to cover the total quantity of the Underlying Interest deliverable thereunder in accordance with Section A-708 of the Rules, the Corporation will not require Margin on the relevant Futures contract.

#### INTRA-COMMODITY (INTER-MONTH) SPREAD CHARGE

The different Futures contracts belonging to the same Combined Commodity have generally positively correlated returns. For example, a portfolio composed of a long position and a short position of two Futures contracts that have the same Underlying Interest but different expiry dates, will be less risky than the sum of the two positions taken individually. Margins on correlated positions address this fact.

The Risk Engine automatically matches the long positions on futures maturing in one month with the short positions on futures maturing in another month. The resulting Margin Requirement on these two Futures contracts belonging to the same Combined Commodity, assumes a perfect correlation between the two Futures contracts. Thus the gain of one position is offsetted by the loss of the other position. However, the Futures contracts prices with different maturity months are not perfectly correlated. Gains on a Futures contracts with a certain expiry month should not totally offset losses on a Futures contracts whose expiry month is different. To fix this issue, the Risk Engine allows the user to calculate and to apply a margin charge relative to the Inter-Month spread risk, in order to cover the risk of these two positions. This margin is called Inter-Month spread charge or Intra-Commodity spread charge (because it is calculated within the Combined Commodity).

Intra-commodity (Inter-month) spread charge on correlated futures positions are calculated by the Corporation's risk department and updated regularly.

In order to determine the Intra-Commodity Spread Charge of the Futures contract, the Corporation performs a backtesting analysis of the historical profit and loss (P&L) over the last 260 days for each combination of a long and a short position of the different Futures contracts with the same Underlying Interest. The backtesting

analysis consists of identifying, for each combination, the 99th percentile of the absolute values of the portfolio's profit and loss. This method gives the right dollar amount that should cover the potential profit and loss with a 99% confidence interval.

#### INTER-COMMODITY SPREAD CHARGE

Similarly, the Corporation considers the correlation that exists between different classes of Futures contracts when calculating the Initial Margin. For example, different interest rate Futures contracts are likely to react to the same market indicators, but at different degrees. For instance, a portfolio composed of a long position and a short position on two different interest rate Futures contracts will be likely less risky than the sum of the two positions taken individually. The Corporation will grant a margin relief according to the historical correlation of the returns of the two Futures contracts.

When calculating the Initial Margin on a portfolio with several long and short futures positions, the Corporation matches the positions in accordance with predefined steps. For example, if the first matching step consists of matching long or short positions on the front month Futures contracts with long or short positions on the second front month Futures contract, the positions of both Futures contracts might not be equal. In this case, the Corporation determines, using the hedge ratio concept the exact position (number of contracts) of a Future contract that can be offset by a position on the other Future contract. Any position that has not been matched will be available for the second matching step. This is the same spread priority process also defined for Cash Buy or Sell Trades and Repurchase Transactions.

The Corporation regularly performs an analysis to determine the margin reductions that are applied for all Futures contracts combinations.

The Corporation also considers the positive (negative) correlation that exists between the different interest rate Futures contracts and the Fixed Income Transactions, and provides a margin benefit for a combination of any Futures contracts with the opposite (same) Fixed Income Transactions.

#### Spread Priority

To determine the appropriate margin reduction for each combination of two Futures contracts, the Corporation performs the following steps:

- 1) Use the yearly historical data of the different Futures contracts and calculate the correlation matrix.
- 2) For the priority allowance, start by considering the closest diagonal to the leading one (the diagonal with the 100% correlations that represent the Futures contracts correlations with themselves). This closest diagonal usually contains the highest correlations because of the proximity of the maturities. Then, consider the second closest diagonal, then the third and so on until the last diagonal that has one correlation number.
- 3) Amongst the numbers of each diagonal, consider the highest number first, then the second highest number, then the third and so on until the last number. This methodology's goal is to maximise the margin reduction applied to the Clearing Members. Discounts are applied to all the matrix correlation numbers before the

priority process. The discounts are meant to cover the potential daily variation of the correlations.

4) If there is one or some ties between the discounted numbers within the same diagonal, consider the one with the lowest maturity first, then the second, then the third and so on until the last one.

Different Futures contracts that do not have the same contract size nor the same volatility yield would not have a margin reduction applied to their respective entire positions. By consequent, a hedge ratio is used to determine how much position of one contract in any combination can be matched with the other Future contract of the same combination. The remaining position (or quantity of Future contracts) of any contract of this first combination will be matched with another position to form another combination according the above priority process. At the end of this process, there might be a single outright position that is left to be margined individually.

The Corporation allows a margin reduction for two positively correlated Futures contracts with different directions and for two negatively correlated Futures contracts with same directions.

When the spread priority process is performed, the Corporation considers the combinations between interest rate Futures contracts first (Intra-Commodity Spread Charge). Any remaining (outright) positions in these Futures contracts positions will be considered for Inter-Commodity Spread Charge with Fixed Income Transactions.

#### INITIAL MARGIN FOR FIXED INCOME TRANSACTIONS

At the Corporation, a Fixed Income Transaction can be either a Repurchase Transaction or a Cash Buy or Sell Trade. A Cash Buy or Sell Trade is the sale of a security from one party to another. Depending on its maturity, the Fixed Income Security can be delivered one, two or three days after the Fixed Income Transaction is completed. Between the Fixed Income Transaction trade date and the delivery date, the Corporation has to cover the counterparty risk.

A Repurchase Transaction is a transaction whereby the seller (the Repo Party) agrees to sell a security to a buyer (the Reverse Repo Party) on a given date (the purchase date) and simultaneously agrees to buy the same security back from the Reverse Repo Party at a later date (the repurchase date) at a fixed price (the repurchase price). Thus, a Repo is equivalent to a cash transaction combined with a forward contract. The cash transaction results in a transfer of money from the buyer to the seller in exchange for a legal transfer of the security from the seller to the buyer, while the forward contract ensures repayment by the seller to the buyer and return of the securities from the buyer to the seller. The difference between the repurchase price and the purchase price is the Price Differential calculated with the agreed Repo Rate, while the settlement date of the forward contract (i.e. the repurchase date) is the maturity date of the transaction.

In such Repurchase Transaction, there are two sources of risk that the Corporation needs to consider and cover. The potential Purchased Security's price fluctuation and the Floating Price Rate fluctuation over the life of the Repurchase Transaction. However, in a Cash Buy or Sell Trade, there is only one source of risk that the

Corporation needs to consider and cover, namely, the Purchased Security's price fluctuation.

#### SECURITY PRICE RISK

The price of the Purchased Security changes continuously during the life of a Repurchase Transaction. On one hand, if the price decreases and the Repo Party defaults, the Corporation, as a central counterparty, is exposed to the Reverse Repo Party for that price difference. The position may be transferred to any Fixed Income Clearing Member who agrees to buy the security at the expiry date with the new market conditions (new security's market price and interest rate). In this case, the Corporation has to cover the potential decrease in the security's value (negative variation for the seller) that could arise during the next specific period. On the other hand, if the security's price increases and the Reverse Repo Party defaults, the Corporation, as a central counterparty, is exposed to the Repo Party for that price difference. The position may be transferred to any Fixed Income Clearing Member who agrees to sell the same security at the expiry date with the new market conditions (new security's market price and interest rate). In that case, the Corporation has to cover the potential increase in the security for that price difference. The position may be transferred to any Fixed Income Clearing Member who agrees to sell the same security at the expiry date with the new market conditions (new security's market price and interest rate). In that case, the Corporation has to cover the potential increase in the security's value (negative variation for the buyer) that could arise during the next specific period.

The methodology to calculate the Initial Margin for Fixed Income Transactions is slightly different from the Options contracts and Futures contracts. Indeed, the different types of securities that are accepted by the Corporation for clearing of a Repurchase Transaction are separated in different Buckets depending on their remaining time to maturities and issuers. Every security in the same Bucket has the same volatility yield expressed in term of Margin Interval (same concept of Margin Interval as described before) which is calculated using the yield-to-maturity (YTM) of the on-the-run security of the Bucket. The Margin Interval is calculated as follows:

$$MI = 3 \times \sqrt{n} \times Max [\sigma_{20 \, days}, \sigma_{90 \, days}, \sigma_{260 \, days}]$$

Where n is the number of liquidation days,  $\sigma$  is the standard deviation of the YTM's daily variation of the on-the-run security over the reference period and 3 is to allow a confidence level over 99% under the normal distribution's assumption.

It's important to note that for some particular Buckets, there may not be any on-therun security. In this particular situation, a linear interpolation between the MIs of the two closest Buckets is performed to determine the MI of the particular bucket.

Each Bucket is considered as a Combined Commodity. Since the bond's convexity effect is very small with respect to its duration, the Initial Margin is calculated for a physical cash trade exactly the same way as for Futures contracts. The first part of the example # 2 of the section on Risk Arrays shows how the Scanning Risk is calculated for a Futures contract. As for a Futures contract, the Initial Margin for a physical security can also be obtained straightforwardly by calculating its Price Scan Range (PSR).

Therefore, the Initial Margin amount related to the security's price of a Repurchase Transaction on one security belonging to a Bucket is calculated as follows:

#### Initial Margin 1 = Security's Price x MI x D x Contract Size

Where D is the duration of the security and the contract size is the transaction's Purchase Price divided by 100.

Thus, all Repo related Fixed Income Securities belonging to the same Bucket have the same Margin Interval but each specific Repo related security of the same Bucket has a different Initial Margin driven by its own price and its own duration.

In the above formula of the Price Scan Range, only the first part of the Initial Margin of a Repurchase Transaction is calculated, namely, the Initial Margin 1. As mentioned above, there are two sources of risk for a Repurchase Transaction. This is the Initial Margin of the first source of risk, the security's price. In the next section, the second part of the Initial Margin of a Repurchase Transaction which covers the second source of risk, the Floating Price Rate, is described. Finally, both Initial Margins are added up to get the total Initial Margin of a Repurchase Transaction. However, the Initial Margin 1 corresponds to the total Initial Margin for a Cash Buy or Sell Trade.

#### INTEREST RATE RISK (REPURCHASE TRANSACTIONS)

The Floating Price Rate changes continuously during the life of a Repurchase Transaction. On one hand, if the Floating Price Rate decreases and the Repo Party defaults, the Corporation, as a central counterparty, is exposed to the Reverse Repo Party The position may be transferred to any Fixed Income Clearing Member who agrees to buy the Fixed Income Security at the expiry date with the new market conditions. In this case, the Corporation has to cover the potential decrease in the Floating Price Rate (negative variation for the seller) that could arise during the next specific period. On the other hand, if the Floating Price Rate increases and the Reverse Repo Party defaults, the Corporation, as a central counterparty, is exposed to the Repo Party. The position may be transferred to any Fixed Income Clearing Member who agrees to sell the same Fixed Income Security at the expiry date with the new market conditions. In that case, the Corporation has to cover the potential increase in the Floating Price Rate (negative variation for the Security at the expiry date with the new market conditions. In that case, the Corporation has to cover the potential increase in the Floating Price Rate (negative variation for the buyer) that could arise during the next specific period.

In order to properly quantify the risk related to the Floating Price Rate using the Risk Engine, it is necessary to model the Floating Price Rate into a Virtual Futures Contract (VFC) with a price equal to: VFC's price = 100 – Floating Price Rate. For an overnight Repurchase Transaction the Initial Margin is straightforwardly calculated by sending to the Risk Engine the determined VFC. However, in order to calculate the VFC's price for longer term Repurchase Transactions, the Corporation determines the appropriate interest rate using the overnight index swap (OIS) term structure.

The portion of the Initial Margin that covers the Floating Price Rate related risk is then added to the portion of Initial Margin that covers the security price related risk to get the total Initial Margin for a Repurchase Transaction.

It's important to note that the portion of Initial Margin that covers the Floating Price Rate related risk is infinitesimally small with respect to the portion of Initial Margin that covers the security price related risk.

#### INTRA-COMMODITY (INTER-MONTH) SPREAD CHARGE

The different Futures contracts belonging to the same Combined Commodity have generally positively correlated returns. For Fixed Income Transactions, a portfolio composed of a short position and a long position on two different Acceptable Securities belonging to the same Bucket, will generate a lower margin requirement than if they were margined independently without considering their correlation.

The Risk Engine automatically matches the Seller and the Buyer of two different securities belonging to the same Bucket. The resulted Margin requirement on these two Repurchase Transactions assumes a perfect correlation between the two Fixed Income Securities, thus the gain of one Fixed Income Security is offsetted by the loss of the other Fixed Income Security. However, the Acceptable Securities' prices are not perfectly correlated. Gains on one position should not totally offset losses of the other Fixed Income Security. To fix this issue, the Risk Engine allows the user to calculate and to apply a margin charge relative to the Inter-Month spread risk in order to cover the risk of these two Fixed Income Transactions. This margin is called the Inter-Month spread charge or Intra-Commodity spread charge (because it is calculated within the Combined Commodity).

The Intra-Commodity (Inter-Month) spread charge on correlated Acceptable Securities of each Bucket is calculated by the Corporation's risk department and updated regularly.

In order to determine the Intra-Commodity spread charge of each Bucket, the Corporation performs for each combination of Acceptable Securities within a Bucket, a backtesting analysis of the historical profits and losses (P&L). The backtesting analysis is performed over the last 260 days and for each combination, the 99th percentile of the absolute values of the portfolio's profit and loss is determined. This method gives the right dollar amount that should cover the potential profit and loss, with a 99% confidence interval.

#### INTER-COMMODITY SPREAD CHARGE

The Fixed Income Securities belonging to two different Buckets generally have a significant correlation. Inter-Commodity spread charge is a margin amount generated for opposite or similar Fixed Income Transactions in two different Acceptable Securities belonging to two different Buckets.

Without any margin relief, the Initial Margin for opposite or similar positions on two different Acceptable Securities belonging to different Buckets would be the sum of both Initial Margins. However, two different Fixed Income Transactions in different Acceptable Securities belonging to two different Buckets can benefit from a reduction in their Initial Margins because of the consideration given to their correlation. The formula to get the portfolio's Initial Margin is:

Total Initial Margin = (Initial Margin Position 1 + Initial Margin Position 2) x (1 – Margin Relief)

The margin relief is a percentage determined using the correlation matrix between the different on-the-run Fixed Income Securities of each Bucket.

The Inter-Commodity margin relief percentages between the different Buckets are

calculated by the Corporation's risk department and updated regularly.

The Corporation also considers the positive (negative) correlation that exists between the different Fixed Income Transactions and the interest rate Futures contracts. The Corporation provides a margin reduction for a combination of any Fixed Income Transactions with opposite or similar Futures contracts positions.

#### **Spread Priority**

To determine the appropriate margin reduction for each combination of two Fixed Income Securities, the Corporation performs the following steps:

- 1) Use the yearly historical data of the different Fixed Income Securities and calculate the correlation matrix.
- 2) For the priority allowance, start by considering the closest diagonal to the leading one (the diagonal with the 100% correlations that represents the Fixed Income Securities correlations with themselves). The first diagonal usually contains the highest correlations because of the nearness of the maturities. Then, consider the second closest diagonal, then the third, and so on, until the last diagonal that has only one correlation number.
- 3) Amongst the numbers of each diagonal, consider the highest number first, then the second highest number, then the third and so on until the last number. This methodology's goal is to maximise the margin reduction applied to the Clearing Members. Discounts are applied to all the matrix correlation numbers before the priority process. The discounts are meant to cover the potential daily variation of the correlations.
- 4) If there is one or some ties between the discounted numbers within the same diagonal, consider the one with the lowest maturity first, then the second, then the third and so on until the last one.

Different Fixed Income Securities that do not have the same price nor the same duration would not have a margin reduction applied to their respective entire positions. By consequent, a hedge ratio is used to determine how much position of one contract in any combination can be matched with the other Fixed Income Transaction of the same combination. The remaining position (or quantity of Fixed Income Transaction) of any contract of this first combination will be matched with another position to form another combination, according to the above priority process. At the end of this process, there might be a single outright position that is left to be margined individually.

The Corporation allows a margin reduction for two positively correlated Fixed Income Transactions with different directions and for two negatively correlated Fixed Income Transactions with same directions.

When the spread priority process is performed, the Corporation considers the combinations between Fixed Income Transactions first. Any remaining (outright) positions in these Fixed Income Transactions positions will be considered for Inter-Commodity spread charge with the Futures contracts.

For a better understanding of this process, please refer to the spread priority example of the section Fixed Income Transactions, and to the third scenario of the *IM\_repo\_3\_scenarios.xls* file available at the Corporation website.

#### **Spread Priority Example**

Here is an example of the matrix correlation demonstrating the application of the spread priority process:

Correlation	3 months	6 months	1 year	2 year	3 year	5 year	7 year	10 year	15 year	20 year	30 year
3 months	100%	92%	88%	<mark>68%</mark>	11%	-1%	2%	4%	24%	24%	14%
6 months		100%	94%	81%	54%	42%	5%	7%	26%	26%	17%
1 year			100%	82%	68%	46%	20%	22%	39%	39%	29%
2 year				100%	76%	59%	68%	69%	78%	75%	69%
3 year					100%	82%	87%	86%	93%	90%	89%
5 year						100%	91%	55%	57%	89%	88%
7 year							100%	80%	91%	70%	94%
10 year								100%	82%	95%	43%
15 year									100%	69%	97%
20 year										100%	67%
30 year											100%

The numbers in the first diagonal (blue) on the right of the 100% diagonal should be considered first, then the numbers in the second diagonal (green), then the numbers in the third diagonal (yellow), and so on, until the last white diagonal which contains one single number (the number of this cell is 14%).

Amongst the numbers in the first diagonal in blue, the combination with the highest number is treated first. In this case, it is a combination of 1-year Fixed Income Security with 6-month Fixed Income Security which has the highest number (94%). The combination with a 92% correlation is considered, followed by the combination with a 91% correlation, and so on.

Out of the 10 numbers of this diagonal, there are three correlations with the same percentage of 82%. By subsequent, the correlation with a 1-year Fixed Income Security and a 2-year Fixed Income Security has to be considered first, then the correlation with a 3-year Fixed Income Security and a 5-year Fixed Income Security has to be considered thereafter and finally the correlation with a 10-year Fixed Income Security has to be considered.

#### VARIATION MARGIN

#### **OPTIONS CONTRACTS**

For Options contracts, the Variation Margin is collateralized daily.

#### **FUTURES CONTRACTS**

For Futures contracts, the Variation Margin is financially settled every day based on the settlement price as determined by the relevant marketplace.

#### FIXED INCOME TRANSACTIONS

#### MTM REPO RATE VALUATION

The Mark-To-Market (MTM) process essentially transfers any losses due to market fluctuations in the Floating Price Rate which is determined from the overnight index swap curve from one party to the Repurchase Transaction to the other. Each open position will be Marked-to-Market on a daily basis with the resulting cash movements settling during the morning settlement cycle. This amount is called the MTM Repo Rate Payment.

The MTM process works as follows. On one hand, if the Floating Price Rate decreases during the life of the Repurchase Transaction, the Repo Party must pay the difference between the original Repo Rate and the new Floating Price Rate. On the other hand, if the Floating Price Rate increases, the Reverse Repo Party must pay the difference between the new Floating Price Rate and the original Repo Rate.

In addition, when one party to the Repurchase Transaction pays the MTM, it is necessary to compensate that Clearing Member for the opportunity cost of funds (OCF) which was forfeited.

The MTM process is important since it ensures that, in the event of default, the Corporation will be able to replace the defaulting Clearing Member's Repurchase Transaction without incurring any additional losses beyond the current valuation.

Since the MTM and OCF are related to the Repo Rate and the Floating Price Rate, these two components are applied only to Repurchase Transactions and not to Cash Buy or Sell Trades.

Here is an example of the MTM and the OCF calculations:

 $MtM_t = A \times (OIS \ rate_t - original \ Repo \ Rate) \times t/365 - MtM_{t-n}$ 

and

$$OCF_{t} = MtM_{t-n} \times Corra_{t-n} \times n/365$$

where

A = Purchase Price

t = Remaining term (in days)

OIS rate<sub>t</sub> = Interest rate derived from the OIS curve with a remaining term of t days

Original Repo Rate = the contractual Repo Rate

n = Number of days between t and the last business day. It's usually equal to 1 except when there is a week-end or a Holiday.

#### MTM PRICE VALUATION

At each margin run process (two intra-day and one end of day process), the Clearing Engine compares the Market Value of the Purchased Security to the Repurchase Price. The Corporation is exposed to the Reverse Repo Party when the Market Value of the Purchased Security exceeds the Repurchase Price, and inversely, the Corporation is exposed to the Repo Party when the Repurchase Price exceeds the Market Value of the Purchased Security; therefore, this difference needs to be considered in the event of a Clearing Member default.

The MTM price valuation amount is the difference between the Market Value of the Purchased Security and the Repurchase Price. This amount is collateralized and should be credited to the Repo Party's Margin Fund and debited to the Reverse Repo Party's Margin Fund when the Market Value of the Purchased Security exceeds the Repurchase Price, and the other way around when the Repurchase Price exceeds the Market Value of the Purchased Security. It should be noted that MTM price valuation is also applicable for Cash Buy or Sales Trades. In this situation, the MTM price valuation amount is the difference between the Market Value of the Purchased Security and the Purchase Price.

#### ACCOUNT STRUCTURE

The Corporation uses three types of accounts for Margin calculation purposes and positions management: Firm Account, Multi-Purpose Account and Client Account. All the account types are treated on a net account basis for Futures contracts, OTCI and Fixed Income Transactions. However, Options contracts are treated differently depending on the account type they are held in. If they are held in a Firm Account or a Multi-Purpose Account, they are treated on a net account basis, whereas if they are held in a Client Account, they are treated on a gross account basis, which means that only short Options contracts are considered when computing the Initial Margin.

Gross accounts allow calculation of Initial Margin for different clients that clear through one Clearing Member. Since each client has its own risk profile, the Initial Margin must be computed separately for each client and must not allow offsets between positions that belong to different clients. Subsequently, only Futures contracts, short Options contracts, OTCI and Fixed Income Transactions held in a Client Account are considered when calculating the Initial Margins for this account.

Net accounts allow calculation of Initial Margin for the Clearing Member's own positions (Firm Account), for a Market Maker positions (Market Maker Account) or for the positions of a particular single Client (Netted Client Account). In this case, the Initial Margin must consider the possible offsets between all positions. Therefore, all positions held in one Firm Account or one Multi-Purpose Account are used to calculate the Initial Margin for this account.

The Initial Margins calculated for each account are then aggregated at the Clearing Member level to get the Initial Margin by Clearing Member.

In order to cover the Initial Margin described above, Clearing Members shall deposit an acceptable form of Deposits in accordance with Section A-709 of the Rules.

### DIFFERENCE FUND

As defined in Section 8.2 of the Operations Manuel, the Difference Fund is Margin Deposits held by the Corporation as discretionary margin, such as: (1) Unsettled Items Margin, (2) Daily Capital Margin Monitoring, (3) Advance calls for settlement of

losses, (4) OTCI Additional Margin, (5) Banking Holidays Additional Margin, and (6) Intra-Day Margin. The Corporation accepts Deposits to the Difference Fund in the same form and proportion as for the Margin Fund, as set forth in Section A-709 of the Rules.

Despite the fact that the Difference Fund is used to cover all the above elements, the sub-section regarding the Daily Capital Margin Monitoring intends to capture the credit risk. Consequently, this sub-section is described in details thereunder.

#### Daily Capital Margin Monitoring:

The Corporation measures the credit exposure to its Clearing Members on a daily basis through the Daily Capital Margin Monitoring Calls (the Difference Fund). The capital level is derived from regulatory reports received on a monthly basis in a timely manner (and on a quarterly basis if it is a Bank Clearing Member).

As prescribed in Section A-710 of the Rules, the Corporation may call for a contribution in the Difference Fund from Members that are undercapitalized in relation to their respective Initial Margin. The Corporation compares the Clearing Member's capital amount to the Initial Margin on a daily basis and requires, if applicable, that the Clearing Member makes up any difference in the form of acceptable Deposits. Each Clearing Member's capital is analyzed and updated on a monthly basis.

In order to determine the contribution to the Difference Fund of Clearing Members, the Corporation uses the Net Allowable Assets (NAA). The Net Allowable Asset is a more restrictive type of capital, since it is the net result of the financial statement capital less the non allowable assets. Non allowable assets are composed of less liquid assets like capitalized leases, Investments in and Advances to Subsidiaries, etc. For Bank Clearing Members, the Corporation uses the Net Tier 1 capital.

The Corporation has access to the Clearing Member's financial statements from the CIPF (Canadian Investor Protection Fund), and the OSFI (Office of the Superintendent of Financial Institutions Canada) for Bank Clearing Members.

In addition to the monthly update of capital numbers, the Corporation performs a qualitative analysis of the financial statements of each member. The Corporation has defined specific thresholds to analyze the profitability, the margin required, the liquidity and the capital level. The Corporation could ask Clearing Members for more clarifications, if necessary.

Indeed, Investment Industry Regulatory Organization of Canada (IIROC) evaluates the financial condition of its Members. If an IIROC Member, who is also a Clearing Member, fails the tests designed to detect the risk of insolvency, the Corporation will be notified by IIROC. The Clearing Member itself shall also advise the Corporation immediately if it enters in an early warning level situation. IIROC may issue two types of warning, early warning level 1 or 2. This is function of the severity of the financial deficiency. The Corporation will be informed by IIROC and will closely monitor the situation. IIROC may impose sanctions or restrictions against the Member. The Corporation will judge if it necessary to take any additional actions and will report the situation to the Risk Management and Advisory Committee (RMAC).

## CLEARING FUND

The Clearing Fund deposits are set out in Rule A-6.

These provisions aim to cover extreme but plausible market events. The Clearing Fund is a reserve fund put in place to respond to the deficit that may occur when the Margin Fund and the Difference Fund of a defaulting Clearing Member no longer cover his market exposure. The Clearing Fund is an obligation shared by all the Clearing Members and this Fund is structured to mitigate the Uncovered Residual Risk ("URR"). The URR accounts for the fact that extreme market conditions could generate a major loss for certain Clearing Members, causing the potential default of a Clearing Member.

As it is indicated in Section A-603 of the Rules, the required Clearing Fund contribution of each Clearing Member is composed of Base Deposits plus a Variable Deposit specific to each Clearing Member. Clearing Fund Base Deposits and Variable Deposit could be modified by the Corporation. Clearing Members will be notified of any change pursuant to Section A-604 of the Rules. In accordance with Section A-611 of the Rules, whenever a Clearing Member ceases to be a Clearing Member of the Corporation, the balance of the Clearing Fund owed to the former Clearing Member will be paid to that former Clearing Member, thirty days after all outstanding items have been fulfilled from the Clearing Member's accounts, with the Corporation.

#### **MEMBER CONTRIBUTION**

For the purposes of application of Rule A-6, the Corporation issues an amount of Deposit to each Clearing Member on a monthly re-evaluation basis of the following elements:

Each Clearing Member's contribution is based on his Uncovered Residual Risk (URR), which represents the difference between his stress margin and base margin, as shown in the below formula. The stress margin is calculated using a stressed Margin Interval which is equal to the Margin Interval times a stress factor. The two calculations are based on open positions on the preceding day of the calculations.

The last sixty business days are used to determine the average URR of each Clearing Member.

$$\mu_{URR^{i}}^{60} = \frac{\sum_{t=1}^{60} URR_{t}^{i}}{60}$$

> The Corporation determines the size of the Clearing Fund ( $\Omega$ ) based on the maximum average URR amongst all Clearing Members.

$$\Omega = M_{i=1}^{n} \chi \left( \mu_{URR^{i}}^{60} \right)$$

Each Clearing Member's contribution (C) to the Clearing Fund is determined according to the weight of his respective average URR, with respect to the sum of all the average URRs of all Clearing Members.

$$C^{i} = \Omega \cdot \frac{\mu_{URR^{i}}^{oo}}{\sum_{i=1}^{n} \mu_{URR^{i}}^{60}}$$

#### **STRESS SCENARIOS**

The Corporation uses four stress scenarios to evaluate the biggest loss amongst all Clearing Members. This loss is utilized to determine the size of the Clearing Fund. By consequence, the size of the Clearing Fund represents the greatest shortfall. A shortfall is equal to the difference between the loss incurred under a stress scenario, reduced of the Margin Fund and the Difference Fund, both belonging to the Clearing Member. The stress scenarios use end-of-month positions.

The four stress scenarios currently used by the Corporation are:

- Black Monday (1987)
- Financial Crisis (2008)
- Russian Default (1998)
- Bond Market Crash (1994)

The Corporation regularly assesses whether it is appropriate to add other stress scenarios to the existing scenarios.

The Corporation mostly stresses Futures contracts and Fixed Income Transactions that are considered to be the highest Initial Margin drivers, by historical stressful events. Note that for Fixed Income Transactions, the variations are based on the most representative Fixed Income Securities of each Bucket<sup>5</sup>. Here are the historical percentage variations applied:

Scenario 1 (Black Monday)					
	1987-10-16	1987-10-19	Variation		
SXF <sup>™</sup> – S&P/TSX 60 Index Standard Futures <sup>6</sup>	174.75	154.63	-11.51%		
BAX <sup>™</sup> – Three-Month Canadian Bankers' Acceptance Futures <sup>7</sup>	90.81	90.69	-0.14%		

<sup>&</sup>lt;sup>5</sup> Selected Government of Canada (GoC) Benchmark Bond yields

<sup>&</sup>lt;sup>6</sup> The SXF contract has started trading in 1999. Thus, these prices represent the Futures Contract and not the S&P/TSX 60 Index, which is the Underlying Interest of the contract.

CGB <sup>™</sup> – Ten-Year Government of Canada Bond Futures <sup>8</sup>	74.40	76.93	3.40%
Fixed Income Security Buckets			
0-3 months GoC yields			0.1857%
3-6 months GoC yields			0.4864%
6-12 months GoC yields			1.0164%
1-2 years GoC yields			1.1663%
2-3 years GoC yields			1.4660%
3-5 years GoC yields			1.7657%
5-7 years GoC yields			2.0654%
7-10 years GoC yields			2.3651%
10-15 years GoC yields			2.1761%
15-20 years GoC yields			2.1760%
20-30 years GoC yields			2.4687%
Scenario 2 (	Financial Crisis	s 2008)	
	2008-10-17	2008-10-20	Variation
SXF <sup>™</sup> – S&P/TSX 60 Index Standard Futures	568.5	622.7	9.53%
BAX <sup>™</sup> – Three-Month Canadian Bankers' Acceptance Futures	97.63	97.75	0.12%
CGB <sup>™</sup> – Ten-Year Government of Canada Bond Futures	117.16	117.14	-0.02%
Fixed Income Security Buckets			
0-3 months GoC yields			-0.0056%
3-6 months GoC yields			0.0354%
6-12 months GoC yields			0.0719%
1-2 years GoC yields			0.1318%
2-3 years GoC yields			0.1635%

 <sup>&</sup>lt;sup>7</sup> The BAX contract was introduced in April 1988. Consequently, the historical price is obtained by using the 3 month US LIBOR interest rates.
 <sup>8</sup> The CGB contract was introduced in September 1989. Consequently, the theoretical price is obtained by calculating a 10-year bond, 6% coupon rate actualized with a 10-year Canadian Government rate extracted from an on-the-run Canadian Government Bond.

3-5 years GoC yields			0.1883%
5-7 years GoC yields			0.1247%
7-10 years GoC yields			0.0528%
10-15 years GoC yields			0.1163%
15-20 years GoC yields			0.1718%
20-30 years GoC yields			0.1491%
· ·	B (Russian Def	ault)	
	1998-08-26	1998-08-27	Variation
SXF <sup>™</sup> – S&P/TSX 60 Index Standard Futures	356.54	333.25	6.53%
BAX <sup>™</sup> – Three-Month Canadian Bankers' Acceptance Futures	94.56	93.77	-0.84%
CGB <sup>™</sup> – Ten-Year Government of Canada Bond Futures	122.15	121.3	-0.70%
Fixed Income Security Buckets			
0-3 months GoC yields			-0.2069%
3-6 months GoC yields			-0.3263%
6-12 months GoC yields			-0.5015%
1-2 years GoC yields			-1.0739%
2-3 years GoC yields			-1.0429%
3-5 years GoC yields			-1.3803%
5-7 years GoC yields			-0.8457%
7-10 years GoC yields			-1.4312%
10-15 years GoC yields			-1.5248%
15-20 years GoC yields			-1.2586%
20-30 years GoC yields			-1.3089%
Scenario 4 (	Bond Market C	Crash)	
	1994-04-01	1994-04-04	Variation
$SXF^{TM} - S\&P/TSX 60$ Index Standard Futures	221.09	215.97	-2.32%
BAX <sup>™</sup> – Three-Month Canadian Bankers' Acceptance Futures	93.53	92.92	-0.65%
CGB <sup>™</sup> – Ten-Year Government of Canada Bond Futures	105.17	102.38	-2.65%
Fixed Income Security Buckets			

0-3 months GoC yields	0.0268%
3-6 months GoC yields	0.1060%
6-12 months GoC yields	0.1814%
1-2 years GoC yields	0.3710%
2-3 years GoC yields	0.4517%
3-5 years GoC yields	0.7702%
5-7 years GoC yields	0.6207%
7-10 years GoC yields	0.8582%
10-15 years GoC yields	1.0067%
15-20 years GoC yields	0.7665%
20-30 years GoC yields	0.5196%

The procedure to value the size of the Clearing Fund and the contributions of each Clearing Member is performed every month. As previously mentioned, the consideration of the results of the different stress scenarios leads the Corporation to select a stress factor<sup>9</sup>. Therefore, the stress factor depends on Clearing Members' positions (risk profile of each Clearing Member) that vary every day, and the Margin Intervals. After selecting the stress factor, the Corporation monitors and controls the level of the Clearing Fund throughout the month.

<sup>&</sup>lt;sup>9</sup> The stress factor generally has a value of 1.5, 2, 2.5 or 3. It is generally adjusted by 50% intervals.

## FORMS OF COLLATERAL

The forms of collateral that may be deposited with CDCC are prescribed in Section A-608 and Section A-709 of the Rules.

The different forms of collateral are valued by accounting for their potential loss in the event that liquidation is required. Accordingly, the value of the Margin Deposits is discounted in relation to their market value. This discount, commonly called the Haircut, applies to Valued Securities and Government Securities, as prescribed in Section A-709 of the Rules.

For the purposes of application of the provisions of Section A-608 and Section A-709 of the Rules, CDCC proceeds as follows:

## CASH

Cash amounts are accepted only in Canadian dollars.

## **GOVERNMENT SECURITIES**

CDCC accepts Government of Canada and United States Government bonds, in addition to the bonds of certain Canadian provinces, as Margin Deposits. For each issue accepted in advance, a concentration limit equal to \$250 million or 10% of the total issue outstanding, whichever is less, applies to each Clearing Member. Acceptance of the issues is conditional on the availability of a price from a source that CDCC determines to be acceptable and reliable. The Government Securities accepted as Margin are reviewed by CDCC on a regular basis.

### CALCULATING THE HAIRCUTS FOR GOVERNMENT SECURITIES

The Haircuts are calculated based on the following methodology and assumptions:

•Valuation of the market, credit, liquidity and foreign exchange risks based on historical daily returns;

•Confidence interval over 99% obtained by using 3 standard deviations, and the assumption that the bond can be liquidated at a reasonable price in N days. (N will be determined according to the type of products and prevailing market conditions);

•Liquidity risk valued according to the bid-ask spread of the issues (if this spread is unavailable, the liquidation window will be expanded and will depend on market conditions); and

•Bonds of the same issuer and comparable maturities.

Once the quantitative analysis is performed, CDCC reserves the right to increase the Haircuts based on qualitative criteria, such as:

•Comparative analysis of CDCC's Haircuts in relation to the Haircuts of the Bank of Canada;

- •Comparative analysis of CDCC's Haircuts in relation to the Haircuts of other clearing houses;
- •The congruence of the different Haircuts to the credit rating spreads of the different issuers;
- •Any other factor considered relevant.

## HAIRCUT POLICY

The Haircuts are reviewed at least semi-annually and may be reviewed on an ad hoc basis if any event occurs. The Clearing Members are informed of these reviews by written notice.

## **MONITORING PROGRAM**

The Corporation conducts daily backtesting and stress testing.

#### BACKTESTING

Backtesting is performed on a daily basis. Backtesting helps the Corporation to assess the robustness of the existing models and measures the actual credit exposures. In order to have an efficient coverage, even at the introduction of new products, the Corporation performs a complete theoretical backtesting to calibrate the liquidation period and the volatility assumption.

The Corporation has put in place appropriate internal procedures if the backtesting results are not sufficient to cover minimum coverage at the product level and at the portfolio level.

If the results of the backtesting fail to reach the desired minimum coverage, the situation is investigated. If necessary, the results are escalated to upper management. At this level, a decision is made to adjust the current risk parameters and/or ultimately to change the risk methodology. As set in Section A-702 of the Rules, the Corporation has the discretion to adjust the Initial Margin. This can be done at the product level by increasing the Margin Interval, or by asking a Clearing Member for additional Initial Margin.

The results are communicated to the Risk Management and Advisory Committee (RMAC) on a regular basis.

### STRESS TESTING

The stress testing is also conducted on a daily basis. The Corporation uses different stress scenarios, each of them designed to test different keys parameters. The results of the stress tests help the Corporation to size the Clearing Fund. The Clearing Fund measures the capacity of the Corporation to address extreme, but plausible market conditions. Another goal of the stress test is to better understand the different relationships among the different positions of the Clearing Members. The various results may contribute to enhance the risk methodology of the Corporation. If it is concluded that these changes in the market are permanent, the Corporation may integrate the new dynamics in the Initial Margin.

The scenarios are historical and theoretical. The historical stress scenarios aim to simulate the biggest historical events that would affect Clearing Members. The historical stress scenarios are used to determine the size of the Clearing Fund. Moreover, in the case of the stress testing monitoring program, the stress scenarios help the Corporation to have a complete view of the risk profile of the current positions undertaken by each Clearing Member, and by all of them simultaneously (the portfolio-level coverage assessment).

In addition, the Corporation performs theoretical stress testing. For example, the

Corporation simulates the impact of a parallel and twist shifts in the interest rate curve; large moves (up or down) in specific contracts and/or Underlying Interests; and the impact of multiple Clearing Members defaults.

Also the results of the scenarios are designed to ensure that the Corporation captures any corporate relationships between different affiliated Clearing Members.

The results are communicated to the Risk Management and Advisory Committee (RMAC) on a regular basis.

## **CONTRACT ADJUSTMENT**

Section A-902 of the Rules prescribes the cases in which an adjustment may be made.

The Corporation is responsible for monitoring and identifying the corporate events that may result in an adjustment. It interprets the information and communicates it to the Clearing Members of the Adjustments Committee as soon as possible. The Adjustments Committee acts in accordance with the provisions of Rule *A-9*.

A meeting of the Adjustments Committee is called by the Corporation, whenever circumstances require. The Committee is responsible for preparing the draft notices to the Clearing Members which, once approved by the Committee members, are published to the attention of the Clearing Members and the market participants.



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### **Default Manual**

#### August 2011

This Default Manual (the "Manual") is intended to summarize the Rules of the Canadian Derivatives Clearing Corporation ("CDCC" or the "Corporation") and confirm certain details concerning the actions the Corporation may take with respect to Clearing Members in financial difficulty, potentially in default or in default of obligations under the Rules. This manual describes the Corporation's possible course of action, including management of a default situation, authority, communication with a Clearing Member and implementation. In case of conflict between the provisions set out in this Manual and the Rules of the Corporation, the Rules will prevail. Terms with capitals which are not defined in this Manual have the meanings ascribed to them in the Rules.

A fundamental objective of a central counterparty is to ensure the integrity of payments and/or physical delivery of securities, even in the unlikely event of a Clearing Member default. Since the default of one or more Clearing Members may have an impact on the continuity of clearing operations, the Corporation must ensure that efficient mechanisms and processes are in place, capable of limiting the adverse impacts of such an event, with respect to monitoring and the determination of a Clearing Member's Non-Conforming Member status and a Clearing Member's suspension. As such, this Manual is meant to:

- 1. describe the governance process followed by the Corporation subsequent to Clearing Member default;
- 2. enumerate the actions taken by the Corporation through the course of default management;
- 3. describe the financial resources employed; and
- 4. describe the responsibilities of non-defaulting Clearing Members during this process.

#### **Section 1: Overview of Default Process**

In the following section, the Corporation's overall default management processes are described. Key sections include Objectives of Default Management, Definition of Default, Implications of Default, Forms of Default as specified by Rules, Corporation Prerogatives in the Default Mitigation Process, and Financial Remedies to cover Default-Induced Losses. In subsequent sections, the Manual will describe the specific actions to be taken by the Corporation during the default identification process, all the way through the steps taken to mitigate losses, wind down defaulted Clearing Member positions, protect the functioning of the markets and the clearing process, coverage of losses, etc. Prior to that, a general overview of the default process is set forth below:

#### **OBJECTIVES OF DEFAULT MANAGEMENT**

Participants in the default management process should at all times bear in mind the objectives of the default management exercise. These are delineated below:

- To minimize Clearing Member losses deriving from an inability of the Corporation to make settlement payments, protect Clearing Member Margin Deposit, or otherwise manage its responsibilities in a manner consistent with orderly markets.
- To ensure the continued effective functioning of the clearing process both during and after the event of default.
- To use all available powers and resources to protect the financial assets and positions of Clearing Members not contributing to the condition of default. This includes, wherever possible, the comprehensive and efficient transfer of all solvent Client Accounts associated with a defaulting Clearing Member.
- To minimize the market impact of the default management process.
- To ensure the continued solvency of the Corporation, both during and after the default management process.
- To facilitate the management of any regulatory action associated with the default.

Corporation management, staff and agents should conduct themselves at all times during the default management process in a manner consistent with these objectives, and in general without regard to other considerations.

#### **DEFINITION OF DEFAULT**

Critical to the process of default management is, of course, defining the condition of default. As a general rule, the Corporation views any situation which would, in the judgment of the Corporation, impede a Clearing Member's ability to meet its obligations, as specified in the Rules, as grounds to declare default. The most direct example of such a condition occurs when a Clearing Member fails to meet settlement requirements to CDCC. Additional examples of default conditions include but are not limited to, Clearing Members (or their Affiliates) that have:

- Failed to post required Margin.
- Failed to pay the contribution to the Clearing Fund.
- Failed to pay fees, interest, penalty, damages and any expenses as prescribed by the Corporation.
- Failed to meet a financial payment or any other financial obligation, including, most notably, those associated with other central clearing organizations ("CCOs").
- Generated any conditions that might indicate financial insolvency (i.e. bankruptcy filing, receivership, or forfeiture of control of property).
- Violated membership standards of other Self Regulated Organizations ("SROs") or regulatory bodies or any other event that indicates that a future default event is imminent, that the Corporation views to be of material importance.

Note: Failure to deliver a physical quantity may or may not constitute a default, depending upon the specific circumstances of the failure.

In general, the condition of default is one which must be determined by the Corporation's management in the case of the declaration of Non-Conforming Member status and by the Board in the case of the suspension of a Clearing Member.

#### IMPLICATIONS OF DEFAULT

A Clearing Member's default is among the most serious issues faced by the Corporation, as it can have myriad consequences, and in the most extreme cases, can threaten both the continued effective functioning/integrity of the markets, as well as the viability of the Corporation itself. More narrowly, a Clearing Member default can result in losses to the Corporation, other Clearing Members and their Clients, can impact the funding liquidity of these entities and can disrupt the routine functioning of the markets. As such, the Corporation must have adequate financial and risk management resources, in order to identify potential conditions of default, assess potential damage, mitigate market and financial impacts, and apply appropriate financial remedies to minimize losses for both itself and its stakeholders.

The Corporation must therefore commit appropriate resources and have in place proper procedures to ensure that the Clearing Members meet all standards of membership. The Rules, notably Rule A-1A – Membership in the Corporation, Rule A-3 – Capital Requirements, Rule A-6 – Clearing Fund Deposits and Rule A-7 – Margin Requirements, provide for such oversight authority, and must be adhered to with extreme rigor.

#### FORMS OF DEFAULT AS SPECIFIED BY RULES

The Rules specify two distinct status levels associated with the condition of default. The first such form is Non-Conforming Member status. At any point when the Clearing Member is or may be insolvent or become unable to meet its obligations, management may declare that Clearing Member to be a Non-Conforming Member. This action provides the Corporation with the authority, as further specified below, to undertake a wide range of mitigating actions.

If, however, in its judgment, the suspension of a Non-Conforming Member may protect the integrity of the market, the Board can choose to suspend the Non-Conforming Member. Suspension is the second and more serious level of default.

#### CORPORATION PREROGATIVES IN THE DEFAULT MITIGATION PROCESS

In the event that the Corporation or the Board, as applicable, chooses to place a Clearing Member, in either Non- Conforming Member status or suspension, it must as soon as practicable act to assess the situation and ensure that any and all remedies available to it are at its immediate disposal. It may therefore choose to undertake any of the following sets of actions in its efforts to mitigate associated damage:

- Place all accounts on liquidation only status.
- Seize control of all Open Positions held by the defaulting Clearing Member.
- Gain access, and, if necessary, control of Clearing Member prescribed records, so as to ensure the continued efficient processing of business, and to ensure the defaulting entity continues to comply with all Rules and mandates.

- Transfer all or any portion of a defaulting Clearing Member's accounts to another Clearing Member.
- Seize all Margin Deposits posted to the Corporation, including the defaulting Clearing Member's contribution to the Clearing Fund.
- Undertake any legal action against the defaulting Clearing Member that in the judgment of the Corporation may help to mitigate default-related losses.
- Neutralize market exposures through the use of hedging instruments where as determined by the Corporation, market conditions do not allow for an orderly auctioning or closeout of a defaulting Clearing Member's Open Positions in a timeframe which is consistent with the Corporation's risk management model.
- Render a determination as to which Firm Accounts and Market Maker Accounts (subject to the objective of protecting to the largest extent possible, all solvent Client Accounts) might have offsets which could be netted for risk reduction purposes.
- Effect liquidation of Open Positions, either directly by Corporation staff, or as appropriate, through outside agents.
- Schedule an auction to transfer all remaining Open Positions to other Clearing Members at best available prices.
- Potentially postpone delivery obligations if, in the judgement of the Corporation, not doing so would expose the Corporation and surviving Clearing Members to increased risk of financial loss.
- Apply any and all available financial remedies, as further described below:
  - Prohibit and/or impose limitations on the acceptance and / or clearance of Transactions by the defaulting Clearing Member.
  - Sanction, reprimand, fine or impose a penalty on the defaulting Member.

In any situation where the Corporation has reason to believe that a pending default may lead to losses, it must act, according to its own judgment, as directed by the management or the Board, as applicable, to apply the mitigants referenced above, as well as others deemed appropriate, to ensure minimal damage to itself, its stakeholders and the markets. The Corporation must use any and all commercially reasonable efforts to manage the default process.

#### FINANCIAL REMEDIES TO COVER DEFAULT-INDUCED LOSSES

In the event that a Clearing Member has been declared a Non-Conforming Member or has been suspended, the Corporation, as specified above, must make all commercially reasonable efforts to eliminate or otherwise limit the loss to the Corporation associated with the default process. However, there are, of course, no means available to ensure in all cases that the Corporation can be made whole, its best efforts in this regard notwithstanding. In the event that the management of the default process generates losses to the Corporation, the Corporation must apply, in specified order, a series of financial remedies to ensure its ongoing viability and financial solvency. Following is a description of these financial resources, as presented in the order in which the Corporation would apply them to cover unsatisfied claims associated with the liquidation of a defaulting Clearing Member.

Note that these financial remedies fall into two categories. The first such grouping is a list of the assets posted by the defaulting Clearing Member itself. The Corporation, in its efforts to cover its obligations, would first exhaust this pool of assets, before applying certain of its own resources, and those of the other Clearing Members, in the resolution of the shortfall.

In the event that after the application of the defaulting Clearing Member's assets, a financial shortfall persists, then the Corporation must apply certain of its own assets and those of the remaining Clearing Members to satisfy the residual obligation. The various pools available to resolve any financial loss, and the order in which the Corporation would utilize them, is set forth immediately below.

#### **Defaulting Clearing Member Resources**

**Defaulting Clearing Member Margin Deposit.** The first line of financial protection, of course, is the Margin Deposit posted by the defaulting Clearing Member as part of the Corporation's routine collateralization process.

**Defaulting Clearing Member's Contribution to the Clearing Fund**. As specified by the Rules, each Clearing Member must post an additional contribution to a separate Clearing Fund, the amount of which is determined by the size of Corporation exposures and the amount each Clearing Member contributes to this exposure, on a relative basis as well as the types of Transactions a Clearing Member has been accepted to clear by CDCC. Once the Corporation has exhausted the defaulted Clearing Member's Margin Deposit, it will next apply these resources to the loss mitigation effort.

If after applying these resources of the defaulting Clearing Member, a shortfall still remains, the Corporation would look to the following common resources of the system to cover the loss:

#### **Resources of the Corporation and the System**

**Corporation Capital Resources.** The Corporation would first look to its own capital, but only to its capital reserves set aside for this purpose, which are currently a maximum of \$5 million.

**Other Clearing Member Clearing Fund Deposits.** The Corporation would next apply the remaining balances in the Clearing Fund, on a pro-rata basis as determined by the size of each Clearing Member's contribution.

**Assessment of Other Clearing Members.** If after applying all of the remedies specified above, a loss still persists, then the Corporation, as specified by its Rules, may choose to assess each remaining Clearing Member, on a pro rata basis according to its exposures, an amount that in total would satisfy the outstanding obligation.

The Corporation must act with rigor to ensure it follows these polices with rigor, executes them effectively and communicates with all relevant parties in an effective fashion.

#### **Section 2: Default Management Governance Procedures**

In this section, the Corporation outlines the specific actions to be taken by its staff, management and the Board, in order to ensure that it quickly identifies, reacts to, and effectively manages a condition of default

# CORPORATION PREROGATIVES/RESPONSIBILITIES PRIOR TO THE DECLARATION OF NON-CONFORMING MEMBER OR SUSPENSION

In the default process, it is important for the Corporation to react in as timely a fashion as possible to identify the potential for a default by a Clearing Member. As such, under the authority of the President or his designee, if at any point the Corporation receives information which would, in its view, acting reasonably, likely lead to a default event by any Clearing Member, it will convene a meeting as soon as practicable of the Default Management Committee, which is comprised of the individuals holding the following positions (and/or any other representatives or designees deemed appropriate to involve in the process):

- Managing Director
- President and Chief Clearing Officer
- Secretary
- Assistant Secretary
- Treasurer
- Director of Risk Management
- Director of Member Services

At this meeting, the Default Management Committee will strike an Emergency Committee which will include the Director of Risk Management as Chairman, and whose members will also include the Director of Member Services and/or the Treasurer. It will be the responsibility of the Emergency Committee to provide an ongoing assessment of the situation, and to report back, as appropriate, to the Default Management Committee and the Board, so as to ensure these bodies are in a position to render informed decisions throughout the process.

In addition to the process of organizing these three committees, the Corporation has the following set of prerogatives and responsibilities, and will act according to the following protocols, in managing any situation, which, in its judgment places it in a condition where the risks of default are elevated.

#### **Criteria for Implementing Introductory Default Procedures**

Following is a subset of the types of events which would set the default management procedures, including the convening of CDCC committees, into motion. Note that none of these events, individually or in combination, necessarily implies that a declaration of default by CDCC, in either of its specified forms, is imminent. The events may, however, impel the Corporation to set introductory default procedures, as specified above, in motion. Pursuant to subsection A-1A04(1)

of the Rules, a Clearing Member may also become a Non-Conforming Member by notice to the Corporation that it is or may become insolvent or unable to meet its obligations.

#### Violation of Standards of Membership

Rules A-1A and A-3 establish the standards of membership and the minimum capital requirements that must be respected at all times.

The Corporation may address a Clearing Member's breaches of standards of membership without declaring such Clearing Member to be a Non-Conforming Member or suspended by, for example, making an additional Margin call and/or imposing clearing restrictions.

#### Failed and Partially Failed Deliveries of Acceptable Securities

Section A-804 addresses failed deliveries and partial deliveries of Acceptable Securities. Failed deliveries and partial deliveries of Acceptable Securities do not automatically trigger Non-Conforming Member status or a suspension. Section A-804 sets out the applicable mechanisms for this type of situation. Ultimately, if the Clearing Member is not in good standing with the Corporation, the Corporation may consider it necessary to declare the Clearing Member to be in default.

Section B-407 addresses the failed delivery of any Underlying Interest of an Exchange traded Option.

Section C-512 addresses the failed delivery of any Underlying Interest of an Exchange traded Future other than an Acceptable Security.

Section D-304 addresses the failed delivery of any Underlying Interest of an OTCI that is not a Fixed Income Transaction.

#### **Settlement Failure at Other Recognized CCOs**

If the Corporation learns that a Clearing Member has failed to meet its obligations to another CCO, it must operate as though there is an imminent threat of failure to the Corporation itself, and may, at the Corporation's discretion, invoke introductory default procedures.

#### **Default on any Principal Obligation**

If a Clearing Member fails on a general obligation, such as a coupon payment on its own outstanding debt, it may be considered to be insolvent or unable to meet its obligations and the Corporation may, at its discretion, invoke introductory default procedures.

#### Civil or Criminal Indictment of Clearing Member and/or Principals

Action by a regulatory agency, administrative authority or court against a Clearing Member and/or its key principals may or may not place it in a condition of financial impairment. As a matter of sound practice, the Corporation should, under these circumstances, effect introductory default procedures.

Note that the above-supplied list is not intended to be exhaustive, but rather merely illustrative of the types of events which should trigger the introductory implementation of default procedures.

#### **Pre-default Actions and Remedies**

Prior to the declaration of either form of default, the Corporation has a number of remedies to further protect itself from associated consequences. The principal one of these is the imposition of additional Margin requirements, clearing restrictions and penalties, concepts that are further described below:

#### **Imposition of Additional Margin Call**

In accordance with Section A-702, the Corporation may, without advance notice and at its sole discretion, impose an additional Margin call on a Clearing Member for an indeterminate period. While this is true under a wide range of circumstances, it particularly pertains to situations where the Corporation has reason to believe a default is imminent, and has begun the implementation of preliminary default procedures.

#### Authority

Management of the Corporation.

#### Communication

The Clearing Member will be informed and will have to meet its additional Margin requirements within the same deadlines as regular Margin calls.

Moreover, in accordance with Section A-303, the Clearing Member must notify the Corporation if it does not meet the Corporation's capital requirements and those imposed by the Investment Industry Regulatory Organization of Canada ("IIROC") or the Office of the Superintendant of Financial Institutions. Ultimately, if this situation is not resolved, the Corporation reserves the right to suspend the Clearing Member after receiving the approval of the Board. For more details, please refer to the section below on Clearing Member suspension.

#### Implementation

This additional Margin will be added to the amount of Margin.

#### **Imposition of Clearing Restrictions**

In accordance with Section A-308 - Restrictions on Certain Transactions and Positions, the Board may impose clearing restrictions on a Clearing Member considered to be in difficulty.

When the decision takes effect, the Corporation will notify the Clearing Member of restrictions that will be applied immediately. However, the Clearing Member may execute certain Transactions, with the Corporation's consent, to maintain its position in good standing.

#### Communication

The Clearing Member will be informed and must conform to the clearing restrictions within reasonable deadlines.

Ultimately, if the situation is not resolved, the Board may suspend the Clearing Member. For further information, please consult the section below on Clearing Member suspension.

#### **Implementation**

The Corporation may establish clearing restrictions on certain Transactions.

#### **Forms of Default**

As indicated above, the Corporation recognizes two forms of default, Non-Conforming Member status and suspension. The first of these is the weaker form of the two, can be implemented by the Corporation, and is viewed by the Corporation to be a temporary status, which is either rectified by the Non-Conforming Member in a timely and comprehensive fashion, or face further actions by the Corporation. Specifically, the next step in the process would be to declare a suspension of the Non-Conforming Member. This is the final, in many ways irrevocable step in the default declaration process and must be effected by the Board.

#### DECLARATION OF NON-CONFORMING MEMBER STATUS

The Rules provide for two categories of default for a Clearing Member: Non-Conforming Member status and suspension. Non-Conforming Member status can be determined by the Corporation's management, while a suspension must be ratified by the Board.

Section A-1A04 addresses Non-Conforming Member status.

The grounds for declaring Non-Conforming Member status are set out in Subsection A-1A04(3) but are not exhaustive. The next step following Non-Conforming Member status is suspension.

A Clearing Member which is or may become insolvent or is unable to meet its obligations shall immediately inform the Corporation of this situation by telephone. Alternatively, the Corporation must inform the Clearing Member in writing or by telephone when it has become a Non-Conforming Member.

The measures prescribed by the Rules regarding Non-Conforming Members may be taken in the order that the Corporation considers appropriate. The measures are set out in Rule A-401 and include:

- Prohibiting and/or imposing limitations on the acceptance and/or clearance of Transactions by the Clearing Member;
- Requiring this Clearing Member to reduce or close out existing Transactions in such Clearing Member's accounts with the Corporation;
- Requiring the Clearing Member to transfer to another Clearing Member any account it holds with the Corporation, any position maintained in such account, or any account established by the Clearing Member;

- Applying the Margin Deposit and Clearing Fund deposit of the Non-Conforming Member in accordance with the Rules;
- Sanctioning, fining or imposing a penalty on the Non-Conforming Member;
- Suspending the Non-Conforming Member.
- Prevent or restrict the Non-Conforming Member's right to withdraw any excess in Margin Deposits

#### Authority

The Corporation may decide on Non-Conforming Member status.

#### **Required Response by Non-Conforming Members**

A Clearing Member which has experienced an event, technical or otherwise, in which it fails to meet any of its day to day operational needs for its business must inform the Corporation immediately of such event. Failure to notify the appropriate Corporation staff members immediately may result in administrative action. A Non-Conforming Member may in certain cases remedy its situation via wiring required funds or posting additional collateral to the Corporation.

Contemporaneous to the notification of Non-Conforming Member status to a Clearing Member, the Corporation will ask such Clearing Member to state in writing its assertions with respect to each of the following:

- Cause of the action which placed it in Non-Conforming Member status.
- Remedies for the immediate circumstance.
- Changes in its financial profile and operating protocols to guard against recurrence.

Corporation staff will work with the Non-Conforming Member, to secure and assess its written response. Contemporaneously, the Emergency Committee will work with the Default Management Committee to determine any potential immediate additional actions, including recommendations to the Board regarding suspension.

In the event that a remedy occurs in a timely fashion, the Corporation will review the Non-Conforming Member's written explanation and will then determine next steps, including the potential removal of Non-Conforming Member status, or recommendations to the Board for suspension.

In executing these procedures, the Corporation must remain mindful of the narrow time window available to it to determine next steps in the process. It is essential that all members of management and all Board members make themselves available as necessary to render timely and efficient decisions under these circumstances.

#### Communication

The Clearing Member should notify the Corporation if it is insolvent or unable to honour its obligations under the Rules. The Corporation may notify the appropriate regulatory authorities.

However, in the event that the Clearing Member is declared as a Non-Conforming Member by the Corporation, the Corporation must inform the Clearing Member in writing or by telephone.

#### Implementation

The Corporation must work in concert with the Non-Conforming Member and the appropriate regulatory authorities to rectify the Clearing Member's Non-Conforming Member status.

These actions are not exhaustive, are not necessarily presented in chronological order, and can be adapted as required by the Corporation according to the circumstances that prevail during period the Clearing Member is a Non -Conforming Member.

- The situation has been confirmed with the Clearing Member.
- The Corporation may seize the Clearing Member's Margin Deposits.
- The Corporation may on its own accord restrict the Transactions of the Non-Conforming Member.
- If payments are to be made by the Non-Conforming Member to the Corporation, the Corporation may apply the seized Margin Deposits if it deems that they must be paid before the Clearing Member is suspended.
- The Corporation may also ask the Non-Conforming Member to close out its market positions.
- The Corporation may also require the Non-Conforming Member to transfer its Clients' positions.
- If the Clearing Member must execute deliveries, then the Corporation could make an agreement with the receiving Clearing Member and the Non-Conforming Member or take any other appropriate action so that the Clearing Member's obligations are honoured.
- Assign the proceeds of the liquidation of the Clearing Fund and Margin Deposit of the Non-Conforming Member to any default-related shortfall.
- Impose sanctions, fines or penalties on the Non-Conforming Member of the Corporation.
- Prevent or restrict the Clearing Member's right to withdraw any excess in Margin Deposits.
- The Corporation may call an emergency meeting of the Board to determine whether a Non-Conforming Member warrants suspension.

#### Notifications

Once the Corporation has declared a Clearing Member to be a Non-Conforming Member, the Corporation will immediately consider its notice obligations. Those entities whose notification rights must be considered include:

- The general population of Clearing Members.
- Appropriate regulatory authorities.
- Exchanges and CCOs.

While it will be the prerogative of the Corporation to determine the timing and content of its outside disclosures, it will nonetheless immediately inform any CCOs with which the Corporation has in place a Memorandum of Understanding for such information sharing.

#### **DECLARATION OF A SUSPENSION**

Subject to the discretion and approval of the Board, a Clearing Member may be suspended after it has been declared a Non-Conforming Member in accordance with Section A-1A04 or any other conditions that the Corporation may deem relevant. These rules relate to Non-Conforming Member situations, but can also be applied to any situation involving a suspension.

Once the Board approves a suspension, the Corporation ceases to act on behalf of the Clearing Member.

#### Authority

The Board has the authority regarding the suspension and lifting of a Clearing Member's suspension.

#### Notifications

Once the Board has declared a Clearing Member to be suspended, the Board will immediately consider its notice obligations. Those entities whose notification rights must be considered include:

- The general population of Clearing Members.
- Appropriate regulatory authorities.
- Exchanges and CCOs.

While it will be the prerogative of the Board to determine the timing and content of its outside disclosures, it will nonetheless immediately inform any CCOs with which the Corporation has in place a Memorandum of Understanding for such information sharing.

#### Implementation

According to Subsection A-1A05(2), the Corporation ceases to act on behalf of the suspended Non-Conforming Member.

As mentioned in Subsection A-1A05(3), the suspension may be total or may be for any function with respect to a particular security or class of securities, with respect to a particular Transaction or class of Transactions, or with respect to securities or Transactions generally.

The Board may lift a Clearing Member's suspension at any time. As mentioned in Section A-1A07, the Clearing Member may appeal its suspension.

Once the Board decides on the Clearing Member's status, the Corporation may take several courses of action. The list set out below is neither exhaustive nor necessarily in chronological order, and the actions can be adapted by the Corporation according to the circumstances prevailing at the time of a suspension.

- The Clearing Member is notified of its suspension.
- The Corporation will open a Liquidating Settlement Account to manage the positions and the Margin Deposits of the suspended Clearing Member.
- For the purpose of the Liquidating Settlement Account Margin Deposits with respect to a Client Account will only secure the performance by the Clearing Member of its obligations in respect of that Client Account. Margin Deposits for Market Maker Accounts or Firm Accounts will secure a Clearing Member's obligations with respect to Client Accounts as well as Market Maker Accounts or Firm Accounts, as the case may be.
- The Corporation will restrict the Transactions of the suspended Clearing Member.
- The Corporation may seize the Clearing Member's Margin Deposits, and the positions will be transferred to the Liquidating Settlement Account. The Corporation, at its discretion, may send only the net positions to the Liquidating Settlement Account.
- The Corporation may convert the suspended Clearing Member's Margin Deposits into cash in order to cover any loss or amount owed by the suspended Clearing Member.
- The Corporation may liquidate, transfer or maintain the suspended Clearing Member's positions, depending on the market conditions. The positions may be liquidated directly on the market or among the offers received from Clearing Members contacted in advance by the Corporation, and transmitted to the Corporation regarding the portfolios to be liquidated.

#### Section 3: Default Management and Staff

As indicated in Section 2, the Corporation's procedures for the management of a default are governed, under the auspices of the Board, by two Committees, presented below in their hierarchical order:

- Default Management Committee
- Emergency Committee

In this section, the Manual addresses the activities of the Emergency Committee, which is tasked with the specific, real-time and day-to-day oversight of the default control process. Key members of this Committee include the individuals holding the following positions and/or their designees:

- Director of Risk Management, Committee Chairman
- Director of Member Services
- Treasurer

Each of these individuals, in managing their departments, must act with due rigor to assess issues, identify associated magnitudes, recommend actions and inform management, the Board and other Corporation stakeholders, as appropriate.

The key responsibilities of each department are described below:

#### **RISK MANAGEMENT**

The Corporation's Risk Management Department will serve as the central coordinating unit in the management of the default control process. Its Director will be responsible, among other matters, for the following set of critical activities:

- Convening and coordinating meetings of the Emergency Committee.
- Acting as liaison to the Default Management Committee.
- Working with external entities to mitigate damage.
- Providing written documentation and status reports to appropriate parties.
- Coordinating and evaluating any interactions, written and oral, with the defaulting Clearing Member.

In addition, the Risk Management Department will be responsible for the following critical procedures.

#### Introductory and On-Going Risk Assessment.

At the earliest point deemed appropriate by any of the three committees described above, the Risk Management Department will perform a comprehensive analysis of the exposures inherent in the defaulting Clearing Member's portfolio. Moreover, as the liquidation and remedy process ensues, it will perform as many such assessments as are necessary to render decision-makers informed as to the status of the defaulted portfolio. In doing so, it will utilize internal risk assessment systems, those, as appropriate, of the defaulting Clearing Member, general market intelligence, and other appropriate tools of risk assessment. Further, its assessment will consider the following key factors:

- Portfolio content in general.
- Prevailing and prospective market conditions.
- Portfolio liquidity characteristics.
- The presence of complex derivatives such as options.

Based upon all of the above, it will render an introductory and routine follow-up written assessments as to the potential magnitude of losses, the factors driving such losses, and its best thoughts as to appropriate market-based remedies. In cases of market disruption and/or the potential for large losses, the Department will issue these reports on a daily basis, or more frequently, as deemed appropriate.

In addition, and as discussed in further detail below, it will perform such analysis on the basis of the total portfolio content of the defaulting Clearing Member, as well as any subset of the portfolio which would remain in the event that Corporation governing bodies decide to transfer positions to other Clearing Members.

# Oversight of the Liquidation Process, Including Management of the Liquidating Settlement Account.

As referenced above, the Corporation may decide to establish a separate Liquidating Settlement Account to manage any liquidation of positions resident in a suspended Clearing Member's portfolio. However, irrespective of whether the Corporation effects such a transfer, or, alternatively, decides to manage any liquidation process directly through the clearing accounts of the defaulting Clearing Member, the Risk Management Department will oversee the liquidation process on behalf of the Corporation.

In performing these duties, the Corporation may choose to engage outside agents to assist in the liquidation process, and in the event that it does choose such an option, the Risk Management Department will coordinate all activities in conjunction with these outside agents.

Finally, with respect to the liquidation process, the Risk Management Department will consider all alternatives involving exposure mitigation for the defaulted Clearing Member's portfolio, including those involving the hedging of rather than the liquidation of specific positions contained therein. Note in such cases that the Corporation may consider the use of instruments not part of the organization's clearing universe, including cash securities.

#### LEGAL DEPARTMENT

In the event of a Clearing Member default, the Legal Department, acting in conjunction with other key officers of staff of the Corporation, must as soon as practicable assess the legal status of the defaulted Clearing Member's operations and solvency. Further, it must act with all due rigor and expediency to ensure that the Corporation's claims against the defaulting Clearing Member achieve the appropriate status in any broad-based liquidation of the defaulting clearing enterprise. Among other matters, the

Legal Department must take into consideration in this regard the precise location and source of the insolvency within the defaulting Clearing Member's corporate group.

In many cases, a Clearing Member may be one of many subsidiaries of a large corporate enterprise; in others, the Clearing Member is a parent company itself. It is the responsibility of the Legal Department, based upon its knowledge of these structures, to determine and execute appropriate legal remedies to ensure that the Corporation's legal interests in any insolvency are fully and expeditiously represented.

In addition to the foregoing, the Legal Department is responsible for the following set of actions pursuant to the default mitigation process.

- Issuing any legal correspondence to the defaulting enterprise, including those associated with the freezing of assets and Margin Deposit, the demand for further financial considerations, the suspension of any and/or all clearing related activities, etc.
- Filing any claims in bankruptcy or insolvency court.
- Assessing and following up on any jurisdictional issues attendant to the default.
- Managing all communications with outside parties, including the general body of Clearing Members, market participants, regulatory authorities, representatives of the media, etc.
- In conjunction with the Compliance Department, interacting with regulatory agencies, particularly in such cases where laws and regulations may have been breached in the sequence of default-related events.
- Drafting and execution of all legal agreements, including Non-Disclosure Agreements, proxies and operating agreements with outside parties with whom the Corporation might engage in the default mitigation process.
- Liaising activities with the legal activities of other organizations, including Clearing Members, other CCOs, contractual counterparties, etc.

As is the case with the Risk Management Department, the Legal Department will draft written assessments and associated recommendations, pertaining to all legal issues faced by the Corporation as the result of the default.

#### AUDIT DEPARTMENT

Depending on the circumstances of the default, and in any situation where the Corporation deems it a probability that defaulting Clearing Member assets and Margin may be insufficient to cover the costs of a pending liquidation, the Audit Department must immediately seize whatever control of the books and records of the defaulting Clearing Member as are deemed necessary to manage the liquidation and transfer process on an account-by-account basis.

This set of activities is both time critical and essential to the default management process. The Corporation does segregate Firm Accounts and Market Maker Accounts from those of Client Accounts, and it is incumbent upon the Audit Department, working, as appropriate, with other Corporation Departments, to identify the account-based source and associated magnitude of the default inducing shortfall.

In doing so, the Audit Department will create a modified accounting ledger, which separates solvent accounts from non-performing ones. If the default is determined by the Audit Department to have originated and remain isolated to Firm Accounts and Market Maker Accounts, then this ledger will simply be comprised of a separation of Client Accounts from Firm Accounts and Market Maker Accounts.

If, however, the source of the shortfall is determined to reside, in whole or in part, within Client Accounts, then the Audit Department must create a ledger with the following components:

- Firm Accounts and Market Maker Accounts.
- Solvent Client Accounts.
- Client Accounts in Debit/Deficit.

Working with the Risk Department, the Audit Department will then render a written assessment, with recommendations, to appropriate Corporation governing bodies as to the viability of transferring solvent Client Accounts, in whole or in part, to the books of other Clearing Members. Note that, as specified in the Objectives section of this Manual, the efficient and comprehensive transfer of all solvent Client Accounts is an identified objective of the default management exercise. As such, the Corporation will do everything in its power to transfer all solvent client accounts in an efficient manner, and will only stop short of this objective under the following set of circumstances:

- The Corporation is unable to find Clearing Members willing to assume the solvent Client Accounts of the defaulting Clearing Member.
- The Corporation, as determined by the Board, believes that the transfer of all solvent Client Accounts would either impede its viability, or disrupt the efficient functioning of its markets.

If, in the judgment of the Corporation, such a transfer is indeed deemed advisable, then the Audit Department will work in conjunction with other Departments to effect such a transfer in a timely and efficient manner.

In the event that the Corporation achieves a comprehensive transfer process, under which only insolvent Client Accounts and all Firm Accounts and Market Maker Accounts remain on the books of the defaulting Clearing Member, then the Audit Department will act in such a way as to deem all remaining open positions as being proprietary in nature. It may also, at its discretion, work with the defaulting Clearing Member, the Legal Department and other appropriate entities, to seek further financial remedies from insolvent Clients.

Note that with respect to securities, cash and other Margin deposited and pledged or transferred as part of the Corporation's activities in the clearance and margining of Repurchase (Repo) Transactions, the Audit Department, working in conjunction with the Legal and Risk Departments, must render an assessment as to the advisability of retaining Margin collateral (used to protect the Corporation from losses associated from fluctuating price differentials between the cash and securities) applied to the Transaction, or returning it to its beneficial owners as part of the unwind of associated Transactions. While the Corporation reserves the right to either hold or release these assets, it will bear in mind the customer protection sections of the Objectives section of this manual, and as such, will only choose not to release them if it believes, in its judgment that, that such release would impede the viability of the Corporation or the effective functioning of its markets. As such, the decision to withhold the release of Repo-related assets must be made by senior management or the Board, as deemed appropriate during the default management process.

#### FINANCIAL DEPARTMENT

The main responsibility of the Financial Department in the event of a Clearing Member default is to manage the process of securing all cash and collateral needed by the Corporation to ensure that any losses pursuant to the default are managed to their absolute minimum. These sources of funds include:

- Defaulting Clearing Member Margin Deposit
- Defaulting Clearing Member Clearing Fund Contribution
- Other assets sourced from the defaulting Clearing Member working in conjunction with the Legal Department

The key areas of responsibility for the Legal, Audit, Financial and Risk Departments, who have the primary front line responsibilities in the default mitigation process, are summarized in the following table:

	Legal	Audit	Financial	Risk
Role	Determine legal status of Non-Conforming Member	Review books and records at Clearing Member, identify if fraud has occurred Determine the cause of failure and isolate impaired accounts	Freeze all settlements of Non-Conforming Member Convert all collateral to cash Assist in potential remedies	Determine exposures on a net basis Oversee netting of positions, and liquidation process
Monitoring	Review relationship with any affiliates Review parental guarantees	Create a ledger of all good Client Accounts, and move all Non -Conforming accounts to a Firm Account	Work with other CCOs Oversight of potential remedies	Will consider the path to liquidating securities to minimize potential loss to CDCC May consider hedges and risk offsets May run an auction for non-liquidated positions May request assistance of outside parties Provide daily or more frequent updates to

Legal	Audit	Financial	Risk
			CDCC staff, Default
			Management
			Management Committee and Board

#### **OTHER DEPARTMENTS**

The Corporation's other Departments will work in conjunction with the groups named above, as deemed appropriate under the specific circumstances of the default. The Member Services Department will work specifically on all aspects of position and collateral management, as directed by the Emergency Committee.

#### **Section 4: Financial Remedies to Cover Default Induced Shortfalls**

This section goes into further detail as to the financial remedies upon which the Corporation must rely, in the event that the liquidation of a defaulting Clearing Member generates losses beyond those that can be covered by the resources available to it from the defaulting entity, including:

- Defaulting Clearing Member Margin Deposit.
- Defaulting Clearing Member contribution to Clearing Fund.
- Any additional Margin assessments the Corporation obtains from the defaulting Clearing Member.
- Any additional collateral that the Corporation can obtain through legal and financial measures.

By this point in the process, the Corporation, according to the procedures set forth in previous sections, should have placed itself in a position where it has done all in its power to mitigate losses associated with the liquidation/transfer of the linkages to the defaulting Clearing Member. If, as the result of this process, the Corporation finds itself facing a residual shortfall, it must undertake the following steps, in the priority order set forth below.

#### **CORPORATION CAPITAL**

The Corporation will commit capital reserves to any default-induced shortfall currently up to a maximum of \$5 million, prior to effecting an assessment upon other Clearing Members. The amounts of such commitment, as well as their timing, must be approved by the Board.

#### CLEARING MEMBER ASSESSMENT CYCLE(S)

In the event that a residual loss associated with the default of a Clearing Member exceeds that which can be covered by the combination of the collateral available in the defaulting Clearing Member's accounts, and the capital reserve contributed by the Corporation itself, the Corporation will then turn to its assessment powers against other Clearing Members, to satisfy this shortfall.

For the purposes of this exercise, Clearing Member assessments can take multiple forms, as specified below:

#### **Clearing Fund**

The Corporation maintains a Clearing Fund, which is capitalized by all Clearing Members, at levels designed to cover what is specified in Rule A-6, as uncovered residual risk (URR). The Corporation calculates URR for each Clearing Member on a monthly basis, based upon position information derived over the previous 60 business days, as determined by a series of stress tests that derive from periods of previous market disruption, dating back to the 1987 stock market crash, and extending forward to the financial collapse of 2008.

In the event that the liquidation of a defaulting Clearing Member extends beyond the resources of this Clearing Member, and the capital reserves of the Corporation earmarked for this purpose, the Corporation

will next access the resources of the Clearing Fund to satisfy the outstanding obligation. The Corporation will access these funds on a pro rata basis, according to the contribution of each Clearing Member.

#### Additional Assessments.

In cases of extreme market and financial duress, and specifically in those instances where all of remedies set forth above, including the application of the Clearing Fund in its totality fail to cover the losses of a defaulting Clearing Member, the Corporation may seek to engage in an additional round of assessment. A decision to do so must be approved by the Board. In the event that the Corporation chooses to engage in an additional assessment to satisfy a default, it will utilize the same URR methodology that applies to the calculation of Clearing Fund contributions, to apportion these liabilities.

#### LIQUIDITY FACILITIES

While not a source of capital available for the offset of losses, the Corporation has available an array of liquidity facilities, which it may, at its discretion, call upon to assist with the funding of its loss mitigation activities. In the event of a default, The Corporation, as advised by the Emergency Committee must make a determination as to how to deploy these resources. Included among its alternatives are:

- Drawing upon the Corporation's commercial bank liquidity lines, in whole or in part.
- The raising of liquidity through out-rights sales and/or Repurchase Transactions involving Securities of the defaulting Clearing Member.
- Through the exercising of its rights of re-pledging/re-hypothecation of defaulter Margin Deposits
- Through the exercising of its rights of re-pledging/re-hypothecation of defaulter and survivor Clearing Fund Deposits.

The management of this process is one that should ensue across the entire course of the liquidation efforts, and the Corporation must make routine, periodic judgments as to how and when this funding merits deployment.

#### AUCTION PROCESSES

Immediately subsequent to the declaration of a suspension of a Non-Conforming Member, and contemporaneous to the Audit Department's efforts to isolate associated sources, the Corporation must make a recommendation to the Board as to the advisability of conducting an auction designed to transfer the remaining collateral and positions to those of another Clearing Member. If, in its judgment the Board determines that such a step is indeed called for, the steps in the process should follow the following sequence:

- The President of the Corporation will call the senior-most available representative of the defaulting Clearing Member, to notify the organization of its intent to hold an auction.
- The Corporation will execute a Non-Disclosure Agreement with the defaulting Clearing Member, enabling it, among other things, to show position and collateral information to potential auction participants.

- The Corporation will identify potential participants in the auction process. Note that these entities can include other Clearing Members and/or other investment enterprises.
- The Risk and Audit Departments will conduct an analysis to determine the ability of potential auction participants to participate in the auction without causing financial or operational impairment to their businesses. Only those enterprises that, in the judgment of the Corporation, meet this suitability test will be eligible for participation in the auction. Note that in the event that non-Clearing Member participants request to participate in the auction process, the Risk and Audit Departments must perform the suitability test not only on the potential participant, but upon its Clearing Member as well.
- All potential participants in the auction process must sign a Non-Disclosure Agreement, as a precursor to examining the portfolio and collateral content of the defaulting Clearing Member.
- The Corporation will then hold an individual auction separately for each asset class.
- Participants may bid on one or more asset classes, and will submit their bids on the basis of how much collateral they would require to assume the positions of the defaulting Clearing Member.
- The bids will be submitted on a sealed basis, and should be in the hands of the Corporation by the close of business on the date designated for auction.
- The Corporation will determine the winner of the auction on the basis of which participant has requested the least amount of collateral to support the position transfer process with priority to bidders whose risk profile improves (i.e. reduced or minimal marginal increase in risk exposure) subsequent to the inclusion of the defaulting Clearing Members positions.
- The Corporation will transfer all positions and collateral by the close of business the following day, as marked to the Corporation's routine settlement cycle.

In the event that the auction processes unfolds in such a way as to create a residual balance on the books of the defaulting Clearing Member, the Corporation will freeze this collateral, and await further instructions as to its disposition, from both the Legal Department and the Board. In the event that the auction proceeds in such a way as to generate a residual shortfall, then the Corporation, as determined by the Board, has the right to reject all bids, accept some bids and reject others, or accept the best bids submitted. Under these circumstances, the Corporation will then proceed with the implementation of additional mitigants, as set forth below:

- A negotiated allocation of existing Open Positions and associated Margin Deposits amongst surviving Clearing Members
- By invoking Rule A-404, CDCC may elect to closeout remaining Open Positions at price(s) that it deems reasonable based on best available market information.

# Schedule B

#### [AMENDED AND RESTATED] DEPOSITORY AGREEMENT

THIS DEPOSITORY AGREEMENT, dated \_\_\_\_\_\_, is entered into between Canadian Derivatives Clearing Corporation ("CDCC") and \_\_\_\_\_\_ ("Approved Depository") (together, the "Parties" and individually, a "Party") [and supersedes any previous form thereof]

WHEREAS, a customer of the Approved Depository that is either a clearing member of CDCC or a client of a clearing member of CDCC (in either case, a "Customer") may hold a short position on a put option (a "Put Short Position") or on a call option (a "Call Short Position") or on a futures position (a "Futures Short Position") issued by CDCC (collectively, a "Short Position");

WHEREAS, the Customer may (i) deposit with the Approved Depository in trust for CDCC the aggregate exercise price in cash in respect of a Put Short Position, (ii) instruct the Approved Depository to transfer specific underlying securities to CDCC in respect of a Call Short Position, or (iii) instruct the Approved Depository to transfer specific underlying securities to CDCC in respect of a Futures Short Position (collectively, a **"Specific Deposit"**), as collateral for such Short Position in lieu of making margin deposits to CDCC in respect thereof; and

WHEREAS, the Parties wish to set forth and agree on the terms on which (i) the Specific Deposits will be held by the Approved Depository in trust for CDCC or transferred to CDCC through a central securities depository acceptable to CDCC, including CDS Clearing and Depository Services Inc. ("CDS") (a "Central Securities Depository"), as the case may be, (ii) the Specific Deposits will be issued or deemed issued by way of: (A) put escrow receipts in the form of Exhibit A hereto (a "Put Escrow Receipt"), (B) call underlying interest deposits as set forth in section 4 hereof (a "Call Underlying Interest Deposit"), and (C) futures underlying interest deposits as set forth in section 5 hereof (a "Futures Underlying Interest Deposit") (collectively, "Depository Receipt(s)"), and (iii) the Specific Deposits will be released on demand by the Approved Depository in favour of CDCC in the case of Put Escrow Receipts on presentation of put payment order(s) in the form of Exhibit B hereto (a "Put Payment Order");

NOW THEREFORE, the Parties have agreed as follows:

#### 1. REPRESENTATIONS OF THE APPROVED DEPOSITORY

The Approved Depository makes the following representations, which are deemed repeated upon the issuance of each Depository Receipt:

- (A) The Approved Depository is (i) a trust company to which the *Trust and Loan Companies Act* (Canada) applies or subject to the *Loan and Trust Corporations Act* (Ontario) or *An Act Respecting Trust Companies and Savings Companies* (Quebec) or equivalent legislation of other provinces of Canada, or (ii) such other institution as CDCC may, in its sole discretion, approve from time to time;
- (B) The Approved Depository has a minimum capital of \$25,000,000, for which current audited financial statements are available;
- (C) The Approved Depository has entered into an agreement with the Customer(s) wishing to make Specific Deposits to be held by the Approved Depository in trust for CDCC (in the case of Put Escrow Receipts) or pledged to CDCC through a Central Securities Depository (in the case of Call Underlying Interest Deposits and Futures Underlying Interest Deposits) in lieu of meeting

margin requirements with respect to certain Short Positions, which agreement clearly sets forth the conditions under which the Approved Depository will handle Specific Deposits, issue Depository Receipts and honour CDCC's demands for release in respect of Put Escrow Receipts, consistent with the terms of this Agreement;

- (D) The Approved Depository holds each Specific Deposit that is the object of a Put Escrow Receipt as custodian for the account of a Customer in trust for CDCC with the express authority from the Customer to act in such capacity in respect of a specific Short Position that is a put option;
- (E) The Approved Depository holds each Specific Deposit that is the object of a Put Escrow Receipt free from liens or encumbrances and does not subject it or any part of it to any right (including any right of set-off), charge, security interest, lien or claim of any sort in favor of the Approved Depository or any third party;
- (F) The Approved Depository is duly authorized by the Customer to release a Specific Deposit that is the object of a Put Escrow Receipt in favor of CDCC in accordance with the terms of this Agreement.
- (G) The Approved Depository pledges on behalf of a Customer each Specific Deposit that is the object of a Call Underlying Interest Deposit to CDCC through a Central Securities Depository with the express authority from the Customer to effect such pledge of the relevant underlying securities in respect of a specific Short Position that is a call option;
- (H) The Approved Depository pledges on behalf of a Customer each Specific Deposit that is the object of a Call Underlying Interest Deposit free from liens or encumbrances and does not subject it or any part of it to any right (including any right of set-off), charge, security interest, lien or claim of any sort in favor of the Approved Depository or any third party;
- (I) The Approved Depository pledges on behalf of a Customer each Specific Deposit that is the object of a Futures Underlying Interest Deposit to CDCC through a Central Securities Depository with the express authority from the Customer to effect such pledge of the relevant underlying securities in respect of a specific Short Position that is a future; and
- (J) The Approved Depository pledges on behalf of a Customer each Specific Deposit that is the object of a Futures Underlying Interest Deposit free from liens or encumbrances and does not subject it or any part of it to any right (including any right of set-off), charge, security interest, lien or claim of any sort in favor of the Approved Depository or any third party.

#### 2. DEPOSITORY SERVICES

The Approved Depository shall treat Specific Deposits as follows:

- (A) Upon the instruction of the Customer, subject to conditions agreed between the Approved Depository and the Customer, the Approved Depository shall receive Specific Deposits from the Customer and issue Depository Receipts with respect to the Specific Deposits, either by certifying to CDCC that it is held in trust for CDCC and undertaking to honour CDCC's demand for payment in the form of a Put Escrow Receipt or by transferring it to CDCC through a Central Securities Depository in the form of a Call Underlying Interest Deposit or a Futures Underlying Interest Deposit, as the case may be, in accordance with the terms of this Agreement.
- (B) Once a Depository Receipt has been issued by the Approved Depository to CDCC in respect of a Short Position, the Customer may not withdraw or otherwise affect the Specific Deposit, except with CDCC's express written consent thereto, until it is released by CDCC upon (i) the

discharge of the relevant underlying payment or delivery obligation by the Customer, or (ii) the expiry of the Depository Receipt ten Business Days after the Expiry Date or the Delivery Date, as the case may be, of the Short Position, whichever is earlier.

(C) The Approved Depository acknowledges and agrees that it is not entitled to any fees or compensation from CDCC for its services hereunder and that it will receive any such fees and compensation for such services from the Customer(s) as agreed with such persons from time to time.

#### 3. PUT ESCROW RECEIPTS

By issuing a Put Escrow Receipt in the form of Exhibit A hereof, the Approved Depository acknowledges, represents and agrees as follows:

- (A) The Customer identified in the Put Escrow Receipt, being the writer of a Put Short Position, has deposited an amount of cash equivalent to the aggregate exercise price of the Put Short Position with the Approved Depository which constitutes a Specific Deposit;
- (B) The Customer has instructed the Approved Depository to issue a Put Escrow Receipt in favor of CDCC with respect to such Specific Deposit, in consideration of being released from having to post any margin requirement with respect to the relevant Put Short Position in accordance with the Rules of CDCC;
- (C) The Specific Deposit is held in trust for CDCC as collateral for the relevant Put Short Position free from any lien or encumbrance other than CDCC's first priority security interest thereon; and
- (D) Upon receipt of a Put Payment Order in the form of Exhibit B hereof issued by CDCC pursuant to a Put Escrow Receipt, the Approved Depository will release the Specific Deposit in whole by transfer of funds within two hours if the demand is made before 3:00 pm or on the next business day before 9:00 am if the demand is made after 3:00 pm.

#### 4. CALL UNDERLYING INTEREST DEPOSITS

By transferring a Specific Deposit in the form of securities as collateral for a specific Call Short Position from the Approved Depository to CDCC through a Central Securities Depository, the Approved Depository is deemed to have issued a Call Underlying Interest Deposit, whereby the Approved Depository acknowledges, represents and agrees as follows:

- (A) The Customer, being the writer of the Call Short Position, has deposited the quantity of the underlying securities specified in the Call Short Position with the Approved Depository which constitutes a Specific Deposit;
- (B) The Customer has instructed the Approved Depository to pledge to CDCC through a Central Securities Depository the Specific Deposit, in consideration of being released from having to post any margin requirement with respect to the relevant Call Short Position in accordance with the Rules of CDCC;
- (C) The Specific Deposit is pledged to CDCC as collateral for the relevant Call Short Position giving CDCC a first priority security interest thereon, free from any other lien or encumbrance; and

(D) Upon the delivery obligation of the Customer under the Call Short Position being otherwise duly satisfied on the relevant exercise date, the Specific Deposit shall be released by CDCC and returned to the Approved Depository, unless otherwise instructed by the Customer. In the event that the Customer fails to satisfy such delivery obligation, CDCC shall seize the Specific Deposit to satisfy the Customer's delivery obligation without prior notice by CDCC to the Customer or the Approved Depository, subject to section (2) (B) hereof,

#### 5. FUTURES UNDERLYING INTEREST DEPOSITS

A Futures Underlying Interest Deposit shall be deemed issued by the Approved Depository upon the transfer of a Specific Deposit in the form of securities as collateral for a specific futures short position from the Approved Depository to CDCC through a Central Securities Depository, whereby the Approved Depository acknowledges, represents and agrees as follows:

- (A) The Customer, being the seller of securities under a Futures Short Position, has deposited the quantity of the underlying securities specified in the Futures Short Position with the Approved Depository which constitutes a Specific Deposit;
- (B) The Customer has instructed the Approved Depository to pledge to CDCC through a Central Securities Depository the Specific Deposit, in consideration of being released from having to post any margin requirement with respect to the relevant Futures Short Position in accordance with the Rules of CDCC;
- (C) The Specific Deposit is pledged to CDCC as collateral for the relevant Futures Short Position giving CDCC a first priority security interest thereon, free from any other lien or encumbrance; and
- (D) Upon the delivery obligation of the Customer under the Futures Short Position being otherwise duly satisfied on the relevant delivery date, the Specific Deposit shall be released by CDCC and returned to the Approved Depository, unless otherwise instructed by the Customer. In the event that the Customer fails to satisfy such delivery obligation, CDCC shall seize the Specific Deposit to satisfy the Customer's delivery obligation without prior notice by CDCC to the Customer or the Approved Depository, subject to section (2) (B) hereof.

#### 6. GENERAL AND MISCELLANEOUS

- (A) This Agreement shall be binding upon and enure to the benefit of the Parties and their respective successors and permitted assigns. It may not be assigned by the Approved Depository without the prior written consent of CDCC, which consent shall not be unreasonably withheld.
- (B) This Agreement may be amended only if the Parties hereto so agree in writing.
- (C) This Agreement may be terminated by either party upon 30 days written notice to the other party whereupon any Specific Deposit held by the Approved Depository in trust for CDCC will be dealt with by the Approved Depository in accordance with CDCC's written instructions to it.
- (D) This Agreement constitutes the entire agreement between the Parties to this Agreement with respect to its subject matter and cancels and supersedes any prior understandings and agreements between the parties with respect to such subject matter.

- (E) This Agreement shall be construed, interpreted and enforced in accordance with, and the respective rights and obligations of the Parties shall be governed by, the laws of the Province of Ontario and the federal laws of Canada applicable therein, and each party hereby irrevocably and unconditionally submits to the non-exclusive jurisdiction of the courts of Ontario and all courts competent to hear appeals therefrom.
- (F) This Agreement may be executed in separate counterparts, each of which when so executed and delivered shall be deemed an original, but all such counterparts shall constitute but one and the same agreement.
- (G) Delivery of an executed signature page to this Agreement by either party by electronic transmission will be as effective as delivery of a manually executed copy of this Agreement by such party.

IN WITNESS WHEREOF this Agreement has been executed as of the date first written

above.

#### CANADIAN DERIVATIVES CLEARING CORPORATION ("CDCC")

("Approved Depository")

By: \_\_\_\_\_\_(Signature of officer)

By: \_\_\_\_\_\_(Signature of officer)

(Please print name)

(Please print name)

(Title)

(Title)

#### PUT ESCROW RECEIPT

#### EXHIBIT A

#### Approved Depository Letterhead

(Branch and Address)

## To: BROKER OF PUT OPTION WRITER and CANADIAN DERIVATIVES CLEARING CORPORATION

#### Gentlemen,

RE:	Customer	]	Exercise Price	
	Expiry Date	 1	Underlying Security	
	No. of Shares		Aggregate Exercise Price	
	Clearing Member			

We understand that the Customer has written a Put Option expiring on the Expiry Date pursuant to which he may be obligated to accept delivery from Canadian Derivatives Clearing Corporation (CDCC) of the Underlying Security at the Aggregate Exercise Price at any time after the date hereof up to and including the Expiry Date.

We issue this Put Escrow Receipt pursuant to a duly executed Depository Agreement with CDCC and we hereby certify that:

- (a) the Customer has deposited cash in an amount equal to the Aggregate Exercise Price in respect of the Put Option identified herein for us to hold in trust to your order (the "Specific Deposit");
- (b) we hold and will continue to hold the Specific Deposit free from any liens or encumbrances except CDCC's first priority security interest thereon; and
- (c) we will transfer the Specific Deposit, by payment of the Aggregate Exercise Price to CDCC on demand against delivery by CDCC of the Underlying Security on the date the Exercise Notice is submitted by CDCC within two hours if the demand is made before 3:00 pm or on the next business day before 9:00 am if the demand is made after 3:00 pm.

In connection with the foregoing, we acknowledge and agree that payment will be effected by us as escrow holder against delivery of the Underlying Security by CDCC provided that any demand by CDCC for payment must be in the agreed written form and received by us not later than 3 p.m. local time on the tenth Business Day following the Expiry Date at which time this Put Escrow Receipt will be null and void.

This Put Escrow Receipt is being deposited to serve as Underlying Interest Equivalent for the Put Option identified herein booked in a Client Account maintained by the Clearing Member. This Put Escrow Receipt shall not constitute Margin for another account maintained by the Clearing Member.

Yours truly,

#### PUT PAYMENT ORDER

#### EXHIBIT B

#### **CDCC Letterhead**

#### **Exercise Date:**

Gentlemen,

This Payment Order is submitted by the Canadian Derivatives Clearing Corporation ("we" or "CDCC") in accordance with the Depository Agreement entered into between CDCC and \_\_\_\_\_ ("you" or "Approved Depository") and pursuant to a Put Escrow Receipt, a copy of which is attached hereto.

CDCC hereby certifies that the Put Option Short Position identified in the Put Escrow Receipt has been exercised as of the Exercise Date specified above.

Considering that you hold a Specific Deposit covering this Put Option Short Position, as evidenced by the attached Put Escrow Receipt, we ask that you release it in our favour immediately by paying the Aggregate Exercise Price specified therein to the following account of CDCC: