CANADIAN DERIVATIVES CLEARING CORPORATION CORPORATION CANADIENNE DE COMPENSATION DE PRODUITS DÉRIVÉS

OPERATIONS MANUAL

SEPTEMBER 27, 2024

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Section 1 PREAMBLE AND DEFINITIONS

PREAMBLE

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

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

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

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

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

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

DEFINITIONS

Unless otherwise defined in this Operations Manual, capitalized terms shall have the meanings given to them in the Rules.

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

"**Assets**" - Securities pledged and cash deposited by the Clearing Member to the CDCC.

"**CAD**" - Canadian Dollars.

"**CDCC Clearing Application**" – CDCS and all the processes associated with it, as may be supplemented or otherwise changed from time to time.

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

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

"**Eligible Collateral**" – collateral which may be deposited with the Corporation for the purpose of fulfilling Margin requirements and which meets certain criteria described in the Risk Manual.

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

"**Expiry Friday**" – the third Friday of the month, unless that Friday is not a Business Day, then the Business Day preceding the third Friday of the month.

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

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

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

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

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

"**Limited Clearing Member (LCM)**" – has the meaning given thereto in Section A-102 of the Rules.

"**Margin Fund Accounts**" – the CDCS record provided to each Clearing Member containing all Margin deposited by such Clearing Member to CDCC, in respect to the Firm Margin Accounts, GCM Regime Margin Accounts and Non-GCM Regime Margin Accounts for any of the following: (1) Base Initial Margin (or Adjusted Base Initial Margin, as the case may be), (2) Additional Margin for Market Liquidity Risk, (3) Additional Margin for Specific Wrong-Way Risk, (4) Additional Margin for Mismatched Settlement Risk, (5) Additional Margin for Intra-Day Variation Margin Risk, (6) Additional Margin for Unpaid Option Premium Exposure Risk, (7) Additional Margin for Banking Holiday Risk, (8) Additional Margin for Variation Margin Delivery Risk, (9) Additional Capital Margin Risk, (10) Additional Margin for Uncovered Risk of Limited Clearing Members, (11) Variation Margin for Options, and (12) Variation Margin for Unsettled Item; the whole in accordance with the Risk Manual, or otherwise as set forth in Section 8 hereof.

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

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

"**Net Variation Margin Requirement**" – has the meaning given thereto in Section D-601 of the Rules. Reference will be made to (Fixed Income) Net Variation Margin Requirement in this Manual.

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

"**Opening Transaction**" – any Transaction that is either an Opening Buy Transaction, an Opening Purchase Transaction, an Opening Sell Transaction or an Opening Writing Transaction as set forth in Section A-102 of the Rules.

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

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

"**Overnight Clearing Cycle**" – clearing cycle starting at 8:00pm (t-1) and ending at 8:15 a.m. ET.

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

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

"**Regular Clearing Cycle**" – clearing cycle starting at 8:15am and ending at 5:30pm ET.

"**Request for Standard vs Mini Offset**" – the request by a Clearing Member, in the form prescribed by CDCC, to offset one (1) or more Long Position(s) on a Standard Contract against the equivalent number of Short Positions on the corresponding Mini Contract (totalling the same quantity of the Underlying Interest in accordance with the ratio prescribed in the Contract Specifications of the Mini Contract), having the same Delivery Month and booked in the same Clearing Member's account, or the other way around.

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

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

"**Specific Deposit**" – a Put Escrow Receipt, a Call Underlying Interest Deposit or a Futures Underlying Interest Deposit which are accepted by CDCC as Underlying Interest Equivalent to cover a specific Short Position.

"**Standard Contract**" – a Future or Option in relation to which a Mini Contract exists.

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

"**Unsettled Item**" – any delivery of the Underlying Interest that has not been settled at the Central Securities Depository.

"**(Fixed Income) Variation Margin Account**" – the CDCS record provided to each Clearing Member containing all Margin deposits made by such Clearing Member to CDCC for (Fixed Income) Net Variation Margin Requirement purposes only, in accordance with Section D-607 of the Rules, or otherwise as set forth in Section 8 hereof.

"**Weekly Options**" – Options that expire on any Friday, other than Expiry Friday. Only monthly Options expire on Expiry Friday.

Section 2 TIME FRAMES

ON-LINE ACCESS

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

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

The CDCC Clearing Application allows Clearing Members to view their current information throughout the day electronically (except during scheduled maintenance or unforeseen outages). In addition, Clearing Members can download their reports after 9:30 p.m. every day (except on expiry days - see Time Frame sections) using the SFTP Download function.

Should a Clearing Member not have electronic access to the CDCC Clearing Application during Business Hours, CDCC can perform instructions on behalf of the Clearing Member. This requires a phone call from the Clearing Member to CDCC, along with the appropriate form faxed or scanned and e-mailed to CDCC. Such form must be signed by an Authorized Representative of the Clearing Member.

With respect to operational activity related to Options with an Expiration Date on Expiry Friday, CDCC staff members are available from 7:00 a.m. to fifteen (15) minutes after delivery of the Options Exercised and Assigned Report (MT02).

SETTLEMENT TIME FOR EVERY BUSINESS DAY

Activity	Time Frames	Activity Type
Beginning of Clearing Day and Overnight Clearing Cycle	8:00 p.m. (t-1)	System Activity
Clearing Member's (excluding LCMs) Overnight Margin Calculation & Notification	Every hour from 10:00 p.m. (t-1) to 7:00 a.m. and 8:15 a.m. (t)	System Activity/Notification
Deadline to settle Overnight Margin Call notification	2 hours after	Obligation Deadline
Beginning of Settlement Day at CDS	5:30 a.m.	System Activity
End of Overnight Clearing Cycle	8:15 a.m.	System Activity
Beginning of Regular Clearing Cycle	8:15 a.m.	System Activity
Assets Concentration Limits breach notification	7:30 a.m.	Notification
Deadline for Clearing Members (excluding LCMs) for Settlement Time with respect to payments for overnight settlement	8:15 a.m.	Obligation Deadline
Fixed Income Transactions – Netting Cycle Timeframe in respect of any Pending Settlement Requirements – 15 minutes cycle	8:30 a.m.	System Activity
Deadline for Clearing Members (excluding LCMs) to receive EOD Amount due from CDCC	8:45 a.m.	Obligation Deadline
SGC Securities Adjustment and SGC Initial Securities Adjustments Settlement Time	9:30 a.m.	Obligation Deadline
SGC Concentration Limits compliance	9:30 a.m.	Obligation Deadline
Deadline for LCMs for Settlement Time with respect to payments for overnight settlement	9:00 a.m.	Obligation Deadline
Fixed Income Transactions – Morning Netting Cycle Timeframe in respect of any Pending Payment Against Delivery Requirements (Morning Net Payment Against Delivery Requirements sent to CDS for settlement during the Morning Net DVP Settlement Timeframe) – 15 minutes cycle	10:00 a.m.	System Activity
Morning Net DVP Settlement Calculation	10:15 a.m.	System Activity
Deadline for Morning Net DVP Settlement	10:30 a.m.	Obligation Deadline
Clearing Member's (excluding LCMs) Morning Intra-Day Margin Calculation & Notification	10:30 a.m.	System Activity/Notification
SGC Maturity Settlement Time	10:30 a.m.	Obligation Deadline
Deadline to settle Morning Intra-Day Margin Call for Clearing Members (excluding LCMs)	1 hour after notification	Obligation Deadline
ACV Securities Requirement Delivery - Deadline on any given day pursuant to an Open Leg or Close Leg of the SGC Repurchase Transaction	8:30 a.m.	Obligation Deadline

Activity	Time Frames	Activity Type
Start of the SGC Close Leg process	8:30 a.m.	Operational Activity/Notification
End of the SGC Close Leg process & Deadline for SGC Clearing Members to cover payment obligation	10:30 a.m.	Obligation Deadline
SGC Clearing Members - Beginning of SGC Repurchase Transaction Submission Period - Sale of SGC Securities (3 Business Day Prior Notice)	11:00 a.m.	Operational Activity/Notification
Assets Concentration Limit breach correction deadline	11:45 a.m.	Obligation Deadline
Fixed Income Transactions – Netting Cycle Timeframe in respect of any Pending Settlement Requirements – 15 minutes cycle	12:15 p.m.	System Activity
Clearing Member's Afternoon Intra-Day Margin Calculation & Notification	12:45 p.m.	System Activity/Notification
SGC Securities Adjustment Requirement and SGC Initial Securities Adjustments Calculation and Notification	12:45 p.m.	System Activity/Notification
Deadline to settle Afternoon Intra-Day Margin Call for Clearing Members (excluding LCMs)	1 hour after notification	Obligation Deadline
SGC Securities Adjustment and SGC Initial Securities Adjustments Settlement Time	2 hours after notification	Obligation Deadline
Specific Deposits (same day withdrawal)	12:45 p.m.	Operational Deadline
Deadline to settle Intra-Day Margin Call and Additional Margins for LCMs	The later of 2:45 p.m. or 2 hours after notification	Obligation Deadline
Fixed Income Transactions – Netting Cycle Timeframe in respect of any Pending Settlement Requirements – 15 minutes cycle	2:00 p.m.	System Activity
CAD Deposits – $10,000,000 and under (same day deposit)	2:45 p.m.	Operational Deadline
CAD Deposits – over $10,000,000 (2 Business Days notice)	2:45 p.m.	Operational Deadline
CAD withdrawal requests – $10,000,000 and under (same day withdrawal)	2:45 p.m.	Operational Deadline
CAD withdrawal requests – over $10,000,000 (2 Business Days notice)	2:45 p.m.	Operational Deadline
SGC Clearing Members - End of SGC Repurchase Transaction Submission Period (3 Business Day Prior Notice)	3:00 p.m.	Operational Deadline
Fixed Income Transactions – (Same Day Transactions) – Submission Cut-Off Time	3:30 p.m.	Operational Deadline
Clearing Members (excluding LCMs) - All Assets deposits other than cash (Margin deposits)	3:30 p.m.	Operational Deadline

Activity	Time Frames	Activity Type
Clearing Members - All Assets withdrawal requests other than cash (Margin deposits) for same day withdrawal	3:30 p.m.	Operational Deadline
Clearing Members - All Assets substitution requests other than cash (Margin deposits) for same day substitution	3:30 p.m.	Operational Deadline
Foreign currency withdrawal requests deadline	3:30 p.m.	Operational Deadline
Fixed Income Transactions – Afternoon Netting Cycle Timeframe in respect of any Pending Settlement Requirements (Afternoon Net DVP Settlement Requirements sent to CDS for settlement by End of Day DVP Settlement Time) – 5 minutes cycle	3:35 p.m.	System Activity
CDS Payment Exchange, Net Wire Payment	4:00 p.m.	System Activity
ACV Securities (same day withdrawal)	4:00 p.m.	Operational Deadline
End of Day DVP Settlement Time	4:00 p.m.	Obligation Deadline
Unsettled Item (Options Underlying deliveries only): Confirmation of settled items to be sent to CDCC	4:15 p.m.	Operational Deadline
Deadline for CDCC to respond to substitution or withdrawal request (other than (Fixed Income) Variation Margin)	4:30 p.m.	Obligation Deadline
OTCI (other than Fixed Income Transactions) - Trade Submission Deadline	4:30 p.m.	Operational Deadline
Projected Margin Report Computation	4:30 p.m.	System Activity
SGC Securities Adjustment Requirement and SGC Initial Securities Adjustments Calculation and Notification	4:30 p.m.	System Activity
SGC Concentration Limits breach notification	4:30 p.m.	Notification
Request for Standard vs Mini Offset	5:00 p.m.	Operational Deadline
Position Transfers	5:25 p.m.	Operational Deadline
Same Day and T+1 Trade corrections	5:30 p.m.	Operational Deadline
Futures – Tender Notices submission	5:30 p.m.	Operational Deadline
Options – Exercise Notices submission	5:30 p.m.	Operational Deadline
Fixed Income Transactions and Futures contracts on Acceptable Securities – Netting Cut Off Time (Netted settlement instructions (Net Delivery Requirements and Net Payment Against Delivery Requirements) sent to CDS for settlement on the next business day)	6:15 p.m.	System Activity
FIFO: Daily reporting by Clearing Members of the Long Positions in each of their accounts in chronological order	5:30 p.m.	Operational Deadline

Activity	Time Frames	Activity Type
FIFO: Submission of Tender Notices	5:30 p.m.	Operational Deadline
Open Position changes / Position Change Submission (PCS)	6:00 p.m.	Operational Deadline
End of Regular Clearing Cycle and CDCC Clearing Application shutdown – Close of Business	6:00 p.m.	System Activity
LCM Only - All Assets deposits other than cash (in respect of all Margin requirements)	6:30 p.m.	Operational Deadline
Fixed Income Transactions – available (next Business Day start)	7:00 p.m.	System Activity
GCM Position Adjustment availability	7:00 p.m.	System Activity
GCM Position Adjustment end of availability	8:45 p.m.	Operational Deadline
GCM Declaration File - Submission-	Before 9:00 p.m.	Operational Deadline
GCM Settlement Calculation	9:00 p.m.	System Activity

SETTLEMENT TIME FOR (FIXED INCOME) VARIATION MARGIN FOR EVERY BUSINESS DAY

Activity	Time Frames	Activity Type
Deadline to deliver securities to CDCC to settle Net Variation Margin Requirement	9:30 a.m.	Obligation Deadline
Deadline to submit to CDCC a (Fixed Income) Buy-In request for same day settlement	10:00 a.m.	Operational Deadline
Deadline to deliver securities to Clearing Members by CDCC to settle (Fixed Income) Variation Margin amount	10:30 a.m.	Obligation Deadline
Deadline to submit substitutions for same day settlement	11:00 a.m.	Operation Deadline
Deadline for CDCC to submit substitution instructions to Clearing Members for same day settlement	12:00 (noon)	Operational Deadline
Deadline to deliver same day settlement substitution to CDCC	3:00 p.m.	Obligation Deadline
Deadline for CDCC to deliver same day substitutions For (Fixed Income) Variation Margin	4:00 p.m.	Obligation Deadline
EOD Net Variation Margin Requirement Computation	4:30 p.m.	System Activity

SETTLEMENT TIME FOR MONTHLY EXPIRY

Activity	Time Frames	Activity Type
Reports available (SFTP Download):	7:15 p.m.	Publication
➢ Expiry Report (MX01)		
➢ Expiry Options Daily Transaction Report (MT01)		
➢ List of Options/Cash Adjustments (MT03)		
CDCC Clearing Application available for:	7:15 to 9:15 p.m.	Operational Deadline
➢ Trade corrections		
➢ Open Position changes		
➢ Position Transfers		
➢ Changes to Automatic Exercises		
➢ Exercise Notices input		
➢ Cancel / correct Friday's exercises		
CDCC Clearing Application shutdown:	9:15 p.m.	Operational Deadline
➢ CDCC processes expiry entries		
Reports available (SFTP Download):	9:30 p.m.	Publication
➢ List of Expiry Adjustments Report (MX02)		
➢ Expiry Difference Report (MX03)		
CDCC Clearing Application available again for:	9:30 to 9:45 p.m.	Operational Deadline
➢ Review of expiry entries		
➢ Corrections to expiry entries		
CDCC Clearing Application shutdown	9:45 p.m.	Operational Deadline
➢ Close of Business		
Reports available (SFTP Download):	10:30 p.m.	Publication
➢ Options Exercised and Assigned Report (MT02)		
➢ Other reports and files also available		

SETTLEMENT TIME FOR WEEKLY EXPIRY

Activity	Time Frames	Activity Type
CDCC Clearing Application available for:	7:00 to 8:00 p.m.	Operational Deadline
➢ Trade corrections		
➢ Open Position changes		
➢ Position Transfers		
➢ Changes to Automatic Exercises		
CDCC Clearing Application shutdown:	8:00 p.m.	Operational Deadline
➢ Close of Business		
Reports available (SFTP Download):	9:45 p.m.	Operational Deadline
➢ Options Exercised and Assigned Report (MT02)		
➢ Other reports and files also available		

ADDITIONAL NET DVP SETTLEMENT PROCESS

In respect of any Pending Payment Against Delivery Requirements at the Netting Cycle Timeframe(s) specified in Section 2 of this Operations Manual, CDCC shall send new settlement records (Net Payment Against Delivery Requirements) to the Central Securities Depository reducing any Pending Payment Against Delivery Requirements of a Clearing Member in favour of CDCC by any Pending Payment Against Delivery Requirements of CDCC in favour of the same Clearing Member.

Section 3 REPORTS

REPORT REFERENCES

Clearing Member reports contain the following information:

Transactions	Reports relating to Clearing Member's Transactions such as trade entries, trade corrections, trade rejections and exercises/tenders. These reports start with the alpha code MT.
Fees	Report relating to the collection of service fees from the Clearing Member. These reports start with the alpha code MB.
Settlements	Reports relating to Premiums, Settlement of Gains and Losses, and Margin. These reports start with the alpha code MS.
Assets	Reports relating to the maintenance of Clearing Member's assets as well as depository information. These reports start with the alpha code MA.
Delivery	Reports relating to delivery obligations and unsettled deliveries. These reports start with the alpha code MD.
Positions	Reports relating to positions held by Clearing Members separately for Futures, Options, OTCI and Fixed Income Transactions. These reports start with the alpha code MP.
Expiry	Reports used by Clearing Members to verify expiring positions and automatic exercises. These reports start with the alpha code MX.
Risk	Reports relating to risk management. These reports start with the alpha code MR.

REPORT DETAILS

Report Code	Report Name	Report Description
Daily:		
MA01	Collateral Report	Details on Clearing Member's deposits and withdrawals for Margin Fund Accounts (Firm, GCM Regime, Non-GCM Regime), Clearing Fund and (Fixed Income) Variation Margin Account. (**Note**: will find the letters D, W and PW next to the date of deposit)
MA30	SGC Repurchase Transactions Activity Report	Lists asset balances with SGC Securities Adjustment, SGC Securities Initial Adjustment requirements and SGC Securities sale settlement in Canadian dollars.
MD01	Options Unsettled Delivery Report	Lists unsettled deliveries for Options.
MD51	Futures Unsettled Delivery Report	Lists unsettled deliveries for Futures (does not include Share 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
MD52	Share Futures Unsettled Delivery Report	Lists unsettled deliveries for Share Futures (SF) - the issue and number of SF 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.
MD71	Settlement Obligation Calculated Amounts Reports	Provide information on each Settlement Instruction produced at the exit of the Intra-Day netting that is being considered in the PITSO.
MD72	Settlement Obligation Fulfillment	Provide the different settlement instruction status changes during the PITSO. The report is separated in three sections: Settlement, Pending Party At Fault and Cancelled.
MI12	U/I Primary Exchange	List of the underlying prices
MO12	Converge Option Price	List of the Clearing Member's Converge option prices
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).

Report Code	Report Name	Report Description
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.
MP53	GCM Forecasted Balance Account Report	Lists the Clearing Member's clients Futures and Options on Futures open positions declared via the GCM Declaration File at the time of the GCM file submission highlighting the forecasted balance account positions.
MP54	GCM Declaration File Report	Details the results of the GCM Declaration File received from Clearing Members and provide any errors found (in CSV format)
MP55	GCM Balance Account Report	Lists the Clearing Member's Clients Futures and Options on Futures Open Positions declared via the GCM Declaration File with the associated margin figures of each individual client account within the Client Account Omnibus structure.
MP70	Fixed Income Forward Repo Position Report	Lists the Clearing Member's Repurchase Transactions accepted for clearing by CDCC.
MP71	Fixed Income Forward Repo Conversion	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 Repo Rate Requirements.
MS01	Daily Settlement Summary Report	Lists assets balances with Margin requirements for each Margin Fund Accounts (Firm, GCM Regime and Non-GCM Regime) and cash settlement in Canadian and U.S. dollars.
MS06	Total Margin Requirement Report	Total margin requirement report with breakdown by Margin Fund Accounts (Firm, GCM Regime and Non-GCM Regime) categories, account types (Firm, Client, Multi-Purpose) and sub-accounts.
MS07	Margin Report By Collateral Pool	Margin call details with Margin requirements by Margin Fund Accounts (Firm, GCM Regime and Non-GCM Regime) and Risk Accounts.
MS08	Daily Margin Positions Report	Lists details of positions by Class Group with Margin requirements.
MS10	Variation Margin Summary Report	Lists the details of the Fixed Income Clearing Member's Variation Margin activities and suggests securities to return if applicable.
MS30	SGC Securities Adjustment Requirement Report	SGC Securities Adjustment and SGC Initial Securities Adjustment requirement detailed per Series for the SGC Securities on a net basis and for all Series for the SGC Securities on a net basis.

Report Code	Report Name	Report Description
MS70	Fixed Income Net Settlement Position Activity Report	Lists all of the Clearing Member's Fixed Income Transactions activities that contribute to its Net Settlement Position.
MS72	Fixed Income Net Settlement Position Summary Report	Lists a summary of the Clearing Member's Fixed Income Transactions activities that contribute to its Net Settlement Position.
MS73	Entitlement Report	Lists all Fixed Income Clearing Member's coupon payments.
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.
MS77	Net Payment Against Delivery Requirement	Provide information at the sub-account level on settlements that occurred during the PITSO.
MS78	Forward NSP & Settlement Instruction Reconciliation Report	Information report containing Net Settlement Position information for the use of Clearing Member for reconciliation.
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 SubAccount Consolidated Activity Report	Lists positions with activity including Option Premiums for only the subaccounts 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.
MT60	Single Stock Futures Tenders and Assignments	Lists totals for Share Futures (SF) tendered and assigned positions including the debit and credit dollar values of the transactions.

Report Code	Report Name	Report Description
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 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.
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 (monthly and intra-monthly)	Identifies the Clearing Member's (excluding LCM) Clearing Fund obligation. Lists the Clearing Member's (excluding LCM) current Deposits within the Clearing Fund and what is owed.
MA80	Supplemental Liquidity Fund Statement (monthly and intra-monthly)	Identifies the Clearing Member's (excluding LCM) Supplemental Liquidity Contributions. Lists the Clearing Member's (excluding LCM) current Supplemental Liquidity Contributions within the Supplemental Liquidity Fund and what is owed.
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. "Sub-Account Summary" – this is a summary of the operational charges by sub-account irrespective of product. "Summary by Account Operation Type" – this is a summary of the operational charges by sub-account.

Report Code	Report Name	Report Description
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.
FIFO Period:		
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.
Options on Futures Expiry:		
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).
Options Expiry (Friday Evening):		
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.
OTCI Expiry:		
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.
Business Day following Expiry:		
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.

Section 4 TRADE PROCESSING

INTRODUCTION

All Exchange Transactions are processed electronically. In all cases both the selling and buying trade data is sent to the relevant Exchange's electronic trading system, which then transmits the matched trades to CDCC. The CDCC Clearing Application verifies the trade information and, if incorrect, rejects it for correction and resubmission. If the trade information is valid, the Clearing Member's Open Positions are immediately updated. The Exchange Transaction is reported on the Options Daily Transaction Report (MT01) or on the Final Futures Daily Transaction Report (MT51), as the case may be.

OTCI Transactions (other than Fixed Income Transactions) are also submitted electronically. Clearing Members submit their individual trade details onto the trade capture screens of Converge, which will match, validate and confirm the transactional details to the submitting Clearing Members. OTCI Options are reported on the Options Daily Transaction Report (MT01). No corrections will be permitted for OTCI Transactions after CDCC issues a Trade Confirmation.

Fixed Income Transactions will be transmitted through the CDS trade matching facility routing matched trades to CDCC.

Fixed Income Transactions are reported on the Fixed Income CSD Information Report (MT71).

The SGC Repurchase Transactions will be automated through CCMS. The SGC Repurchase Transaction will be reported by CDCC to the SGC Clearing Members in report MA30.

The reports referred to herein are available for SFTP Downloads on the morning of the Business Day after Transactions are submitted for clearing to CDCC. In accordance with the Rules, Clearing Members must verify that such reports are correct.

EXCHANGE TRANSACTIONS (OPTIONS AND FUTURES)

Positions of each Clearing Member are carried by CDCC for Client Account(s), Firm Account(s) and Multi-Purpose Account(s), each of which is maintained separately. CDCC supplies reports for each account.

Such separation requires that each Clearing Member designate whether a Transaction is submitted for a “Client”, “Firm” or “Multi-Purpose” when submitting a Transaction for clearing. Furthermore, if separate sub-accounts are maintained for each account type, each Transaction must be coded to indicate the appropriate sub-account information.

It is required that a Closing Transaction for a Client Account be designated as such on the trade input. Such designation is not required for a Multi-Purpose Account or a Firm Account, as CDCC carries net position records in the Open Position File for each of these accounts.

All Transactions for a Client Account which are not specifically designated as Closing Transactions shall be processed by CDCC as Opening Transactions. Opening Purchase Transactions increase the Long Position and Opening Writing Transactions increase the Short Position, in the particular Series of Options involved, as reported in the Clearing Member's Client Account. Opening Buy Transactions increase the Long Position and Opening Sell Transactions increase the Short Position, in the particular Series of Futures involved, as reported in the Clearing Member's Client Account.

Conversely, all Transactions designated as Closing Transactions decrease the Short Position and Long Position, respectively, for the particular Series of Options or Series of Futures in the reporting Clearing Member's Client Account. The CDCC Clearing Application verifies that all the Closing Transactions are valid and if the volume of a Closing Transaction exceeds the Open Position, the CDCC Clearing Application will reject it and replace it by an Opening Transaction for the entire volume.

The designation of a Transaction as “opening” or “closing” can be modified by the Close of Business.

CDCC maintains both the Long Position and the Short Position for each Series of Options and Series of Futures for Client Accounts but only maintains a net Long Position or net Short Position for each Series of Options and Series of Futures for Multi-Purpose Accounts and Firm Accounts.

FIXED INCOME TRANSACTIONS

Positions of each Clearing Member are carried by CDCC for Client Account(s), Firm Account(s) and Multi-Purpose Account(s), each of which is maintained separately. CDCC supplies reports for each account.

Such separation requires that each Clearing Member designate whether a Transaction is submitted for a “Client”, “Firm” or “Multi-Purpose” when submitting a Transaction for Clearing. Furthermore, if separate sub-accounts are maintained for each account type, each Transaction must be coded to indicate the appropriate sub-account information.

All Repurchase Transactions and Cash Buy or Sell Trades must be submitted for clearing to CDCC through the CDS trade matching facility routing matched trades to CDCC.

Once a Repurchase Transaction or Cash Buy or Sell Trade is received by CDCC, a variety of validations will occur. These validations ensure that all transactional details match and CDCC does not accept any Repurchase Transaction or Cash Buy or Sell Trade bearing attributes that are not acceptable for clearing.

Upon issuance of a Trade Confirmation by CDCC, the Repurchase Transaction or Cash Buy or Sell Trade is novated to CDCC, such that the original Repo or Cash Buy or Sell Trade between the two Fixed Income Clearing Members is cancelled and replaced by two equivalent Fixed Income Transactions, one between the Seller and CDCC and one between the Buyer and CDCC.

Section 5 OPEN POSITIONS

INTRODUCTION

Having accepted a Transaction, the next step in the CDCC Clearing Application is the determination of the Open Position. Each Clearing Member can view all the information related to their accounts on the Open Position File which records the open Long Position and Short Position for each Series of Options and Series of Futures, OTCI and Fixed Income Transactions for each account type, updating the information as each Transaction is accepted.

Each Clearing Member is responsible for reconciling the information recorded on the Open Position File and all relevant reports issued by CDCC against their internal records. Careful attention must be paid to account designation and whether the Transaction is coded as "opening" or "closing" in the relevant file or report. Reports are available for SFTP Download as per Section 2 of this Operations Manual.

Open Interest is updated automatically as each Transaction, Exercise Notice and Tender Notice is processed.

ADJUSTMENTS OF OPEN POSITIONS

GENERAL

Occasionally the need will arise to adjust an already processed Transaction. In such cases, the adjustment will affect the Clearing Member's Open Position accordingly. For example, an adjustment designed to change the original Opening Buy Transaction (or Opening Purchase Transaction) to a Closing Buy Transaction (or Closing Purchase Transaction) will result in a decrease in the Long Position in the Series of Futures or Series of Options by the volume of the original Transaction. Any Settlement of Gains and Losses (or Premium) adjustments will be shown as adjustments on the relevant report.

Generally this situation will occur when:

1. The transactional details were incorrectly recorded, e.g. Clearing Member number, price, series and volume.

2. Information pertaining to only one side of the Transaction such as the opening/closing or account designation was erroneously reported on the original trade.

3. The source document of the relevant Exchange was input incorrectly.

4. Transfer of Open Positions from one account to another account of a Clearing Member.

5. Transfer of Open Positions from an account of one Clearing Member to an account of another Clearing Member.

Types of Adjustments

The following adjustments are acceptable for Exchange Transactions and OTCI (other than Fixed Income Transactions):

1. Same Day Trade Corrections (T). Same day trade corrections are only permitted on account type, sub-account designation and opening/closing and no corrections are permitted on OTCI Transactions after a Trade Confirmation has been issued by CDCC.

2. Trade Date + 1 Corrections (T+1). Modifications of any type are subject to approval by the relevant Exchange and no corrections permitted on OTCI Transactions.

3. Open Position Changes. For OTCI Transactions, these will be performed through the Position Transfer function of the CDCC Clearing Application. Note: there is a Position Transfer fee per contract.

4. Position Transfers. Specific function of the CDCC Clearing Application to move positions from one Clearing Member to another or between accounts of a same Clearing Member on a post trade basis. Note: there is a Position Transfer fee per contract.

5. Standard vs Mini Offset. Upon the receipt of a Request for Standard vs Mini Offset in the prescribed form, CDCC will offset (i) one or more existing Standard Contract Long Position(s) against the equivalent number of existing Mini Contract Short Positions (totalling the same quantity of the Underlying Interest in accordance with the ratio prescribed in the Contract Specifications of the Mini Contract) having the same Delivery Month and booked in the same Clearing Member's account, or (ii) a number of existing Mini Contract Long Positions against one or more Standard Contract Short Position(s) (totalling the same quantity of the Underlying Interest in accordance with the ratio prescribed in the Contract Specifications of the Mini Contract) having the same Delivery Month and booked in the same Clearing Member's account, based on the instructions provided in the Request for Standard vs Mini Offset. Such Long Positions and Short Positions shall be offset at the previous day's Settlement Price, with the effect of reducing the Open Positions that the Clearing Member has on the relevant Series of Futures in the relevant account. A Future may only be offset against a Future and an Option may only be offset against an Option.

Adjustments via the Gross Client Margin (GCM) Declaration File

Via submission of the GCM Declaration File, CDCC will perform a Position Change Submission ("GCM PCS") as part of the GCM Settlement Calculation. This will be performed on the CDCC Book Positions, to align the CDCC open positions with the open positions declared by the Clearing Member for (i) each Series of Futures and Futures Options, and (ii) for each client declared in the GCM Declaration File.

The position adjustment can only be performed if the CDCC net position (CDCC Long Position minus CDCC Short Position) is equal to the GCM declared net position (GCM declared Long Position - GCM declared Short Position) on the same Series of Futures or Futures Options, for a specific client declared in the GCM Declaration File. If the condition is met, CDCC will adjust both the CDCC Long Position and CDCC Short Position to what was declared in the GCM Declaration File. In the event of discrepancies between the CDCC Book Positions and net GCM declared positions, no position adjustment will be performed and the undeclared positions will be treated separately (see Additional Margin for Undeclared GCM Position Risk in the Risk Manual for more details).

Clearing Members may make use of the GCM Position Adjustment availability window to submit their GCM Declaration File to assess their declared positions with the CDCC Book Position. Clearing Members are able to submit additional GCM Declaration File(s) anytime before the GCM Position Adjustment availability window closes should they wish to make further adjustments. Only the last declared file will be considered for the GCM Settlement Calculation and therefore the GCM PCS.

Additionally, in the event a Clearing Member fails to submit their GCM Declaration File, CDCC will use the previous Business Day's GCM Declaration File. While this mitigates the impact of having all the positions as undeclared positions and margined separately, changes in positions that occurred on the day of the missed declaration may result in undeclared positions. If the GCM Declaration File is not received for a second consecutive Business Day (or any following Business Days), CDCC will not use the previous GCM Declaration File and will treat all GCM client positions as undeclared positions in a separate Risk Account.

Conditions applicable to adjustments:

If there are any adjustments that affect another Clearing Member (on the opposite side of the original Transaction), both Clearing Members must come to an agreement as to the adjustments to be implemented. If one Clearing Member does not enter any changes through the CDCC Clearing Application, the Transaction will stay as is with respect to both Clearing Members.

Notification of all adjustments must be completed prior to the time specified in Section 2 of this Operations Manual. All completed adjustments are processed when they have been verified and validated by CDCC.

Section 6 EXERCISES, TENDERS, ASSIGNMENTS AND DELIVERIES

INTRODUCTION

OPTIONS

At the time of exercise of an Option, CDCC is responsible for issuing settlement records that will facilitate the delivery of the Underlying Interest to the Clearing Member who chooses to exercise that Option (in case of the exercise of a call Option) or the payment of the relevant Exercise Price (in the case of the exercise of a put Option). When a Clearing Member exercises an Option, CDCC assigns the delivery obligation to a Clearing Member who is the writer of Options in the same Series of Options in any one of its Client Account(s), Firm Account(s), or Multi-Purpose Account(s).

Assignment is made specifically to one of these accounts by CDCC. If assignment is made to a Client Account, the Clearing Member is responsible for allocating it to a specific client. If assignment is made to a Multi-Purpose Account, the Clearing Member must allocate it to the specific Multi-Purpose Account designated by CDCC.

Delivery of the Underlying Interest and payment of the Exercise Price is to be effected by Clearing Members through the settlement method instructed by CDCC.

FUTURES

All Futures which have not been closed out by the last trading day will be marked-to-market up to and including the close of the last trading day. In addition, the seller of a Future must submit a Tender Notice in the Delivery Month in accordance with applicable Contract Specifications.

When a seller of a Future submits a Tender Notice to CDCC, CDCC assigns it to a Clearing Member which is the buyer of a Future in the same Series of Futures in any one of its accounts. Assignment is made specifically to one of these accounts by CDCC. If assignment is made by CDCC to a Client Account, the Clearing Member is responsible for allocating it to a specific client. If assignment is made to a specific Multi-Purpose Account, the Clearing Member must allocate it to the specific Multi-Purpose Account designated by CDCC.

EXPIRY PROCEDURES

Operations Notices are sent to Clearing Members setting forth the expiry procedures and it is the responsibility of Clearing Members to ensure that they have adequate processes in place to meet requirements and timelines prescribed by CDCC.

OPTIONS

For all information pertaining to the Option expiry procedures, Clearing Members should refer to the Operational Notices which are issued prior to the Expiration Date.

<u>CDCC's Responsibilities on Expiry Friday</u>

1. Review/modify Underlying Interest prices and notify the Clearing Members of any changes.

2. Notify Clearing Members (via e-mail) of any changes in the Production Schedule.

3. Notify Clearing Members (via e-mail) of the status of expiry processes.

4. Assist Clearing Members.

<u>Clearing Members' Responsibilities on Expiry Friday</u>

1. Ensure that the staff responsible for expiry is familiar with all expiry procedures and processes.

2. Validate entries using the Inquiry Screens or the relevant reports:

   a. Verify that all Open Positions and adjustments match internal records, enter any new Transaction or Open Position adjustments accordingly.

   b. Verify that the number of Options that will be automatically exercised on Expiration Date are correct.

   c. For any changes, indicate on the Expiry Response Screen under the "Override" column the total number of Options for each Series of Options to be exercised.

   d. Verify any OutOfTheMoney Options or At-the-Money Options to be exercised and enter the number of Options under the "Override" column.

3. Validate changes using the reports and/or the on-line access to CDCC Clearing Application (in accordance with timeframes set forth in Section 2 of this Operations Manual).

4. If required, make any allowed modifications (in accordance with timeframes set forth in Section 2 of this Operations Manual).

Daily Expirations (other than Expiry Friday)

When CDCC receives Underlying Interests' closing and opening prices from the relevant Exchange, the prices are specified on the relevant Expiry Report and are used to determine the In-the-Money Options and the Out-of-the-Money Options.

Clearing Members have until the Close of Business on any Business Day up to the Expiration Date to submit an Exercise Notice with respect to American Style Options to CDCC. European Style Options can only be exercised on their Expiration Date.

OTCI Options can expire on any Business Day.

Typically, exercise instructions must be entered online on the CDCC Clearing Application by Clearing Members. However, if unavailable, the following manual process can be used to submit Exercise Notices to CDCC:

1. The proper CDCC Exercise Notice form must be used.

2. The form must be signed by an Authorized Representative of the Clearing Member.

3. The properly delivered Exercise Notice will be accepted at any CDCC office.

4. The Exercise Notice must be properly delivered by five minutes before Close of Business.

5. The Clearing Member staff who deliver the Exercise Notice must be available until CDCC processes the exercise.

The CDCC Clearing Application will ensure that there are sufficient Option Open Positions of the relevant Series of Options in the relevant account of the Clearing Member for exercising the relevant Exercise Notice; if not, CDCC will reject the Exercise Notice. If there are sufficient Option Open Positions, the Clearing Member's Long Position is immediately reduced by the number of Option Open Positions exercised.

AN EXERCISE NOTICE CAN BE CANCELLED UNTIL CLOSE OF BUSINESS ON THE DAY IT IS SUBMITTED.

OPTIONS

Exercises

Delivery and payment on Exercised Positions are due on the Exercise Settlement Date.

Until Exercise Settlement Date, CDCC continues to require sufficient Margin to ensure that, if a Clearing Member defaults, any Exercise Notice submitted by it or assigned to it, as the case may be, will be completed.

Exercised Positions and Assigned Positions are reported to Clearing Members through relevant reports listed in Section 3 of this Operations Manual.

Assignments

After the Close of Business on any Business Day on which an Exercise Notice is submitted to CDCC, assignment of such Exercise Notice is made on a random selection basis, in which each account of a Member is treated separately. The reason for the separation is to ensure that each Clearing Member's Client Account(s), Firm Account(s), and Multi-Purpose Account(s) have the same probability of being assigned Exercise Notices. When a Clearing Member is assigned an Exercise Notice for a given account (e.g. the Firm Account) it may not allocate that assignment to another account (e.g. a Client Account).

An attempt will be made by CDCC to assign an Exercise Notice for more than 10 Options contracts in blocks not exceeding 10 contracts in each Series of Options.

Exercise Notices assigned to a Clearing Member's Client Account shall be allocated by the Clearing Member to any of its clients based on any method which is equitable and consistent with the rules of the relevant Exchange.

Automatic Exercise - Options and Options on Futures

To safeguard Clearing Members from possible errors, CDCC has instituted an Automatic Exercise procedure for expiring Series of Options. In simple terms, all IntheMoney Options and Options on Futures over predetermined thresholds are automatically exercised by CDCC, unless Clearing Members instruct otherwise.

CDCC establishes predetermined thresholds and informs Clearing Members that every Option and Option on Future above that threshold will be automatically exercised. CDCC will not automatically exercise any At-the-Money Option. CDCC provides a method for Clearing Members to make changes to the Automatic Exercise function of the CDCC Clearing Application. This allows Clearing Members to either opt in or opt out of the Automatic Exercise with respect to the Options and Options on Future they hold. For example, a Member can choose not to exercise an Option that is above the predetermined threshold but to exercise another Option that is At-the-Money or OutoftheMoney.

Exercised and Assigned Option Contracts

a) Exercised Positions

A Clearing Member who has exercised an Option has an obligation to either deliver the Underlying Interest (in the case of a Put Option) or pay the Exercise Price (in the case of a Call Option).

b) Assigned Positions

A Clearing Member who has been assigned an Exercise Notice has the obligation to pay the Exercise Price upon delivery of the Underlying Interest (in the case of a Put Option) or to deliver the Underlying Interest against payment (in the case of a Call Option).

FUTURES

Submission of Tender Notices

Tender Notices must be submitted before Close of Business during the relevant FIFO Period (which, subject to any contract adjustment by the Exchange, shall be as follows):

CGB, CGF and CGZ	one Business Day preceding the first Business Day of the Delivery Month up to and including the last Business Day preceding the last Business Day of the Delivery Month.
LGB and MCX	before Close of Business on the last trading day.

All outstanding Short Positions in EMF, SXF, SXM, SCF, Sector Index Futures, Share Futures, and Options on Futures are automatically tendered on the last trading day, as per Contract Specifications, after Close of Business.

All outstanding Short Positions in COA and CRA are automatically tendered on the first Business Day following the last trading day, as per Contract Specifications, after Close of Business.

Assignment of Tender Notices

CDCC assigns all Tender Notices to open Long Positions on a random basis with the exception of the Government of Canada Bond Futures (CGB, CGF and CGZ). Assignments for the CGB, CGF and CGZ Futures are processed on a First-In-First-Out (FIFO) basis.

Delivery of the Underlying Interest and payment of the Settlement Price is effected by Clearing Members as instructed by CDCC.

FIRST-IN-FIRST-OUT (FIFO) ASSIGNMENT PROCESS

Description of Procedures

The Delivery Months for the CGB, CGF and CGZ Futures contracts are March, June, September and December as prescribed by the Exchange. When a Member submits a Tender Notice with respect to a Short Position, a Long Position is assigned on a First-In-First-Out (FIFO) basis. CDCC sends out an Operational Notice prior to each relevant FIFO Period to remind Clearing Members of the procedures involved.

On the sixth Business Day prior to the first Business Day of the Delivery Month, each Clearing Member holding Long Positions in the relevant Series of Futures must declare on the CDCC Clearing Application its Long Positions in chronological order for each of its accounts. The entries must include the date the position was opened, the number of contracts and the account. When CDCC assigns a Tender Notice, the Long Position with the oldest date will be assigned first and the Long Position with the most recent date will be assigned last.

During the FIFO Period, Clearing Members must ensure that they update their declarations on a daily basis before Close of Business.

FIXED INCOME TRANSACTIONS

CDCC acts as central counterparty to all Fixed Income Transactions that are submitted by Clearing Members to CDCC for clearing. All Fixed Income Transactions shall be submitted for clearing to CDCC through the CDS trade matching facility routing matched trades to CDCC. As a result of these Transactions being novated to CDCC, CDCC will be either the buyer or the seller of all settlement records that are sent to the Central Securities Depository.

Various transmissions of settlement records will be sent by CDCC to the Central Securities Depository on a daily basis.

Same Day Transactions gross settlement records

For Same Day Transactions, two settlement records consisting of settlement instructions (Gross Delivery Requirements and Gross Payment Against Delivery Requirements) will be sent gross to the Central Securities Depository to be settled on a real-time basis throughout the day immediately after each Same Day Transaction is novated to CDCC until the Submission Cut-Off Time specified in Section 2 of this Operations Manual.

Forward Settlement Transactions and Futures Contracts on an Acceptable Security net settlement records

For Forward Settlement Transactions and Futures Contracts on Acceptable Securities, settling on the next Business Day, two settlement records consisting of net settlement instructions (Net Delivery Requirements and Net Payment Against Delivery Requirements) will be sent to the Central Securities Depository on a net basis at the Netting Cut Off Time specified in Section 2 of this Operations Manual for settlement on the next Business Day.

Morning net DVP settlement process

In respect of any Pending Payment Against Delivery Requirements at the Morning Netting Cycle Timeframe specified in Section 2 of this Operations Manual, CDCC shall send new settlement records (Morning Net Payment Against Delivery Requirements) to the Central Securities Depository reducing any Pending Payment Against Delivery Requirements of a Clearing Member in favour of CDCC by any Pending Payment Against Delivery Requirements of CDCC in favour of the same Clearing Member. The Clearing Member or its Settlement Agent shall have sufficient funds in its CDS Funds Account to settle the lesser of (i) its Morning Net Payment Against Delivery Requirement and (ii) the amount of the CDCC Daylight Credit Facility during the Morning Net DVP Settlement Timeframe specified in Section 2 of this Operations Manual.

Afternoon net DVP settlement process

In respect of any Pending Settlement Requirements at the Afternoon Netting Cycle Timeframe specified in Section 2 of this Operations Manual, CDCC shall send new settlement records (Afternoon Net DVP Settlement Requirements) to the Central Securities Depository reducing any Pending Delivery Requirements of a Clearing Member in favour of CDCC by any Pending Delivery Requirements of CDCC in favour of the same Clearing Member in respect of the same Acceptable Security, and/or reducing any Pending Payment Against Delivery Requirements of a Clearing Member in favour of CDCC by any Pending Payment Against Delivery Requirements of CDCC in favour of the same Clearing Member. The Clearing Member, or its Settlement Agent, shall have sufficient funds and sufficient Acceptable Securities in its CDS Funds Accounts and CDS Securities Accounts to settle its Afternoon Net DVP Settlement Requirements by the End of Day DVP Settlement Time specified in Section 2 of this Operations Manual.

Delivery

Securities delivery against payment is effected on a DVP basis through the Central Securities Depository.

In the event of a failed or partial delivery, CDCC will take appropriate action in accordance with this Manual and Section A-804 of the Rules.

CDCC shall determine the net settlement instructions by Clearing Member, CUSIP/ISIN and Settlement Date for all Transactions comprised in the Forward Settlement Transactions netting process (as specified in the above section entitled “Forward Settlement Transactions and Futures Contracts on an Acceptable Security net settlement records”) submitted to CDCC for clearing as of the Netting Cut Off Time. These settlement instructions shall be submitted to the relevant Central Securities Depository on a daily basis and in the form and settlement tranche acceptable to the Central Securities Depository for this purpose.

For Same Day Transactions, CDCC shall determine the gross settlement instructions (Gross Delivery Requirements and Gross Payment Against Delivery Requirements) by Clearing Member and the applicable CUSIP/ISIN, and submit such instructions to the relevant Central Securities Depository (in the form and settlement tranche acceptable to such Central Securities Depository) immediately after each Same Day Transaction is novated to CDCC for real-time settlement. Notwithstanding the foregoing, at the Morning Netting Cycle Timeframe, CDCC shall cancel previously issued Pending Payment Against Delivery Requirements and replace them by Morning Net Payment Against Delivery Requirements by Clearing Member (as specified in the above section entitled “Morning net DVP settlement process”).

In the event of a Failed Delivery for a particular settlement tranche to a Net Delivery Requirement or to an Afternoon Net DVP Settlement Requirement consisting of an obligation to deliver Acceptable Securities by the End of Day DVP Settlement Time specified in Section 2 of this Operations Manual, CDCC shall, on a best efforts basis, attempt to coordinate a partial delivery among those Receivers of Securities for that particular settlement tranche of the relevant Acceptable Security. In the event that no partial settlement is possible, the settlement tranche will be included in the Rolling Delivery Obligation of the failing Clearing Member and CDCC shall re-attempt settlement of the failed settlement tranche on the next Business Day. In the case of a Failed Delivery with respect to a Gross Delivery Requirement resulting from a Same-Day Transaction submitted after the Afternoon Netting Cycle Timeframe and before the Submission Cut-Off Time to be settled by the End of Day DVP Settlement Time, CDCC will fail or partially deliver for the same quantity of Acceptable Securities to the Clearing Member who is the Receiver of Securities with respect to the relevant Same Day Transaction.

In the event of a Failed Payment Against Delivery at the Morning Net DVP Settlement Timeframe specified in Section 2 of this Operations Manual, CDCC shall impose a fine on the Clearing Member corresponding to the charges which are levied on CDCC for the usage of the CDCC Daylight Credit Facility as a result of this Failed Payment Against Delivery. If the Clearing Member still does not have sufficient funds in its CDS Funds Account or that of its Settlement Agent at the Central Securities Depository to settle the relevant Morning Net Payment Against Delivery Requirement, or in the amount of the CDCC Daylight Credit Facility (whichever is less), by 11:00 a.m., the Clearing Member shall be deemed a Non-Conforming Member, in addition to any other remedies that CDCC may apply to such situation in accordance with Subsection A-806(1) of the Rules.

In the event of a Failed Payment Against Delivery at the End of Day DVP Settlement Time specified in Section 2 of this Operations Manual, the Clearing Member shall be deemed a Non-Conforming Member and shall be required to pay to CDCC any charges which are levied on CDCC for the overnight financing of this Failed Payment Against Delivery, in addition to any other remedies that CDCC may apply to such situation in accordance with Subsection A-806(2) of the Rules. CDCC will assist the Clearing Member to remedy the situation so that the Clearing Member can maintain its conforming status. As DVP is not available after the End of Day DVP Settlement Time at the Central Securities Depository (CSD), the Clearing Member must deliver the funds (or acceptable equivalent) outside of the CSD’s systems to CDCC prior to CDCC delivering the securities via the CSD.

Buy-In Process (excluding Fixed Income Variation Margin Buy-Ins)

For a Buy-In in respect of the Acceptable Security, the following applies. As set forth in Subsection A-804(3) of the Rules, CDCC may effect a Buy-In transaction on its own initiative or pursuant to a formal request by a Receiver of Securities affected by a Failed Delivery by purchasing the missing quantity of the relevant Acceptable Securities on the open market.

When initiated by a Receiver of Securities, the Buy-In process shall be as follows:

1. The Receiver of Securities who wants to initiate a Buy-In must send to CDCC the appropriate Buy-In Scan Form (which is accessible on CDCC’s Secured Website) duly completed, with the following information:

   a. Clearing Member’s Name;

   b. Clearing Member’s Number;

   c. The Acceptable Security (ISIN) involved;

   d. The total quantity of the Failed Delivery;

   e. The quantity requested in the Buy-In;

f. The Buy-In delivery date, which shall be the current Business Day + not less than one (1) complete Business Day.

2. The Buy-In Scanned Form must be submitted to CDCC in the prescribed format and signed by an Authorized Representative of the Clearing Member.

3. Upon receiving the duly completed Buy-In Scan Form from a Receiver of Securities, CDCC will work with the Provider(s) of Securities responsible for the Failed Delivery in order to validate if the delivery can be made within the number of Business Days specified in the Buy-In Scan Form (the “Buy-In Notice Delay”).

4. At the expiry of the Buy-In Notice Delay, if the Provider(s) of Securities have not delivered the relevant Acceptable Securities, CDCC will initiate a cash trade on the open market.

5. Once delivery is received by CDCC on the cash trade, CDCC will deliver the Acceptable Securities to the Receiver of Securities that requested the Buy-In transaction.

6. All fees incurred to CDCC, including all costs with respect to the Buy-In transaction shall be charged to the Provider(s) of Securities responsible for the Failed Delivery. Such fees will be included on the Monthly Clearing Fees Invoice (MB01) of the second Business Day of each month as a separate pay figure, payable to CDCC on the 5th Business Day of each month through LVTS or any other payment method approved by CDCC.

SGC Repurchase Transactions

An SGC Repurchase Transaction is a bilateral repurchase agreement originally entered into between an SGC Clearing Member and the Trust which is submitted to CDCC for clearing during the SGC Repurchase Transaction Submission Period, in which the SGC Clearing Member agrees to sell SGC Securities in a particular SGC Securities Basket to the Trust at a Purchase Price to be paid by the Trust to the SGC Clearing Member, with a simultaneous agreement by the SGC Clearing Member to purchase the SGC Securities or Equivalent SGC Securities in a particular SGC Securities Basket from the Trust at the Repurchase Date and by the SGC Maturity Settlement Time, at a Repurchase Price to be paid by the SGC Clearing Member to the Trust. CDCC acts as central counterparty for all SGC Repurchase Transactions: CDCC accepts and novates the bilateral repurchase transaction and its terms and conditions are replaced with the SGC Repurchase Transaction terms and conditions set out in Rule D-7 of the Rules during the clearing process.

All defined terms used in the foregoing paragraph and not defined herein are defined in Rule D-7 of the Rules.

Section 7 SETTLEMENT

INTRODUCTION

CDCC provides the mechanism for a single cash settlement with respect to amounts which are not settled through a Central Securities Depository due by a Clearing Member to CDCC and by CDCC to such Clearing Member on a daily basis, as prescribed in Paragraph A-801(2)(a) of the Rules. Clearing Members are able to make a single payment to CDCC or receive a single payment from CDCC that represents the net value of their purchases, sales, gains and losses and, on a monthly basis, clearing fees. Additionally, the CDCS incorporates the amounts due from the Clearing Members for Margin (excluding for the Net Variation Margin Requirement) and the exercise/assignment Settlement Amounts of cash settled Transactions.

Settlement of trading in a given currency is kept separate throughout the clearing procedure. All payments in the Canadian currency to and from CDCC are collected via an irrevocable payment processing system, known as the Large Value Transfer System (LVTS), or any other payment method approved by CDCC. Any US dollar payments are collected via a payment processing system known as Financial Electronic Data Interchange (FEDI). As described in the Risk Manual, the amount of Margin due by a Clearing Member on a given day is computed on the basis of that day's Open Positions shown on the relevant report.

SETTLEMENT CALCULATION

The calculation of a Clearing Member's Net Daily Settlement amount is based on Transactions (including adjustments, exercises, tenders and assignments) and Margin requirements and, on a monthly basis, clearing fees.

The Net Daily Settlement amount for each Clearing Member is determined in the following manner:

(i) The amount of Margin required for the Margin Fund Accounts are compared with Margin Deposits made by the Clearing Member for such accounts.

(ii) The premiums, Futures Settlement of Gains and Losses, cash settled exercise/assignment Settlement Amounts and cash adjustments for each account type (Client Account(s), Firm Account(s) and Multi-Purpose Account(s)) are netted to a single pay or collect figure.

All cash settlements to CDCC are to be made to CDCC's settlement account at the Bank of Canada, or to any other account of CDCC with a Schedule I bank, as designated by CDCC.

FINES

CDCC applies fines with regards to late payments to deter Clearing Members from being late in the performance of their payment obligations.

End of Day Settlement

Payments for end of day settlement (Futures mark-to-market, premiums, Margin shortfalls, etc.) must be received by 8:15 a.m. the next Business Day for each Clearing Member (excluding LCMs) and 9:00 a.m. for each LCM.

If a payment is late, CDCC will notify the Clearing Member that it is being fined. The fine structure is as follows:

Based on a rolling thirty days – if there has been a prior occurrence within the preceding thirty days, it is the second occurrence.

The fine schedule described below is subject to the Escalation Procedure applicable for operational issues detailed in Section 11 of this Manual.

For Clearing Members not in a Tri-Party Agreement

First occurrence of a late payment:

- if CDCC receives the payment in its Bank of Canada account by 7:55 a.m. the next Business Day, there will be no fine.
- if the payment is received by 8:30 a.m. the next Business Day, CDCC will impose a $1,000 fine.
- if the payment is received by 8:59 a.m. the next Business Day, CDCC will impose a $2,500 fine.
- if the payment is not received by 9:00 a.m. the next Business Day, CDCC will deem the Clearing Member a Non-Conforming Member.

On the second or more occurrences of a late payment:

- if CDCC receives the payment in its Bank of Canada account by 7:55 a.m. the next Business Day, CDCC will impose a $1,000 fine
- if the payment is received after 7:55 a.m. but before 8:30 a.m. the next Business Day, CDCC will impose a $5,000 fine.
- if the payment is received by after 8:30 a.m. but before 8:59 a.m. the next Business Day, CDCC will impose a $10,000 fine.
- if the payment is not received by 9:00 a.m. the next Business Day, CDCC will deem the Clearing Member a Non-Conforming Member.

For Clearing Members (excluding LCMs) in a Tri-Party Agreement – Margin Shortfalls only

First occurrence of a late payment or delivery:

- if CDCC receives the payment in its Bank of Canada account or if CDCC has evidence that the securities have been received in the appropriate account by 7:55 a.m. the next Business Day, there will be no fine.
- if the payment or delivery is received by 8:30 a.m. the next Business Day, CDCC will impose a $1,000 fine.
- if the payment or delivery is received by 8:59 a.m. the next Business Day, CDCC will impose a $2,500 fine.
- if the payment or delivery is not received by 9:00 a.m. the next Business Day, CDCC will deem the Clearing Member a Non-Conforming Member.

On the second or more occurrences of a late payment or delivery:

- if CDCC receives the payment in its Bank of Canada account or if CDCC has evidence that the securities have been received in the appropriate account by 7:55 a.m. the next Business Day, CDCC will impose a $1,000 fine
- if the payment or delivery is received after 7:55 a.m. but before 8:30 a.m. the next Business Day, CDCC will impose a $5,000 fine.
- if the payment or delivery is received by after 8:30 a.m. but before 8:59 a.m. the next Business Day, CDCC will impose a $10,000 fine.

- if the payment or delivery is not received by 9:00 a.m. the next Business Day, CDCC will deem the Clearing Member a Non-Conforming Member.

For LCMs – Margin Shortfalls only

First occurrence of a late payment or delivery:

- if CDCC receives the payment in CDCC's Bank of Canada account designated for such Limited Clearing Member or if CDCC has evidence that the securities have been received in the appropriate account by 9:10 a.m. the next Business Day, there will be no fine.

- if the payment or delivery is received by 9:45 a.m. the next Business Day, CDCC will impose a $1,000 fine.

- if the payment or delivery is received by 10:14 a.m. the next Business Day, CDCC will impose a $2,500 fine.

- if the payment or delivery is not received by 10:15 a.m. the next Business Day, CDCC will deem the Clearing Member a Non-Conforming Member.

On the second or more occurrences of a late payment or delivery:

- if CDCC receives the payment in CDCC's Bank of Canada account designated for such Limited Clearing Member or if CDCC has evidence that the securities have been received in the appropriate account by 9:10 a.m. the next Business Day, CDCC will impose a $1,000 fine

- if the payment or delivery is received after 9:10 a.m. but before 9:45 a.m. the next Business Day, CDCC will impose a $5,000 fine.

- if the payment or delivery is received by after 9:45 a.m. but before 10:14 a.m. the next Business Day, CDCC will impose a $10,000 fine.

- if the payment or delivery is not received by 10:15 a.m. the next Business Day, CDCC will deem the Clearing Member a Non-Conforming Member.

SGC Securities Adjustment Threshold

The Corporation may determine, from time to time and for the purpose of Section D-707 of the Rules, the amount of a minimum threshold to be applied to SGC Securities Adjustment once calculated by the Corporation.

If the SGC Securities Adjustment calculated pursuant to Section D-707 of the Rules is equal to or exceeds the threshold, the Corporation may require the SGC Clearing Member to make available SGC Securities for the entire amount of the SGC Securities Adjustment (disregarding the threshold) within the given timeline.

If the SGC Clearing Member does not make available sufficient SGC Securities for sale in the entire amount of the SGC Securities Adjustment within the given timeline, CDCC may impose the following fines:

- if the sale of the intra-day SGC Securities Adjustment is made more than 2 hours after but less than 2 hours and 15 minutes from notification, CDCC may impose a $500 fine;

- if the sale of the intra-day SGC Securities Adjustment is made more than 2 hours and 15 minutes but less than 2 hours and 30 minutes from notification, CDCC may impose a $1,000 fine.

- If at the end of day, an SGC Securities Adjustment is made more than 15 minutes, but less than 30 minutes after the SGC Securities Adjustment Settlement Time, CDCC may impose a $500 fine;

- If at the end of day, an SGC Securities Adjustment is made more than 30 minutes after the SGC Securities Adjustment Settlement Time, CDCC may impose a $1000 fine.

If the SGC Clearing Member does not make available sufficient SGC Securities for sale in the entire amount of SGC Securities Adjustment, the Corporation may take any action or measure provided in Section D-707(4).

Section 8 MARGIN PROCESSING – SUPPLEMENTAL LIQUIDITY FUND

MARGIN FUND ACCOUNTS

Margin Fund Accounts are the CDCS records provided to each Clearing Member containing all Margin deposited by such Clearing Member to CDCC, in respect of such Clearing Member's Base Initial Margin (or Adjusted Base Initial Margin, as the case may be), Additional Margin for Market Liquidity Risk, Additional Margin for Specific Wrong-Way Risk, Additional Margin for Mismatched Settlement Risk, Additional Margin for Intra-Day Variation Margin Risk, Additional Margin for Unpaid Option Premium Exposure Risk, Additional Margin for Banking Holiday Risk, Additional Margin for Variation Margin Delivery Risk, Additional Capital Margin Risk, Additional Margin for Uncovered Risk of Limited Clearing Members, Variation Margin for Options, and Variation Margin for Unsettled Items, in accordance with the Risk Manual and as set forth in Section 8 hereof.

In addition to the foregoing, an amount may be requested from a Clearing Member for the protection of the Corporation, Clearing Members or the investing public, in accordance with section A-702 of the Rules.

Each Clearing Member must record in its Margin Fund Accounts any deposit made to cover the shortfalls resulting from the requirements. Deposits must be in the form of Eligible Collateral, as specified in the Risk Manual, in an amount sufficient, taking into account the market value and applicable haircuts as specified in Section A-707.

Excess

Any surplus amount from the Margin Fund Accounts (Firm, GCM Regime and Non-GCM Regime). Excess amounts from the GCM Regime Margin Account are determined on an end-of-day basis after the GCM Declaration File – end-of-day cut-off.

Deficit

Any shortfall amount from the Margin Fund Accounts. Deficits from the Clients' Margin Fund Accounts (GCM Regime and Non-GCM Regime) can be covered by any Firm Excess. Excesses from the GCM Margin Account cannot cover deficits of the Non-GCM Margin Account (and vice-versa) nor deficits from the Firm Margin Account.

Withdrawals

Clearing Members may request to withdraw Excess, subject to applicable deadlines, as set forth in Section 2 of this Operations Manual. CDCC will respond within the specified time set forth in Section 2 and, on a best effort basis, approve the withdrawal in CDCC Clearing Application.

Substitutions

A Clearing Member may request to substitute a specific Asset previously deposited in the Margin Fund Accounts to the Corporation. The Clearing Member must first pledge deposit equivalent securities/cash and withdraw the existing securities/cash subject to substitution. The value of the equivalent securities/cash so deposited must be equal to or in excess of the Assets being withdrawn, subject to applicable deadlines, as set forth in Section 2 of this Operations Manual.

CDCC verifies the validity of each deposit made by Clearing Members and ensures that withdrawals of existing Assets subject to substitution do not create deficits in the Clearing Member's Margin Fund Accounts. CDCC will respond within the specified time set forth in Section 2 and, on a best effort basis, approve the substitution in CDCC Clearing Application.

Cash deposit

Cash deposited in the Margin Fund Accounts must be sent to the relevant CDCC bank account. After performing all the validation processes, CDCC confirms within the CDCC Clearing Application the Clearing Member's deposits and/or withdrawals.

Deposits, withdrawals and changes thereto will be reflected on the immediately following Business Day's Deposits and Withdrawals Report (MA01). In accordance with the Rules, any discrepancies that the Clearing Member notices against its own records should be reported to CDCC immediately.

Pledging (Securities / CDS)

Securities pledges in the Margin Fund Accounts must be performed through CDSX in CDCC's account. 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 Member (accompanied by a screen print of the entry bearing the signature of an Authorized Representative of the Clearing Member) 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 Member's deposits and/or withdrawals.

Deposits, withdrawals and changes thereto will be reflected on the immediately following Business Day's Deposits and Withdrawals Report (MA01). In accordance with the Rules, any discrepancies that the Clearing Member notices against its own records should be reported to CDCC immediately.

Pledging (Securities / Tri Party - Securities Account with an Approved Custodian)

Subject to certain conditions, the Corporation may allow Clearing Members to pledge non-cash collateral for the purpose of meeting their Margin requirements pursuant to Rule A-7 (excluding Net Variation Margin Requirements and any other Margin which can otherwise only be cash settled) to a securities account maintained at a third party securities intermediary. The securities intermediary must enter into an Account Control Agreement with respect to the securities account and be an Approved Custodian, each as defined in the Rules.

Use of the Securities Account

1. The securities account shall only be maintained by a securities intermediary which is an Approved Custodian, as defined in the Rules.

2. Any securities held in the securities account maintained by the Approved Custodian, in the name of the Clearing Member, shall be subject to an Account Control Agreement.

3. The Account Control Agreement is a standard agreement that meets certain requirements, as prescribed in the Rules.

4. The securities account may not be used for Net Variation Margin Requirements or for settlement purposes.

5. The respective rights and obligations of the Clearing Member and CDCC with respect to the securities collateral held in the securities account are subject to the Rules, including:

    a. All deposits, withdrawals and substitutions in the securities account are subject to the timeline described in Section 2 of this Manual and to the collateral policy described in Section 3 (Eligible Collateral) of the Risk Manual;

    b. All deposits, withdrawals and substitutions made in the securities account shall also be entered in CDCC Clearing Application in accordance with the timeline described in Section 2 of this Manual and to the collateral policy described in Section 3 (Eligible Collateral) of the Risk Manual;

    c. Any withdrawal of securities held in the securities account is subject to CDCC's approval. The withdrawal must be entered in CDCC Clearing Application by the Clearing Member. A withdrawal authorization form must be signed by an Authorized Representative of the Clearing Member and must be transmitted to CDCC. CDCC will then, within the specified time to respond to a withdrawal request specified in Section 2, sign and transmit the withdrawal authorization form to the Custodian to proceed with the withdrawal;

d. Any substitution is subject to the deposit by the Clearing Member of the replacement securities in the securities account before the withdrawal of the replaced securities. Both the deposit and the withdrawal shall also be entered in CDCC Clearing Application by the Clearing Member. A substitution authorization form must be signed by an Authorized Representative of the Clearing Member and must be transmitted to CDCC. CDCC will then, within the specified time to respond to a substitution request specified in Section 2, sign and transmit the substitution authorization form to the Custodian to proceed with both the deposit and the withdrawal.

Intra-Day Margin Calls

CDCC encourages its Clearing Members to cover Intra-Day Margin Calls with collateral other than cash.

The fine schedule described below is subject to the Escalation Procedure applicable for operational issues detailed in Section 11 of this Manual.

Clearing Members (excluding LCMs) have one (1) hour from notification to cover an Intra-Day Margin Call. If the payment or delivery is late, the following fines shall apply:

- if the payment or delivery is received more than 1 hour after but less than 1 hour and 15 minutes from notification, CDCC will impose a $500 fine.
- if the payment or delivery is received more than 1 hour and 15 minutes but less than 1 hour and 30 minutes from notification, CDCC will impose a $1,000 fine.
- if the payment or delivery is not received by 1 hour and 30 minutes from notification, CDCC will deem the Clearing Member (excluding LCMs) a Non-Conforming Member.

LCMs have two (2) hours from notification or until such Settlement Time as may be provided in Section 2 to cover an Intra-Day Margin Call. If the payment or delivery is late, the following fines shall apply:

- if the payment or delivery is received more than 2 hours after but less than 2 hours and 15 minutes from notification, CDCC will impose a $500 fine.
- if the payment or delivery is received more than 2 hours and 15 minutes but less than 2 hours and 30 minutes from notification, CDCC will impose a $1,000 fine.
- if the payment or delivery is not received within 2 hours and 30 minutes from notification, CDCC will deem the LCM a Non-Conforming Member

Overnight Margin Calls

CDCC offers its Clearing Members two (2) ways to cover Overnight Margin Calls:

- Eligible currencies deposited through an approved bank;
- Securities pledged through CDS (see CDS document “PLEDGE AND SETTLEMENT PROCEDURES” Section 1.8).

Clearing Members (excluding LCMs) have two hours from notification to cover an Overnight Margin Call. If the payment or delivery is late or insufficient, the Clearing Member may be deemed a Restricted Clearing Member by CDCC and the following fines shall apply:

- if the payment or delivery is received more than 2 hours after but less than 2 hours and 15 minutes from notification, CDCC will impose a $500 fine.
- if the payment or delivery is received more than 2 hours and 15 minutes but less than 2 hours and 30 minutes from notification, CDCC will impose a $1,000 fine.

(FIXED INCOME) VARIATION MARGIN ACCOUNT

The Fixed Income Variation Margin Account is the CDCS record provided to each Clearing Member listing all Margin deposits made by such Clearing Member to CDCC for (Fixed Income) Net Variation Margin Requirement purposes only, in accordance with Section D-607 of the Rules, or otherwise as set forth in Section 8 hereof.

(Fixed Income) Net Variation Margin Requirement Settlement

In order to meet a (Fixed Income) Net Variation Margin Requirement, Clearing Members are required to pledge, through CDSX, to CDCC's (Fixed Income) Variation Margin Account, Margin deposits in the form of Eligible Collateral, as specified in the Risk Manual, in an amount sufficient, taking into account the market value and applicable haircuts as specified in Section A-707, to cover any positive variation of the (Fixed Income) Net Variation Margin Requirement owed by a Clearing Member to CDCC.

While the Eligible Collateral must be delivered and pledged to CDCC through CDSX, each Clearing Member must in parallel record in its (Fixed Income) Variation Margin Account such pledge, or any pledge release, to match the entries. The (Fixed Income) Variation Margin Account is solely used to record the pledges or pledge releases, as the case may be, of Margin deposits for (Fixed Income) Net Variation Margin Requirement purposes.

Delivery of the (Fixed Income) Net Variation Margin Requirement

On any given Business Day, each Clearing Member must deliver to the Corporation in CDCC's account at CDS, Eligible Collateral for (Fixed Income) Net Variation Margin Requirement purposes, taking into consideration any shortfall resulting from the variation of the (Fixed Income) Net Variation Margin Requirement, as compared to the (Fixed Income) Net Variation Margin Requirement calculated on the previous Business Day, and the fluctuation of the market value of the Eligible Collateral previously pledged by such Clearing Member to meet its (Fixed Income) Net Variation Margin Requirement.

Upon accepting Eligible Collateral that has been pledged to it through CDSX, CDCC may re-pledge and deliver the Eligible Collateral to a receiving Clearing Member, subject to CDCC's first ranking pledge, and the receiving Clearing Member shall be entitled to re-pledge or re-hypothecate the Eligible Collateral delivered to it.

Each Clearing Member is also required to return to the Corporation the same CUSIP/ISIN that had been allocated and pledged to it by the Corporation as part of the (Fixed Income) Net Variation Margin Requirement delivery, in an amount sufficient to meet the (Fixed Income) Net Variation Margin Requirement shortfalls as indicated on the MS10 report. Clearing Members must return the same CUSIP/ISIN in accordance with the (Fixed Income) Net Variation Margin Requirement Settlement Times. If a Clearing Member fails to return to the Corporation the specific CUSIP/ISIN securities listed on the report but returns equivalent securities instead (a "Fixed Income Variation Margin Delivery Failure"), the Clearing Member will be subject to fines as described below.

Distribution of the (Fixed Income) Net Variation Margin Requirement Collateral

The Corporation will transfer to each Clearing Member being owed a net amount resulting from a change in such Clearing Member's (Fixed Income) Net Variation Margin Requirement or from the fluctuation of the market value of the Eligible Collateral previously pledged by such Clearing Member to meet its (Fixed Income) Net Variation Margin Requirement, the Variation Margin securities received by the Corporation as part of the (Fixed Income) Net Variation

Margin Requirement. The Corporation will in priority return the same CUSIP/ISIN previously pledged to the Corporation by such Clearing Member, subject to the specific procedures described below in the event of a Fixed Income Variation Margin Delivery Failure or of a substitution request.

Substitution of Pledged Securities Collateral for the (Fixed Income) Variation Margin Account

1. **(Fixed Income) Variation Margin Account Collateral substitution request:**

A Clearing Member may request to substitute a specific CUSIP/ISIN previously pledged in the (Fixed Income) Variation Margin Account to the Corporation. The request for substitution must be received by the Corporation before 11:00 a.m. for same day settlement. Clearing Member must first pledge equivalent securities and withdraw the existing securities subject to substitution. The value of the equivalent securities so pledged must be equal to or in excess of the securities being withdrawn. Substitution of a specific CUSIP/ISIN requested for same day settlement will be completed by 3:00 p.m. by the Corporation, subject to the Buy-In process below.

2. **(Fixed Income) Variation Margin Account Securities Collateral substitution notice:**

The Corporation will inform by 12:00 p.m. (noon) any Clearing Member subject to a substitution request (the "Holder of securities") for a same day settlement. The Holder of securities will have until 3.00 p.m. to deliver the securities to CDCC's (Fixed Income) Variation Margin Account. Failure to deliver by the Holder of securities by the cut-off time will be considered a Fixed Income Variation Margin Delivery Failure and will result in fines being applied to the Holder of securities as described below.

FIXED INCOME VARIATION MARGIN DELIVERY FAILURE

Fines

CDCC will apply fines for failure to return distributed securities.

CDCC will apply fines for failure to return securities subject to a substitution notice, by the appropriate deadline.

For each day between the day of the original return obligation and the delivery date (the "Fail Period") a fine will be applied (Fail fees). The Fail fee is based on a rate equal to CORRA, applied daily. CDCC shall immediately notify the Clearing Member to which a fine is imposed.

Throughout the Fail Period, CDCC will require to receive Eligible Collateral of a value equivalent to the value of the unreturned securities and CDCC will deliver such replacement securities to the receiving Clearing Member (the "Replacement Securities"). At the end of the Fail Period, the Replacement Securities will be returned from the receiving Clearing Member to the delivering Clearing Member.

The fines described above are subject to the Escalation Procedure applicable for operational issues detailed in Section 11 of this Manual.

Collection of Fines

CDCC will collect any applicable fines with the month-end clearing fee billing.

Fixed Income Variation Margin Buy-In process for Fixed Income Variation Margin Delivery Failure

The Receiver of securities affected by a Fixed Income Variation Margin Delivery Failure may request that the Corporation execute a Buy-In on the day following the market standard settlement (T+2 / T+3, where T is the day of the original date of the request).

Same day settlement will be executed by CDCC on a best efforts basis. In the event of a failure to deliver by the counterparty to the Buy-In transaction on the same day, CDCC will execute the Buy-In transaction the following day without liability.

The Corporation shall only execute a Buy-In transaction pursuant to a formal request by a Receiver of securities affected by a Failed Delivery, by purchasing on the open market the collateral of the specified quantity and CUSIP/ISIN.

When initiated by a Receiver of securities, the Buy-In process shall be as follows:

1. The Receiver of securities who wants to initiate a Buy-In must send to the Corporation the appropriate Buy-In Scanned Form (which is accessible on CDCC's Secured Website) duly completed with the following information:

    a. Clearing Member's Name;

    b. Clearing Member's Number

    c. The specific securities (Eligible Collateral) (ISIN) involved;

    d. The total quantity of the Failed Delivery;

    e. The quantity requested in the Buy-In;

    f. The Buy-In delivery date, which shall be the current Business Day + no less than two (2) complete Business Days.

The Buy-In Scanned Form must be submitted to CDCC in the prescribed format and must be signed by an Authorized Representative of the Clearing Member before 10:00 a.m.

1. Upon receiving the duly completed Buy-In Scanned Form from a Receiver of securities, the Corporation will work with the Holder(s) of securities responsible for the Failed Delivery in order to validate if the delivery can be made within the number of Business Days specified in the Buy-In Scan Form (the "Buy-In Notice Delay").

2. At the expiry of the Buy-In Notice Delay, if the Provider(s) of securities has not delivered the relevant securities, the Corporation will initiate a cash trade on the open market.

3. Upon receipt of the securities, CDCC will deliver the requested securities to the Receiver that initiated the Buy-In transaction.

4. All fees incurred by the Corporation, including all costs with respect to the Buy-In transaction shall be charged to the Provider(s) of securities responsible for the Failed Delivery. Such fees will be included on the Monthly Clearing Fees Details Report (MB01) produced on the second Business Day of each month as a separate pay figure, payable to the Corporation on the fifth Business Day of each month through LVTS or any other payment method approved by the Corporation.

CLEARING FUND

Each Clearing Member (excluding LCMs) 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 CDCC in accordance with Rule A-6. The Clearing Fund has been established to protect CDCC and its Clearing Members (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 CDCC Rules.

Each Clearing Member's (excluding LCMs) contribution includes a required Base Deposit and a Variable Deposit. The details of the Base and Variable Deposits are set forth in Rule A-6.

Clearing Fund Statement Report

On the first Business Day of each calendar month, CDCC shall issue to each Clearing Member (excluding LCMs) a Clearing Fund statement that shall list the current amount of such Clearing Member's deposits to the Clearing Fund and the amount of deposit, which is based on the monthly calculation of the Variable Deposit, required of such Clearing Member. CDCC will also issue a Clearing Fund statement (MA71) intra-monthly if an increase to the Variable Deposit is necessary. Any deficit between the amounts held on deposit and the deposit required to be made by a Clearing Member must be satisfied on the next Business Day (T+1) before 10:00 a.m. (no same-day deposit).

Deposits

Deposits to the Clearing Fund shall be in the form of Cash. 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 (excluding LCMs) 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.

Pledges

Pledges of Cash must be performed in accordance with Rule A-6.

SUPPLEMENTAL LIQUIDITY FUND

Each Clearing Member (excluding LCMs) approved to clear Transactions shall maintain Supplemental Liquidity Contributions in the Supplemental Liquidity Fund of the amounts from time to time required by CDCC in accordance with Rule A-6A of CDCC Rule and the Risk Manual. The Supplemental Liquidity Fund has been established to protect CDCC from potential liquidity obligations or exposure that CDCC may suffer and shall be used for the purposes set out in Rule A-6A of CDCC Rules.

<u>Supplemental Liquidity Fund Statement</u>

On the first Business Day of each calendar month, CDCC shall issue to each Clearing Member (excluding LCMs) a Supplemental Liquidity Fund statement that shall list the current amount of such Clearing Member's Supplemental Liquidity Contributions to the Supplemental Liquidity Fund and the amount of Supplemental Liquidity Contributions required of such Clearing Member. CDCC will also issue a Supplemental Liquidity Fund statement (MA80) intra-monthly if an increase to the Supplemental Liquidity Contributions is necessary. Any deficit between the Supplemental Liquidity Contributions held in the Supplemental Liquidity Fund and the Supplemental Liquidity Contributions required to be made by a Clearing Member must be satisfied on the next Business Day (T+1) before 10:00 a.m. (no same-day deposit).

<u>Supplemental Liquidity Contributions</u>

Supplemental Liquidity Contributions to the Supplemental Liquidity Fund shall be in the form of Cash. Supplemental Liquidity Contributions to the Supplemental Liquidity Fund are valued in the manner set forth in the Risk Manual.

<u>Withdrawals</u>

Clearing Members (excluding LCMs) may request to withdraw any surplus amount from the Supplemental Liquidity Fund.

<u>Pledges</u>

Pledges of Cash must be performed in accordance with Rule A-6A.

Section 9 CLEARING FEES

Clearing services fees

Clearing fees are charged to both Clearing Members submitting a Transaction for clearing to CDCC and are based on the number of contracts involved. There is a minimum monthly clearing fee charge with respect to certain product types (Futures, Options and OTCI (other than Fixed Income Transactions)). Once a Clearing Member, otherwise eligible to do so in accordance with the Rules, starts using a particular clearing service by submitting a first Transaction of such product type, the applicable minimum monthly clearing fee shall be charged to the Clearing Member thereafter whether the Clearing Member actually uses the services or not during any given month, until the Clearing Member duly notifies CDCC in writing that it wishes to withdraw from the clearing services for that product type, effective sixty (60) days after CDCC receives such notice, provided there is no outstanding Transaction of such product type standing to an account of the Clearing Member at such time. Clearing Members should refer to the CDCC website www.cdcc.ca for a complete list of applicable fees.

Clearing fees are collected as a separate pay figure and are payable to CDCC on the morning of the 5th Business Day of each month through LVTS or any other payment method approved by CDCC. The MB01 Monthly Clearing Fees Invoice, MB02 Monthly Clearing Fees Details Reports and MB03 Monthly Fixed Income Clearing Fees Invoice are generated on every 2nd Business Day of each month and are available to Clearing Members on the morning of the 3rd Business Day of each month.

Fees for additional services

There are a number of discretionary services available to Clearing Members, in addition to the normal clearing services. These are published periodically as an Operational Notice to Members and can be viewed on the Secured Website. CDCC issues a statement on a monthly basis for these services. The fees are collected as per the date on the statement through LVTS or any other payment method approved by CDCC.

Fees for cost incurred at CDS (or other Central Securities Depository)

Any settlement cost incurred by CDCC within CDSX (or the settlement platform of another Central Securities Depository) will be charged to the Clearing Member with which CDCC is settling. Such cost will be included on the Monthly Clearing Fees Details Report (MB01) of the second Business Day of each month as a separate pay figure, payable to CDCC on the 5th Business Day of each month through LVTS or any other payment method approved by CDCC.

Clearing Members shall designate up to three (3) individuals within their firm who will be responsible for handling the Clearing Member's User Profiles ("Security Officers"). The designation of Securities Officers is done by filing with CDCC a CDCC Clearing Application – Security Officer Identification form, which form shall be renewed on an annual basis.

Once duly designated, a Security Officer shall submit a CDCS Clearing User Profile Request form to request that CDCC add or delete a User Profile (this form is accessible on CDCC's Secured Website).

Section 10 SECURITY OFFICER

The Security Officer must complete this form and have it signed by an Authorized Representative of the Clearing Member. When the form is complete, the Clearing Member can either scan the form and send it to the Corporate Operations group e-mail address: cdcc-ops@tmx.com, or fax the form to one of CDCC's offices.

Upon receipt of the form, the process for the addition / deletion is performed by one of CDCC's senior managers.

Section 11 ESCALATION PROCEDURE

PAYMENT FAILURE ESCALATION PROCEDURE

A failure by a Clearing Member to meet a payment, transfer, deposit, delivery, or acceptance of delivery when such obligation becomes due under the Rules (for the purpose of this Section 11 - Escalation Procedure, a "Payment Failure") as a result of an operational issue, including any material systems failure, malfunction, or delay encountered by a Clearing Member or its securities intermediary, including its Settlement Agent, Approved Depository, or Approved Custodian, (an "Operational Issue") shall be managed by the Corporation in accordance with the following procedure, (the "Escalation Procedure").

1. **Communication**

   a. For the purposes of this Payment Failure Escalation Procedure:

      (i) a CDCC Level 1 contact shall be a Director Operations, or its equivalent;

      (ii) a CDCC Level 2 contact shall be a Vice-President Operations, or its equivalent;

      (iii) a CDCC Level 3 contact shall be the President and Chief Clearing Officer or Vice-President and Chief Risk Officer;

      (iv) a Clearing Member Level 1 contact shall be a Director of Operations, or its equivalent;

      (v) a Clearing Member Level 2 contact shall be a Vice-President Operations, or its equivalent; and

      (vi) a Clearing Member Level 3 contact shall be a senior executive reporting directly to the president of the Clearing Member, or to its equivalent in the absence of a senior executive of the Clearing Member bearing the title "president".

   b. The CDCC Level 1 contact shall, immediately upon acquiring actual knowledge or confirmation of a Payment Failure by a Clearing Member, notify the Clearing Member Level 1 contact of the Payment Failure. The Clearing Member Level 1 contact shall, within a reasonable period of time, confirm the nature of the issue that caused the Payment Failure and, promptly upon providing such confirmation, proceed to provide the Corporation with the required information in accordance with the Operational Issue Resolution Notice defined below.

   c. In the event that (i) the Clearing Member Level 1 contact fails to respond to the CDCC Level 1 contact within a reasonable period of time, (ii) the Clearing Member Level 1 contact cannot confirm the nature of the issue that caused the Payment Failure, or (iii) the information provided by the Clearing Member Level 1 contact regarding the nature of the Operational Issue that caused the Payment Failure is deemed unsatisfactory by the Corporation, the CDCC Level 2 contact shall immediately contact the Clearing Member Level 2 contact. The Clearing Member Level 2 contact shall, promptly upon being contacted in accordance with this subsection, proceed to provide the Corporation with the required information in accordance with the Operational Issue Resolution Notice defined below.

   d. In the event that (i) the CDCC Level 2 contact fails to reach the Clearing Member Level 2 contact within a reasonable period of time, (ii) the Clearing Member Level 2 contact cannot confirm the nature of the Operational Issue that caused the Payment Failure, or (iii) the information provided by the Clearing Member Level 2 contact regarding the nature of the Operational Issue that caused the Payment Failure is deemed unsatisfactory by the Corporation, the CDCC Level 3 contact shall immediately contact the Clearing Member Level 3 contact. The Clearing Member Level 3 contact shall, within an hour after being contacted in accordance with this subsection, proceed to provide the Corporation with the required information in accordance with the Operational Issue Resolution Notice defined below.

2. Operational Issue Resolution Notice

   a. Upon receiving notification by the Corporation of the Payment Failure in accordance with Section 1 of this Escalation Procedure, if the Clearing Member Level 1, 2, or 3 contact, as the case may be, confirms in accordance with Subsection 1 that the Payment Failure is solely due to an Operational Issue, such Clearing Member Level 1, 2, or 3 contact, as the case may be, shall provide the Corporation with a written confirmation of the nature of the Operational Issue that caused the Payment Failure and a detailed description of the steps proposed to be taken by the Clearing Member to resolve the Operational Issue (together, the "Operational Issue Resolution Notice"). Where the Operational Issue affects the Clearing Member's securities intermediary (including its Settlement Agent, Approved Depository or Approved Custodian), the Clearing Member shall immediately provide the Corporation with the contact details for the relevant representative of such securities intermediary's and include such representative in every communication with the Corporation related to the Operational Issue until the full resolution of the Operational Issue.

   b. The Operational Issue Resolution Notice shall be re-issued by the Clearing Member Level 3 contact, to the Corporation on each day on which the Payment Failure persists, until there is a full resolution of the Operational Issue to the satisfaction of the Corporation.

3. Mitigation Tools

Immediately upon the occurrence of a Payment Failure, the Clearing Member shall use its best efforts to resolve the Operational Issue, and to mitigate the Payment Failure by the use of the following mitigation tools (the "Mitigation Tools") before 3:45 p.m., where necessary:

   a. The Exception Process Request after the start of CDS payment exchange, where applicable, or

   b. The Payment Delay Request.

4. Delayed Resolution

On any Business Day on which an Operational Issue Resolution Notice remains in effect, in the event that the Corporation is of the view that the Operational Issue is expected, or likely, to persist until the next following Business Day,

   a. The Corporation may determine that no Transaction shall be cleared by the Corporation for such Clearing Member until resolution; and

   b. The Clearing Member Level 3 contact shall provide written confirmation that the Payment Failure is solely due to an Operational Issue and that the Clearing Member has used its best efforts to use the Mitigation Tools, and requests, if necessary, no later than 3:45 p.m. on the Business Day on which the first notification of the Payment Failure has been made, by a Payment Delay Request that the Corporation funds the Clearing Member's obligations of payment to the Corporation until the next following Business Day. The Clearing Member shall, upon request by the Corporation, represent and warrant to each of the Corporation's lender, acknowledging and confirming that each of the Corporation and the lender is relying on such representations and warranties without independent inquiry, that the Payment Failure is solely due to an Operational Issue and that no financial condition is affecting the Clearing Member in such a way that the provision of temporary funding in accordance with this section could jeopardize the interest of the Corporation or other Clearing Members. In the event that temporary funding is provided in accordance with this section, all fees and costs incurred by the Corporation in connection with such funding shall be added to and become part of the payment obligation owed by the Clearing Member to the Corporation and will become due immediately.

5. Non-Conforming

   a. If no Mitigation Tool has been successfully implemented by the Clearing Member by the end of the Business Day on which the first notification of the Payment Failure has been made, the Corporation may declare the

Clearing Member a Non-Conforming Member provided that the President & Chief Clearing Officer (or its designate) of the Corporation, prior to such designation, notifies the appropriate senior officer of the Bank of Canada in accordance with the Bank of Canada communication requirements.

b. If a Mitigation Tool has successfully been used by the Clearing Member but the Corporation is not satisfied with the information provided pursuant to the Operational Issue Resolution Notice, or considers that the steps proposed to be taken by the Clearing Member to resolve the Operational Issue expose the Corporation to an unacceptable level of risk, the Corporation may declare the Clearing Member a Non-Conforming Member, provided that the President & Chief Clearing Officer (or designate) of the Corporation prior to such designation notifies the appropriate senior officer of the Bank of Canada in accordance with the Bank of Canada communication requirements. The Corporation shall not exercise this discretion without having first performed the Escalation Procedure pursuant to Section 11 within a reasonable timeframe upon acquiring actual knowledge or confirmation of a Payment Failure by a Clearing Member and will not exercise this discretion before 10:00 a.m. on the day following the receipt of the Level-3 Operational Issue Resolution Notice, unless the Clearing Member has not confirmed that the Payment Failure results from an Operational Issue.

OVERNIGHT UNCOVERED RISK EXPOSURE

During the Overnight Clearing Cycle, CDCC's risk appetite for acceptable levels of uncovered risk are measured every hour on a per Clearing Member basis as a proportion of their Margin requirements, and will therefore take the form of a relative threshold (the "Threshold") The first monitoring snapshot occurs at 10:00 p.m. ET (t-1) and the last one at 8:15 a.m. ET, where the Margin requirement is systemically updated with movements in Initial Margin, but only updated twice with movements in Variation Margin (at the 1:00 a.m. ET and 8:15 a.m. ET monitoring snapshot). The hourly monitoring of both the Initial Margin and Variation Margin is available and used to estimate the build-up of credit exposure (the "Live margin check").

The Threshold will only apply if at least one position movement is captured during the Overnight Clearing Cycle, allowing the Clearing Member to be considered inactive as long as positions remain static ("Position-based trigger"). In other words, a Clearing Member will be considered inactive until one position movement is captured, after which such Clearing Member will be considered active for the rest of the Overnight Clearing Cycle.

The Threshold will trigger different actions depending on the Clearing Member's established overnight collateral solution (i.e. Pre-funding solution or Payment solution, see additional details in Section 12 below). Consequently, CDCC uses the following terminology for the Threshold:

- "**Margin Call threshold**" - Applicable to the Payment solution. If the Clearing Member reaches the Margin Call threshold, an Overnight Margin Call is issued and needs to be fulfilled within the given timeline. If the Clearing Member doesn't fulfill its payment obligation or the payment capabilities are not enough to fulfill the obligation, CDCC may deem such Clearing Member as a Restricted Clearing Member.

- "**Trading threshold**" - Applicable to the Pre-funding solution. If the Clearing Member reaches the Trading threshold, CDCC may deem such Clearing Member as a Restricted Clearing Member.

Additionally, CDCC will use the below terminology to address Live margin check breaches:

- "**Warning threshold**" - Should only the Live margin check be breached, a warning is communicated to the Clearing Member.

Overnight Uncovered Risk Exposure Escalation procedure:

a) the Overnight contact list for the purposes of the "Overnight Uncovered Risk Exposure" Escalation Procedure:

    (i) a CDCC Level 1 contact shall be an Operations Specialist, its equivalent or higher;

    (ii) a CDCC Level 2 contact shall be a Senior Manager, its equivalent or higher;

    (iii) a CDCC Level 3 contact shall be the President or Chief Clearing Officer or Vice-President and Chief Risk Officer;

    (iv) a Clearing Member Level 1 contact shall be an Operation Specialist, its equivalent or higher;

    (v) a Clearing Member Level 2 contact shall be a Senior Manager, its equivalent or higher; and

    (vi) a Clearing Member Level 3 contact shall be a senior executive reporting directly to the president of the Clearing Member, or to its equivalent in the absence of a senior executive of the Clearing Member bearing the title "president".

b) The CDCC Level 1 contact shall, immediately upon acquiring confirmation of a Warning threshold breach by a Clearing Member, notify the Clearing Member Level 1 contact of the "Warning threshold" breach.

c) The CDCC Level 1 contact shall, immediately upon acquiring confirmation of a Margin Call threshold breach by a Clearing Member, notify the Clearing Member Level 1 contact of the breach and that an Overnight Margin Call will be issued.

d) The CDCC Level 2 contact shall, immediately upon acquiring confirmation of a Trading threshold breach or that the Clearing Member didn't fulfill its payment obligation following the issuance of an Overnight Margin Call, notify the Clearing Member Level 2 contact of the situation and that the Clearing Member may be deemed a Restricted Clearing Member by CDCC.

e) The CDCC Level 3 contact shall, immediately upon acquiring actual knowledge or confirmation that a Clearing Member may be or was deemed a Restricted Clearing Member, communicate with the Clearing Member Level 3 contact.

Section 12 OVERNIGHT CLEARING CYCLE REQUIREMENTS

During the Overnight Clearing Cycle, Clearing Members are assigned to one of the following solution based on their payment capabilities:

- Pre-funding solution (i.e. Overnight Clearing Cycle eligible collateral payment capabilities not available)

- Payment solution (i.e. Overnight Clearing Cycle eligible collateral payment capabilities available)

By default, Clearing Members are considered part of the Pre-funding solution until they demonstrate their ability to meet their obligations towards CDCC from amongst the below list of Overnight Clearing Cycle eligible collateral with respect to the Asian hours, European hours, or both:

- "**Asian hours**" - i.e. 8:00 p.m. to 1:00 a.m. ET - in a selection of eligible Non-CAD currencies.

- "**European hours**" - i.e. 1:00 a.m. to 8:15 a.m. ET - in a selection of eligible currencies until 7:00 a.m. ET or any form of eligible collateral pledged through CDSX.

Clearing Members opting to qualify for the Payment solution during either the Asian hours, European hours or both will automatically be considered as part of the Payment solution at the 1:00 a.m. ET monitoring snapshot (juncture of Asian and European hours).

CDCC will conduct routine testing of the Payment solution from time to time to ensure that operational readiness is maintained by Clearing Members. Should a Clearing Member fail such tests, it will be reassigned to the Pre-funding solution.

CDCC will allow Clearing Members under the Pre-funding solution to enter the Payment solution at any time after the required certification requirements are passed.

RISK MANUAL

FEBRUARY 28, 2025

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Glossary

Unless otherwise defined in this Risk Manual, capitalized terms shall have the meanings given to them in the Rules.

Adjusted Base Initial Margin: With respect to Limited Clearing Members, the Base Initial Margin is multiplied by the Effective Ratio. The Effective Ratio is recalibrated on a regular basis as provided in this Manual.

Additional Margin(s): Additional Margins are added to the Base Initial Margin (or Adjusted Base Initial Margin, where applicable) to form part of the Initial Margin in accordance with the methodology set out in this Manual. The Additional Margins include the following: (1) Additional Margin for Market Liquidity Risk, (2) Additional Margin for Specific Wrong-Way Risk, (3) Additional Margin for Mismatched Settlement Risk, (4) Additional Margin for Intra-Day Variation Margin Risk, (5) Additional Margin for Unpaid Option Premium Exposure Risk, (6) Additional Margin for Banking Holiday Risk, (7) Additional Margin for Variation Margin Delivery Risk, (8) Additional Margin for Capital Risk, (9) Additional Margin for Uncovered Risk of Limited Clearing Members and (10) Additional Margin for Intraday GCM Risk (11) Additional Margin for Undeclared GCM Positions Risk (12) any other additional Margins as set out in the Rules (other than required pursuant to Rule D-607). When used in the singular form, Additional Margin shall refer to one of the Additional Margins described above, whenever the context so requires.

Additional Margin for Banking Holiday Risk: The Additional Margin for Banking Holiday Risk covers the risk of uncovered exposures arising from new trades during the Banking Holiday and the additional market risk that the Corporation could face during the Banking Holiday.

Additional Margin for Capital Risk: This Margin requirement covers the credit risk of the Clearing Members that arises if the exposure of a Clearing Member to the Corporation is greater than the Clearing Member's capital level.

Additional Margin for Intra-day GCM Risk: This Additional Margin covers the risk associated with uncovered exposures arising from new trades and the incremental market risk that the Corporation could face between two consecutive Business Day updates of the GCM Declaration File.

Additional Margin for Intra-day Variation Margin Risk: This Margin requirement covers the intra-day risk arising in circumstances in which market volatility or surges in trading volumes produce unusually large Variation Margin exposures.

Additional Margin for Market Liquidity Risk: This Margin requirement covers the liquidity risk arising when the Corporation has to close-out positions at a price different than the market price. This liquidity risk could be divided into two components: the first one is the inherent market liquidity risk which is mainly associated with the bid-ask spread, and the second one is the additional liquidity risk due to concentrated positions that cannot be liquidated within the bid-ask spread.

Additional Margin for Mismatched Settlement Risk: This Margin requirement covers the risk arising from a lag between the settlement of positions which otherwise results in a margin offset.

Additional Margin for Specific Wrong-Way Risk: This Margin requirement covers the risk that arises when the exposure of a Clearing Member in its own products is adversely correlated with the creditworthiness of that Clearing Member.

Additional Margin for Uncovered Risk of Limited Clearing Members: This Margin requirement covers the risk exposure that arises if the total value of the risk represented by a Limited Clearing Member to the Corporation is greater than the aggregate amount of the Limited Clearing Member's Adjusted Base Initial Margin and the total value of the Clearing Fund.

The risk represented by the Limited Clearing Member is determined by the Corporation by calculating the estimated loss that the Corporation would face in extreme but plausible market conditions. This Additional Margin is calculated on a daily basis and is required from Limited Clearing Members only.

Additional Margin for Undeclared GCM positions Risk: This Margin requirement covers the risk that arises on a Business day when a Clearing Member does not report in whole or in part eligible positions in the GCM Declaration File.

Additional Margin for Unpaid Option Premium Exposure Risk: The Additional Margin for Unpaid Option Premium Exposure Risk covers the risk incurred by the Corporation in guaranteeing to each Clearing Member the settlement of the Net Daily Premium on a daily basis.

Additional Margin for Variation Margin Delivery Risk: The Additional Margin for Variation Margin Delivery Risk covers the risk incurred by the Corporation in guaranteeing to each Clearing Member having pledged specific securities to cover its Net Variation Margin Requirement, the return of such specific securities, in the event that another Clearing Member to which the specific securities were initially delivered fails to return such specific securities and becomes Non-Conforming or is Suspended. In this case, the Corporation will have to buy the specific securities in the market to return to the Clearing Member that had initially pledged the specific securities.

Banking Holiday: Remembrance Day, in Canada, or any day determined as Remembrance Day by the Corporation through its Holiday Schedule published on a yearly basis.

Base Initial Margin: The Base Initial Margin requirement covers the potential losses that may occur over the next liquidation period as a result of market fluctuations. The Base Initial Margin does not include any Additional Margins.

Boundaries: With respect to the Effective Ratio, the Boundaries refer for a specific period to the upper limit (UB) and lower limit (LB) which are respectively the highest and lowest Daily Ratios during such period.

CDCC Book Positions: positions by account recorded in CDCS. The level corresponds to the Risk Account level for all the types of accounts, with the exception of the GCM eligible positions under the Client Account Omnibus for which an additional account segregation will be provided by the GCM Declaration File.

Clearing Fund Requirement: The Clearing Fund Requirement constitutes the required contribution to the Clearing Fund for each Clearing Member (excluding Limited Clearing Members).

Combined Commodity: Group of positions that are associated with the same Underlying Interest or product or both. Combined Commodity is the lowest level at which the Base Initial Margin for Options, Futures and Unsettled Items is computed.

Daily Ratio: The Daily Ratio is determined, for any Business Day, by dividing the total amount of Clearing Fund Requirement on that Business Day by the aggregate amount of the Base Initial Margin requirement of all Clearing Members (other than Limited Clearing Members) on the same Business Day.

Effective Ratio: Ratio established by the Corporation, in accordance with the governance standards set forth in this Manual, which reflects the multiplier applicable to the Base Initial Margin for Limited Clearing Members.

Expected Shortfall: Average of all losses which are greater than or equal to the worst case. The worst case represents the $(1-\alpha)\%$ case, where α is the confidence level.

Haircut: Percentage discounted from the market value of eligible collateral pledged for Margin Deposit. The discount reflects the price movement volatility of the collateral pledged.

Historical Filtered Scenarios: Set of scenarios resulting of a weight applied to the Historical P&L Scenarios to reflect the current volatility. The current volatility is estimated by applying a volatility scaling adjustment using the exponentially weighted moving average (EWMA).

Historical P&L Distribution: Ranking of the Historical P&L Scenarios from the largest loss to the largest profit.

Historical P&L Scenarios: Set of scenarios for a Fixed Income Transaction representing the hypothetical gains and losses derived from Historical Filtered Scenarios. The gains and losses are created by calculating the difference between the price of the Fixed Income Transaction under an Historical Filtered Scenario and the initial reference price.

Historical Scenarios: Set of scenarios for a Risk Factor and representing an hypothetical market observation movement reasonably likely to occur, from the current situation to a specific point in time in the future.

Initial Margin: The Initial Margin is composed of the Base Initial Margin (or Adjusted Base Initial Margin, as the case may be) and the Additional Margins.

Inter-Commodity: Portfolio containing offsetting positions in highly correlated instruments are subject to credits which reduce the overall Base Initial Margin for Options, Futures and Unsettled Items.

Intra-Commodity: Portfolio containing offsetting positions in different maturity month in the same Combined Commodity are subject to a charge since they may not be perfectly correlated.

Liquidity Shortfall: The uncovered liquidity obligations, as determined by the Corporation based on the potential payment obligations that the Corporation could face upon the default of a Clearing Member in extreme but plausible market conditions, that remains outstanding after the Corporation has allocated (i) the cash in Clearing Member's Margin Deposit (including, without limitation, cash in the deposits required or made as Margin), and (2) the Corporation's available commercial bank liquidity lines.

Margin Interval (MI): Parameter established by the Corporation which reflects the maximum price fluctuation that the Underlying Interest could be expected to have during the MPOR. The MI is used to calculate the Base Initial Margin for Options, Futures and Unsettled Items.

Margin Period of Risk (MPOR): The period required by the Corporation to close-out non-concentrated positions in a particular contract (or either through liquidation, auction or by hedging or neutralizing the market risk.

Price Scan Range (PSR): The maximum price movement reasonably likely to occur, during a specified timeframe.

Risk Array: A Risk Array is a set of scenarios defined for a particular contract and representing the hypothetical gain/loss under a specific set of market conditions from the current situation to a specific point in time in the future.

Risk Factor: Factor influencing the value of a Derivative Instrument or OTCI.

Risk Engine: The system used by the Corporation for risk management, risk measurement and calculation of Initial Margin and Clearing Fund Requirement.

Rules: means the Rules of the Corporation, including the Operations Manual and this Manual, as any such rules and manuals may from time to time be amended, changed, supplemented or replaced in whole or in part.

Scanning Risk: The difference between the initial reference price of an Underlying Interest and its most unfavourable projected liquidation value obtained by shocking the values of the Underlying Interest according to several scenarios representing adverse changes in normal market conditions.

Short Option Minimum: Amount included in the Base Initial Margin to cover the risk exposure arising from deep out-of-the-money short option positions. This amount is required if this amount is higher than the result of the Risk Arrays.

Uncovered Residual Liquidity Risk: The difference between each Clearing Member's highest daily Liquidity Shortfall and the highest Uncovered Residual Credit Risk across all Clearing Members (excluding LCMs) in the last 60 business days before the date upon which CDCC determines the Supplemental Liquidity Contributions from time to time.

Variation Margin: The Variation Margin covers the risk due to the change in price of a Derivative Instrument or of an OTCI or a change in the Floating Price Rate, in each case since the previous evaluation in accordance with the Rules.

VaR Risk Group(s): Group of Fixed Income Transactions that are associated to similar Risk Factors. VaR Risk Group is the lowest level at which the Base Initial Margin for Fixed Income Transactions is computed.

Volatility Scan Range (VSR): The maximum implied volatility movement reasonably likely to occur, during a specified timeframe.

Volatility Shock(s): Parameter established by the Corporation which reflects the maximum daily volatility fluctuation of the Option contract. The Volatility Shock is used to calculate the Base Initial Margin for Options.

Zero Curve: Specific type of yield curve that associates interest rates on zero coupon bonds to different maturities (tenors). Tenors represent the Risk Factors inputs to evaluate the price of a Fixed Income Transaction using a full revaluation method.

SECTION 1 MARGIN DEPOSITS

As set out in the Rules, every Clearing Member shall be obligated to deposit Margin with the Corporation, as determined by the Corporation. Deposits must be made in the form of eligible collateral, as specified in Section 3of this Risk Manual, in an amount sufficient, taking into account the market value and applicable Haircuts.

The Corporation requires Margin Deposits to cover two types of requirements, namely:

- Margin requirement; and
- Clearing Fund Requirement.

1.2 Margin Requirement

The Margin requirement is composed of the Initial Margin and the Variation Margin.

1.2.1 Initial Margin

The Initial Margin is composed of the Base Initial Margin (or Adjusted Base Initial Margin, as the case may be) and the Additional Margins. In order to cover the Initial Margin described below, Clearing Members shall deliver to CDCC an acceptable form of Deposits in accordance with Section 3of this Risk Manual.

1.2.1.1 Base Initial Margin

The Base Initial Margin requirement covers the potential losses and market risk that may occur as a result of future adverse price and/or Risk Factors across the portfolio of each Clearing Member under normal market conditions.

The risk methodology for the Options, Futures and Unsettled Items incorporates the historical volatility of the daily price returns of the Underlying Interests for Options, Unsettled Items and Share Futures and the daily price returns of the Futures prices for Futures (excluding Share Futures). In addition, as part of the methodology, the Corporation uses a volatility estimator, a confidence level over 99% under the normal distribution or the student's t-distribution assumption and a variable number of days as the MPOR. The Corporation also considers various measures to mitigate the procyclicality of margins:

- A Stress Risk component, calculated with a Stress Value at Risk (SVaR) and a weighting factor of 25%.

- A volatility floor, calculated as an average of the daily volatility estimator observed over the last 10 years.

The risk methodology for Fixed Income Transactions is the Value at Risk methodology (VaR)[1]. This methodology considers a full revaluation method and it is based on Zero Curves. In addition, as part of the methodology, the Corporation uses a volatility estimator, a confidence level over 99% and a variable number of days as the MPOR. The Corporation also considers a Stress Risk component to mitigate the procyclicality of margins, calculated with a Stressed Value at Risk (SvaR) and a weighting factor of 25%.

Please refer to Sections 7.1 and 7.2 for additional details on the Base Initial Margin calculation.

With respect to the Limited Clearing Members, the Base Initial Margin is multiplied by the Effective Ratio to calculate the Adjusted Base Initial Margin. Please refer to Section 7.3 for additional details on Effective Ratio Recalibration.

1.2.1.2 Additional Margins

In addition to the Base Initial Margin (or Adjusted Base Initial Margin, as the case may be), the Corporation requires Margin Deposits for the following Additional Margins:

(a) Additional Margin for Market Liquidity Risk

(b) Additional Margin for Specific Wrong-Way Risk

(c) Additional Margin for Mismatched Settlement Risk

(d) Additional Margin for Intra-day Variation Margin Risk

(e) Additional Margin for Unpaid Option Premium Exposure Risk

(f) Additional Margin for Banking Holiday Risk

(g) Additional Margin for Variation Margin Delivery Risk

(h) Additional Capital Margin Risk

(i) Additional Margin for Uncovered Risk of Limited Clearing Members

(j) Additional Margin for Intra-Day GCM Risk

(k) Additional Margin for Undeclared GCM Positions Risk

(l) Any other additional Margins

Additional Margin for Intra-Day GCM Risk

The Additional Margin for Intra-Day GCM Risk is requested for uncovered Intra-day exposure for eligible positions under the GCM regime in a Client Omnibus Account.

[1] Positions on a security issued by the Clearing Member or its Affiliates or positions for which the Underlying Interest is a security issued by the Clearing Member or its Affiliates.

The uncovered Intra-day exposure is calculated by taking the difference between the Intra-day Base Initial Margin requirement and the previous Business Day Base Initial Margin requirement based on the CDCC Book Positions and on a net basis, and including the Variation Margin for Options. When calculating the value of Additional Margin for Intra-day GCM Risk, the value cannot be lower than zero.

Additional Margin for Undeclared GCM Positions Risk

This Additional Margin addresses the risk exposure that arises if a Clearing Member does not fully declare GCM Regime eligible positions on Futures and Futures Options in the GCM Declaration File. This risk is determined by comparing, on a net basis, the aggregated positions in the GCM Declaration File and the related CDCC Book Positions to validate whether they match. Any undeclared positions are considered as naked positions and treated separately in a specific Risk Account ("GCM Balance Risk Account"), i.e. no netting occurs between the longs and shorts. The aggregated value in the GCM Balance Risk Account is requested from the Clearing Member as Additional Margin for Undeclared GCM Positions Risk. This Additional Margin is calculated on a daily basis.

Additional Margin for Market Liquidity Risk

As mentioned in Section 1.1.1.1, the Base Initial Margin requirement is intended to cover potential portfolio losses and market risks over a variable number of days defined as the MPOR. This Additional Margin covers the liquidity risk arising when the Corporation has to close-out positions at a price different than the market price.

The Additional Margin for Market Liquidity Risk methodology will consider an absolute surcharge or a relative surcharge for positions exceeding pre-determined thresholds.

The absolute surcharge is a fixed dollar amount applied on a specific contract or transaction or a group of contracts or transactions. The relative surcharge is applied against the specific Base Initial Margin of the specific contract or transaction or a group of contracts or transactions.

The thresholds are determined based on quantitative adjustments such as the trading volume of the product or Underlying Interest, the volatility of the product or Underlying Interest, and the average amount of bids in the primary market auctions for real return bonds. In addition to these adjustments, the Corporation may also apply qualitative adjustments.

The threshold and surcharge values are updated by CDCC from time to time.

Additional Margin for Specific Wrong-Way Risk

The risk covered by the Additional Margin for Specific Wrong-Way Risk arises when the exposure of a Clearing Member in its own products[2] is adversely correlated with the credit worthiness of that Clearing Member. The Additional Margin for Specific Wrong-Way risk aims to measure the risk exposure that represents the net wrong-way exposure less any eligible right-way exposure. For each situation described in the section below, the right-way exposure is limited to the value of the wrong-way risk exposure.

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[2] A Clearing Member has exposure in its own products when the Clearing Member holds: 1) positions on a security issued by the Clearing Member or its Affiliates, 2) positions for which the Underlying Interest is a security issued by the Clearing Member or its Affiliates, 3) positions on a Canadian depositary receipt for which the underlying share is a security issued by the Clearing Member or its Affiliates, or 4) positions for which the Underlying Interest is a Canadian depositary receipt for which the underlying share is a security issued by the Clearing Member or its Affiliates.

CDCC has identified four specific situations where the risk exists:

(a) **Call Options**: When a Clearing Member holds a long Call Option position on the shares issued by itself or its Affiliates, the Option Price or the OTCI Option Price for OTCI Securities Options, as the case may be, is charged as Additional Margin for Specific Wrong-Way Risk. However, the value of all short Call Options for which the Underlying Interest is a security issued by itself or its Affiliates will reduce the amount charged as Additional Margin for Specific Wrong-Way Risk.

(b) **Put Options**: When a Clearing Member holds a short Put Option position for which the Underlying Interest is a security issued by itself or its Affiliates, the full strike value amount minus the Option Price or the OTCI Option Price for OTCI Securities Options is charged as Additional Margin for Specific Wrong-Way Risk. For long Put Option position for which the Underlying Interest is a security issued by itself or its Affiliates, the Option Price or the OTCI Option Price for OTCI Securities Options minus the full strike value amount is charged as Additional Margin for Specific Wrong-Way Risk.

(c) **Share Futures**: When a Clearing Member holds a long Share Futures position for which the Underlying Interest is a security issued by itself or its Affiliates, the full settlement value amount is charged as Additional Margin for Specific Wrong-Way Risk. However, any short Share Futures position for which the Underlying Interest is a security issued by itself or its Affiliates will reduce the amount charged as Additional Margin for Specific Wrong-Way Risk.

(d) **Unsettled Items**: When a Clearing Member holds an Unsettled Item position for which the Underlying Interest is a security issued by itself or its Affiliates, the last price of the Underlying Interest is used for the calculation of the Additional Margin for Specific Wrong-Way Risk. Depending if the Unsettled Item position results from an exercise or an assignment, it could either increase or lower the Additional Margin for Specific Wrong-Way Risk.

The Additional Margin for Specific Wrong-Way Risk is netted and capped at the product level. The value cannot be lower than zero.

Additional Margin for Mismatched Settlement Risk

The Additional Margin for Mismatched Settlement Risk is requested if the risk arising from a lag between the settlement of positions results in a margin offset. More specifically, CDCC faces a risk that a Clearing Member settles a position that provides either a Base Initial Margin offset with other positions on the rest of the portfolio.

Given the fact that margin offsets are granted when Fixed Income Transactions portfolios have both long and short positions without taking into account the settlement dates, this Additional Margin charge will be calculated for the positions that could cause mismatched settlement exposure prior to a default.

In order to address such risk, CDCC will perform forward looking analysis to forecast material changes in the Base Initial Margin as a result of settlements of Fixed Income Transactions.

The Additional Margin for Mismatched Settlement Risk will be calculated by using the maximum of several scenarios representing the potential cases that may trigger a mismatched settlement risk following the settlement of positions, minus the Base Initial Margin.

Additional Margin for Intra-Day Variation Margin Risk

The risk covered by the Additional Margin for Intra-Day Variation Margin Risk arises when market volatility of cleared volumes produces unusually large Variation Margin exposures. The Additional Margin for Intra-day Variation Margin Risk requirement corresponds to the sum of the Additional Margin for Intra-day Variation Margin Risk in respect of Futures and the Additional Margin for Intra-day Variation Margin Risk in respect of Fixed Income Transactions. When calculating the value of Additional Margin for Intra-day Variation Margin Risk for Futures or Fixed Income Transactions, the value cannot be lower than zero.

In order to address the intra-day variation margin risk, the Corporation may call for Additional Margin from each Clearing Member if it determines that the intra-day exposure for Futures and/or Fixed Income Transactions of the Clearing Member exceeds certain limits (thresholds expressed in percentage) in relation to the Clearing Member's respective Base Initial Margin. The Additional Margin for Intra-Day Variation Margin Risk is subject to a minimum value (floor).

Additional Margin for Unpaid Option Premium Exposure Risk

The Additional Margin for Unpaid Option Premium Exposure Risk covers the risk incurred by the Corporation in guaranteeing to each Clearing Member the settlement of the Net Daily Premium on a daily basis. To cover this potential risk, the Corporation accumulates during the Business Day the value of the trades that are not yet settled. At the time of the calculation, if a Clearing Member is expected to make a cash settlement to the Corporation, the value is requested from the Clearing Member, as Additional Margin for Unpaid Option Premium Exposure Risk.

Additional Margin for Banking Holiday Risk

This Additional Margin considers the risk associated with uncovered exposures arising from new trades and the additional market risk that the Corporation could face during the Banking Holiday.

The incremental exposure is based on the historical fluctuation of the Base Initial Margin requirement over a specific period and it is designed to capture the potential uncovered Base Initial Margin requirement arising from new trades during the Banking Holiday.

With respect to the additional market risk, one (1) more Business Day is added to the MPOR of the Base Initial Margin requirement for the eligible tradeable products during the Banking Holiday. This Base Initial Margin requirement is then compared to the Base Initial Margin calculated with the MPOR. The difference between the two values corresponds to the additional market risk.

Additional Margin for Variation Margin Delivery Risk

This Margin requirement covers the risk incurred by the Corporation in guaranteeing to each Clearing Member having pledged specific securities to cover its Net Variation Margin Requirement, the return of such specific securities, in the event that another Clearing Member to which the specific securities were initially delivered fails to return such specific securities and becomes Non-Conforming or is Suspended. In this case, the Corporation will have to buy the specific securities in the market to return to the Clearing Member that had initially pledged the specific securities. To cover this potential risk, an amount representing a percentage of the total Variation Margin requirement or a specific percentage set at the securities level will be collected from the Clearing Member who initially receives the specific securities, as Additional Margin for Variation Margin Delivery Risk.

Additional Capital Margin Risk

This Additional Margin intends to measure the credit exposure of all Clearing Members (excluding Limited Clearing Members) that arises if the exposure of a Clearing Member is superior to its capital amount.

The Corporation compares the Clearing Member's capital amount to the Base Initial Margin requirement based on the CDCC Book Positions. In the event that the Base Initial Margin of the Clearing Member exceeds the capital amount, Additional Margin of a minimum of 50% of the excess will be collected from the Clearing Member. The proportion value is updated by CDCC from time to time.

The capital level is derived from regulatory reports received on a regular basis. The Corporation uses the net allowable assets, the net Tier 1 capital or any other comparative measure to assess the capital level of each Clearing Member.

Additional Margin for Uncovered Risk of Limited Clearing Members

This Additional Margin covers the risk exposure that arises if the total value of the risk represented by a Limited Clearing Member to the Corporation is greater than the aggregate amount of the Limited Clearing Member's Adjusted Base Initial Margin and the total value of the Clearing Fund.

The risk represented by the Limited Clearing Member is determined by the Corporation by calculating the estimated loss that the Corporation would face in extreme but plausible market conditions. This Additional Margin is calculated on a daily basis and is required from Limited Clearing Members only.

Any Other Additional Margins

Any other additional Margins as set out in the Rules (other than required pursuant to Rule D-607).

1.1.2 Variation Margin

The Variation Margin requirement covers the risk due to the change in price of a Derivative Instrument or an OTCI or a change in the Floating Price Rate since the previous evaluation in accordance with the Rules. The following table evidences the type of Variation Margin coverage that will be required by CDCC for each type of products:

Products	Variation Margin Coverage Type
Options	Collateralized
Futures	Cash settled
Fixed Income Transactions	Collateralized (subject to Variation Margin process)
Unsettled Items	Collateralized

1.1.2.1 Options

For Options, the Variation Margin is collateralized every Business Day and at each Intra-Day Margin Call based on the Option Price reported by the Exchange, or the last OTCI

Option Price for OTCI Securities Options[3], as the case may be, and, in the event of the unavailability or inaccuracy of such price, the Corporation shall set such price in accordance with the best information available as to the correct price.

1.1.2.2 Futures

For Futures, the Variation Margin is cash settled every Business Day based on the last Settlement Price reported by the Exchange, and, in the event of the unavailability or inaccuracy of such price, the Corporation shall set the last Settlement Price in accordance with the best information available as to the correct price.

1.1.2.3 Fixed Income Transactions

The Variation Margin Requirement[4] in respect of each Fixed Income Transaction is calculated on a daily basis and represents the sum of the Price Valuation Requirement and the Repo Rate Requirement, each as defined in Section D-601 of the Rules.

Price Valuation Requirement

The Price Valuation Requirement represents, in respect of a Repurchase Transaction, an amount which is the aggregate amount calculated in respect of the difference between (i) the Market Value of the Purchased Security and (ii) the Repurchase Price of the Repurchase Transaction, plus any Coupon Income payable to the holder between the calculation date and the Repurchase Date, and, in respect of a Cash Buy or Sell Trade, an amount which is the difference between (i) the Market Value of the Purchased Security and (ii) the Purchase Price of the Cash Buy or Sell Trade; which amount is owed to the Corporation by a Fixed Income Clearing Member that is a party to such Repurchase Transaction or Cash Buy or Sell Trade or by the Corporation to such Fixed Income Clearing Member.

Repo Rate Requirement

The Repo Rate Requirement represents a change in the current Floating Price Rate and means, in respect of a Repurchase Transaction, an amount which is calculated in respect of the difference between the Floating Price Rate and the Repo Rate; which amount is owed to the Corporation by a Fixed Income Clearing Member that is a party to such Repurchase Transaction or by the Corporation to such Fixed Income Clearing Member.

1.1.2.4 Unsettled Items

The Variation Margin for Unsettled Items with respect to both Options and Futures is collateralized. With respect to Variation Margin for Unsettled Items related to Options, the Corporation calculates a Variation Margin requirement equal to the intrinsic value of the Option multiplied by the position and the contract size. With respect to Variation Margin for Unsettled Items related to Futures, the Corporation calculates a Variation Margin requirement equal to the difference between the last Settlement Price of the Futures and the price of the Underlying Interest related to the Futures, multiplied by the position and the contract size.

[3] Please refer to Section 7.4 for additional details on the theoretical price calculation of OTCI Securities Options.

[4] The Variation Margin Requirement for Fixed Income Transactions is not applied for physical delivery of Government of Canada Bond Futures. The applicable Variation Margin Requirement for Fixed Income Transactions is rounded up to the nearest $1 of nominal value.

1.1.3 Account Structure, Netting and Risk Aggregation

1.1.3.1 Account Types and Risk Accounts

The Corporation uses five types of accounts[5] for position management of Firm and Client: 1) Firm Account, 2) Market Maker Firm Account, 3) Client Account Individual, 4) Client Account Omnibus, 5) Market Maker Non-Firm Account.

The Corporation uses Risk Accounts for the Initial Margin requirement calculation. Risk aggregation is determined based on the position management account type and the eligibility of the positions under the GCM Regime or the Non-GCM Regime.

More specifically, for the Firm Account and the Market Maker Firm Account, risk aggregation is done directly at the account level, i.e. each account has a corresponding Risk Account ("Firm Risk Account"). For the Client Account Individual and the Market Maker Non-Firm Account, positions are further segregated in two Risk Accounts ("GCM Risk Account", "Non-GCM Risk Account") depending on the eligibility regime. Hedge Open Positions, identified in these accounts by Clearing Members as eligible to reduce the market risk for an individual client, are also treated under the Non-GCM Risk Account.

For Client Account Omnibus, the treatment is different depending on the eligibility regime. For positions eligible under the GCM Regime, an additional risk segregation is done, where each account/positions disclosed from the GCM Declaration File (rather than the CDCC Book Positions) are mapped to an individual client Risk Account ("Declared GCM Risk Account"). Whereas, positions eligible under the Non-GCM Regime and based on CDCC Book Position, are carried out in a single Risk Account ("Non-GCM Risk Account").

1.1.3.2 Short Positions, Account Types, Risk Accounts and Positions Netting

Clearing Members shall not be required to deposit Margin in respect of Short Positions in Futures or Options for which they have deposited the Underlying Interest in accordance with Sections A-212 and A-706 of the Rules.

The Initial Margin requirement is calculated at the Risk Account level on a net basis for all account types and asset classes, except for Option positions in Client Account Omnibus and eligible under the Non-GCM Regime, for which only short Options are taken into account when computing the Initial Margin.

1.1.3.3 Margin Aggregation

The Margin requirement of each Clearing Member is composed of the Initial Margin requirement and the Variation Margin requirement.

The calculation is made at the Risk Account level and then aggregated at the corresponding margin account level pursuant to Rule A-7 Margin Requirements: Firm Margin Account, GCM Regime Margin Account and Non-GCM Regime Margin Account. However, operationally the Margin requirement is subject to the following aggregation, subject to the applicable type of products being cleared by the Clearing Member:

[5] Please refer to section A-102 of the Rules for definitions related to these 5 account types.

Initial Margin Requirement (including the Variation Margin for Options and Unsettled Items)

The Initial Margin requirement for all products is aggregated as follows:

(a) The Base Initial Margin (or Adjusted Base Initial Margin, as the case may be) is calculated at the Risk Account level. For Options, Futures and Unsettled Items, the margin results are calculated at the Combined Commodity level and the Base Initial Margin corresponds to the sum of all Combined Commodities. For Fixed Income Transactions, the Base Initial Margin represents the sum of all VaR Risk Groups. The Base Initial Margin at the Risk Account level corresponds to the sum of the Base Initial Margin for Options, Futures and Unsettled Items and the Base Initial Margin for Fixed Income Transactions.

(b) The Variation Margin for Options and Unsettled Items is calculated at the Risk Account level and then added to the Base Initial Margin (or Adjusted Base Initial Margin, as the case may be).

- If the Variation Margin for Options and Unsettled Items is negative, this will result in a margin credit[6] decreasing the aggregate value of the Base Initial Margin for Options and Unsettled Items.

- If the Variation Margin for Options and Unsettled Items is positive, this will result in a margin debit increasing the aggregate value of the Base Initial Margin for Options and Unsettled Items.

(c) The Initial Margin requirement in respect of each Clearing Member margin accounts is calculated by aggregating for all Risk Accounts the value of (1) the Base Initial Margin (or Adjusted Base Initial Margin, as the case may be) and the Variation Margin for Options and Unsettled Items and (2) the following Additional Margins calculated at the Clearing Member level: Additional Margin for Market Liquidity Risk, Additional Margin for Specific Wrong-Way Risk, Additional Margin for Mismatched Settlement Risk, Additional Margin for Intra-Day Variation Margin Risk, Additional Margin for Unpaid Option Premium Exposure Risk, Additional Margin for Banking Holiday Risk, Additional Margin for Variation Margin Delivery Risk, Additional Capital Margin Risk, Additional Margin for Uncovered Risk of Limited Clearing Members, Additional Margin for Intra-Day GCM Risk, Additional Margin for Undeclared GCM Positions Risk and any other Additional Margins as set out in the Rules (other than required pursuant to Rule D-607). Additional Margins are required at the Firm Margin Account level, except for Additional Margin for Intra-Day GCM Risk and Additional Margin for Undeclared GCM Positions Risk required at the GCM Regime Margin Account level.

Variation Margin for Futures

The Variation Margin for Futures (the net value of Gains and Losses) is aggregated at the Clearing Member level (for all Risk Accounts).

Variation Margin for Fixed Income Transactions

The Variation Margin Requirement for Fixed Income Transactions is aggregated at the Clearing Member level.

[6] For a given Risk Account, the margin credit is capped to the Base Initial Margin for Options, Futures and Unsettled Items.

1.2 Clearing Fund Requirement

Rule A-6 governs the rights and obligations of the Corporation and the Clearing Members, excluding Limited Clearing Members (LCMs), with respect to the Clearing Fund.

The Clearing Fund is a reserve fund put in place by the Corporation to absorb the deficit that may occur upon the default of a Clearing Member and its Affiliates when the suspended Clearing Member's prefunded financial resources do not cover its market exposure.

This fund is structured to mitigate the largest Uncovered Residual Credit Risk under extreme but plausible market conditions of all Clearing Members (excluding Limited Clearing Members) and of their Affiliate(s).

On a monthly basis, the Clearing Fund is reviewed and updated according to the following methodology which considers two specific elements:

- The size of the Clearing Fund is based on the largest Uncovered Residual Risk of all Clearing Members and of their Affiliate(s) (excluding Limited Clearing Members) over the last sixty (60) Business Days. The size is then increased by 15%.

- Each Clearing Member's Clearing Fund Requirement amount is equal to the weight of its respective Base Initial Margin requirement based on the CDCC Book Positions over the last sixty (60) Business Days multiplied by the size of the Clearing Fund. A Clearing Member's contribution is subject to a minimum floor (Base Deposit), which varies according to the Clearing Member's type of activity.

On an intra-month basis, the Corporation monitors and controls the size of the Clearing Fund and may adjust it upward between monthly re-evaluations. If the largest Uncovered Residual Credit Risk exceeds 90% of the size of the Clearing Fund but is inferior to 100% of the size of the Clearing Fund, the size of the Clearing Fund is increased by 15% of the current size. If the largest Uncovered Residual Credit Risk exceeds 100%, the size of the Clearing Fund is updated based on the methodology described above. In both cases, the size of the Supplemental Liquidity Fund should be updated based on the methodology decribed in Section 1.3.

1.3 Supplemental Liquidity Contributions

Rule A-6A governs the rights and obligations of the Corporation and the Clearing Members (excluding LCM) with respect to the Supplemental Liquidity Fund.

The Supplemental Liquidity Contributions will be required by the Corporation at its discretion, in order to, among other reasons, absorb the liquidity exposures that may occur upon the default of a Clearing Member and its Affiliates when the suspended Clearing Member's prefunded financial resources and the available Clearing Fund resources (including the Clearing Fund deposits made pursuant to Rule A-610) over the multi-day Default Management Period do not cover the Corporation's and the Clearing Member's liquidity exposure. The Supplemental Liquidity Fund is structured to mitigate the largest Uncovered Residual Liquidity Risk under extreme but plausible market conditions of all Clearing Members (excluding LCM) and of their Affiliate(s).

The Supplemental Liquidity Fund is composed of two Tiers. Tier 1 contributions are maintained during all the calendar month it is required for while Tier 2 contributions are maintained during monthly expiry periods only. These two tiers represent the maximum amount of Supplemental Liquidity Contributions that the Corporation may require, at its discretion.

On a monthly basis, Tier 1 contributions and Tier 2 contributions to the Supplemental Liquidity Fund are reviewed and updated according to the following methodology:

- The maximum size of the Tier 1 contributions is based on the largest Uncovered Residual Liquidity Risk of all Clearing Members and of their Affiliate(s) (excluding LCM) over the non-expiry days of the last sixty (60) Business Days (the "Tier 1 Uncovered Residual Liquidity Risk"). The size is then increased by 15%. The Corporation may require, at its discretion, a different amount.

- The maximum size of the Tier 2 contributions is based on the positive difference between 1) the largest Uncovered Residual Liquidity Risk of all Clearing Members and of their Affiliate(s) (excluding LCM) over the expiry days of the last sixty (60) Business Days (such period shall cover a minimum of three expiry periods, as defined below) and 2) the Tier 1 Uncovered Residual Liquidity Risk. The size is then increased by 15%. The Corporation may require, at its discretion, a different amount.

- On an intra-month basis, the Corporation monitors and controls the size of the Supplemental Liquidity Fund and may adjust it upward between monthly re-evaluations. If the largest daily Liquidity Shortfall exceeds 90% of the available size of the Clearing Fund and the Supplemental Liquidity Fund combined (including the Clearing Fund deposits made pursuant to Rule A-610 and the Supplemental Liquidity Contributions made pursuant to Rule A-6A08), the size of the Supplemental Liquidity Fund (both Tier 1 and Tier 2) is updated based on the methodology described above.

- The allocation of the Supplemental Liquidity Fund is based on each Clearing Member's average Uncovered Residual Liquidity Risk for the past sixty (60) Business Days. For Tier 1 contributions, the allocation is based on the Clearing Member's average Uncovered Residual Liquidity Risk over the non-expiry days of the last sixty (60) Business Days. For Tier 2 contributions, the allocation is based on the Clearing Member's average Uncovered Residual Liquidity Risk over the expiry days of the last sixty (60) Business Days (such period shall cover a minimum of three expiry periods, as defined below).

For the purposes of this Section 1.3, an "expiry period" generally covers two "expiry days": the expiry day and the next Business Day.

SECTION 2 SGC REPURCHASE TRANSACTIONS

This section of the Risk Manual is applicable only to the clearing of SGC Repurchase Transactions by CDCC, and to the SGC Clearing Members. An SGC Repurchase Transaction means a bilateral repurchase agreement originally entered into between an SGC Clearing Member and the Trust which is submitted to CDCC for clearing during the SGC Repurchase Transaction Submission Period, pursuant to which an SGC Clearing Member agrees to sell SGC Securities in a particular SGC Securities Basket to the Trust. A simultaneous agreement is created by the SGC Clearing Member to purchase the SGC Securities or Equivalent SGC Securities in a particular SGC Securities Basket from the Trust at the Repurchase Date, and by the SGC Maturity Settlement Time, at a Repurchase Price to be paid by the SGC Clearing Member to the Trust, and governed by CDCC Rule D-7.

2.1 Repurchase Transactions Risk Management

2.1.1 SGC Initial Securities Adjustment

The SGC Initial Securities Adjustment means the application of margins published by Bank of Canada for SLF Securities on the Bank of Canada website or for SGC Securities which are not SLF Securities, as published by the Corporation, as adjusted by the Corporation from time to time for the SGC Securities included in each SGC Securities Basket as published on the Corporation's website. CDCC will monitor the list of SLF Securities and haircuts, and if required, review the list of SGC Securities and the selection of the haircuts in order to keep the SGC Securities Basket specifications aligned with these Bank of Canada product features.

The SGC Initial Securities Adjustment acts as an additional layer of credit risk mitigation (over collateralization) in cases where CDCC would have to realize the value of the SGC Securities Basket.

2.1.2 SGC Securities Adjustment

SGC Securities Adjustment means, during the term of an SGC Repurchase Transaction, SGC Securities in an amount (i) equal to the difference between (a) the SGC Market Value of the SGC Securities that are the subject of an SGC Repurchase Transaction and (b) the Purchase Price of the SGC Repurchase Transaction plus (ii) an amount equal to the accrued Price Differential; which SGC Securities are owed to the Trust by an SGC Clearing Member that is a party to such SGC Repurchase Transaction, or by the Trust to such SGC Clearing Member.

- If CDCC proceeds with an SGC Securities Adjustment pursuant to Section D -707 of the Rules at the close of a business day:

  (i) if there is a negative SGC Securities Adjustment, this amount represents the required SGC Securities Adjustment to be sold by the SGC Clearing Member to the Trust by the given timeline; and

  (ii) if there is a positive SGC Securities Adjustment, this amount represents the required SGC Securities Adjustment to be sold by the Trust to the SGC Clearing Member by the given timeline.

- CDCC may determine, from time to time and for the purpose of Section D-707 of the Rules, the amount of a minimum threshold to be applied to SGC Securities Adjustment once calculated by CDCC (threshold expressed as a percentage). If CDCC proceeds with an intra-day SGC Securities Adjustment and such SGC Securities Adjustment is equal to or exceeds any applicable threshold, CDCC may require the SGC Clearing Member to make available SGC Securities for the entire amount of the SGC Securities Adjustment (disregarding the threshold) within the given timeline.

2.1.3 SGC Concentration Limits

All SGC Securities Baskets will be comprised of the same eligible types of SGC Securities but will be distinguished by separate SCC Initial Securities Adjustments, SGC Securities Adjustments and SGC Concentration Limits. The concentration limits are determined by CDCC for the SGC Securities in a SGC Securities Basket, as published on CDCC’s website.

2.2 Credit Rating Downgrade of a SGC Clearing Member

In the event an SGC Clearing Member fails to maintain the required rating as indicated in the Section D-703 of the Rules, the Corporation shall not accept for clearing any new SGC Repurchase Transactions from this SGC Clearing Members. SGC Repurchase Transactions that have already been novated to the Corporation prior to the change of rating may continue to settle.

In the event an SGC Clearing Members fails to maintain the required rating, CDCC will have the right, at its discretion, to apply and require from the impacted SGC Clearing Member any additional risk mitigation measures as CDCC deems appropriate including, without limitation, any additional SGC Securities Adjustment to cover for the additional risks that such a credit rating downgrade may create.

SECTION 3 ELIGIBLE COLLATERAL

As set out in Section 1 of the Risk Manual, every Clearing Member shall be obligated to deposit Margin with the Corporation, as determined by the Corporation. Deposits must be made in the form of eligible collateral, as specified in this section, in an amount sufficient, taking into account the market value and applicable Haircuts.

3.1 Forms of Collateral

The forms of eligible collateral that may be deposited by or on behalf of a Clearing Member with CDCC, as prescribed in Rule A-6 (Clearing Fund Deposits) and Rule A-7 (Margin requirements), are one or more of the following assets:

- Cash; Canadian dollar (CAD) Cash is the only form of eligible collateral that can be deposited in the Clearing Fund
- Debt Securities
- Valued Securities

CDCC may, on an exceptional and temporary basis at its sole discretion, exclude certain forms of eligible collateral or accept other forms of collateral.

3.2 Cash

Cash amounts are accepted in Canadian dollars and in a selection of Non-CAD Currencies. CAD Cash is the only form of eligible collateral that can be deposited in the Clearing Fund.

CDCC reviews and publishes the selection of Non-CAD Currencies from time to time, and the Clearing Members are informed of these reviews by written notice.

3.3 Debt Securities

3.3.1 General Considerations

Debt Securities which fulfill certain minimum criteria may be deemed as an eligible form of collateral.

Acceptance of a Debt Security is conditional on the availability of a price from a source that CDCC determines to be acceptable and reliable.

CDCC establishes, reviews and publishes the list of eligible Debt Securities on a regular basis.

Irrespective of the fact that a Debt Security fulfils all eligibility criteria, CDCC will not accept as collateral from or on behalf of a Clearing Member any Debt Security issued or guaranteed by the Clearing Member itself or its Affiliates.

3.3.2 Types of Debt Securities

The Debt Security must be a debt instrument having a fixed and unconditional principal amount.

The coupon rate of the debt instrument must be fixed. Zero coupon bonds are eligible.

Furthermore, real return bonds can be eligible for a specific issuer as determined by CDCC on the list of eligible Debt Securities.

The Debt Security must not have an embedded option or carry a right of conversion into equity securities, with the exception of non-financial calls (i.e. “Canada Call”).

Saving Bonds, floating rate notes, stripped coupons and residual securities are excluded.

3.3.3 Types of Issuers

The eligible Debt Securities must be issued or guaranteed by the Government of Canada, by a provincial government or by the United States (“U.S.”) Government.

3.3.4 Eligible Debt Securities by Issuer

2.3.4.1 Debt Securities issued by the Government of Canada:

- Treasury bills, bullet bonds and real return bonds.

2.3.4.2 Debt Securities guaranteed by the Government of Canada:

- Treasury bills, bullet bonds and Debt Securities issued by Canada Housing Trust.

2.3.4.3 Debt Securities issued by a provincial government:

- Treasury bills and bullet bonds issued by the governments of Alberta, British Columbia, Manitoba, Ontario and Quebec.

2.3.4.4 Debt Securities guaranteed by a provincial government:

- Bullet bonds issued by Financement Quebec, Hydro-Quebec and Ontario Electricity Financial Corporation.

2.3.4.5 Debt Securities issued by the U.S. Government

- Treasury bills, notes, bonds, and Treasury inflation-protected securities (TIPS).

3.3.5 Settlement Procedures

Debt Securities must be transferable in book-entry form using CDSX of CDS Clearing and Depository Services Inc.

3.3.6 Currency of Denomination

Debt Securities must be denominated in Canadian dollars with the exception of Debt Securities issued by the U.S. Government denominated in U.S. dollars.

3.4 Valued Securities

3.4.1 General Considerations

CDCC accepts Valued Securities trading on the Toronto Stock Exchange or the TSX Venture Exchange.

Irrespective of the fact that a Valued Security fulfils all eligibility criteria, CDCC will not accept as collateral from or on behalf of a Clearing Member any Valued Security issued[7] or guaranteed by the Clearing Member itself or its Affiliates.

No value will be recognized for a Valued Security whose closing price is below $10 per share.

3.4.2 Settlement Procedures

Valued Securities must be transferable in book-entry form using CDSX of CDS Clearing and Depository Services Inc.

3.4.3 Currency of Denomination

Valued Securities must be denominated in Canadian dollars.

3.5 Risk Control Measures

3.5.1 General Considerations

The CDCC collateral framework takes a conservative approach to manage the forms of eligible collateral accepted. The framework includes, but is not limited to, risk limits and calculation of Haircuts that apply to the different forms of eligible collateral.

3.5.2 Risk Limits

3.5.2.1 Limits at the Clearing Member Level

- Except for the Variation Margin account, for each acceptable Government Debt Security, excluding Treasury bills, a concentration limit equal to $250 million or 10% of the total issue outstanding, whichever is less, is applied to each Clearing Member.
- Valued Securities issued[8] or guaranteed by the Clearing Member or its Affiliates are not eligible.
- Valued Securities issued by the TMX Group are not eligible.

3.5.2.2 Limit on the Clearing Fund Account

For each Clearing Member, for all of its accounts combined, 100% of the Clearing Fund Requirements must be covered by CAD Cash.

3.5.2.3 Limit on the Margin Requirements[9]

For each Clearing Member, for all of its accounts combined, at least 25% of the Margin requirements must be covered by CAD Cash, acceptable Treasury bills and bonds issued or guaranteed by the Government of Canada or any combination thereof valued after the application of Haircuts.

[7] This includes a Canadian depositary receipt for which the underlying share is a security issued by the Clearing Member or its Affiliates.

[8] This includes a Canadian depositary receipt for which the underlying share is a security issued by the Clearing Member or its Affiliates.

[9] This excludes the Net Variation Margin Requirement.

For each Clearing Member, for all of its accounts combined, no more than 40% of the Margin requirements may be covered by Debt Securities issued by the United States of America Federal Government after the application of Haircuts.

For each Clearing Member, for all of its accounts combined, no more than 50% of the Margin requirements may be covered by provincial issued or guaranteed Debt Securities after the application of Haircuts.

For each Clearing Member, for all of its accounts combined, no more than 20% of the Margin requirements may be covered by Debt Securities issued or guaranteed by the province of Alberta after the application of Haircuts.

For each Clearing Member, for all of its accounts combined, no more than 20% of the Margin requirements may be covered by Debt Securities issued or guaranteed by the province of British Columbia after the application of Haircuts.

For each Clearing Member, for all of its accounts combined, no more than 20% of the Margin requirements may be covered by Debt Securities issued or guaranteed by the province of Manitoba after the application of Haircuts.

For each Clearing Member, for all of its accounts combined, no more than 30% of the Margin requirements may be covered by Debt Securities issued or guaranteed by the province of Ontario after the application of Haircuts.

For each Clearing Member, for all of its accounts combined, no more than 30% of the Margin requirements may be covered by Debt Securities issued or guaranteed by the province of Quebec after the application of Haircuts.

For each Clearing Member, for all of its accounts combined no more than 15% of the Margin requirements may be covered by Valued Securities after the application of Haircuts.

For each Clearing Member, for all of its accounts combined, no more than 5% of the Margin requirements may be covered by any one Valued Security after the application of Haircuts.

For each Clearing Member, for all of its accounts combined, risk limits in proportion of the Margin requirements may be covered by Non-CAD Currencies after the application of Haircuts. CDCC reviews and publishes risk limits attributable to Non-CAD Currencies from time to time, and the Clearing Members are informed of these reviews by written notice.

3.5.2.4 Limit on the Variation Margin Account

For each Clearing Member, for all of its accounts combined, 100% of the Net Variation Margin Requirement must be covered by acceptable Treasury bills and bonds issued or guaranteed by the Government of Canada, Government of Alberta, Government of British Columbia, Government of Ontario and Government of Quebec or any combination thereof after the application of Haircuts.

CDCC shall, on an exceptional basis, acting reasonably, accept CAD cash or other securities as collateral to cover the Net Variation Margin Requirement.

3.5.2.5 Limit on the Supplemental Liquidity Fund

For each Clearing Member, 100% of the Supplemental Liquidity Contributions must be covered by Cash

3.5.3 Limits at CDCC Level

For each acceptable Valued Security, a concentration limit of 5% of the free float applies at CDCC level.

3.6 Haircuts

3.6.1 Haircuts for Non-CAD Currencies

The Corporation calculates the Haircuts based on historical daily returns of the foreign exchange risks. The volatility estimator uses the exponentially weighted moving average (“EWMA”) approach as defined in Appendix 6.2, and the assumption that the Non-CAD currency can be liquidated at a reasonable price in “n” days (“n” is determined according to the applicable basket of currencies and prevailing market conditions).

In addition, the final Haircut applied for Non-CAD Currencies is calculated as the maximum daily haircut computed over the last 5 years and over the applicable basket of currencies considered by the Corporation.

Once the quantitative analysis is performed, CDCC reserves the right to increase the Haircuts based on qualitative criteria, acting reasonably.

3.6.2 Haircuts for Government Securities

The Corporation calculates the Haircuts based on any of the following criteria:

- Valuation of the market, credit, liquidity and foreign exchange risks based on historical daily returns;
- The volatility estimator uses the exponentially weighted moving average (“EWMA”) approach as defined in Appendix 6.5, and the assumption that the bond can be liquidated at a reasonable price in “n” days. (“n” is determined according to the type of products and prevailing market conditions). In addition, a floor for the EWMA volatility estimator is calculated as the 25th percentile of a daily EWMA volatility estimator observed over the last 10 years;
- Liquidity risk valued according to the bid-ask spread of the issues using the same EWMA volatility estimator and the floor (if this spread is unavailable, the liquidation window will be expanded and will depend on market conditions);
- Bonds of the same issuer and comparable maturities.

Once the quantitative analysis is performed, CDCC reserves the right to increase the Haircuts based on qualitative criteria, such as:

- Comparative analysis of CDCC’s Haircuts in relation to the Haircuts of the Bank of Canada;
- Comparative analysis of CDCC’s Haircuts in relation to the Haircuts of other clearing houses;
- The congruence of the different Haircuts to the credit rating spreads of the different issuers; and
- Any other factor considered relevant by CDCC, acting reasonably.

3.6.3 The Haircuts for Valued Securities

A Haircut of 50% is applied to all Valued Securities pledged against the total Margin requirement for all accounts combined.

3.6.4 Haircuts Policy

CDCC reviews and publishes the Haircuts from time to time, and the Clearing Members are informed of these reviews by written notice.

SECTION 4 MONITORING PROGRAM

4.1 Backtesting

The Corporation monitors the daily performance of the models through the backtesting and sensitivity analysis. The backtesting is used as a tool to validate the models, but it is not limited to model validation.

In addition, a Clearing Member's portfolio is backtested on a daily basis and the results are monitored by the Corporation.

4.2 Stress Testing

The CDCC stress testing management framework takes a conservative approach to create and revise stress tests scenarios. The Corporation uses different historical and theoretical stress scenarios, each of them designed to test different relevant Risk Factors. The framework includes, but is not limited to, the assessment of the new scenarios and the monitoring of the Risk Factors and stress test scenarios and correction measures if the daily results are not satisfactory.

The stress testing management framework is revised by CDCC from time to time.

4.3 Clearing Members Credit Risk Monitoring

CDCC performs a qualitative analysis of the financial statements of each Clearing Member. CDCC has defined specific thresholds to analyze the profitability, the regulatory margin and capital obligations, the liquidity and the capital level of each Clearing Member. As a result of its analysis, the Corporation may require such additional information from its Clearing Members as may be reasonably necessary. On the basis of the above analysis, the Corporation will determine if it is necessary to take any additional actions.

SECTION 5 CONTRACT ADJUSTMENT

Section A-902 of the Rules prescribes the cases in which a contract adjustment may be made.

The Corporation is responsible for monitoring and identifying the corporate events that may result in a contract adjustment. It interprets the information and communicates it to the Adjustment Committee as soon as possible. The Adjustment Committee acts in accordance with the provisions of Rule A-9.

A meeting of the Adjustment Committee is called by the Corporation, whenever circumstances require. The Adjustment Committee is responsible for preparing the draft notices to the Clearing Members which, once approved by the Adjustment Committee members, are published to the attention of the Clearing Members and the market participants.

SECTION 6 ACCEPTABILITY OF UNDERLYING INTERESTS

6.1 Acceptable Underlying Interests of Securities Options

- Section B-603 of the Rules sets out the eligibility criteria for Securities Options.
- Section B-604 of the Rules sets out the ineligibility criteria for Securities Options.
- Section B-605 of the Rules sets out the eligibility criteria for ETF Securities as Underlying Interests of Options.
- Section B-606 of the Rules sets out the ineligibility criteria for ETF Securities as Underlying Interests of Options.

CDCC reviews and publishes, from time to time, the eligibility threshold and ineligibility threshold in terms of Value of Available Public Float and volume (expressed as an average daily North American Volume of the last 20 Business Days) for clearing Securities Options.

6.2 Acceptable Underlying Interests of Share Futures

- Section C-1503 of the Rules sets out the eligibility criteria for Share Futures.
- Section C-1504 of the Rules sets out the ineligibility criteria for Share Futures.

CDCC reviews and publishes, from time to time, the eligibility threshold and ineligibility threshold in terms of Value of Available Public Float and volume (expressed as an average daily North American Volume of the last 20 Business Days) for clearing Share Futures.

6.3 Acceptable Underlying Interests of OTCI Securities Options

- Section D-104 of the Rules sets out the acceptance criteria for OTCI Securities Options.

CDCC reviews and publishes, from time to time, on its website a list of Acceptable Underlying Interests for clearing OTCI Securities Options.

Between two publications of the list of Acceptable Underlying Interests, a Clearing Member who wishes to clear OTCI Securities Options for which an Underlying Interest is not included on the list must obtain the Corporation's prior approval. The Underlying Interest must at least meet the acceptance criteria prescribed in Section D-104 of the Rules.

6.4 Acceptable Underlying Interests of Cash Buy or Sell Trades

For the application of Sections D-104 and D-603 of the Rules, Securities are acceptable for Cash Buy or Sell Trades clearing if they meet the following criteria:

- The issuer must be eligible, which includes the following issues:
- Bonds and Treasury bills issued by the Government of Canada, including real return issues;
- Canada Mortgage and Housing Corporation debt securities;
- Bonds issued by Business Development Bank of Canada;
- Bonds issued by Export Development Canada;

- Bonds issued by Farm Credit Canada;
- Bonds issued by Canada Post;
- Secured General Collateral Notes issued by a special purpose trust, at the request of a SGC Clearing Member
- Bonds issued by certain provincial governments and provincial Crown corporations determined as acceptable by CDCC, excluding real return bonds, zero coupon bonds, and bonds with a maturity of less than one year.
  - The bonds must be repayable at maturity;
  - The bonds must be denominated in Canadian dollars;
  - The coupon type must be fixed, adjusted for the inflation or zero (Treasury bills are eligible);
  - The net amount outstanding[10] must be greater than or equal to $250 million;
  - The bonds' prices must be issued by a source that is acceptable to the Corporation.

6.5 Acceptable Underlying Interests of Repurchase Transactions

For the application of the provisions of Sections D-104 and D-603 of the Rules, Securities are eligible for clearing of Repurchase Transactions if they meet the following criteria:

- The Underlying Interest must be an Acceptable Underlying Interest of Cash Buy or Sell Trades;
- The Purchase Date of the Repurchase Transaction must be no earlier than the Novation Date;
- The Repurchase Date of the Repurchase Transaction must not be more than 365 days later than the Purchase Date of the Repurchase Transaction and must be no later than the maturity date of the Acceptable Security.

[10] The net amount outstanding is defined as the outstanding amount issued on the market minus the stripped coupon bonds and issuer repurchases.

SECTION 7 APPENDIX

7.1 Base Initial Margin Calculation for Options, Futures and Unsettled Items[11]

For greater certainty, this sections only applies to Options, Futures and Unsettled Items.

To calculate the Base Initial Margin the risk methodology is based on the PSR and the VSR which are then converted into the Scanning Risk parameter. The Scanning Risk parameter represents the difference between the most unfavourable projected liquidation value and the initial reference price[12]. The most unfavourable projected liquidation value amongst the Risk Array is obtained by varying the values of the Underlying Interest and implied volatility according to several scenarios representing adverse changes in normal market conditions. The projected liquidation values are obtained using specific valuation models such as Black 76, Black-Scholes, Binomial and others.

The Scanning Risk is calculated at the Combined Commodity level and is denominated in the same currency as the contract. For contracts belonging to the same Combined Commodity, the Risk Array results are added up for all contracts under the same scenario. The highest loss represents the Scanning Risk.

The other variables influencing the value of the Base Initial Margin are the Intra-Commodity, the Inter-Commodity and the Short Option Minimum. The following table summarizes the variables used in the calculation.

Input variables to calculate the Base Initial Margin[13]	Options	Futures	Unsettled Items
Scanning Risk	•	•	•
Intra-Commodity		•	
Inter-Commodity	•	•	•
Short Option Minimum	•		

7.1.1. Scanning Risk

The Scanning Risk parameter represents the difference between the most unfavourable projected liquidation value and the initial reference price. The most unfavourable projected liquidation value amongst the Risk Array is obtained by varying the values of the Underlying Interest and implied volatility according to several scenarios representing adverse changes in normal market conditions. The table at the end of this section shows all the risk scenarios. The projected liquidation values are obtained using specific valuation models such as Black 76, Black-Scholes, Binomial and others. If the largest loss is negative, the Scanning Risk is set to zero. The Scanning Risk is then compared to the Short Option Minimum. This amount is required if the Short Option Minimum is higher than the result of the Risk Arrays.

7.1.1.1 Price Scan Range

The term PSR represents the potential variation of the contract value and it is calculated through the following formula:

[11] Unsettled Items resulting of a physical delivery of Government of Canada Bond Futures are margined under the VaR methodology.

[12] The initial reference price is the market price or the theoretical price derived from market observations.

[13] Under CDCC's Portfolio Margining framework, Options, Futures and Unsettled Items may be grouped in the same Combined Commodity or may be subject, if eligible, to Inter-Commodity credit. Margin relief between GCM Regime and Non-GCM Regime positions is not permitted.

$$PSR = \; Price \; \times MI \; \times Contract\ Size$$

The methodology for the MI is detailed in Section 6.5.

7.1.1.2 Volatility Scan Range

The term VSR represents the potential variation of the implied volatility and it is calculated through the following formula:

$$VSR = \; Volatility\ Shock \; \times \sqrt{n}$$

Where ‘n’ is the MPOR, and ‘Volatility Shock’ represents the 95% confidence level of the historical daily fluctuations for the series volatility over a one year look-back period. The daily fluctuations are scaled up with the use of MPOR. VSR values are subject to a floor value and a cap value.

Risk Scenarios	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Underlying Price Variation*	0	0	1/3	1/3	-1/3	-1/3	2/3	2/3	-2/3	-2/3	1	1	-1	-1	2	-2
Volatility Variation*	1	-1	1	-1	1	-1	1	-1	1	-1	1	-1	1	-1	0	0
Weight Fraction Considered	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	35%	35%
*Expressed in scan range																

The MI, MPOR and Volatility Shocks values are updated by the Corporation from time to time.

7.1.2 Intra-Commodity

Long positions on Futures maturing in one month are automatically matched with short positions on Futures maturing in another month. The resulting Base Initial Margin on these two Futures belonging to the same Combined Commodity, could be lower than the real risk associated with the combination of the two contracts. In order to cover this inter-month spread risk, a charge is included in the Base Initial Margin.

For the Futures, the Intra-Commodity which is an additional dollar amount charge applied to each combination of a minimum of two different Futures, is determined by applying the MI methodology on the Futures combination’s daily profit and loss over the reference period. The methodology for the MI is detailed in Section 6.5.

With respect to the CORRA Futures (COA & CRA), the S&P/TSX 60 Index Standard Futures (SXF) and the S&P/TSX 60 Dividend Index Futures, CDCC calculates the Intra-Commodity for combinations of spreads and/or butterfly strategies and applies a same charge for a same group of combinations with close maturities. If multiple Intra-Commodity are defined, the Corporation will prioritize the ones providing the lowest Base Initial Margin.

The combinations and the spread priorities for the Intra-Commodity are updated by CDCC from time to time.

7.1.3 Inter-Commodity

The Corporation may consider the correlation that exists between different Combined Commodities when calculating the Base Initial Margin. The Corporation will grant a credit according to the historical correlation of the profit and loss of the two Combined Commodities. If multiple Inter-Commodity are defined, the Corporation will prioritize the ones with the highest correlation.

The Inter-Commodity and the spread priorities are updated by CDCC from time to time.

7.2 Base Initial Margin Calculation for Fixed Income Transactions

For greater certainty, this section only applies to Fixed Income Transactions.

To calculate the Base Initial Margin, the VaR methodology is based on Historical Scenarios for all relevant Risk Factors. The Historical Scenarios consist of a set of scenarios for a Risk Factor over a relevant historical period that represents an hypothetical market observation movement (shocked market observation based on market history) reasonably likely to occur, from the current situation to a specific point in time in the future.

For Fixed Income Transactions, the Risk Factors are the Zero Curves. On any given Business Day, the shocks derived from the Historical Scenarios are applied to the initial reference market inputs values. The difference between the initial reference price and the shocked historical price represents an Historical P&L Scenario. The initial reference price and historical shocked price are derived respectively from the initial reference Zero Curves and the shocked Zeros Curve using a full revaluation method.

The Historical P&L Scenarios are calculated at the VaR Risk Group level and are denominated in the same currency as the Fixed Income Transactions. For Fixed Income Transactions belonging to the same VaR Risk Group, the Historical P&L Scenarios results are added up for Fixed Income Transactions.

Lastly, the Historical P&L Scenarios are ranked to derive the Historical P&L Distribution that is used to calculate the average loss of the portfolio using the Expected Shortfall method. The Base Initial Margin is then obtained by combining the Historical Risk component (based on the Expected Shortfall methodology) with a Stress Risk component (based on the Stressed Value at Risk methodology) using a weighted approach.

The main steps to calculate the Base Initial Margin are described in the section below.

7.2.1 Historical Filtered Scenarios

The Historical Filtered Scenarios are generated using the initial reference Risk Factors value and historical observations of different tenors on the Zero Curves.

The shocked Risk Factors are calculated using the following formula:

$$y'_{t,\tau} = y_{T,\tau} + R_{t,\tau} c_{t,\tau}$$

Where c is the scaling factor for the volatility scaling adjustment and R is the daily market variation over the Margin Period of Risk 'n'. CDCC uses a look-back period of 5 years.

$$R_{t,\tau} = y_{t,\tau} - y_{t-n,\tau}$$

The scaling factor formula at time t and for a given tenors is calculated using the following formula:

$$c_{t,\tau} = Max\left(\frac{\sigma_{T,\tau} + \sigma_{t,\tau}}{2\,\sigma_{t,\tau}}, Min\ SF\right)$$

Where σ is the EWMA volatility forecast and Min SF is the minimal scaling factor.

The implemented formula for the EWMA volatility forecast is:

$$\sigma_{t,\tau}^2 = (1-\lambda)R_{t,\tau}^2 + \lambda\sigma_{t-1,\tau}^2 \ ,$$

Where R is the daily market variation over the Margin Period of Risk 'n' and λ is the decay factor. CDCC uses λ = 0.99. The Min SF is updated by CDCC from time to time.

7.2.2 Historical P&L Scenario generation

The Historical P&L Scenarios are valued by calculating the difference between the shocked prices of Fixed Income Transactions under an Historical Filtered Scenario and the initial reference prices. The Historical P&L Scenarios results are added up for all Fixed Income Transactions within a VaR Risk Group.

The initial reference prices are calculated using a full revaluation method and the initial reference Risk Factors. The shocked prices are calculated using a full revaluation method and the shocked Risk Factors.

7.2.3 Expected Shortfall

For each VaR Risk Group, the Historical P&L is sorted from largest loss to largest profit to construct the Historical P&L Distribution. Using a confidence value equivalent to 99.62% and the Historical P&L Distribution, the Expected Shortfall is determined by averaging the losses exceeding the confidence value.

7.2.4 Stressed Value at Risk (SVaR)

In addition, CDCC considers a Stress Risk component based on the Stressed Value at Risk (SVaR) methodology to mitigate the procyclicality of margins:

$$Base\ Initial\ Margin = (1 - w) \times Historical\ Risk + w \times Stress\ Risk$$

Where the Stress Risk component is equal to a confidence level equivalent to a minimum of 99% of the ranked distribution of the absolute stressed P&L over a fixed period of a minimum of 260 days with a high market volatility, a variable number of days as MPOR and a weighting factor of 25% ('w'). The stressed P&L are also calculated using a full revaluation method and the Risk Factors.

The SVaR methodology is applicable to all VaR Risk Groups.

7.3 Recalibration of the Effective Ratio

The Base Initial Margin requirement of each Limited Clearing Member is affected by a multiplication factor (the "Effective Ratio").

Objective: The Recalibration Methodology (as defined below) ensures that the Effective Ratio remains continuously consistent with the ratio of the total Clearing Fund Requirements on the total Base Initial Margin for all Clearing Members (excluding Limited Clearing Members) and addresses the permanence and persistence of a change.

Trigger: The Corporation shall review the Effective Ratio annually, and may review the Effective Ratio at any time following a change to the CDCC risk model which is required in order to comply on an ongoing basis with the regulatory requirements applicable to CDCC ("Risk Model Change"). Following such review, CDCC may recalibrate the Effective Ratio in accordance with the methodology set forth below (the "Recalibration Methodology"). For further clarity, a Risk Model Change captures both changes required by CDCC to comply on an ongoing basis with its current regulatory requirements and changes required to comply on an ongoing basis with applicable regulatory requirements.

7.3.1 Recalibration Methodology

The Effective Ratio ("ER") shall be re-calibrated if the value of the ER, at the time of the calculation, is not within the range determined by the UB and LB (as defined below):

- Where the current ER is within one plus the Boundaries (defined below) applicable to a given period, no recalibration will be made to the Effective Ratio.
  - The Boundaries refer to the upper limit (UB) and lower limit (LB) which are respectively the highest and lowest Daily Ratios over a specific period.
  - The Daily Ratio is determined, for any Business Day, by dividing the total amount of Clearing Fund Requirements on that Business Day by the aggregate amount of the Base Initial Margin requirements of all Clearing Members (other than Limited Clearing Members) on the same Business Day.
- Where the current ER is outside one plus the Boundaries applicable to a given period, this will constitute a recalibration event (a "Recalibration Event"), and the ER shall be recalibrated in the following manner:
  - The Boundaries of Effective Ratio shall be rounded up or down to the nearest +/- 0.1 increment.
  - If ER > 1+ UB, the new Effective Ratio shall be equal to the UB.
  - If ER < 1+ LB, the new Effective Ratio shall be equal to the LB.
  - If ER ≤ 1+ UB and ER ≥ 1+ LB, there is no Recalibration Event.
- Annually, the Corporation shall determine the upper limit (UB) and lower limit (LB) parameters in accordance with the following:
  - At the time of the calculation, the UB and LB are determined by taking respectively the highest and lowest Daily Ratios over the prior calendar year, in accordance with the following formulas:

$$Lower\ Limit\ (LB) = \left(\frac{Total\ CF_t}{Total\ Base\ IM_t}\right)$$

$$Upper\ Limit\ (UB) = \left(\frac{Total\ CF_t}{Total\ Base\ IM_t}\right)$$

Where:

- $Total\ CF_t$: total amount of Clearing Fund Requirements on the Business Day t.
- $Total\ Base\ IM_t$: the aggregate amount of the Base Initial Margin requirements of all Clearing Members (other than Limited Clearing Members) on the Business Day.
- Min: lowest value from the set of Daily Ratios calculated for each Business Day t in the prior calendar year.

- Max: highest value from the set of Daily Ratios calculated for each Business Day t in the prior calendar year.

- Following a Risk Model Change, the Corporation shall determine the upper limit (UB) and lower limit (LB) parameters in accordance with the following:

  - At the time of the calculation, the UB and LB are determined by taking respectively the highest and lowest Daily Ratios, by calculating the Daily Ratio over the prior 12 month-period with the use of simulated impacts to Base Initial Margin and Clearing Fund as they would have been observed had the Risk Model Change already been in place:

$$Lower\ Limit\ (LB) = \left(\frac{Total\ CF_t}{Total\ Base\ IM_t}\right)$$

$$Upper\ Limit\ (UB) = \left(\frac{Total\ CF_t}{Total\ Base\ IM_t}\right)$$

Where:

- $Total\ CF_t$: total amount of Clearing Fund Requirements on the Business Day t.

- $Total\ Base\ IM_t$: the aggregate amount of the Base Initial Margin requirements of all Clearing Members (other than Limited Clearing Members) on the Business Day t.

- Min: lowest value from the set of Daily Ratios calculated for each Business Day t in the prior 12-month period.

- Max: highest value from the set of Daily Ratios calculated for each Business Day t in the prior 12-month period.

- For greater certainty, for the purposes of the calculating a Daily Ratio, the term "Base Initial Margin" excludes any Additional Margins.

7.3.2 Recalibration Governance

- On a quarterly basis, CDCC will report to the Risk Management Advisory Committee (RMAC) for information purposes the Boundaries calculated over the preceding quarter.

- On an annual basis, CDCC will report to RMAC the final Boundaries applicable over the preceding calendar year.

- Following a Risk Model Change CDCC will promptly report to RMAC on the impact of the Risk Model Change on the Boundaries, including whether it leads to a Recalibration Event, and review the Risk Model Change in accordance with the RMAC standard governance process.

- Annually, or subsequent to any Risk Model Change, each Limited Clearing Member will be notified in writing of the new ER, where applicable.

7.3.3 Entry in force

- Annually, or as soon as practicable upon the occurrence of a Recalibration Event subsequent to a Risk Model Change, the Corporation shall notify in writing each Limited Clearing Member of the new ER applicable to it.

- Subject to Section 7.3.4, new ERs shall become effective one calendar quarter after the date of the notification to each Limited Clearing Member of the new ER, and shall remain in force until a revised ER notified to the Limited Clearing Member either as a result of the ER annual review or subsequent to a Risk Model Change enters into force, in accordance with this section.

7.3.4 Recalibration Additional Information

- If the Corporation notifies an Limited Clearing Member of the new ER applicable to it, the Corporation shall provide the Limited Clearing Member with the data supporting the determination that a Recalibration Event has occurred.

- Within 10 Business Days of receiving notice of the new ER applicable to it, an Limited Clearing Member may request additional information regarding the Recalibration.

- Upon receiving such request and in any event, within 5 Business Days following such request, the Corporation will provide additional information respecting the Recalibration Event.

- A Limited Clearing Member may dispute a Recalibration Event by notifying the Corporation that it requires it to be discussed at the next following quarterly RMAC meeting.

- If a Limited Clearing Member has notified the Corporation and RMAC that it disputes a Recalibration Event and the Recalibration Event has been discussed at the subsequent quarterly RMAC meeting, unless a revision of the ER has been agreed, the new ER shall become effective one calendar quarter after the date of the initial notification by the Corporation of the revised ER to the Limited Clearing Member.

7.4 OTCI Securities Options

In order to evaluate the OTCI Option Price, the implied volatility of the contract must be derived. Two different methodologies are used depending on whether the Option is listed on an Exchange or not.

If the Option is exchange-traded, the Corporation uses the Option's data (the entire Option series for one expiry month) and builds a volatility curve using a cubic spline function. After building the volatility curve, the Corporation determines the implied volatility that corresponds exactly to the strike price of the Option to be assessed. If the expiry date of the Option does not correspond to the ones of the listed series, the Corporation builds two volatility curves, one using the Option series with an expiry date that is right after the one of the assessed Option and one using the series of Options with an expiry date that is right before the one of the assessed Option.

Then, the implied volatility that corresponds to the strike price of the Option to be assessed is determined on each curve. Finally, a linear interpolation is done to determine the implied volatility that corresponds to the strike and to the expiry date of the Option to be assessed. However, if the expiry date of the Option to be assessed is before (after) the first (last) expiry date of the listed Options series, the Corporation uses the volatilities of the volatility curve of the first (last) expiry date of the listed Option series.

If the Option is not listed and no data is available for it, the Corporation uses the yearly historical volatility of the Option's Underlying Interest price as a proxy for the implied volatility.

7.5 Margin Interval

The MI is calculated using the following formula for the Historical Risk:

$$Historical\ Risk = \sigma_t \times \alpha \times \sqrt{n}$$

Where 'n' is the MPOR, $'\alpha'$ is equal to the confidence level equivalent to 99.87% (three standard deviations) of the cumulative normal distribution (applicable to all products except for the CORRA Futures, the S&P/MX International Cannabis Index Futures, the S&P/TSX 60 Dividend Index Futures, and the Bitcoin Price Index Futures) or equal to the confidence value equivalent to 99% of the cumulative student's t-distribution with 4 degrees of freedom (applicable to the CORRA Futures, the S&P/MX International Cannabis Index Futures, the S&P/TSX 60 Dividend Index Futures, and the Bitcoin Price Index Futures). 'σ_t' is the volatility estimator of the contract's returns and is computed using an exponentially weighted moving average (EWMA) approach.

The implemented formula for the estimator at any time t is:

$$\sigma_t = \sqrt{\frac{(1-\lambda)\sum_{i=1}^{260} \lambda^{i-1}(R_{t-i}-\underline{R})^2}{(1-\lambda^{260})}}$$

Where R is the daily price returns of the Underlying Interests for Options and Share Futures and the daily price returns of the Futures prices for Futures (excluding Share Futures), $\overline{R}$ is the mean return over the specified period and λ is the decay factor. CDCC uses λ = 0.99 (applicable to all products except for the S&P/TSX 60 Dividend Index Futures) or λ = 0.98 (applicable to the S&P/TSX 60 Dividend Index Futures).

In addition, CDCC considers the following measures to mitigate the procyclicality of margins:

- A Stress Risk component, calculated using a Stress Value at Risk (SVaR):

$$MI^* = (1-w) \times Historical\ Risk + w \times Stress\ Risk$$

Where the *Stress Risk* component is equal to a confidence level equivalent to a minimum of 99% of the ranked distribution of the absolute price return of the Underlying Interest or an equivalent Risk Factor over a fixed period of a minimum of 260 days with a high market volatility, a variable number of days as MPOR and a weighting factor of 25% ("w").

The SVaR is applicable to all Index and Share Futures and Options[14], Bitcoin Price Index Futures[15], as well as all Government of Canada Bond Futures and Option on Government of Canada Bond Futures. For all other products (all short term Interest Rate Futures), the weighting factor is set to zero and only the Historical Risk component is applicable[16].

- A volatility floor, calculated using the EWMA approach:

$$MI^{**} = max(MI^*, Volatility\ floor)$$

Where the volatility floor is calculated as an average of the daily volatility estimator observed over the last 10 years.

- The volatility floor is applicable to all Options, Futures and Unsettled Items.

CDCC also considers a cap for products whose decay factor used by CDCC is below 0.99. The level of such cap is calculated using the distribution of historical daily price returns over a minimum of 10 years.

[14] CDCC sets the weighting factor to zero and uses a 25% buffer on the volatility floor as an alternative method in specific cases where a Stress Risk component is not available

[15] Conservative calibration in order to fully capture extreme events and the high intraday risk

[16] Also true for the calculation of the Intra-Commodity.

DEFAULT MANUAL

January 31, 2025

Default Manual

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Default Manual

This Default Manual (the "Manual") intends to summarize the Rules and provides certain details concerning the default management process of the Canadian Derivatives Clearing Corporation ("CDCC" or the "Corporation") which is comprised of the actions, rights and remedies that the Corporation may take with respect to, and in connection with, Clearing Members in financial difficulty or potentially in default of any or all obligations under the Rules as well as the governance, steps in implementing the default management and risk mitigation tools available to the Corporation (thereafter the "Default Management Process"). The Manual also addresses the actions, rights and remedies that the Corporation may take with respect to all Clearing Members upon the declaration of a Recovery Process, which also forms part of the Default Management Process. In case of conflict between the provisions set out in this Manual and the Rules of the Corporation, the Rules will prevail. Terms with capitals which are not defined in this Manual have the meanings ascribed to them in the Rules.

A fundamental objective of a central counterparty is to ensure the integrity of payments and/or physical delivery of securities, even in the unlikely event of a Clearing Member default. Since the default of one or more Clearing Members may have an impact on the continuity of clearing operations, the Corporation must ensure that efficient mechanisms and processes are in place, capable of limiting the adverse impacts of such an event, with respect to monitoring and the determination of a Clearing Member's Non-Conforming Member status and a Clearing Member's suspension. As such, this Manual is meant to:

1. Describe the grounds and events which may trigger the implementation of the Default Management Process and the enforcement actions that may be taken by the Corporation throughout the process;

2. Describe the governance process followed by the Corporation;

3. Describe the risk mitigation tools that can be used by the Corporation; and

4. Describe the Recovery Process and the related powers.

SECTION 1 : DEFAULT MANAGEMENT PROCESS – TRIGGERS AND IMPLEMENTATION

The grounds and events which may trigger the implementation of the steps, decisions, enforcement actions or remedies that may be taken by the Corporation as part of its Default Management Process are described below. The Rules, notably Rule A-1A – Membership in the Corporation, Rule A-3 – Capital Requirements, Rule A-6 – Clearing Fund Deposits Rule A-7 – Margin Requirements and Rule D-7 – Clearing of SGC Repurchase Transactions, support CDCC's authority in these actions and must be adhered to with extreme rigor.

1.1 Objectives of Default Management

Participants in the Default Management Process should at all times bear in mind the objectives of the default management exercise. These are delineated below:

- To minimize Clearing Member losses deriving from an inability of the Corporation to make settlement payments, protect surviving Clearing Members' Margin Deposits, and otherwise manage its responsibilities in a manner consistent with orderly markets.
- To ensure the continued effective functioning of the clearing process both during and after the default of a Clearing Member.
- To use all available powers and resources to protect the financial assets and positions of Clearing Members not contributing to the default. This includes, wherever possible, the comprehensive and efficient transfer by way of Porting of individual client Rick Accounts within Client Accounts and Market Maker Non-Firm Accounts with a suspended Clearing Member, including any position maintained in such account and any Margin Deposits held by the Corporation in respect of such account under the GCM Regime, to another Clearing Member as contemplated under Section A-401(3)(b) of the Rules.
- To minimize the market impact of the Default Management Process.
- With respect to SGC Repurchase Transactions, to obtain the best available market price for SGC Securities by executing a timely liquidation process, according to best practices. This includes, whenever possible, a Default Auction and/or the brokered sale of SGC Securities.
- To ensure the continued solvency of the Corporation and timely access to liquidity both during and after the Default Management Process.
- To communicate with regulatory authorities on actions taken throughout the Default Management Process.

Corporation management, staff and agents should conduct themselves at all times during the Default Management Process in a manner consistent with these objectives, and in general without regard to other considerations.

1.2 Triggers Leading to Non-Conforming or Suspension Status

Critical to the process of default management is, of course, defining the grounds and events which can lead a Clearing Member to default on its obligation and result in the Corporation declaring such member Non-Conforming or suspending it, where warranted. As a general rule, the Corporation views any situation which would, in its judgment, impede a Clearing Member's ability to meet its obligations in the manner specified in Section A-1A04 or Section D-709, as grounds to declare a Clearing Member Non-Conforming. Sections A-1A04, A-1A05 and D-709 of the Rules provide the details of the grounds and events that can lead the Corporation to declare a member Non-Conforming or suspend it, respectively.

For the avoidance of doubt, as indicated in the Rules, the Corporation may in advance of, or in anticipation of, any default, including a breach of eligibility or standard of membership requirement which the Clearing Member is required to meet on an ongoing basis, declare a Clearing Member Non-Conforming.

Where the Non-Conforming Member is insolvent or is unable or likely to be unable to meet its obligations under the Rules on a continuing basis, and has no reasonable prospect of returning to good standing or curing its default within a reasonable timeframe, the Corporation, may then suspend the Non-Conforming Member. The Corporation will act accordingly for any default, whether actual or imminent, that is of such a gravity that suspension would be warranted, taking into consideration the protection of the integrity of the market.

1.3 Status Associated with a Default

The Rules specify two distinct status levels associated with the default of a Clearing Member. The first is Non-Conforming status. At any point when the Clearing Member is or may become insolvent or unable to meet its obligations, management of the Corporation may declare that Clearing Member to be a Non-Conforming Member. Section A-1A04 of the Rules provides the grounds on which the Corporation may do so. Upon a declaration of Non-Conforming status, the Corporation is empowered with the authority, as further specified below, to undertake a wide range of mitigating actions.

After giving consideration to the gravity of the situation and the likelihood of a remediation of the default by the Clearing Member and in order to protect the integrity of the market, the Board may, in its sole discretion, choose to suspend the Non-Conforming Member.

The Corporation's management is responsible to declare a Clearing Member Non-Conforming whereas a suspension decision must be taken by the Board. Please refer to Sections A-1A04 and A-1A05 of the Rules which lay out the specificities of Non-Conforming and suspension statuses respectively.

1.4 Powers of the Corporation in the Default Management Process

1.4.1 Imposition of Additional Margin Call in Pre-Default

In accordance with Section A-702, the Corporation, following a management decision, may, without advance notice and at its sole discretion, impose an additional Margin on a Clearing Member, whether Non-Conforming or not, for an indeterminate period. While this may be necessary under a wide range of circumstances, it is particularly relevant in situations where the Corporation has reason to believe a default is imminent but has yet to take a decision on Non-Conforming status.

The Clearing Member will be informed and will have to meet such Additional Margin requirement within the same deadlines as regular Margin calls.

1.4.2 Implementation of Default Management Process: Non-Conforming and Suspension

In the event that the Corporation or the Board, as applicable, chooses to place a Clearing Member in either Non-Conforming Member status or suspension, it must, as soon as practicable, assess the situation and ensure that any and all remedies available to it are at its immediate disposal. The Corporation must use any and all commercially reasonable efforts to manage the default process.

For further clarity, the Corporation may simultaneously declare a Member Non-Conforming and suspend such Member, without applying first the measures available under the Non-Conforming status.

Taking into consideration the context and materiality of the trigger event and the ability of the Clearing Member to correct the situation within reasonable delay, the Corporation or the Board, as applicable, may therefore choose to undertake any of the following set of actions in its efforts to mitigate associated damage.

1.4.3 Enforcement Actions Pursuant to a Non-Conforming Status

- Prohibit and/or impose limitations on the acceptance and / or clearance of Transactions by the Non-Conforming Member.
- Requiring such Clearing Member to reduce or close out existing Transactions in such Clearing Member's accounts with the Corporation.
- Prevent or restrict the Non-Conforming Member's right to withdraw any excess in Margin Deposits pursuant to Section A-607 or Section A-704.
- Transferring, requiring to transfer or transferring on its behalf, all or any portion of a Non-Conforming Member's Client Account maintained by such Clearing Member with the Corporation, any position maintained in such account and any Margin Deposits held by the Corporation in respect of such Account, to another Clearing Member.
- Undertake any legal action against the Non-Conforming Member that in the judgment of the Corporation may help to mitigate default-related losses.
- Sanction, reprimand, fine or impose a penalty on the Non-Conforming Member.
- Suspend the Non-Conforming Member.

1.4.4 Enforcement Actions Pursuant to a Suspension

In addition to the actions that the Corporation may take under the Non-Conforming Status, CDCC may, following the suspension of a Clearing Member:

- Seize all Margin Deposits posted to the Corporation by the suspended Clearing Member, including its contribution to the Clearing Fund and use it to satisfy such Clearing Member's obligations.
- Seize control of all Open Positions held by the suspended Clearing Member.
- Liquidate, on behalf of the Trust, all SGC Securities provided by the suspended SGC Clearing Member.
- Restrict a suspended SGC Clearing Member from initiating new SGC Repurchase Transactions
- Gain access, and, if necessary, control of the suspended Clearing Member's prescribed records, so as to ensure the continued efficient processing of business, and to ensure the suspended entity continues to comply with all Rules.
- Use all reasonable efforts to perform efficient transfer by way of Porting of individual client Risk Accounts within Client Accounts and Market Maker Non-Firm Accounts as contemplated under Section A-401(3)(b) of the Rules in a timeframe which is consistent with the Corporation's risk management model.
- Neutralize market exposures through the use of hedging instruments where, as determined by the Corporation, market conditions do not allow for an orderly auctioning or closeout of a suspended Clearing Member's Open Positions in a timeframe which is consistent with the Corporation's risk management model.
- Render a determination as to which Firm Accounts and Market Maker Firm Accounts of the suspended Clearing Member (subject to the objective of protecting to the largest extent

possible, all Client Accounts and Market Maker Non-Firm Accounts) may have offsets which could be netted for risk reduction purposes.

- Place all accounts of the suspended Clearing Member on liquidation only status.
- With respect to such accounts, effect liquidation of Open Positions, either directly by Corporation staff, or as appropriate, through appointed agents.
- Schedule an auction to transfer all remaining Open Positions to other Clearing Members at best available prices.
- Potentially postpone delivery obligations in accordance with Rule A-8 if, in the judgement of the Corporation, not doing so would expose the Corporation and surviving Clearing Members to increased risk of financial loss.
- Apply any and all available financial resources, as further described below.

1.5 Default Management Period

The Default Management Period defines the period during which Clearing Members' financial resources are exposed to losses following a default from one or more Clearing Members.

While the exact definition is provided in Rule A-411, the intent is to define the Default Management Period as the period starting from the suspension of a Clearing Member and ending when this default has been completely managed and the Corporation declares the Default Management Process to be completed. A default is deemed to be completely managed when:

- All obligations, losses and expenses are known or can reasonably be determined and have been successfully absorbed or otherwise settled; and
- The Corporation has successfully reestablished a matched book.

For example, if a second Clearing Member suspension occurs during the Default Management Period, this period is extended and will end when the two defaults have been completely managed. Hence, if the second default occurs while the Corporation is still managing a first one, the maximum amount of Clearing Members' financial resources potentially exposed to losses will remain the same for the duration of the Default Management Period whether one or several defaults are processed.

1.6 Default Waterfall: Application of Financial Resources to Cover Default-Related Losses

In implementing the Default Management Process, the Corporation will aim at minimizing, to the extent possible and on a best efforts basis, the losses to the Corporation and its stakeholders. If there are nonetheless losses to the Corporation, the Corporation must apply, in specified order, a series of financial resources to ensure its ongoing viability and financial solvency. The sections 1.6.1 to 1.6.4 below describe the financial resources which form the Default Waterfall and the order in which CDCC will apply them to cover losses associated with the liquidation of a suspended Clearing Member. Elements 1.6.1 to 1.6.3 are referred to as "Prefunded Financial Resources".

i. Suspended Clearing Member Resources

- Suspended Clearing Member Margin Deposit (Other than Clearing Fund deposits). The first line of financial protection is the Margin Deposit posted by the suspended Clearing Member as part of the Corporation's routine collateralization process;

- Excess in the Firm Margin Deposit will be available to the Corporation as part of the Default Waterfall or otherwise available to cover shortfalls resulting from uncovered losses in Client Accounts and Market Maker Non-Firm Accounts; Excess in GCM Margin Deposit Account and/or Non-GCM Margin Deposit Accounts will not be available to the Corporation as part of the Default Waterfall; and

- Suspended Clearing Member's Clearing Fund deposits. As specified by the Rules, each Clearing Member (other than a Limited Clearing Member) must also post a contribution to the Clearing Fund. Once the Corporation has exhausted the suspended Clearing Member's Margin Deposit, it will next use the suspended Clearing Member's contribution to the Clearing Fund in its loss absorption effort.

- Suspended Clearing Member's Supplemental Liquidity Contributions. Once the Corporation has exhausted the suspended Clearing Member's Margin Deposit and Clearing Fund Deposits, it will next use the suspended Clearing Member's Supplemental Liquidity Contributions.

If after applying these resources of the suspended Clearing Member, a shortfall still remains, the Corporation would, as indicated below, use the resources of the Corporation to cover the losses.

ii. Resources of the Corporation (Default Risk Capital - DRC)

- CDCC has capital reserves set aside specifically for the purpose of absorbing any loss outstanding after the exhaustion of the suspended Clearing Member's resources. This capital, which is $15 million, is referred to herein as "Default Risk Capital" or "DRC".

If, after applying these resources of the suspended Clearing Member and of CDCC, a shortfall still remains, CDCC will, as indicated below, use the required Clearing Fund deposits (referred therein as "Clearing Fund Requirement") of the other Clearing Members to cover the loss.

In the event the Corporation's DRC is partially used or exhausted in its entirety, the Corporation shall fully replenish its DRC by executing against or having recourse to its recapitalization plan.

iii. Surviving Clearing Members Clearing Fund Requirements

- The Corporation will subsequently use the Clearing Fund Requirements of the surviving Clearing Members (i.e. the Clearing Members that have not been suspended). For further details on the loss allocation, please refer to Appendix 2.

The above set of financial resources (listed in (i) to (iii)) which form the Prefunded Financial Resources of the Default Waterfall and are readily available for the Corporation to extinguish financial losses stemming from a Clearing Member's default are deemed highly reliable as they are under the control of CDCC and are held for this sole purpose. All Margin and Clearing Fund deposits are subject to a first ranking security interest granted by the Clearing Members to CDCC for such purpose.

iv. 2nd Surviving Clearing Members' Clearing Fund Requirements

- If after applying all of the financial resources specified above, a loss still persists, the Corporation may request that the remaining Clearing Members (other than Limited Clearing Members) replenish their Clearing Fund Requirements, in the manner specified in Section A-610 of its Rules. The Corporation in total may apply up to a maximum of 200%[1] of the Clearing

[1] The maximum percentage of 200% includes the prefunded surviving Clearing Members Clearing Fund Requirements described in sub-section iii.

Fund Requirements of all such remaining Clearing Members, to satisfy the outstanding obligation as provided in Section A-609(5).

The Corporation shall follow the prescribed order of the Default Waterfall, and communicate with all relevant parties in an effective fashion. In the event that the Corporation is able to recover any loss incurred from the suspended Clearing Member, it shall first reimburse any other Clearing Member Clearing Fund Requirements that were used to extinguish losses, in the reverse order of their application, before reimbursing CDCC's own capital reserves used.

v. Surviving Clearing Members' Supplemental Liquidity Contributions

- If, at any time during a Default Management Process, the Corporation must honor any liquidity obligations or exposure on a timely basis as a result of the suspension of a Clearing Member, the Corporation shall be authorized to use the Supplemental Liquidity Contributions required of the surviving Clearing Members to meet the liquidity obligations or exposure. All surviving Clearing Members' Supplemental Liquidity Contributions used by the Corporation shall be paid back by the Corporation to the Supplemental Liquidity Fund after the Default Management Period has ended. In total, the Corporation may apply up to a maximum of 200% of the Supplemental Liquidity Contributions of all such surviving Clearing Members, as provided in Section A-6A08 of the Rules.

vi. Application of Financial Resources to Cover SGC Repurchase Transaction Default-Related Losses

- The Corporation will aim at maximizing, to the extent possible and on a reasonable efforts basis, the available liquidation value of the SGC Securities, through the use of Default Auction and/or broker sale. If there are any outstanding losses after the liquidation of SGC Securities pursuant to this Section 1.6, these losses are absorbed by the Noteholders.

- For greater certainty, SGC Clearing Members do not contribute to any Clearing Fund and Supplemental Liquidity Fund for SGC Repurchase Transactions. The Default Management Process for SGC Repurchase Transactions does not benefit from the Corporation's Default Risk Capital

1.7 Making Good on Charges to Clearing Fund

As described in Sub-section1.6 above on the Default Waterfall, a surviving Clearing Member is potentially exposed to a loss representing 2 times its Clearing Fund Requirement during a Default Management Period.

However, the Corporation must have the capacity to replenish promptly any depleted financial resources to ensure that CDCC maintains appropriate financial resources to continue to operate in a safe and prudent manner and maintain its Cover 1[2] status. As such, each Clearing Member (other than a Limited Clearing Member) is subject to an obligation to make good on charges to the Clearing Fund whenever an amount is paid out of the Clearing Fund Requirement. During a single Default Management Period, each Clearing Member is however only liable to make good an additional 200% of its Clearing Fund deposit required at the beginning of the Default Management Period. The additional contribution must be made no later than 2:00 p.m. on the Business Day following the date that the amount is paid out unless the Corporation issues a notice specifying a later date.

[2] The Cover 1 regulatory standard requires the Corporation to have at all times sufficient financial resources to cover the default of the Clearing Member and its Affiliates representing the largest stressed aggregate credit exposure for the Corporation.

SECTION 2 : DEFAULT MANAGEMENT GOVERNANCE

In this section, the Corporation outlines the specific actions to be taken by its staff, management and the Board, in order to ensure that it quickly identifies, reacts to, and effectively manages a condition of default. The two sub-sections are:

1. Governance Structure; and

2. Roles and Responsibilities upon a Declaration of Non-Conforming or Suspension.

2.1 Governance Structure

The Corporation's procedures for the management of a default are governed, under the auspices of its Board, by two Committees, presented below in their hierarchical order:

- Default Management Committee ("DMC")
- Emergency Committee ("EC")

In the default process, it is important for the Corporation to react in as timely a fashion as possible to identify the potential for a default by a Clearing Member. As such, under the authority of the President or his designee, if at any point the Corporation receives information which would, in its view, acting reasonably, likely lead to a default event by any Clearing Member, it will, as soon as practicable, convene a meeting of the Default Management Committee. The DMC is comprised of the individuals holding the following positions (or their delegates):

- President of CDCC
- Vice-President & Chief Risk Officer, CDCC
- Vice-President & Chief Operating Officer, CDCC
- Vice-President & Chief Commercial Officer, CDCC
- Treasurer, CDCC
- Director Risk Oversight & Compliance, CDCC
- Vice-President Integrated Operations, GES
- Director Strategic Initiatives, CDCC
- Director, Business Advisory and Regulatory Affairs, CDCC
- Chief Compliance Officer, CDCC
- Head of Delivery, CDCC

Each of these individuals, in managing their departments, must act with due rigor to assess issues, identify associated magnitudes, recommend actions and inform management, the Board and other Corporation stakeholders, as appropriate.

The responsibility of the DMC is to make decisions related to the Default Management Process, e.g. the determination of the Non-Conforming status and actions to be implemented to limit losses to the Corporation and the conforming Clearing Members. The DMC can count on the participation of a sub-committee to help perform its mandate, namely the Emergency Committee ("EC").

The EC, chaired by the VP and Chief Risk Officer or his designee, is composed of all DMC members plus the following specialists (and/or any other representatives or designees deemed appropriate to involve in the process):

- MX Vice-President, Regulatory Division
- Head of Corporate Communications, TMX
- Director, Market Operations, MX
- Managers, Risk Management

It will be the responsibility of the EC to provide an ongoing assessment of the situation, and to report, as appropriate, to the Board, so as to ensure these bodies are in a position to render informed decisions throughout the process.

2.2 Roles and Responsibilities Upon a Declaration of Non-Conforming or Suspension

The Rules provide for two statuses associated with the default of a Clearing Member: Non-Conforming Member status and suspension. Non-Conforming Member status can be determined by the Corporation's management, while a suspension must be determined by the Board.

2.2.1 Declaration of Non-Conforming Member Status

Grounds

Section A-1A04 addresses the grounds upon which the Corporation may declare the Non-Conforming Member status. As expressed in Section A-1A04, these grounds are not exhaustive.

Communication

The Clearing Member should notify the Corporation if it is insolvent or unable to honor its obligations under the Rules.

However, in the event that the Clearing Member is declared as a Non-Conforming Member by the Corporation, the Corporation must inform the Clearing Member in writing or by telephone.

Authority

The Corporation may decide on Non-Conforming Member status.

Required Response by Non-Conforming Members

A Clearing Member which has experienced an event, technical or otherwise, as a result of which it fails or finds itself likely to fail to meet any of its day-to-day operational needs for its business must inform the Corporation immediately of such event. Failure to notify the appropriate Corporation staff members immediately may result in any actions contemplated under the Rules, including disciplinary actions. A Non-Conforming Member may in certain cases remedy its situation via wiring required funds or posting additional collateral to the Corporation.

Contemporaneous to the notification of Non-Conforming Member status to a Clearing Member, the Corporation will ask such Clearing Member to state in writing its assertions with respect to each of the following:

- Cause of the action which placed it in Non-Conforming Member status;
- Remedies for the immediate circumstance; and
- Changes in its financial profile and operating protocols to guard against recurrence.

Corporation staff will work with the Non-Conforming Member to secure and assess its written response. Contemporaneously, the EC will work with the DMC to determine any potential immediate additional actions, including recommendations to the Board regarding suspension.

In the event that a remedy occurs in a timely fashion, the Corporation will review the Non-Conforming Member's written explanation and will then determine next steps, including the potential removal of Non-Conforming Member status, or recommendations to the Board for suspension.

In executing these procedures, the Corporation must remain mindful of the narrow time window available to it to determine the next steps in the process. It is essential that all members of management and all Board members make themselves available as necessary to render timely and efficient decisions under these circumstances.

Implementation

The Corporation must work in concert with the Non-Conforming Member and the appropriate regulatory authorities to rectify the Clearing Member's Non-Conforming Member status.

The enforcement actions available to the Corporation, as set out under Section A-401 and as further explained in Section 1 of this Manual, are not exhaustive and are not necessarily presented in chronological order, and can be adapted as required by the Corporation according to the circumstances that prevail during the period the Clearing Member is a Non-Conforming Member.

Notifications

Once the Corporation has declared a Clearing Member to be a Non-Conforming Member, the Corporation will immediately consider its notice obligations. Those entities whose notification is considered include:

- The Clearing Members
- Appropriate regulatory authorities
- Exchanges and central clearing organizations ("CCOs")

While it will be the prerogative of the Corporation to determine the timing and content of its outside disclosures, it will nonetheless immediately inform any CCOs with which the Corporation has in place a Memorandum of Understanding for such information sharing.

2.2.2 Declaration of a Suspension

Grounds

A Non-Conforming Member may be suspended in accordance with Section A-1A05 including any conditions that the Corporation may reasonably deem relevant in accordance with Section A-1A05. Sub-section 1.2 of this Manual also discusses the triggers which may lead to a suspension. In effect, the Corporation, upon approval of the Board, may decide to suspend a Clearing Member without it first having been declared Non-Conforming.

Communication

The Corporation will communicate to the Clearing Member a written statement setting out the grounds for its suspension.

Authority

The Board has the authority regarding the suspension and lifting of a Clearing Member's suspension.

Implementation

Once the Board approves a suspension, the Corporation ceases to act on behalf of the Clearing Member.

According to Section A-1A05, the Corporation may then implement any of the enforcement actions set out under Section A-401 and as described in Section 1 of this Manual.

As mentioned in Section A-1A05, the suspension may be total or may be for any function with respect to a particular security or class of securities, with respect to a particular Transaction or class of Transactions, or with respect to securities or Transactions generally.

The Board may lift a Clearing Member's suspension at any time.

Notifications

Once the Board has declared a Clearing Member to be suspended, the Board will immediately consider its notice obligations. Those entities whose notification is considered include:

- The Clearing Members
- Appropriate regulatory authorities
- Exchanges and CCOs

While it will be the prerogative of the Board to determine the timing and content of its outside disclosures, it will nonetheless immediately inform any CCOs with which the Corporation has in place a Memorandum of Understanding for such information sharing.

Appeal

According to Section A-1A07, the Clearing Member may appeal a suspension decision. Such appeal does not impede the actions of the Corporation in the Default Management Process.

SECTION 3 : RISK MITIGATION TOOLS

Once a Clearing Member has been suspended, the Corporation shall take specific actions in order to protect the Corporation and the surviving Clearing Members. Conceptually, these actions can be aggregated into three categories and are normally executed in the order presented. While some actions might have been initiated by the Corporation pursuant to a declaration of Non-Conforming status, including, namely, the transfer of Client Accounts and Marker Maker Non-Firm Accounts (outside of the Porting process), this section details how the Corporation will implement the risk mitigation tools, upon the suspension of the Clearing Member.

- **Prevention**: Prevention controls are the starting point of the management of a default under the suspension status. They are focused on preventing new transactions to be cleared in the suspended Clearing Member's books.

- **Control**: Such actions are focused on taking control over the suspended Clearing Member's assets and positions.

- **Risk mitigation**: Such actions are focused on transferring by way of Porting as contemplated in Section A-401(3)(b) of the Rules, transferring risks, re-establishing a matched book, and neutralizing risks, at the lowest cost possible for the Corporation and the surviving Clearing Members, while managing the liquidity risk associated with the Default Management Process.

This section provides more information on the risk mitigation tools available to the Corporation.

Transfer by Way of Porting of Individual Client Risk Accounts

The Corporation will attempt, if it deems appropriates under the circumstances and on a best effort basis, to transfer by way of Porting client Risk Accounts within Client Accounts and Market Maker Non-Firm Accounts, to the books of other Clearing Members. Note that, as specified in Sub-section 1.1 (Objectives) of this Manual, the efficient and comprehensive transfer by way of Porting of all individual client Risk Accounts is an identified objective of the Default Management Process. For the avoidance of doubt, this includes transferring any Open Positions maintained in such account, or any account carried by such Clearing Member and any associated collateral (referred to herein as Porting Base Initial Margin Collateral) held by the Corporation in respect of such account, to another Clearing Member as contemplated in Section A-401(3)(b) of the Rules.

3.1.1 Procedure Related to a Transfer by Way of Porting

- The procedure related to the transfer by way of Porting will start for CDCC immediately after the suspension of the Clearing Member and will continue until the end of the Default Management Period. Upon receipt of an updated GCM Declaration File and other client identification confirmation from the suspended Non-Conforming Clearing Member, CDCC will perform a Base Initial Margin calculation (thereafter the "Suspension Point Margin Calculation"). The updated GCM Declaration File is required for CDCC to determine the Open Positions and the Porting Base Initial Margin Collateral for each individual client Risk Account. As outputs from the Suspended Point Margin Calculation, CDCC will produce reports containing porting information data, which it will make available to each client via its suspended Non-Conforming Clearing Member or by any other acceptable manner to CDCC.

- Clients wishing to be transferred by way of Porting are required to provide transfer instructions to CDCC (via its Receiving Clearing Member or by any other acceptable manner to CDCC) no later than noon on the next Business Day following the initiation of the transfer process.

- CDCC will use its best efforts, if it deems appropriate under the circumstances, following the request of a client, to transfer, the client's Open Positions and the Porting Base Initial Margin Collateral held by the Corporation in respect of such individual client Risk Account. The aforementioned is subject to (1) the consent of the Receiving Clearing Member and CDCC, (2) the completion of any additional documentation required to proceed with a transfer by way of Porting.

3.1.2 Procedure Related to Post-Confirmation of a Transfer by Way of Porting

Immediately upon providing CDCC with its confirmation of accepting a client from a suspended Non-Conforming Member, a Receiving Clearing Member provides its irrevocable acceptance of receiving the client Risk Account. The Receiving Clearing Member also becomes fully liable for authenticating the identity of the client requesting a transfer by way of Porting. Once CDCC confirms proceeding with the transfer by way of Porting of a client to such Receiving Clearing Member, the latter will also be fully liable for all obligations related to the client ported Risk Account during and after the Default Management Period.

The Margin Requirement impact of the incremental positions contained in the ported Risk Account is considered immediately, but the amount of collateral agreed to be ported by the Corporation to the Receiving Clearing Member in relation to the ported Risk Account will be considered as collateral covering this Margin Requirement. Any failure by the Receiving Clearing Member to accept a transfer by way of Porting of positions and/or meet any obligations associated with the ported Risk Account will be deemed a breach of obligations and such Clearing Member shall become liable for all fees, expenses and obligations incurred by the Corporation in connection with such Clearing Member's failure to meet or honor its obligations. A failure by such Clearing Member to pay the costs and damages or meet any other obligations will automatically result in the determination by the Corporation of a Non-Conforming status. The Corporation will also notify all Clearing Members of the successful completion, or failure, as the case may be, of a transfer by way of Porting.

3.2 Liquidation

Upon a Clearing Member suspension, the Corporation may either liquidate, close-out, and/or auction the suspended Clearing Member's positions as a means to crystallize their value and re-establish a matched book. The liquidation process may take place before, in parallel or subsequent to any auction(s) if the Corporation is not satisfied with the auction(s) outcome. For example, the liquidation could be preferred to the auction if the suspended Clearing Member's portfolio is small and liquid. A portfolio that was successfully liquidated shall be referred to as a "Liquidated Portfolio". For the liquidation of SGC Securities, the Corporation will use Default Auction and/or broker sale to obtain the best available liquidation value. Bids will be compared on each source and the prevailing bid will be accepted.

3.3 Default Auction

CDCC may also choose to organize one or more Default Auctions as a means to re-establish a matched book following the suspension of a Clearing Member. The auction may affect a portion or the entirety of the suspended Clearing Member's unmatched positions. CDCC may also choose to organise one or more Default Auctions as a means to liquidate the SGC Securities. The terms and the procedure governing the Default Auction are summarized below:

3.3.1 Pre-Auction Procedure

Before proceeding with the suspended Clearing Member's portfolio auction, the Corporation must:

- Identify the Clearing Members which are eligible to participate in the auction.
- Determine which positions of the suspended Clearing Member will be part of the auction and distribute such positions into different portfolios (thereafter "Auction Portfolios").
- Determine the value of the surviving Clearing Members' financial resources at risk in each Auction Portfolio.

a) Invitation to participate in the auction

- For each Auction Portfolio, the Corporation will identify a set of “Eligible Clearing Members” which are Clearing Members that clear the asset class[3] contained in such Auction Portfolio (including hedged positions and Hedge Open Positions if applicable), either directly, through their CDCC membership, or indirectly[4], through a pre-existing clearing relationship with another CDCC Clearing Member whose membership covers the relevant asset class(es) with CDCC.

- Participation to the Default Auction is voluntary for all Eligible Clearing Members. However, the participation in the Corporation’s default and recovery simulation is mandatory for all Clearing Members.

- For each Auction Portfolio, the Corporation will notify all eligible Clearing Members of the upcoming auction. Clearing Members who wish to participate in the auction shall log in to the online CDCC default auction platform (the “Auction Platform”) in the prescribed time period specified in the notification. Clearing Members who participate in the auction via the Auction Platform are referred to as “Auction Participants”.

- All Auction Participants understand and acknowledge, for the purpose of the auction, that they will receive certain confidential information, including confidential information related to the suspended Clearing Member, and agree to treat such information with the highest standard of confidentiality.

- All Auction Participants shall participate in the auction in good faith, and any loss suffered by the Corporation as a result of any dishonest or fraudulent act of any of the Auction Participants whether committed alone or in collusion with others shall be charged to the wrongdoer.

- For SGC Securities Default Auctions, conforming SGC Clearing Members and any other Fixed-Income Clearing Members will be invited to participate in the Auction

b) Auction Portfolio determination

- The Corporation may auction the suspended Clearing Member’s portfolio in whole or in part, by decomposing it into smaller Auction Portfolios, if deemed necessary.

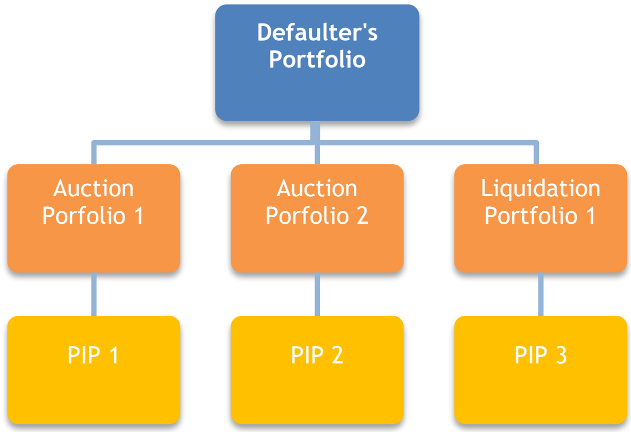
c) Allotment of financial resources to Portfolio Incentive Pools

- Before conducting an auction, the Corporation will allot, on a preliminary basis[5], the Prefunded Financial Resources to each Portfolio Incentive Pool related to each Auction Portfolio or Liquidated Portfolio. Portfolio Incentive Pool is not applicable to SGC Securities Auction Portfolios.

[3] An asset class is a category of products sharing similar characteristics. Three different asset classes are cleared at CDCC, namely Futures, Options and Fixed Income.

[4] An indirect participant must, as part of the CDCC annual due diligence process, demonstrate that it is an active participant in the relevant market with a pre-established relationship with another Clearing Member acting as its Clearing Member for that relevant asset class.

[5] The final allocation of financial resources to absorb losses, i.e. to discharge CDCC of obligations or losses, can only be done once the amount of losses are known and final, as described in section 3.6.



- A Portfolio Incentive Pool ("PIP") represents a pool of financial resources allotted by CDCC to one specific portfolio to be auctioned or liquidated.

- A detailed description of such process is provided in Appendix 1. This step will allow CDCC to:

  - Estimate the amount of Prefunded Financial Resources allotted to each portfolio which could be used to absorb losses in connection with the liquidation or the auction of each portfolio, and

  - Inform each Eligible Clearing Member of the portion of its Clearing Fund Requirement attributed to each Auction Portfolio which could be at risk of being used to extinguish losses.

3.3.2 Portfolio Auction

The portfolio auction process is comprised of three main components:

- The divulgation of the necessary information required by any Auction Participant to provide a bid;

- The procedure by which an Auction Participant must provide a bid; and

- The determination of the prevailing bidder.

a) Information provided

CDCC needs to provide sufficient information to all Auction Participants to enable them to submit a bid.

- The Corporation will provide all the relevant information for each Auction Portfolio, e.g. ISINs, prices, expiry dates/settlement dates. The Corporation will also indicate if the portfolio has been hedged and will give the details on the hedges which form part of the Auction Portfolio.

- The Corporation will also inform each Eligible Clearing Member of the preliminary amount of its Clearing Fund Requirement allotted to each Auction Portfolio. This information is important to assess the potential amount at risk in case the costs associated with the close-out, auction or liquidation of this portfolio were to exceed the suspended Clearing Member's resources and the CDCC Default Risk Capital.

- Finally, the Corporation will also provide the detailed procedure by which an Auction Participant must provide a bid, as summarized in the sub-section below (bidding process).

b) Bidding process

- Auction Participants may bid on one or more Auction Portfolios and must submit their bids specifying the value of collateral they want to receive to assume the positions and the settlement of all the positions contained in each Auction Portfolio. For SGC Securities Default Auctions, Auction Participants must submit bids by specifying a purchase price for each SGC Securities Auction Portfolio.

- Per CDCC Rule A-210(3) Brokers participating in SGC Securities Default Auction may be permitted (as outlined in SGC Securities Default Auction invitation) to share Default Auction information including bidding files with Clients and submit bids on behalf of Clients. Clearing Members acting as brokers must maintain clarity of broker role versus role of bidding for their own or an affiliate's account. Client bidding information must not be shared with personnel who bid on behalf of the Clearing Member's own or affiliate's account.

- The Corporation shall specify in the auction documentation the time limit for Auction Participants to submit their bids from the time of the distribution of the relevant information on the auctioned portfolio, the "Bidding Window". The Bidding Window shall be of a minimum of two hours. No bids shall be accepted after the end of the Bidding Window.

- The Corporation shall confidentially notify the prevailing bidder within 10 minutes of the closing of the Bidding Window.

c) Prevailing Bidder determination

- The Corporation will determine the winner of the auction for each Auction Portfolio on the basis of which Auction Participant has requested the least amount of collateral to accept all the positions associated with the Auction Portfolio.

- For SGC Securities Default Auction, the Corporation will determine the winner for each Auction Portfolio on the basis of which Auction Participant has offered the highest purchase amount for all the SGC Securities associated with that SGC Securities Auction Portfolio.

- Notwithstanding the above, the Corporation has full discretion in accepting or rejecting a bid.

- The Corporation will notify the Auction Participant that submitted the prevailing bid ("Prevailing Bidder") that its bid has been retained.

3.3.3 Post Auction Procedure

Upon notification, the Prevailing Bidder will be deemed beneficial owner of the portfolio and hedges, and will become fully liable for the auctioned portfolio, including meeting any Margin Requirements associated with the auctioned portfolio. The Margin Requirement impact of the incremental positions contained in the auctioned portfolio is considered immediately, but the amount agreed to be paid by the Corporation to the Prevailing Bidder in relation to the Auction

Portfolio will be considered as collateral covering this Margin Requirement. Any failure by the Prevailing Bidder to accept the transfer of positions or meet any obligations associated with the portfolio will be deemed a breach of obligations and such Clearing Member shall become liable for all fees, expenses and obligations incurred by the Corporation in connection with such Clearing Member's failure to honor its obligations. A failure by such Clearing Member to pay the costs and damages will automatically result in the determination by the Corporation of a Non-Conforming status.

The Corporation will also notify all Clearing Members of the successful completion, or failure, as the case may be, of the auction in addition to communicating to each Eligible Clearing Member the bidding category they fall into (e.g. Low-bidder or Non-bidder). For SGC Securities Default Auction, the bidding category is not applicable as no Prefunded Financial Resources will be available for loss absorption.

The Corporation will transfer all positions and associated collateral to the Prevailing Bidder no earlier than by the end of the next following Business Day and no later than the end of the second Business Day after the notification to the Prevailing Bidder.

3.3.4 Post SGC Securities Default Auction Procedure

Upon notification, the Prevailing Bidder will be required to create and execute purchase transactions for DVP settlement in CDS for the SGC Securities contained in the Auction Portfolio for which the Clearing Member was the Prevailing Bidder. Any failure by the Prevailing Bidder to complete any SGC Securities purchase transactions or meet any obligations associated with the SGC Securities Default Auction will be deemed a breach of obligations and such Clearing Member shall become liable for all fees, expenses and obligations incurred by the Corporation in connection with such Clearing Member's failure to honor its obligations. Prevailing bidder must initiate a trade for all SGC Securities purchase transactions with settlement date as prescribed by CDCC in SGC Default Auction instructions. Such settlement date will be no earlier than by the end of the next following Business Day and no later than the end of the second Business Day after the notification to the Prevailing Bidder.

The Corporation will also notify all Clearing Members of the successful completion, or failure, as the case may be, of the SGC Securities Default Auction. For SGC Securities Default Auction, the bidding category is not applicable as no Prefunded Financial Resources will be available for loss absorption.

3.4 Portfolio Hedging

At any time during the Default Management Process, the Corporation may, if it deems appropriate, hedge the portfolio of the suspended Clearing Member in order to limit the accumulation of market and credit losses. Note that in such cases, the Corporation may consider as hedges the use of instruments not part of the organization's clearing universe, including cash securities.

3.5 Liquidity Management

While not a source of capital available for the offset of losses, the Corporation has available an array of liquidity tools and 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 must make a determination as to how to deploy these resources:

- Drawing upon its commercial bank liquidity lines, in whole or in part.

- Using the Supplemental Liquidity Contributions held in the Supplemental Liquidity Fund, in whole or in part. The Supplemental Liquidity Fund shall not be used for loss allocation. Any usage by the Corporation of the Supplemental Liquidity Fund will be paid back as soon as practicable after a Default Management Period.

- Raising liquidity through outright sales and/or Repurchase Transactions involving Securities of the defaulting Clearing Member.

- Raising liquidity through the sale of non-Cad currencies pledged by the defaulting Clearing member

- Raising liquidity through the exercise of its rights of re-pledging/re-hypothecation of suspended Clearing Member's Margin Deposits (including without limitation Margin and Clearing Fund deposits).

- Raising liquidity through the exercise of its rights of re-pledging/re-hypothecation of surviving Clearing Members' Clearing Fund Requirements.

- The above liquidity management tools and facilities are not available for an SGC Securities Default Auction.

3.6 Loss Allocation Methodology

In implementing the Default Management Process, the Corporation will aim at minimizing the losses to the Corporation and its stakeholders.

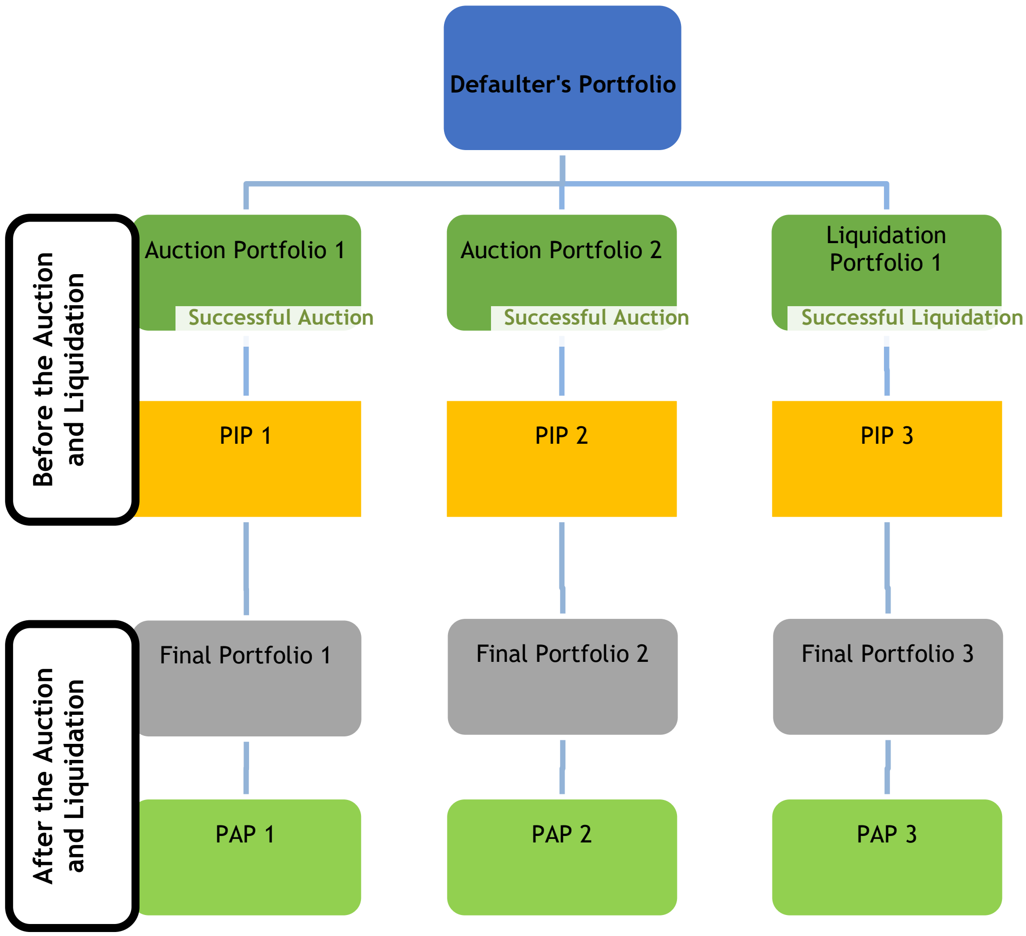
- After the end of the Default Management Period, the Corporation will assess the total losses incurred or sustained by it. These losses include, but are not limited to, all default related obligations, costs or expenses incurred or sustained by the Corporation in connection with the administration, auction, closing-out, liquidation, hedging, financing or transfer of positions.

- For each auctioned or liquidated portfolio, the Corporation will allocate the financial resources contained in the Default Waterfall to the relevant Portfolio Allocation Pool ("PAP"). While the complete methodology is provided in Appendix 2, the loss allocation methodology follows these principles:

    - The Corporation must extinguish the losses with the financial resources contained in the Default Waterfall in the order specified in Sub-section 1.6.

    - The suspended Clearing Member's resources and the CDCC Default Risk Capital are allocated pro rata, based on the proportion of each PAP's Base Initial Margin to the aggregate Base Initial Margin of all PAPs. Losses are then attributed to these resources.

    - The Clearing Fund Requirement of each surviving Clearing Member is allocated to each PAP in a two-steps process as explained in Appendix 2. Afterwards, losses are attributed to the Clearing Fund Requirements of surviving Clearing Members based on their bidding behavior in the Default Auction(s) (please refer to Appendix 3 - Bidding Incentives). If no auction was performed, the losses are attributed on a pro rata basis among the allocated Clearing Fund Requirements of the surviving Clearing Members to such PAP, in accordance with Appendix 2 - Loss Allocation Methodology.



- In the event that the Corporation is later able to recover from the suspended Clearing Member any amount, such amount shall be returned to the other Clearing Members to compensate for any amount charged to them and for the financial resources levied from them as part of the Default Management Process in the reverse order that these resources were used to cover the losses.

- The above loss allocation methodology is not applicable following an SGC Securities Default Auction. Once all the SGC Securities have been liquidated through the use of Default Auction and or Broker Sales, CDCC will transfer all the proceeds from such liquidation to the Trust's liquidation settlement account.

3.7 Impact of the Unsuccessful Application of Mitigation Tools

In the event that the Corporation has been unable to return to a matched book, or if the losses incurred in connection with the Default Management Process exceed the Default Waterfall, each of which, a Recovery Event, as defined in the Rules, the Corporation may then apply a set of Recovery Powers following the declaration by the Board of the initiation of the Recovery Process. The Recovery Process is described in Section A-10 of the Rules and in Section 4 below.

SECTION 4 : RECOVERY PLAN

The Default Management Process described above ensures that the Corporation has in place tools and processes to appropriately manage the risks following the default of a Clearing Member. Supplementing the Default Management Process, the Corporation has in place a recovery plan which provides for a defined set of actions to address any uncovered losses, liquidity shortfall or capital inadequacy, arising from the Clearing Member(s)' default(s) in the unlikely event that the Default Waterfall proves insufficient.

Rule A-10 governs the Corporation and Clearing Members' obligations in a Recovery Process. The section below provides for general information with respect to the triggers of the Recovery Process, a description of the Recovery Powers that may be used by the Corporation upon a declaration of Recovery Process, the governance supporting such process and the Recovery Loss[6] allocation methodology.

4.1 Triggers for the Recovery Process

The Corporation management may recommend to the Board to trigger the implementation of the Recovery Process, after the suspension of a Non-Conforming Member, in either of the following situations:

- The Corporation, acting reasonably, determines that obligations, losses or expenses incurred or sustained by the Corporation as a result of, or in connection with, the suspension of one or more Clearing Members may exceed the Default Waterfall; or

- After the exercise of the normal default management tools (powers contemplated in Rule A-4) or any rights or remedies provided under the Rules, the Corporation reasonably determines that it has been, or will likely be, unable to re-establish a matched book.

Some extreme financial stress could lead the Corporation to have insufficient resources as part of the Default Waterfall to absorb losses or settle expenses, payments or obligations in connection with the default of a Clearing Member. For example, the most favorable bid received in the course of a Default Auction may be significantly in excess of the Margin associated with the positions contained in an Auction Portfolio as a result of market uncertainty. Another illustration would be the case where the suspended Clearing Member's portfolio value may be negatively impacted by the occurrence of a market event that is greater than the market scenario that was planned for as part of the daily risk management activities. CDCC can also face a short-term liquidity pressure arising from an unexpectedly high settlement amount incurred by CDCC as a result of the suspended Clearing Member's Fixed Income Transactions.

In parallel, CDCC could also have sufficient financial resources but be unable to close-out all the positions of the suspended Clearing Member following a series of failed Default Auctions in the absence of bids.

4.2 Recovery Powers

Upon the declaration by the Corporation of the commencement of a Recovery Process, CDCC may exercise extraordinary remedies against its Clearing Members in good standing to ensure that the Corporation continues to operate on an ongoing basis and to address uncovered losses or a liquidity shortfall. Such extraordinary remedies, referred to as Recovery Powers, are listed below and detailed in the Rules and can be applied in the manner set out in the applicable sections.

Recovery Powers aim at achieving two distinct objectives and can be classified as follows: 1) Recovery Powers which can extinguish uncovered losses or a liquidity shortfall, and 2) Recovery Powers which can re-establish a matched book.

[6] Recovery Loss has the meaning given thereto in Section A-102 of the Rules.

4.2.1 Recovery Powers to Extinguish Uncovered Losses or a Liquidity Shortfall

The exercise by the Corporation of the Recovery Powers of this Sub-section 4.2.1 is applicable to all Clearing Members, except SGC Clearing Members..

4.2.1.1 Reduced Amounts Distribution

During a Default Management Period, after the commencement of the Recovery Process, the Corporation may withhold the payment of all or a portion of certain amounts (defined as the "Qualified Amounts" under the Rules) owed by the Corporation to the Clearing Members, a process referred therein as "Reduced Amounts Distribution" or "RAD". As defined in the Rules, the Qualified Amounts include the payment of certain amounts in cash and/or the transfer of securities for Net Variation Margin Requirement purposes, pursuant to D-607.

The purpose of the RAD is to withhold certain gains from Clearing Members to allow the Corporation to absorb certain losses. This tool aims at reducing liquidity pressure on Clearing Members while helping the Corporation extinguish losses.

- **Qualified Amounts**

Consistent with the purpose of this tool, the Qualified Amounts are payments or obligations and are specific to each asset class.

For Futures and Options, the Qualified Amounts are the net amount owed by the Corporation of:

1) The net value of the Gains and Losses for that day in respect of all such Clearing Member's Open Positions in Futures;

2) The Net Daily Premium payable or receivable by such Clearing Member on that day, in respect of Options issued by the Corporation and purchased or sold on the Exchange; and

3) The net agreed premium payable or receivable by such Clearing Member on that day, in respect of Options issued by the Corporation, bilaterally negotiated, or entered into on any Acceptable Marketplaces.

For Fixed Income Transactions, the Qualified Amounts calculation is based on the following concepts:

1) For all Clearing Members, except the Limited Clearing Members, any decrease in Variation Margin Requirement since the last Business Day prior to the commencement of RAD will be subject to RAD for all Fixed Income Transactions still outstanding as of the day of the calculation.

2) For Limited Clearing Members, any decrease in Variation Margin Requirement since last Business Day prior to the commencement of RAD will be subject to RAD for the Fixed Income Transactions which were, before submission for clearing with the Corporation, originally entered into by the Limited Clearing Member and the suspended Clearing Member and which are still outstanding as of the day of the calculation.

The detailed Qualified Amounts methodology is described in Sub-sections A-1005(3) b) and c) of the Rules.

- **Rad Process**

The exercise of the Reduced Amounts Distribution by the Corporation requires that certain conditions be met:

- **Trigger**: If in the reasonable judgment of the Corporation, the Recovery Event may result in the Corporation incurring obligations, losses and expenses in an amount in excess of the Default Waterfall;

- **Maximum Duration**: The Corporation may not exercise the RAD power for more than four (4) consecutive Business Days during a single Default Management Period and shall resume the payment of Qualified Amounts after the end of that period;

- **Permitted Use**: The Corporation will only use the Retained Amounts for satisfying or otherwise settling Recovery Losses[7], after the exhaustion of the Default Waterfall; and

- **Notice and Implementation**: The Corporation will communicate to all Clearing Members that RAD will be applied during the payment cycles. On each day of the Reduced Amounts Distribution Period, the Corporation will notify each Clearing Member of its relevant Retained Amount which will be withheld. The Corporation shall also communicate to all Clearing Members the end of the Reduced Amounts Distribution Period.

More information on the Reduced Amounts Distribution can be found in Section A-1005 of the Rules.

4.2.1.2 Recovery Loss Cash Payment

During a Default Management Period, subsequent to the commencement of the Recovery Process, the Corporation may require its Clearing Members, excluding Limited Clearing Members, to meet a Recovery Loss Cash Payment. The use of such tool is limited to certain conditions:

- **Trigger**: If in the reasonable judgment of the Corporation, the Recovery Event may result in the Corporation incurring obligations, losses and expenses in an amount in excess of the sum of the Default Waterfall and the Retained Amounts and such amount is known or can reasonably be determined;

- **Maximum Amount**: The maximum aggregate amount which may be required from a Clearing Member during a single Default Management Period cannot exceed such Clearing Member's Clearing Fund Requirement as of the commencement of the Default Management Period;

- **Limited Use**: The Corporation will use the financial resources accumulated through Recovery Loss Cash Payments to extinguish any outstanding losses or obligations incurred by the Corporation in connection with the Recovery Event after the exhaustion of the Default Waterfall and the resources retained as part of the RAD; and

[7] The Retained Amounts withheld on an LCM Fixed Income Transaction in relation to the suspension of a Clearing Member shall only be used to extinguish losses incurred in connection with such suspended Clearing Member.

- **Notice and Implementation**: The Corporation will communicate to each Clearing Member the proportional amount that such Clearing Member must pay at the next Settlement Time.

The Recovery Powers form part of the rights and remedies that may be exercised by the Corporation pursuant to a declaration of the commencement of a Recovery Process, therefore a failure to pay by a Clearing Member its Recovery Loss Cash Payment is a ground for the Non-Conforming status and may lead to the suspension of such Clearing Member.

More information on the Recovery Loss Cash Payment can be found in Section A-1006 of the Rules.

4.2.2 Recovery Tools to Re-Establish A Matched Book

All Recovery Powers of this section are based on Clearing Members' voluntary participation.

4.2.2.1 Recovery Auction

At any point in time during the Recovery Process, the Corporation may choose to hold one (or several) Recovery Auction(s) as a means to re-establish a matched book following the suspension of a Clearing Member. The Recovery Auction(s) only relates to the suspended Clearing Member's Fixed Income Transactions. The Recovery Auction relies on the same participation and bidding rules and principles governing the Default Auction as set out in Sub-section 3.3. However, the Recovery Auction does not take into consideration bidding behavior to determine the impact on the loss allocation methodology. The complete loss allocation methodology is detailed in Appendix 2.

More information on the Recovery Auction can be found in Section A-1007 of the Rules.

4.2.2.2 Voluntary Contract Tear-Up

In order to return to a matched book, the Corporation may also ask the surviving Clearing Members to agree, on a voluntary basis, to tear-up outstanding positions. The purpose of a Voluntary Contract Tear-Up is to close-out the remaining suspended Clearing Member's positions by terminating simultaneously the offsetting positions held by the surviving Clearing Members. The use of such tool is limited to certain conditions:

- **Trigger**: Voluntary Contract Tear-Up will only be used after declaration of a Recovery Process and if the Corporation determines that it has been unable to transfer, close-out, or liquidate all the positions of the suspended Clearing Member with the standard default management tools as described in Rule A-4 or Section 3 of this Manual. Moreover, for Fixed Income Transactions, the Voluntary Contract Tear-Up can only be offered following the holding of a Recovery Auction.

- **Notice and Implementation**: The Corporation will notify Clearing Members in advance of its intention to implement Voluntary Contract Tear-Up. At the Close of Business, the Corporation will communicate to each Clearing Member the suggested proportion of Open Positions which could be torn-up along with the Tear-Up Value of such Open Positions. This notification will occur after the notification to the Clearing Members regarding the Retained Amounts if applicable.

- For each Clearing Member, the suggested proportion to be torn-up is calculated by allocating the suspended Clearing Member's Open Positions pro rata, based on the proportion of the Clearing Member's opposite net Open Positions to the opposite net Open Positions of all surviving Clearing Members.

- The Tear-Up Value of Open Positions will be determined at the prevailing end-of-day market price as explained in Sub-section A-1008 (4) of the Rules.

▪ **Implementation Impact for Fixed Income Transactions**

For a Fixed Income Transaction, the impact of tearing-up is the following:

- At the date of the Voluntary Contract Tear-Up, any Variation Margin that is owed by the surviving Clearing Member to CDCC will become payable in accordance with the ordinary Variation Margin Settlement Time and any Variation Margin owed by CDCC to the surviving Clearing Member which is not otherwise subject to a Reduced Amount Distribution will become due in accordance with the ordinary Variation Margin Settlement Time.

For further clarity, where the Corporation concurrently exercises its power under the RAD on a Transaction that is also subject to Voluntary Contract Tear-Up, the interaction between the Retained Amount and the amount payable following the Voluntary Contract Tear-Up of a Fixed Income Transaction is as follows:

- If at the date of the Voluntary Contract Tear-Up, for each Fixed Income Transaction to be torn-up, the associated Retained Amount is notified to the Clearing Member, the net amount payable by CDCC for such Fixed Income Transaction will be equal to the Variation Margin owed by CDCC to the surviving Clearing Member less the Retained Amount.

- Any future outstanding payment or delivery obligations in respect of all the Fixed Income Transactions which a Clearing Member has consented to terminate will be terminated. This implies that upon termination, any Coupon Income owed by the Corporation to a surviving Clearing Member will not be distributed. It also means that the Repo Party that sold the Purchased Securities and received the Purchase Price in the Open Leg, will not receive the Purchased Securities and will not pay the Repurchase Price in the Close Leg. Similarly, the Reverse Repo Party that bought the Purchased Securities in the Open Leg and paid the Purchase Price, will not deliver the Purchased Securities and will not receive the Repurchase Price in the Close Leg. Equally, the Buyer who initially agreed to pay the Purchase Price will not receive the Purchased Securities and the Seller will retain the Purchased Securities and will not receive the Purchase Price.

- Any securities pledged to a Clearing Member in respect of a Variation Margin Requirement in connection with the torn-up Fixed Income Transactions, in possession of either party prior to the date of the Voluntary Contract Tear-Up, shall remain the possession of such party.

- Any Initial Margin pledged in support of the torn-up Transactions by the non-defaulting Clearing Member shall become excess Margin and be retrievable by such Clearing Member after the date of the Voluntary Contract Tear-Up.

▪ **Implementation Impact for Options and Futures Contracts**

- At the date of the Voluntary Contract Tear-Up, any net Gains and Losses on Futures or Option Premium that is owed by the non-defaulting Clearing Member to CDCC will become payable in accordance with the ordinary Settlement Time and any Variation Margin or Option Premium owed by CDCC to the surviving Clearing Member which is not otherwise subject to Reduced Amount Distribution will become due in accordance with the ordinary Settlement Time.

- Any Initial Margin pledged in support of Futures or Options positions by the non-defaulting Clearing Member shall become excess Margin and be retrievable by such Clearing Member after the date of the Voluntary Contract Tear-Up.

- The Corporation shall terminate any future outstanding payment or delivery obligations in respect of all Futures and Options positions which a Clearing Member has consented to terminate. In other terms, from the moment the contract is terminated, the positions cease to exist and no exercise or assignment could be performed.

More information on the Voluntary Contract Tear-Up can be found in Section A-1008 of the Rules.

4.3 Liquidity Management

Without limiting the options provided in Sub-section 3.5 of this Manual, such options being also available to the Corporation in a Recovery Process, in managing its liquidity, the Corporation can use, after the financial resources of the Default Waterfall, the available financial resources levied through the exercise of its Recovery Powers such as the Reduced Amounts Distribution and the Recovery Loss Cash Payment for temporary liquidity funding. Indeed, these recovery tools can be similarly used in accordance with the Rules for either (1) credit purposes to cover any market-driven losses related to a default, or (2) liquidity purposes to cover any liquidity-driven obligation related to the liquidation of the suspended Clearing Member's collateral and positions.

4.4 Recovery Governance

Following the declaration by the Corporation, and as approved by the Board, of the commencement of a Recovery Process (see Sub-section 4.1), the Board shall delegate to CDCC's management the authority to make any reasonable decision regarding the timing and use of Recovery Powers to address uncovered losses or a liquidity shortfall caused by Clearing Member(s)' default(s) and re-establish a matched book, in accordance with the powers entrusted to the Corporation in the Rules. The decision-making respecting the application of recovery tools is a natural extension of the existing Default Management Process. As such, the governance in place for the Default Management Process and set out under Section 2 of this Manual will be extended for the Recovery Process. The Default Management Committee will be responsible to make decisions related to the application of the Recovery Powers with the support of the Emergency Committee.

- **Notifications**

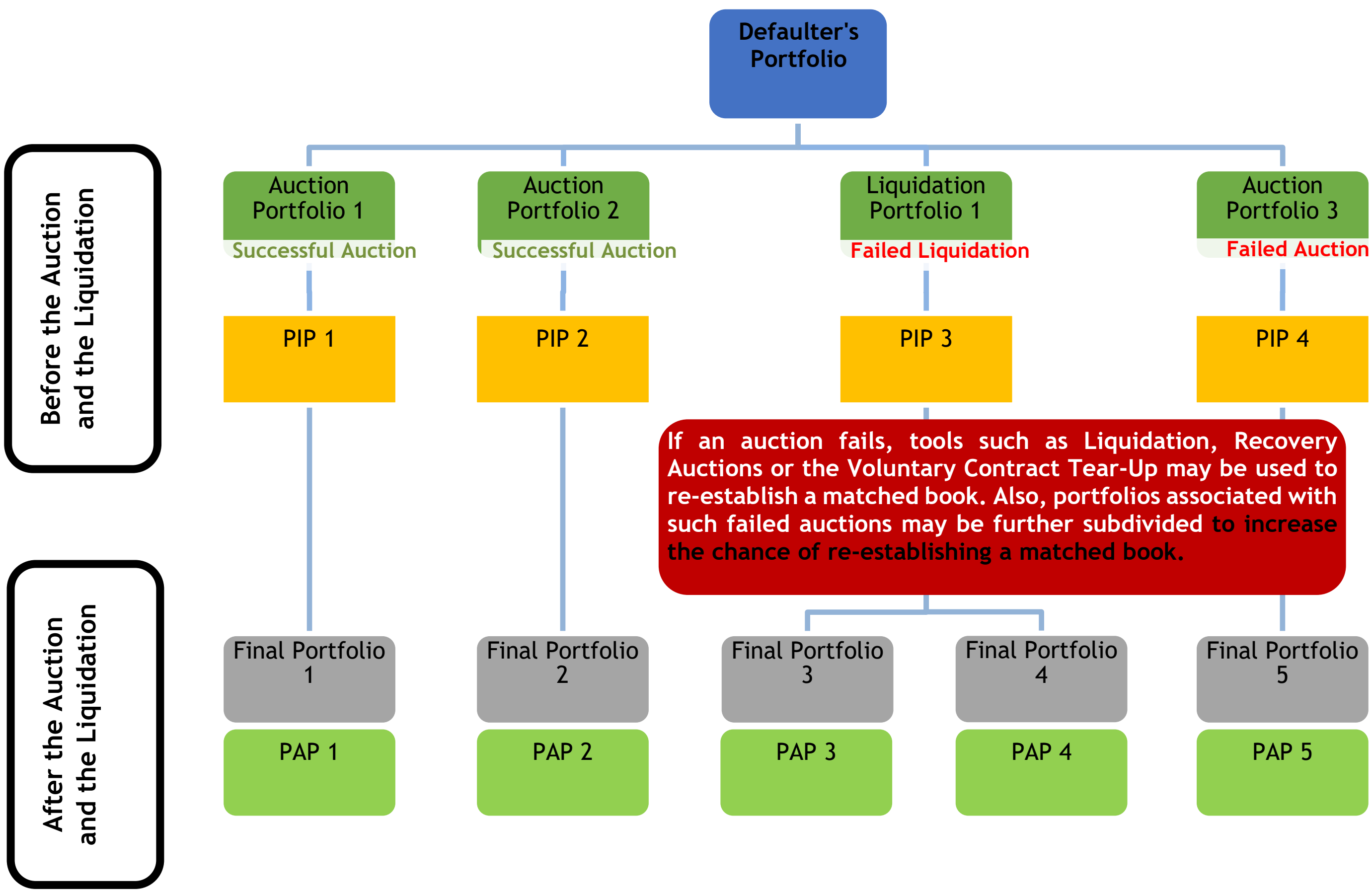
Upon the declaration of a Recovery Process, the Corporation will notify all Clearing Members, the Exchange, all regulatory organizations or agencies having oversight of the Corporation, the Bank of Canada and any such other Entities that the Corporation considers appropriate.

As it is the case while the Corporation is managing a default pre-Recovery Process, appropriate and timely communication will be maintained between CDCC, the Board, its Risk Management Advisory Committee and its regulators.

4.5 Recovery Loss Allocation Methodology

The Corporation's capacity to absorb losses increases with the addition of the Recovery Powers. The loss allocation methodology that starts with the application of the Default Waterfall, as described in Sub-section 1.6, is supplemented by any financial resources levied by the Reduced Amounts Distribution and then the Recovery Loss Cash Payment. However, in extinguishing default-related losses, CDCC must use the financial resources in the prescribed order, as described in Appendix 2.

In the event that the Corporation is later able to recover from the suspended Clearing Member any amount, such amount shall be returned to the other Clearing Members to compensate for any amount charged to them and for the financial resources levied from them as part of the Recovery Process in the reverse order that these were used to cover the Recovery Losses.


Defaulter's Portfolio
Before the Auction and the Liquidation
Auction Portfolio 1
Successful Auction
Auction Portfolio 2
Successful Auction
Liquidation Portfolio 1
Failed Liquidation
Auction Portfolio 3
Failed Auction
PIP 1
PIP 2
PIP 3
PIP 4
If an auction fails, tools such as Liquidation, Recovery Auctions or the Voluntary Contract Tear-Up may be used to re-establish a matched book. Also, portfolios associated with such failed auctions may be further subdivided to increase the chance of re-establishing a matched book.
After the Auction and the Liquidation
Final Portfolio 1
Final Portfolio 2
Final Portfolio 3
Final Portfolio 4
Final Portfolio 5
PAP 1
PAP 2
PAP 3
PAP 4
PAP 5

Appendix 1: Allotment of Prefunded Financial Resources to Portfolio Incentives Pools (“PIPs”)

Before conducting an auction, the Corporation will calculate and allot, on a preliminary basis, the Prefunded Financial Resources to each PIP related to each Auction Portfolio or Liquidated Portfolio.

A Portfolio Incentive Pool (“PIP”) represents a pool of financial resources allotted by CDCC to one specific portfolio to be auctioned or liquidated.

This step will allow CDCC to:

- Estimate the amount of Prefunded Financial Resources available to extinguish losses for each portfolio; and
- Inform each Eligible Clearing Member of the portion of its Clearing Fund Requirement attributed to each Auction Portfolio which could be at risk of being used to extinguish losses.

The Prefunded Financial Resources will be preliminarily allotted to each PIP, based on the proportion of the Base Initial Margin of each portfolio of the suspended Clearing Member to the Base Initial Margin of all portfolios of the suspended Clearing Member. The allotment methodology for each tranche of Prefunded Financial Resources is described below:

I. **Suspended Clearing Member’s resources**

The suspended Clearing Member’s resources shall be allotted to each PIP pro rata, based on the proportion of the Base Initial Margin of such PIP to the aggregate Base Initial Margin of all PIPs.

II. **CDCC Default Risk Capital (“DRC”)**

CDCC DRC’s financial resources shall be allotted to each PIP pro rata, based on the proportion of the Base Initial Margin of such PIP to the aggregate Base Initial Margin of all PIPs.

III. **Surviving Clearing Members Clearing Fund Requirements**

As a first step, the Corporation shall calculate the proportion of each surviving Clearing Member’s Clearing Fund Requirement attributed to each asset class, based on the proportion of each Clearing Member’s Base Initial Margin for such asset class to the aggregate Base Initial Margin of such Clearing Member.

In a second step, for each asset class, the Corporation shall further sub-divide the amount of Clearing Fund Requirement obtained in the first step above, pro rata, based on the proportion of each PIP’s Base Initial Margin to the aggregate Base Initial Margin of all PIPs of that asset class.

Appendix 2: Loss Allocation Methodology

This appendix describes how the Corporation will allocate losses amongst Clearing Members and CDCC, or, in other words, what resources will be used to extinguish losses. As outlined in Sub-sections 1 and 2 below, the loss allocation methodology differs depending on the type of financial resources used to extinguish losses, e.g. CDCC Default Risk Capital, Clearing Fund Requirements, etc.

This loss allocation process can only be done after the end of the Default Management Period, when losses are known. These losses include all default related obligations, costs or expenses, incurred or sustained by the Corporation in connection with the administration, auction, closing-out, liquidation, hedging, financing or transfer of positions or collateral.

The final loss allocation process does not take into account the preliminary allotment of financial resources and PIP as described in Appendix 1, which is performed for information purposes only.

The loss allocation methodology is based on the four following steps:

1. Determination the composition of each Final Portfolio

2. Creation of the Portfolio Allocation Pools (“PAPs”)

3. Determination of the amount of losses for each PAP

4. Allocation of financial resources to each PAP

I. **Determination of the composition of each Final Portfolio**

The Corporation shall first group together a suspended Clearing Member's positions which have been closed-out together, whether as an auctioned portfolio, a liquidated portfolio or a group of torn-up positions (each, a “Final Portfolio”).

The Final Portfolio shall only be composed of eligible positions of three distinct portfolios for the suspended Clearing Member (Firm, GCM Regime and Non-GCM Regime) and of the same asset class, except for any positions from other asset classes which have been added by CDCC for hedging purposes.

II. **Creation of the Portfolio Allocation Pools (PAPs)**

For each Final Portfolio, a Portfolio Allocation Pool shall be created. A Portfolio Allocation Pool (“PAP”) represents, in relation to a Final Portfolio, a pool of losses that arose in connection with such Final Portfolio and financial resources (allocated by the Corporation) to extinguish such losses.

III. **Determination of the losses associated with each PAP**

For each PAP, the Corporation shall determine what are the losses related to the Final Portfolio, based on the specific losses, expenses and obligations associated with the Default Management Process of such Final Portfolio. For example, for a specific Auction Portfolio which has been successfully auctioned, the direct cost of the auction shall be attributed to its PAP, i.e. the bid amount.

Costs that are generated in the Default Management Process of multiple Final Portfolios and shared between them, should be proportionally allocated to PAPs related to these Final Portfolios.

IV. Allocation of financial resources to each PAP

Once all losses are allocated to all PAPs, the next step is to allocate financial resources to these PAPs to extinguish the losses in a pre-established manner. The sub-sections below provide the detailed methodology to allocate financial resources to each PAP.

1. Default Waterfall Resources

In each PAP, the Corporation will allocate the financial resources contained in the Default Waterfall in the following order:

a) Suspended Clearing Member's resources

Step 1. The Corporation shall allocate the suspended Clearing Member's resources to each PAP pro rata, based on the proportion of the PAP's Base Initial Margin to the aggregate Base Initial Margin of all PAPs.

Step 2. In each PAP, the Corporation shall extinguish the losses with the allocated suspended Clearing Member's resources.

Step 3. For each asset class, if there remains a loss in a PAP after the allocation of the suspended Clearing Member's resources, while there is still an excess of resources in other PAPs, the Corporation will use such excess to extinguish the outstanding losses. This will be performed by allocating the aggregate excess resources of the suspended Clearing Member pro rata, based on the proportion of (1) the Base Initial Margin of each PAP where the allocated suspended Clearing Member's resources have proven insufficient to cover their respective losses, to (2) the aggregate Base Initial Margin of all PAPs of that asset class where the allocated suspended Clearing Member's resources have proven insufficient to cover their respective losses.

Step 4. Across all asset classes, if there remains a loss in a PAP after the allocation of the suspended Clearing Member's resources, while there is still an excess of resources in other PAPs, the Corporation will use such excess to extinguish the outstanding losses. This will be performed by allocating the aggregate excess resources of the suspended Clearing Member's pro rata, based on the proportion of (1) the Base Initial Margin of each PAP where the allocated suspended Clearing Member's resources have proven insufficient to cover their respective losses, to (2) the aggregate Base Initial Margin of all PAPs, across all asset classes, where the allocated suspended Clearing Member's resources have proven insufficient to cover their respective losses.

Suspended Clearing Member's resources should be fully exhausted across all PAPs and all asset classes before applying CDCC Default Risk Capital to cover losses as described below. If the suspended Clearing Member's resources have proven sufficient to CDCC DRC extinguish all the outstanding losses, the loss allocation mechanism is deemed completed.

b) CDCC DRC

Step 1. CDCC shall allocate CDCC DRC to each PAP pro rata, based on the proportion of such PAP's Base Initial Margin to the aggregate Base Initial Margin of all PAPs.

Step 2. In each PAP, the Corporation shall extinguish the loss with the allocated CDCC DRC.

Step 3. For each asset class, if there remains a loss in a PAP after the allocation of CDCC DRC, while there is still an excess of resources in other PAPs, the Corporation will use such excess to extinguish the outstanding losses. This will be performed by allocating the aggregate excess resources of CDCC DRC pro rata, based on the proportion of (1) the Base Initial Margin of each PAP where the allocated CDCC DRC has proven insufficient to cover their respective losses, to (2) the aggregate Base Initial Margin of all PAPs of that asset class where the allocated CDCC DRC has proven insufficient to cover their respective losses.

Step 4. Across all asset classes, if there remains a loss in a PAP after the allocation of CDCC DRC, while there is still an excess of resources in other PAPs, the Corporation will use such excess to extinguish the outstanding losses. This will be performed by allocating the aggregate excess CDCC DRC pro rata, based on the proportion of (1) the Base Initial Margin of each PAP where the CDCC DRC has proven insufficient to cover their respective losses, to (2) the aggregate Base Initial Margin of all PAPs, across all asset classes, where the allocated CDCC DRC has proven insufficient to cover their respective losses.

CDCC DRC should be fully exhausted across all PAPs and all asset classes before allocating the surviving Clearing Members' Clearing Fund Requirements to cover losses as described below. If the CDCC DRC has proven sufficient to extinguish all the outstanding losses, the loss allocation mechanism is deemed completed.

c) Surviving Clearing Members' Clearing Fund Requirements

Step 1. Initial Allocation

Sub-Step 1. CDCC shall allocate the surviving Clearing Members' Clearing Fund Requirements to each PAP in the following manner:

- As a first step, the Corporation shall calculate the portion of each surviving Clearing Member's Clearing Fund Requirement attributed to each asset class pro rata, based on the proportion of each Clearing Member's Base Initial Margin for such asset class relative to the aggregate Base Initial Margin of such Clearing Member; and

- In a second step, for each asset class, the Corporation shall further sub-divide the amount of Clearing Fund Requirement obtained in the first step above, pro rata, based on the proportion of each PAP's Base Initial Margin on the aggregate Base Initial Margin of all PAPs of that asset class.

Sub-Step 2. In each PAP, CDCC will extinguish the outstanding losses pro rata, based on the proportion of (1) each Clearing Member's allocated Clearing Fund Requirement to such PAP, to (2) the aggregate Clearing Fund Requirements of all Clearing Members to such PAP, with the use of allocated surviving Clearing Members' Clearing Fund Requirements calculated in Sub-Step 1.

- However, for PAPs related to Final Portfolios that were successfully auctioned, the loss allocation shall be subject to the subordination of each surviving Clearing Member's Clearing Fund Requirement based on such Clearing Member's bidding behavior in the PAPs where the loss is absorbed (please refer to Appendix 3-Bidding Incentives).

Step 2. Intra-Class Allocation

Sub-Step 1. For each asset class, if there remains a loss in a PAP after the allocation of the surviving Clearing Members' Clearing Fund Requirements, while there is still an excess of resources in other PAPs, such outstanding losses will be extinguished by these excess surviving Clearing Members' Clearing Fund Requirements. This will be performed by allocating, for each Clearing Member its aggregated excess Clearing Fund Requirements pro rata, based on the proportion of (1) the Base Initial Margin of each PAP where the allocated surviving Clearing Members' Clearing Fund Requirements have proven insufficient to cover their respective losses, to (2) the aggregate Base Initial Margin of all PAPs of that asset class where the allocated surviving Clearing Members' Clearing Fund Requirements have proven insufficient to cover their respective losses.

Sub-Step 2. In each PAP, CDCC will extinguish the outstanding losses pro rata of (1) each Clearing Member allocated excess Clearing Fund Requirement to such PAP, on (2) the aggregate allocated excess Clearing Fund Requirements of all Clearing Members to such PAP, with the allocated excess surviving Clearing Members' Clearing Fund Requirements calculated in Sub-Step 1.

- However, for PAPs related to Final Portfolios that were successfully auctioned, the loss allocation shall be subject to the subordination of each surviving Clearing Member's Clearing Fund Requirement based on such Clearing Member's bidding behavior in the PAPs where the loss is absorbed (please refer to Appendix 3-Bidding Incentives).

Step 3. Inter-Class Allocation

Sub-Step 1. Across all asset classes, if there remains a loss in a PAP after the allocation of the surviving Clearing Members' Clearing Fund Requirements, while there is still an excess of resources in other PAPs, those outstanding losses will be extinguished by these excess surviving Clearing Members' Clearing Fund Requirements. This will be performed by allocating, for each Clearing Member, its aggregated excess Clearing Fund Requirements pro rata, based on the proportion of (1) the Base Initial Margin of each PAP where the allocated surviving Clearing Members' Clearing Fund Requirements have proven insufficient to cover their respective losses, to (2) the aggregate Base Initial Margin of all PAPs, across all asset classes, where the allocated surviving Clearing Members' Clearing Fund Requirements have proven insufficient to cover their respective losses.

Sub-Step 2. In each PAP, CDCC will extinguish the outstanding losses pro rata of (1) each Clearing Member allocated excess Clearing Fund Requirement to such PAP, on (2) the aggregate allocated excess Clearing Fund Requirements of all Clearing Members to such PAP with the allocated excess surviving Clearing Members' Clearing Fund Requirements calculated in Sub-Step 1.

- Surviving Clearing Members' Clearing Fund Requirements should be fully exhausted across all PAPs and all asset classes before allocating the 2nd surviving Clearing Members' Clearing Fund Requirements to cover losses as described below. If the suspended Clearing Member's resources have proven sufficient to extinguish all the outstanding losses, the loss allocation mechanism is deemed completed.

- The surviving Clearing Members' Clearing Fund Requirements of all Clearing Members should be fully exhausted across all PAPs and all asset classes before allocating the 2nd surviving Clearing Members' Clearing Fund Requirements to cover losses as described below. If the surviving Clearing Members' Clearing Fund Requirements have proven sufficient to extinguish all the outstanding losses, the loss allocation mechanism is deemed completed.

d) 2nd surviving Clearing Members' Clearing Fund Requirements

The methodology for allocating the 2nd surviving Clearing Members' Clearing Fund Requirements to each PAP shall follow the same allocation methodology used for the allocation of the surviving Clearing Members' Clearing Fund Requirements and described in the previous section 1(c).

2. Recovery Power Resources

In the event that a Recovery Process has been declared by CDCC and that Recovery Powers are used to extinguish uncovered losses, the loss allocation methodology provides for the usage of financial resources levied by the RAD and the Recovery Loss Cash Payment after the application of the Default Waterfall.

a) Retained Amounts

Step 1. Initial Allocation

Sub-Step 1. CDCC shall allocate the sum of Retained Amounts to each PAP, in the following manner:

- As a first step, the Corporation shall calculate the portion of each surviving Clearing Member's Retained Amounts attributed to each asset class, based on the proportion of each Clearing Member's Base Initial Margin for such asset class to the aggregate Base Initial Margin of such Clearing Member; and
- In a second step, for each asset class, the Corporation shall further sub-divide each Clearing Member Retained Amounts obtained in the first step above pro rata, based on the proportion of each PAP's Base Initial Margin to the aggregate Base Initial Margin of all PAPs of that asset class. Provided however that, in the case of the suspension of more than one Clearing Member, an LCM Retained Amounts withheld in connection with the suspension of one Clearing Member shall only be allocated to PAPs in relation to the same suspended Clearing Member.

Sub-Step 2. In each PAP, CDCC will extinguish the outstanding losses pro rata, based on the proportion of (1) each Clearing Member's allocated Retained Amounts to such PAP, to (2) the aggregate Retained Amounts of all Clearing Members to such PAP, with the use of the allocated Retained Amounts calculated in Sub-Step 1.

Step 2. Intra-Class Allocation

Sub-Step 1. For each asset class, if there remains a loss in a PAP after the allocation of the Retained Amounts, while there is still an excess of resources in other PAPs, such outstanding losses will be extinguished by these excess Retained Amounts. This will be performed by allocating, for each Clearing Member, its aggregated excess Retained Amounts pro rata, based on the proportion of (1) the Base Initial Margin of each PAP where the allocated Retained Amounts have proven insufficient to cover their respective losses, to (2) the aggregate Base Initial Margin of all PAPs of that asset class where the allocated Retained Amounts have proven insufficient to cover their respective losses.

Sub-Step 2. In each PAP, CDCC will extinguish the outstanding losses pro rata of (1) each Clearing Member allocated excess Retained Amounts to such PAP, on (2) the aggregate excess Retained Amounts of all Clearing Members to such PAP, with the use of the allocated excess Retained Amounts calculated in Sub-Step 1. Provided however that, in the case of the suspension of more than one Clearing Member, an LCM Retained Amounts withheld in connection with the suspension of one Clearing Member shall only be allocated to PAPs in relation to the same suspended Clearing Member.

Step 3. Inter-Class Allocation

Sub-Step 1. Across all asset classes, if there remains a loss in a PAP after the allocation of the Retained Amounts, while there is still an excess of resources in other PAPs, those outstanding losses will be extinguished by these excess Retained Amounts. This will be performed by allocating, for each Clearing Member, its aggregated excess Retained Amounts pro rata, based on the proportion of (1) the Base Initial Margin of each PAP where the allocated Retained Amounts have proven insufficient to cover their respective losses, to (2) the aggregate Base Initial Margin of all PAPs, across all asset classes, where the allocated Retained Amounts have proven insufficient to cover their respective losses. Provided however that, in the case of the suspension of more than one Clearing Member, an LCM Retained Amounts withheld in connection with the suspension of one Clearing Member shall only be allocated to PAPs in relation to the same suspended Clearing Member.

For further clarity, the Inter-Class Allocation methodology permits the use of any Retained Amounts levied from any Clearing Member, without regard to the asset class that such Clearing Member's membership covers, to be used to absorb losses stemming from any PAP in any asset class. This implies that Retained Amounts levied from an LCM or another Fixed Income Clearing Member may be allocated to PAPs of Futures or Options asset classes.

Sub-Step 2. In each PAP, CDCC will extinguish the outstanding losses on pro rata of (1) each Clearing Member allocated excess Retained Amounts to such PAP, on (2) the aggregate excess Retained Amounts of all Clearing Members to such PAP, with the use of the allocated excess Retained Amounts calculated in Sub-Step 1.

- Subject to the requirement that LCM Retained Amounts in connection with the suspension of one Clearing Member be used only to absorb losses incurred by the Corporation in relation to the same suspended Clearing Member, in the case of the suspension of more than one Clearing Member, Retained Amounts should be fully exhausted across all PAPs and all asset classes before allocating the Recovery Loss Cash Payment to cover losses as described below. If the Retained Amounts have proven sufficient to extinguish all the outstanding losses, the loss allocation mechanism is deemed completed.

b) Recovery Loss Cash Payment

After the complete exhaustion of Retained Amounts, the outstanding losses across all PAPs are extinguished with the Recovery Loss Cash Payment pro rata, based on the proportion of each surviving Clearing Member's Clearing Fund Requirement to the aggregate Clearing Fund Requirements of all Clearing Members.

Appendix 3: Bidding Incentives and the Loss Allocation Methodology

For each PAP where the portfolio has been successfully auctioned, and where losses remain after the allocation of the suspended Clearing Member financial resources and CDCC DRC, the loss allocation to the surviving Clearing Members' Clearing Fund Requirements will be based on the bidding behavior of the Eligible Clearing Members. This appendix describes:

1. How CDCC will categorize each Eligible Clearing Member based on their bidding behavior.

2. How CDCC will allocate losses, related to each PAP, to each Eligible Clearing Member and then extinguish such losses with their allocated surviving Clearing Members' Clearing Fund Requirements.

3. How CDCC will allocate losses to non-Eligible Clearing Members.

I. **Bidding Behavior Assessment**

For each successfully auctioned portfolio, the Corporation will categorize each Eligible Clearing Member (other than a Limited Clearing Member) based on its bidding behavior in the Default Auction in order to subordinate their Clearing Fund Requirements in the following order:

1. **Non-bidders**: Eligible Clearing Members that did not submit any bid[8];

2. **Low-bidders**: Eligible Clearing Members that submitted a higher bid relative to the prevailing bid; and

3. **High-bidders**: The prevailing bidder plus any Eligible Clearing Member that submitted an equal bid relative to the prevailing bid.

II. **Loss Allocation Methodology:**

After the categorization of the Eligible Clearing Members based on their bidding behavior, losses are first allocated and then extinguished with the surviving Clearing Members' Clearing Fund Requirements within each category of bidders in the following order:

1. Non-bidders:

For each PAP, after the exhaustion of CDCC DRC, the total amount of outstanding losses, shall be extinguished pro rata, based on the proportion of (1) its Clearing Fund Requirements in respect of such PAP, to (2) the aggregate amount of Non-bidders' Clearing Fund Requirements in respect of such PAP, with the use of each Non-bidder's resources as calculated in Appendix 2:

$$Allocation\_Prorata\_Non\_Bidder\_CMi = \frac{CF_{NB\_CMi}}{\sum \quad CF_{NB\_CMi}}$$

Where:

CF_{NB_CMi} is the Clearing Fund Requirements of the Non-bidder Clearing Member i that is allocated to a PAP.

[8] For further clarity, an Eligible Clearing Member which indicated that it will not be participating in the auction will be considered a Non-bidder.

Within each PAP, all Non-bidders' Clearing Fund Requirements should be fully exhausted before applying Low-bidders' Clearing Fund Requirements to cover losses as described below.

2. Low-bidders:

For each PAP with outstanding losses, the total amount of associated losses shall be extinguished based on its bid variance in respect of the winning bid, with the use of each Low-bidder's resources. In other terms, losses are allocated to each Low-bidder pro rata, based on the proportion of (1) the difference between its provided bid and the prevailing bid in respect of such PAP ("Bid Variance"), to (2) the sum of all Low-bidders' Bid Variances in respect of such PAP:

$$Allocation\_Prorata\_Low\_Bidder\_CMi = \frac{BID_{LB\_CMi} - BID_{winner}}{\sum \quad (BID_{LB_{CMi}} - BID_{winner})}$$

Where:

BID_{LB_CMi} is the provided bid of the Low-bidder Clearing Member i; and

BID_{winner} is the prevailing bid for the auction.

Within each PAP, all Low-bidders' Clearing Fund Requirements should be fully exhausted before applying High-bidders' Clearing Fund Requirements to cover losses as described below.

Therefore, if there remains a loss after the first loss allocation to the Low-bidders' Clearing Fund Requirements, while there are still some Clearing Members in the Low-Bidders category with excess resources, such outstanding losses will be extinguished with the use of those excess Clearing Fund Requirements according to the same allocation methodology described in this Low-bidders Section. Such procedure shall be repeated until all the Low-bidders' Clearing Fund Requirements are exhausted.

3. High-bidders:

For each PAP with outstanding losses, the total amount of associated losses shall be extinguished pro rata, based on the proportion of (1) its Clearing Fund Requirement in respect of such PAP, to (2) the aggregate amount of High-bidders' Clearing Fund Requirements in respect of such PAP with the use of each High-bidder's resources:

$$Allocation\_Prorata\_High\_Bidder\_CMi = \frac{CF_{HB\_CMi}}{\sum \quad CF_{HB\_CMi}}$$

Where:

CF_{HB_CMi} is the Clearing Fund Requirements of the High-bidder Clearing Member i that is allocated to a PAP.

III. **Loss Allocation to Non-Eligible Clearing Member:**

Within a PAP in a specific asset class, Clearing Members (excluding Limited Clearing Members) who are not eligible to participate in the auction will be exposed to losses once all the surviving Clearing Members' Clearing Fund Requirements of Eligible Clearing Members allocated to such asset class have been exhausted. In other terms, non-Eligible Clearing Members will be exposed to losses in the Inter-Class Allocation step, i.e. when losses are extinguished across all asset classes, as described in Appendix 2, section IV) 1. c) Step 3 Inter-Class Allocation.

[AMENDED AND RESTATED] DEPOSITORY AGREEMENT

THIS DEPOSITORY AGREEMENT, dated _____________, is entered into between **Canadian Derivatives Clearing Corporation** (**"CDCC"**) and ___________________________ (**"Approved Depository"**) (together, the **"Parties"** and individually, a **"Party"**) [and supersedes any previous form thereof]

WHEREAS, a customer of the Approved Depository that is either a clearing member of CDCC or a client of a clearing member of CDCC (in either case, a **"Customer"**) may hold a short position on a put option (a **"Put Short Position"**) or on a call option (a **"Call Short Position"**) or on a futures position (a **"Futures Short Position"**) issued by CDCC (collectively, a **"Short Position"**);

WHEREAS, the Customer may (i) deposit with the Approved Depository in trust for CDCC the aggregate exercise price in cash in respect of a Put Short Position, (ii) instruct the Approved Depository to transfer specific underlying securities to CDCC in respect of a Call Short Position, or (iii) instruct the Approved Depository to transfer specific underlying securities to CDCC in respect of a Futures Short Position (collectively, a **"Specific Deposit"**), as collateral for such Short Position in lieu of making margin deposits to CDCC in respect thereof; and

WHEREAS, the Parties wish to set forth and agree on the terms on which (i) the Specific Deposits will be held by the Approved Depository in trust for CDCC or transferred to CDCC through a central securities depository acceptable to CDCC, including CDS Clearing and Depository Services Inc. (**"CDS"**) (a **"Central Securities Depository"**), as the case may be, (ii) the Specific Deposits will be issued or deemed issued by way of: (A) put escrow receipts in the form of Exhibit A hereto (a **"Put Escrow Receipt"**), (B) call underlying interest deposits as set forth in section 4 hereof (a **"Call Underlying Interest Deposit"**), and (C) futures underlying interest deposits as set forth in section 5 hereof (a **"Futures Underlying Interest Deposit"**) (collectively, **"Depository Receipt(s)"**), and (iii) the Specific Deposits will be released on demand by the Approved Depository in favour of CDCC in the case of Put Escrow Receipts on presentation of put payment order(s) in the form of Exhibit B hereto (a **"Put Payment Order"**);

NOW THEREFORE, the Parties have agreed as follows:

1. REPRESENTATIONS OF THE APPROVED DEPOSITORY

The Approved Depository makes the following representations, which are deemed repeated upon the issuance of each Depository Receipt:

(A) The Approved Depository is (i) a trust company to which the *Trust and Loan Companies Act* (Canada) applies or subject to the *Loan and Trust Corporations Act* (Ontario) or *An Act Respecting Trust Companies and Savings Companies* (Quebec) or equivalent legislation of other provinces of Canada, or (ii) such other institution as CDCC may, in its sole discretion, approve from time to time;

(B) The Approved Depository has a minimum capital of $25,000,000, for which current audited financial statements are available;

(C) The Approved Depository has entered into an agreement with the Customer(s) wishing to make Specific Deposits to be held by the Approved Depository in trust for CDCC (in the case of Put Escrow Receipts) or pledged to CDCC through a Central Securities Depository (in the case of Call Underlying Interest Deposits and Futures Underlying Interest Deposits) in lieu of meeting margin requirements with respect to certain Short Positions, which agreement clearly sets forth the conditions under which the Approved Depository will handle Specific Deposits, issue Depository Receipts and honour CDCC's demands for release in respect of Put Escrow Receipts, consistent with the terms of this Agreement;

(D) The Approved Depository holds each Specific Deposit that is the object of a Put Escrow Receipt as custodian for the account of a Customer in trust for CDCC with the express authority from the Customer to act in such capacity in respect of a specific Short Position that is a put option;

(E) The Approved Depository holds each Specific Deposit that is the object of a Put Escrow Receipt free from liens or encumbrances and does not subject it or any part of it to any right (including any right of set-off), charge, security interest, lien or claim of any sort in favor of the Approved Depository or any third party;

(F) The Approved Depository is duly authorized by the Customer to release a Specific Deposit that is the object of a Put Escrow Receipt in favor of CDCC in accordance with the terms of this Agreement.

(G) The Approved Depository pledges on behalf of a Customer each Specific Deposit that is the object of a Call Underlying Interest Deposit to CDCC through a Central Securities Depository with the express authority from the Customer to effect such pledge of the relevant underlying securities in respect of a specific Short Position that is a call option;

(H) The Approved Depository pledges on behalf of a Customer each Specific Deposit that is the object of a Call Underlying Interest Deposit free from liens or encumbrances and does not subject it or any part of it to any right (including any right of set-off), charge, security interest, lien or claim of any sort in favor of the Approved Depository or any third party;

(I) The Approved Depository pledges on behalf of a Customer each Specific Deposit that is the object of a Futures Underlying Interest Deposit to CDCC through a Central Securities Depository with the express authority from the Customer to effect such pledge of the relevant underlying securities in respect of a specific Short Position that is a future; and

(J) The Approved Depository pledges on behalf of a Customer each Specific Deposit that is the object of a Futures Underlying Interest Deposit free from liens or encumbrances and does not subject it or any part of it to any right (including any right of set-off), charge, security interest, lien or claim of any sort in favor of the Approved Depository or any third party.

2. DEPOSITORY SERVICES

The Approved Depository shall treat Specific Deposits as follows:

(A) Upon the instruction of the Customer, subject to conditions agreed between the Approved Depository and the Customer, the Approved Depository shall receive Specific Deposits from the Customer and issue Depository Receipts with respect to the Specific Deposits, either by certifying to CDCC that it is held in trust for CDCC and undertaking to honour CDCC's demand for payment in the form of a Put Escrow Receipt or by transferring it to CDCC through a Central Securities Depository in the form of a Call Underlying Interest Deposit or a Futures Underlying Interest Deposit, as the case may be, in accordance with the terms of this Agreement.

(B) Once a Depository Receipt has been issued by the Approved Depository to CDCC in respect of a Short Position, the Customer may not withdraw or otherwise affect the Specific Deposit, except with CDCC's express written consent thereto, until it is released by CDCC upon (i) the discharge of the relevant underlying payment or delivery obligation by the Customer, or (ii) the expiry of the Depository Receipt ten Business Days after the Expiry Date or the Delivery Date, as the case may be, of the Short Position, whichever is earlier.

(C) The Approved Depository acknowledges and agrees that it is not entitled to any fees or compensation from CDCC for its services hereunder and that it will receive any such fees and compensation for such services from the Customer(s) as agreed with such persons from time to time.

3. PUT ESCROW RECEIPTS

By issuing a Put Escrow Receipt in the form of Exhibit A hereof, the Approved Depository acknowledges, represents and agrees as follows:

(A) The Customer identified in the Put Escrow Receipt, being the writer of a Put Short Position, has deposited an amount of cash equivalent to the aggregate exercise price of the Put Short Position with the Approved Depository which constitutes a Specific Deposit;

(B) The Customer has instructed the Approved Depository to issue a Put Escrow Receipt in favor of CDCC with respect to such Specific Deposit, in consideration of being released from having to post any margin requirement with respect to the relevant Put Short Position in accordance with the Rules of CDCC;

(C) The Specific Deposit is held in trust for CDCC as collateral for the relevant Put Short Position free from any lien or encumbrance other than CDCC's first priority security interest thereon; and

(D) Upon receipt of a Put Payment Order in the form of Exhibit B hereof issued by CDCC pursuant to a Put Escrow Receipt, the Approved Depository will release the Specific Deposit in whole by transfer of funds within two hours if the demand is made before 3:00 pm or on the next business day before 9:00 am if the demand is made after 3:00 pm.

4. CALL UNDERLYING INTEREST DEPOSITS

By transferring a Specific Deposit in the form of securities as collateral for a specific Call Short Position from the Approved Depository to CDCC through a Central Securities Depository, the Approved Depository is deemed to have issued a Call Underlying Interest Deposit, whereby the Approved Depository acknowledges, represents and agrees as follows:

(A) The Customer, being the writer of the Call Short Position, has deposited the quantity of the underlying securities specified in the Call Short Position with the Approved Depository which constitutes a Specific Deposit;

(B) The Customer has instructed the Approved Depository to pledge to CDCC through a Central Securities Depository the Specific Deposit, in consideration of being released from having to post any margin requirement with respect to the relevant Call Short Position in accordance with the Rules of CDCC;

(C) The Specific Deposit is pledged to CDCC as collateral for the relevant Call Short Position giving CDCC a first priority security interest thereon, free from any other lien or encumbrance; and

(D) Upon the delivery obligation of the Customer under the Call Short Position being otherwise duly satisfied on the relevant exercise date, the Specific Deposit shall be released by CDCC and returned to the Approved Depository, unless otherwise instructed by the Customer. In the event that the Customer fails to satisfy such delivery obligation, CDCC shall seize the Specific Deposit to satisfy the Customer's delivery obligation without prior notice by CDCC to the Customer or the Approved Depository, subject to section (2) (B) hereof,

5. FUTURES UNDERLYING INTEREST DEPOSITS

A Futures Underlying Interest Deposit shall be deemed issued by the Approved Depository upon the transfer of a Specific Deposit in the form of securities as collateral for a specific futures short position from the Approved Depository to CDCC through a Central Securities Depository, whereby the Approved Depository acknowledges, represents and agrees as follows:

(A) The Customer, being the seller of securities under a Futures Short Position, has deposited the quantity of the underlying securities specified in the Futures Short Position with the Approved Depository which constitutes a Specific Deposit;

(B) The Customer has instructed the Approved Depository to pledge to CDCC through a Central Securities Depository the Specific Deposit, in consideration of being released from having to post any margin requirement with respect to the relevant Futures Short Position in accordance with the Rules of CDCC;

(C) The Specific Deposit is pledged to CDCC as collateral for the relevant Futures Short Position giving CDCC a first priority security interest thereon, free from any other lien or encumbrance; and

(D) Upon the delivery obligation of the Customer under the Futures Short Position being otherwise duly satisfied on the relevant delivery date, the Specific Deposit shall be released by CDCC and returned to the Approved Depository, unless otherwise instructed by the Customer. In the event that the Customer fails to satisfy such delivery obligation, CDCC shall seize the Specific Deposit to satisfy the Customer's delivery obligation without prior notice by CDCC to the Customer or the Approved Depository, subject to section (2) (B) hereof.

6. GENERAL AND MISCELLANEOUS

(A) This Agreement shall be binding upon and enure to the benefit of the Parties and their respective successors and permitted assigns. It may not be assigned by the Approved Depository without the prior written consent of CDCC, which consent shall not be unreasonably withheld.

(B) This Agreement may be amended only if the Parties hereto so agree in writing.

(C) This Agreement may be terminated by either party upon 30 days written notice to the other party whereupon any Specific Deposit held by the Approved Depository in trust for CDCC will be dealt with by the Approved Depository in accordance with CDCC's written instructions to it.

(D) This Agreement constitutes the entire agreement between the Parties to this Agreement with respect to its subject matter and cancels and supersedes any prior understandings and agreements between the parties with respect to such subject matter.

(E) This Agreement shall be construed, interpreted and enforced in accordance with, and the respective rights and obligations of the Parties shall be governed by, the laws of the Province of Ontario and the federal laws of Canada applicable therein, and each party hereby irrevocably and unconditionally submits to the non-exclusive jurisdiction of the courts of Ontario and all courts competent to hear appeals therefrom.

(F) This Agreement may be executed in separate counterparts, each of which when so executed and delivered shall be deemed an original, but all such counterparts shall constitute but one and the same agreement.

(G) Delivery of an executed signature page to this Agreement by either party by electronic transmission will be as effective as delivery of a manually executed copy of this Agreement by such party.

IN WITNESS WHEREOF *this Agreement has been executed as of the date first written above.*

CANADIAN DERIVATIVES CLEARING CORPORATION ("CDCC")	______________________________ **("Approved Depository")**
By: ____________________________ (Signature of officer)	By: ____________________________ (Signature of officer)
________________________________ (Please print name)	________________________________ (Please print name)
________________________________ (Title)	________________________________ (Title)

PUT ESCROW RECEIPT **EXHIBIT A**

Approved Depository Letterhead
(Branch and Address)

To: BROKER OF PUT OPTION WRITER and CANADIAN DERIVATIVES CLEARING CORPORATION

Gentlemen,

RE:	Customer	____________	Exercise Price	____________
	Expiry Date	____________	Underlying Security	____________
	No. of Shares	____________	Aggregate Exercise Price	____________
	Clearing Member	____________		

We understand that the Customer has written a Put Option expiring on the Expiry Date pursuant to which he may be obligated to accept delivery from Canadian Derivatives Clearing Corporation (CDCC) of the Underlying Security at the Aggregate Exercise Price at any time after the date hereof up to and including the Expiry Date.

We issue this Put Escrow Receipt pursuant to a duly executed Depository Agreement with CDCC and we hereby certify that:

(a) the Customer has deposited cash in an amount equal to the Aggregate Exercise Price in respect of the Put Option identified herein for us to hold in trust to your order (the "Specific Deposit");

(b) we hold and will continue to hold the Specific Deposit free from any liens or encumbrances except CDCC's first priority security interest thereon; and

(c) we will transfer the Specific Deposit, by payment of the Aggregate Exercise Price to CDCC on demand against delivery by CDCC of the Underlying Security on the date the Exercise Notice is submitted by CDCC within two hours if the demand is made before 3:00 pm or on the next business day before 9:00 am if the demand is made after 3:00 pm.

In connection with the foregoing, we acknowledge and agree that payment will be effected by us as escrow holder against delivery of the Underlying Security by CDCC provided that any demand by CDCC for payment must be in the agreed written form and received by us not later than 3 p.m. local time on the tenth Business Day following the Expiry Date at which time this Put Escrow Receipt will be null and void.

This Put Escrow Receipt is being deposited to serve as Underlying Interest Equivalent for the Put Option identified herein booked in a Client Account maintained by the Clearing Member. This Put Escrow Receipt shall not constitute Margin for another account maintained by the Clearing Member.

Yours truly,

PUT PAYMENT ORDER

EXHIBIT B

CDCC Letterhead

Exercise Date:

Gentlemen,

This Payment Order is submitted by the Canadian Derivatives Clearing Corporation ("we" or "CDCC") in accordance with the Depository Agreement entered into between CDCC and ______________ ("you" or "Approved Depository") and pursuant to a Put Escrow Receipt, a copy of which is attached hereto.

CDCC hereby certifies that the Put Option Short Position identified in the Put Escrow Receipt has been exercised as of the Exercise Date specified above.

Considering that you hold a Specific Deposit covering this Put Option Short Position, as evidenced by the attached Put Escrow Receipt, we ask that you release it in our favour immediately by paying the Aggregate Exercise Price specified therein to the following account of CDCC: ______________________.