



NOTICE TO MEMBERS

No. 2014 – 220

November 25, 2014

REQUEST FOR COMMENTS

AMENDMENTS TO THE RULES, OPERATIONS MANUAL, RISK MANUAL AND DEFAULT MANUAL OF THE CANADIAN DERIVATIVES CLEARING CORPORATION TO ADDRESS THE CLEARING FUND FRAMEWORK

Summary

On October 22, 2014, the Board of Directors of Canadian Derivatives Clearing Corporation (CDCC) approved amendments to the Rules, Operations Manual, Risk Manual and Default Manual of CDCC. The purpose of the proposed amendment is to review the Clearing Fund and to ensure that CDCC has sufficient financial resources during extreme but plausible market conditions.

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

Process for Changes to the Rules

CDCC is recognized as a clearing house under section 12 of the *Derivatives Act* (Québec) by the Autorité des marchés financiers (AMF) and is a recognized clearing agency under section 21.2 of the *Securities Act* (Ontario) by the Ontario Securities Commission (OSC).

The Board of Directors of CDCC has the power to approve the adoption or amendment of Rules and Operations Manual of CDCC. Amendments are submitted to the AMF in accordance with the self-certification process and the Ontario Securities Commission in accordance with the process provided in its Recognition Order.

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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:

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Assistant Secretary
Canadian Derivatives Clearing Corporation
Tour de la Bourse
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Montréal, Québec H4Z 1A9
E-mail: legal@m-x.ca

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

Mrs. Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
Tour de la Bourse, P.O. Box 246
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Montréal, Québec H4Z 1G3
E-mail: consultation-en-cours@lautorite.gc.ca

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For any question or clarification, Clearing Members may contact CDCC's Corporate Operations.

Glenn Goucher
President and Chief Clearing Officer



**AMENDMENTS TO THE RULES, OPERATIONS MANUAL, RISK MANUAL AND DEFAULT MANUAL
OF THE CANADIAN DERIVATIVES CLEARING CORPORATION TO ADDRESS THE CLEARING FUND
FRAMEWORK**

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I. SUMMARY

CDCC needs to account for extreme but plausible market conditions when assessing the amount of total financial resources required. On any given day, Clearing Members pay an initial margin designed to cover the potential loss that may occur in normal market conditions. The result of a stress test in extreme but plausible market conditions minus the initial margin is defined as the shortfall. The actual size of the Clearing Fund must at least correspond to the highest observed shortfall over the last sixty business days. The size of the Clearing Fund is shared amongst Clearing Members and reviewed by CDCC on a monthly basis. In comparison, Initial Margin is calculated at the Clearing Member level.

The Clearing Fund is a CDCC's financial resource where each Clearing Member's contribution is updated on a monthly basis. Contributions to the Clearing Fund are subject to a minimum Base Deposit. Each type of product has a different Base Deposit.

The Clearing Fund calibration follows rigorous risk management processes in accordance with the industry best practice and regulatory requirements. The new Clearing Fund Framework also addresses the CPSS-IOSCO Principles for Financial Market Infrastructure [FMI] on credit risk.

II. ANALYSIS

a. Background

At any given day, CDCC may be exposed to the consequences of a rapid change in market conditions. PFMI requires that a Central Counterparty Clearing House (CCP) must have enough financial resources in extreme but plausible market conditions. CDCC Clearing Fund – used to mutualize potential excess losses during a stress event – is a key instrument to achieve this objective¹. Therefore, the size of the Clearing Fund must be sufficient to withstand the biggest default from one Clearing Member including its Affiliate(s). Sharing the required financial resources in extreme but plausible market conditions optimizes the allocation of the financial resources within the CCP. Otherwise, CCPs would have to charge to Clearing Members the entire risk brought to the CCPs. CCPs has set waterfall processes which include the inclusion of a Clearing Fund.

Clearing Fund deposits are currently prescribed in Section A-6 of CDCC's Rule. The methodology is detailed in the Risk Manual. Amendments to the present methodology are presented in Appendix 1 to 4. CDCC accepts deposits in the Clearing Fund in the form of cash and government securities only. The actual assessment of the Clearing Fund is performed on a monthly basis and considers the previous 60 Business Days.

¹ CDCC has also in its possession other form of financial resources, namely like supplemental initial margins (wrong-way risk, concentration margin, etc.) and CDCC's default capital.

b. Description and Analysis of Impacts

The new proposed methodology for the Clearing Fund will continue to be calibrated on a monthly basis but an additional assessment could be performed intra-monthly if total financial resources are not sufficient to cover extreme but plausible market conditions. CDCC will analyze the rationale of this incremental amount and could require specific Clearing Members to cover the additional charge through a specific margin call. The size of the Clearing Fund will consider the highest observed shortfall over the last 60 business days. The latter will be multiplied by 115% to account any potential change in positions.

Clearing Members' contribution to the Clearing Fund would consider the average Initial Margin requirement of the Clearing Member compared to CDCC Initial Margin requirement. Contributions to the Clearing Fund are the margin weight multiplied by the Clearing Fund size.

The proposed Clearing Fund Framework would allow a better reaction to sudden market moves and/or positions movements. Current methodology does not allow intra-monthly reassessment and is less proactive.

c. Proposed Amendments

The proposed amendments are presented in Appendix 1 to 4.

d. Benchmarking

CDCC has reviewed methodologies applied by other CCPs (namely, LCH Clearnet, Eurex Clearing, ASX, CME and OCC) to deal with the Clearing Fund.

LCH Clearnet:

LCH Clearnet has put in place Clearing Funds for each service. All of them are calibrated monthly and tested daily. As required by PFMI, CCPs involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions must maintain additional financial resources to cover at least two (2) Clearing Members including Affiliates. The Clearing Fund is subject to a floor and a cap.

Eurex:

The Clearing Fund requirement is determined by the highest single amount of the following components:

- 7% of the 30 day initial margin requirement average, or
- 7% of the 250 day initial margin requirement average.

Clearing Fund contributions are calibrated on a quarterly basis and subject to a minimum base deposit.

ASX:

The Clearing Fund contribution is either a fixed amount or an amount linked to the volume, value, margin requirement or risk measurement. Both measures could be used to determine the contribution. Internal Procedures describe the sizing of the Clearing Fund. ASX Group maintains 2 separate Clearing Fund.

CME:

The Clearing Fund contribution is the result of a formula under which 95% of the contribution is based on the margin requirement of the Clearing Member. The remaining 5% is based on the Clearing Member's transaction.

Each quarter, the Clearing Fund is rebalanced. CME follows the Clearing Fund requirements on an ongoing basis.

OCC:

OCC Clearing Fund size is readjusted on a monthly basis. OCC considers the previous month for the determination of the highest loss subject to a confidence interval. Calculations are done on a daily basis. OCC has initiated a project to re-adjust intra-monthly the size of the Clearing Fund. The latter has been submitted for regulatory approval. The allocation formula includes the open interest, margin and volume (50%, 35% and 15%).

III. PRIMARY MOTIVATION

CDCC proposes to change the Clearing Fund Framework for the following reasons.

First, following CDCC evaluation of its gaps related to the new PFMI requirements, it noticed that the current Clearing Fund methodology could have resulted in some instances in the establishment of a Clearing Fund size insufficient to cover the highest shortfall (difference between the stress test result and the initial margin). Moreover, CDCC realized that its current methodology was difficult to understand for participants and that it was using a subjective stress factor.

Consequently, the new methodology addresses these concerns by proposing a methodology that is widely used amongst CCPs and that uses a defined buffer of 15%. In addition, new governance around the Clearing Fund allows CDCC to reassess the Clearing Fund size intra-month if necessary. Therefore, the new Clearing Fund methodology will be more transparent and proactive.

The Clearing Fund calibration follows rigorous risk management processes in accordance with the industry best practice and regulatory requirements. The new Clearing Fund Framework also addresses the CPSS-IOSCO Principles for Financial Market Infrastructure [FMI] on credit risk.

IV. IMPACTS ON TECHNOLOGICAL SYSTEMS

The proposed solution will be implemented in Sola® Risk as part of the PFMI remediation strategy. In order to minimize the potential for operational risk, the new solution will be properly tested with a complete user acceptance test (UAT) prior to its implementation in the production system.

V. OBJECTIVES OF THE PROPOSED MODIFICATIONS

The objective of the proposed modification is to review the Clearing Fund and continue to ensure that CDCC has sufficient financial resources during extreme but plausible market conditions.

VI. PUBLIC INTEREST

In CDCC's opinion, the proposed amendments are not contrary to the public interest.

VII. MARKET IMPACTS

CDCC had measured the impacts of the proposed change in the methodology from the period covering February 2012 to June 2014. The change in methodology would have increased the size of the Clearing Fund by 21%.

VIII. PROCESS

The proposed amendment is submitted for approval by the CDCC Board. Once the approval has been obtained, the proposed amendment, including this analysis, will be transmitted to the Autorité des marchés financiers in accordance with the self-certification process and the Ontario Securities Commission in accordance with the "Rule Change Requiring Approval in Ontario" process. The proposed amendment and analysis will also be submitted for approval to the Bank of Canada in accordance with the Regulatory Oversight Agreement.

IX. EFFECTIVE DATE

The proposed changes to address the Clearing Fund framework are supposed to be implemented in December 2014. This is subject to the regulatory approval.

X. ATTACHED DOCUMENTS

Appendix 1: Amended Rules
Appendix 2: Amended Operational Manual
Appendix 3: Amended Risk Manual
Appendix 4: Amended Default Manual

APPENDIX 1



CANADIAN DERIVATIVES CLEARING CORPORATION

RULES

VERSION OF ~~JUNE 13~~, 2014

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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 Fixed Income Transactions and Futures for which the deliverable security is a fixed income security.

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

“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.

“Afternoon Net DVP Settlement Requirement” – has the meaning assigned to this term by Section D-601.

“Afternoon Netting Cycle Timeframe” – has the meaning assigned to this term by Section D-601.

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

“Amounts Due” – has the meaning assigned to this term by Subsection D-409(10).

“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 by the Corporation to act in such capacity in accordance with the criteria set forth in Subsection A-212(8).

“Approved Processes” – any CDCS function 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.

“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).

“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.

“Canada Mortgage Bonds (CMB)” – bullet maturity bonds that are fixed rate with a semi-annual coupon issued by Canada Housing Trust and guaranteed by Canada Mortgage and Housing Corporation.

“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 Payment Request” – has the meaning assigned to this term by Subsection A-409(6).

“Cash Settlement Amount Calculation Request” – has the meaning assigned to this term by Subsection A-409(6).

“Cash Settlement Amount Calculation Request Date” – has the meaning assigned to this term by Subsection A-409(6).

“CDCC Daylight Credit Facility” – means the daylight credit facility of the Corporation, the amount of which is subject to change from time to time, with prior notice to Clearing Members.

“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 the software, trade-marks, logos, domain names, documentation (including the Rules), Approved Processes, technical information, systems (including the clearing systems and electronic transmission systems), hardware and networks, that comprises the CDCS provided by the Corporation to the Clearing Members.

“CDCS” – stands for “Canadian Derivatives Clearing Service” and refers to the clearing and settlement system operated by CDCC, which is governed by the Rules.

“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.

“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.

“Competent Authority” – has the meaning assigned to this term by Subsection A-409(3).

“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.

“CORRA Rate” – has the meaning assigned to this term by Section D-601.

“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.

“Daily Settlement Summary Report” – the report designated as such by the Corporation as described in the Operations Manual.

“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.

“Delivery Request” – has the meaning assigned to this term by Subsection A-409(6).

“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.

“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 materially affecting the Corporation's operations 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.

“End of Day DVP Settlement Time” – has the meaning assigned to this term by Section D-601.

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

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

“Event of Default” – has the meaning assigned to this term by Subsection A-409(2).

“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, in the case of monthly Options, the third Friday of the month and year in which the Option expires, or in the case of weekly Options, if the Underlying Interest is a class of shares, the last trading day, which is the Friday of the week following the listing, and if the Underlying Interest is an Index group, the last trading, which is the Thursday of the week following the listing, or, if it is not a Business Day, the first preceding Business Day.

“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 10:45 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 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 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 Margin Call” – shall mean the requirement to deposit supplementary Margin, as determined by the Corporation in accordance with Section A-705, at any time the Corporation deems necessary, and notably at such times as specified in Section 2 of the Operations Manual.

“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, Cash, 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, Put Escrow Receipts, Call Underlying Interest Deposits, and Futures Underlying Interest Deposits, 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.

“Morning Net Payment Against Delivery Requirement” – has the meaning assigned to this term by Section D-601.

“Morning Net DVP Settlement Timeframe” – has the meaning assigned to this term by Section D-601.

“Morning Netting Cycle Timeframe” – has the meaning assigned to this term by Section D-601.

“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 the 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)(d); 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)(c).

“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-delivered Assets” – has the meaning assigned to this term by Subsection A-409(6).

“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).

“Payment Request” – has the meaning assigned to this term by Subsection A-409(5).

“Pending Payment Against Delivery Requirements” – has the meaning assigned to this term by Section D-601.

“Pending Delivery Requirements” – has the meaning assigned to this term by Section D-601.

“Postponed Payment Obligation” – with respect to the Corporation, the amount by which its Afternoon Net DVP Settlement Requirement consisting of an obligation to pay against delivery of Acceptable Securities or its Gross Payment Against Delivery Requirement resulting from any Same Day Transaction submitted after the Afternoon Netting Cycle Timeframe and before the Submission Cut-Off Time, 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 by the End of Day DVP Settlement Time and the payment by the Corporation of such reduction has been postponed until full delivery by the Provider of Securities in accordance with Subsection A-804(1); and with respect to a Clearing Member who is a Receiver of Securities, the amount by which its Afternoon Net DVP Settlement Requirement consisting of an obligation to pay against delivery of Acceptable Securities or its Gross Payment Against Delivery Requirement resulting from any Same Day Transaction submitted after the Afternoon Netting Cycle Timeframe and before the Submission Cut-Off Time, 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 Business Day they were due by the End of Day DVP Settlement Time 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)(d) 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)(d) 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 (CO₂e) Units, has been established in order to ensure the accurate accounting of holding, transfer, acquisition, surrender, cancellation and replacement of the Carbon Dioxide Equivalent (CO₂e) 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 an Afternoon Net DVP Settlement Requirement consisting of an obligation to deliver Acceptable Securities under Subsection A-801(4) or a Gross Delivery Requirement resulting from any Same Day Transaction submitted after the Afternoon Netting Cycle Timeframe and before the Submission Cut-Off Time under Subsection D-606(10), as the case may be, on the Business Day it was due by the End of Day DVP Settlement Time, 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 an Afternoon Net DVP Settlement Requirement consisting of an obligation to deliver Acceptable Securities under Subsection A-801(4) or a Gross Delivery Requirement resulting from any Same Day Transaction submitted after the Afternoon Netting Cycle Timeframe and before the Submission Cut-Off Time under Subsection D-606(10), as the case may be, on the Business Day it was due by the End of Day DVP Settlement Time (as a direct consequence of a Provider of Securities’ failure to deliver all or a part of its Afternoon Net DVP Settlement Requirement consisting of an obligation to deliver Acceptable Securities or its Gross Delivery Requirement resulting from any Same Day Transaction submitted after the Afternoon Netting Cycle Timeframe and before the Submission Cut-Off Time, 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) 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.

“Same Day Transaction” – has the meaning assigned to this term by Section D-601.

“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).

“Submission Cut-Off Time” – has the meaning assigned to this term by Section D-601.

“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 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.

“Transaction Value” – has the meaning assigned to this term by Subsection A-409(10).

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

“Uncovered Residual Risk” or “URR” – 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 conditions done through rigorous stress tests ~~scenario~~. The URR represents the largest uncovered risk from a Clearing Member and its Affiliates. 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-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 ~~B~~base ~~D~~deposits are as follows:
 - (a) Options Clearing Base Deposit - \$25,000 Cash or equivalent value (as set out in Section A-608) of Acceptable Treasury Bills.
 - (b) Futures Clearing Base Deposit - \$75,000 Cash or equivalent value (as set out in Section A-608) of Acceptable Treasury Bills.
 - (c) OTCI Clearing Base Deposit (other than Fixed Income Transactions) - \$100,000 Cash or equivalent value (as set out in Section A-608) of Acceptable Treasury Bills.
 - (d) Fixed Income Transactions Clearing Base Deposit - \$1,000,000 Cash or equivalent value (as set out in Section A-608) of Acceptable Treasury Bills.

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~~to ~~each Clearing Member Base Deposit and Variable Deposits~~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;
 - (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, in accordance with the methodology set forth in the Risk Manual, to the Corporation's 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 against the Uncovered Residual Risk, in accordance with the methodology set forth in the Risk Manual.~~ Within a calendar month, if the Corporation determines that an increase to the Variable Deposit is necessary to protect its financial integrity, the Corporation will notify with a Clearing Fund statement the concerned Clearing Member(s), whom shall increase in the determined amount and approved form its contribution to the Clearing Fund no later than 2:00 p.m. on the following Business Day.

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 as a result of an amendment to the Rules. If the deposit to the Clearing Fund to be made by a Clearing Member is thereby increased, 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

~~At the opening of business on~~ the first Business Day of 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. A Clearing Fund statement will also be issued intra-monthly if an increase to the Variable Deposit is necessary. The concerned Clearing Member will have until no later than 2:00 p.m. on the next Business Day to remediate any deficit.

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 no later than 2:00 p.m. on the Business Day following the issuance of the Clearing Fund statement.

Section A-607 Withdrawals

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) In addition to Base Deposits made pursuant to the requirements of Subsection A-601(2), Variable Deposits to the Clearing Fund shall also be in the form of Cash and/or in Acceptable Treasury Bills which shall be valued at a discounted rate, as determined by the Corporation from time to time in accordance with 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 Cash shall be transferred by irrevocable funds transfer to the Corporation and may, from time to time, be partially or wholly invested by the Corporation for its account. To the extent not so invested, they shall be deposited to the credit of the Corporation in such financial institutions as the Board may select. Deposits in Cash 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 Cash and/or Acceptable Treasury Bills. All interest or gain received or accrued on any Acceptable Treasury Bills, prior to any sale, negotiation or pledge thereof, shall belong to the depositing Clearing Member.

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), as well as the Clearing Fund deposits 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.
- (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 Corporation shall apply its own capital resources specifically set aside for such purpose up to the maximum amount set forth in the Default Manual, and if the amount of the deficiency exceeds such amount, the remaining 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.
- (4) Without limiting the rights of the parties under Section A-607 and Subsections A-609(1) and (2), at the sole discretion of the Corporation, all property deposited with the Corporation as a Clearing Fund deposit by any and all Clearing Members 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 incurred in order (a) to obtain liquidity or credit for the purpose of assisting the Corporation to honour its obligations on a timely basis further to the designation by the Corporation of a Clearing Member as being a Non-Conforming Member, or (b) to fund a payment obligation of the Corporation which arises pursuant to a Failed Delivery under Subsection A-804(1) by any Clearing Member, and any such security or transfer will be effective without the holder or recipient thereof being required to make any enquiry as to whether the applicable obligations have been incurred for the purposes set out in this Subsection A-609(4) or whether the funds so obtained are being used for such purposes. Without limiting the rights of the Corporation under Subsection A-701(2), at the sole discretion of the Corporation, in the case of the situation described in (a) above, the Corporation shall pledge the Non-Conforming Member's Margin Deposits (including, without limitation, Margin and Clearing Fund), in accordance with Subsection A-701(5), before pledging the Clearing Fund deposits of other Clearing Members. In the case of the situation described in (b) above, the Corporation shall pledge the Clearing Fund deposits of the Provider of Securities responsible for the Failed Delivery before pledging the Clearing Fund deposits of other Clearing Members. The Corporation shall be deemed to continue to hold all property deposited with the Corporation as Clearing Fund deposits, regardless of whether the Corporation has exercised its rights under this Subsection A-609(4).

Section A-610 Making Good on Charges to Clearing Fund

Whenever an amount is paid out of the Clearing Fund deposits of other Clearing Members, in accordance with Subsection A-609(2), such Clearing Members shall be liable to make good the deficiency if any in their deposits 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, Clearing Members will not be liable to make good more than an additional 100% of the amount of their Clearing Fund deposits then prescribed by the Rules with respect to the default of any one Clearing Member.

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 Clearing Fund deposit, relating to the Transactions no longer being cleared, shall be returned, subject to the time limit specified in Subsection 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 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 "Withdrawal Period") the balance of the Clearing Fund deposit owed to the former Clearing Member will be paid to that former member.
- (3) If during the Withdrawal Period, an Event of Default occurs, the computation of the remaining time in the Withdrawal Period will be suspended until such time as the Event of Default is resolved to the Corporation's satisfaction, at which time the computation of the remaining time in the Withdrawal Period will resume.

Section A-612 Recovery of Loss

- (1) If a loss charged pro-rata against the deposits 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), 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.

APPENDIX 2



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

OPERATIONS MANUAL

VERSION OF ~~AUGUST 1~~, 2014

TIME FRAMES

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 DETAILS

Report Code	Report Name	Report Description
<i>Daily:</i>		
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 Net Settlement Delivery Status Report	Status of Clearing Member's settlement activity at the Central Securities Depository 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 Position Report	Lists the Clearing Member's Repurchase Transactions accepted for clearing by CDCC.
MP71	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.
MP73	Fixed Income Running Repo Open Positions Report	Lists all of the Clearing Member's Running Repurchase Transactions as of that day.
MP75	Fixed Income Forward Net Settlement Positions Report	Lists all of the Clearing Member's forward Net Settlement Positions obligations.
MP79	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 (Converge) 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. Note: 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.
MS70	Fixed Income Net Settlement	Lists all of the Clearing Member's Fixed Income Transactions

CDCC - REPORTS

	Position Activity Report	activities that contribute to its Net Settlement Position.
MS75	Fixed Income End of Day Settlement Instruction Report	Detail of Clearing Member's net settlement instructions to be sent to the Central Securities Depository after Netting Cut-Off Time.
MT01	Options Daily Transaction Report	Lists details for all Option contracts from previous Business Day.
MT02	Options Exercised and Assigned Report	Lists totals for Options Exercised Positions and Assigned Positions by Series of Options (including the debit and credit dollar values of the Transactions).
MT03	List of Options/Cash Adjustments Report	Lists all trade adjustments and Open Position changes including cash adjustments and Position Transfers.
MT05	Options Consolidated Activity Report	Lists all positions with activity including Option Premiums.
MT06	Options Sub-Account Consolidated Activity Report	Lists positions with activity including Option Premiums for only the 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 Report	Lists all original and modified trade rejections for the Clearing Member.
MT51	Final Futures Daily Transaction Report	Lists trade details for all Futures and Options on Futures activity.
MT52	Futures Tenders and Assignments Report	Lists all Tender Notices and Assigned Positions details.
MT53	List of Futures/Cash Adjustments Report	Lists details on all Futures and Options on Futures trade adjustments, Open Position changes, including cash adjustments and Position Transfers.
MT54	Futures Trading Summary Report	Lists all Series of Futures and Options on Futures and prices, and volumes at which each were traded. Lists number of contracts bought and sold for each Series of Futures Trade Prices.
MT66	Futures Sub-Account Consolidated Activity Report	Lists Futures and Options on Futures positions with activity including Settlement of Gain and Losses and Futures Premiums respectively, for the sub-accounts of Client, Firm and Multi-Purpose.
MT70	Fixed Income Novated Transactions Report	Lists the Clearing Member's daily Fixed Income Transactions novated to CDCC in accordance with the CDCC Clearing Application.
MT71	Fixed Income CSD Novated Trades Report	Lists the data transmitted to CDCC by the Central Securities Depository with respect to the Clearing Member's daily Fixed Income Transactions submitted for clearing.
MT73	Fixed Income Trade Rejection Report	Lists details of Clearing Member's daily Fixed Income Transactions that were rejected (DK) by CDCC or by the Clearing Member itself.
MT74	Fixed Income Not-Novated Transactions Report	Lists the Clearing Member's daily Fixed Income Transactions that were not novated to CDCC, including all rejected and orphaned trades.
MT92	Options on Futures Exercised & Assigned Report	Lists totals for Options on Futures Exercised Positions and Assigned Positions by Series. Note: Futures Options Exercised Positions and Assigned Positions value is nil
MT99	Detailed Futures Consolidated Activity Report	Detailed list of all Futures position with activity, including Settlement of Gains and Losses. Detailed list of all Options on Futures positions and activity including Futures Premiums.
Monthly:		
MA71	Clearing Fund Statement <u>(monthly and intra-monthly)</u>	Identifies the Clearing Member's Clearing Fund obligation. Lists the Clearing Member's current Deposits within the Clearing Fund and what is owed.

CDCC - REPORTS

MB01	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.
MB02	Monthly Clearing Fees Details Report	This report contains the following four sub-reports: “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.
MB03	Monthly Fixed Income Clearing Fees Invoice	This report details the clearing fees that are due with respect to Fixed Income Transactions by each Clearing Member.
MT40	Broker Ranking by Account Report	Individual Clearing Member ranking within CDCC for contracts, value traded and transactions (trade only) by month with year to date.
<i>FIFO Period:</i>		
MP56	FIFO Position Report	Lists Series of Futures with positions in chronological order, contracts in positions.
MP60	FIFO Declaration vs. Open Position Report	Lists Clearing Member’s Futures positions and FIFO long positions declaration.
<i>Options on Futures Expiry:</i>		
MT51	Final Futures Daily Transaction Report	Lists trade details for all Futures and Options on Futures activity.
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 Adjustments Report	Lists all trade adjustments and Open Positions changes on expiring Series only.
MX13	Futures Options Expiry Difference Report	Lists all reported changes, deletions and/or additions to exercises on the Futures Options Expiry Report (MX11).
<i>Options Expiry (Friday Evening):</i>		
MT01	Options Daily Transaction Report	Lists trade details for all expiring Option contracts for the Business Day.
MT02	Options Exercised and Assigned Report	Lists totals for Options Exercised Positions and Assigned Positions by Series of Options (including the debit and credit dollar values of the transactions).
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.
MX02	List of Expiry Adjustments Report	Lists all trade adjustments and Open Positions changes on expiring Series of Options only.
MX03	Expiry Difference Report	Lists all reported changes, deletions and/or additions to exercises on the Expiry Report.
<i>OTCI Expiry:</i>		
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.
<i>Business Day following Expiry:</i>		
MP11	Expired Options Positions Report	Lists the Clearing Member’s balance of expired Options positions following the Friday Expiry process.
MP12	Expired Futures Options Positions Report	Lists the Clearing Member’s balance of expired Futures Options positions following the Friday Expiry process.

CLEARING MEMBER SECURITY OFFICER

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 Clearing Mmembers (including their Affiliate(s)) from potential defaults and other market events and shall be used for the purposes set out in Section A-609 and Subsection A-701(2) of the Rule.

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

~~At~~On the first Business Day of each calendar month, CDCC will issue to each Clearing Member a Clearing Fund ~~s~~Statement that shall 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. A Clearing Fund statement (MA71) will also be issued intra-monthly if an increase to the Variable Deposit is necessary.

Any deficit between the amounts held on deposit and ~~at the monthly~~ requirement must be satisfied by 2:00 p.m. on the next Business Day.

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 (other than cash) in the Clearing Fund are made in the same manner and subject to the same deadlines as Margin Fund substitutions of assets (other than cash), as set forth in Section 2 of this Operations Manual..

APPENDIX 3



Risk Manual

CLEARING FUND

The Clearing Fund deposits are set out in Rule A-6.

These provisions aim to cover extreme but plausible market condition 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 and its Affiliate(s) 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 the largest certain Clearing Members and its Affiliate(s), causing the potential default of this a Clearing Member and its Affiliate(s).

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:

- ~~➤ The size of the Clearing Fund Each Clearing Member’s contribution is based on his Uncovered Residual Risk (the URR) over the last sixty Business Days. The size is then multiplied by 115%, 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.~~
- ~~➤ $URR = \text{Stress Margin} - \text{Base Margin}$~~
- ~~➤ The last sixty business days are used to determine the average URR of each Clearing Member.~~

$$\mu_{URR}^{60} = \frac{\sum_{t=1}^{60} URR_t^i}{60}$$

- ~~The Corporation determines the size of the Clearing Fund (Ω) based on the maximum average URR amongst all Clearing Members.~~

$$\Omega = \underset{i=1}{\overset{n}{\text{Max}}}(\mu_{URR^i}^{60})$$

- Each Clearing Member's contribution (C) to the Clearing Fund is equal to the weight on his respective Initial Margin over the last sixty Business Days multiplied by the size of the Clearing Fund. Clearing Member's contribution is subject to the Base Deposit. ~~is determined according to the weight of his respective~~
- The Corporation monitors and controls the level of the Clearing Fund throughout the month and may adjust upward the size of the Clearing Fund between monthly re-evaluation. The portion of the increase in the size of the Clearing Fund may be partially or fully required at the Clearing Member level through a specific margin call depending on whether the Corporation determines that the size increase is directly influenced by specific Clearing Member(s) or by general market conditions. In the latter, the size will be distributed according to the standard allocation process. Upon the occurrence of both situations, the concerned Clearing Member will incur a specific increase on top of the standard allocated increase.
- ~~average URR, with respect to the sum of all the average URRs of all Clearing Members.~~

$$C^i = \Omega \cdot \frac{\mu_{URR^i}^{60}}{\sum_{i=1}^n \mu_{URR^i}^{60}}$$



APPENDIX 4

Default Manual

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 defaulting 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 in Section A-610 of its Rules, may request that the remaining Clearing Members replenish their Clearing Fund contributions to their original levels and use on a pro rata basis according to CDCC's exposure to each remaining Clearing Member, an amount that in total satisfies the outstanding obligation.

The Corporation must act with rigor to ensure it follows these policies, executes them effectively and communicates with all relevant parties in an effective fashion. In the event that the Corporation is later able to recover any loss incurred from the defaulting Clearing Member, it shall first reimburse any contributions to the Clearing Fund of the remaining Clearing Members that were used to cover the loss, before reimbursing CDCC's own capital reserves used.

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. Details with respect to the methodology used by the Corporation to calculate Clearing Fund contributions of Clearing Members are set forth in the Risk Manual.~~

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.