NOTICE TO MEMBERS

No. 2015 – 062
May 22, 2015

SELF-CERTIFICATION

AMENDMENTS TO THE OPERATIONS MANUAL AND RISK MANUAL OF CDCC TO ADDRESS MISMATCHED SETTLEMENT RISK IN THE MARGIN CALCULATION

On July 14, 2014, the Board of Directors of the Canadian Derivatives Clearing Corporation (CDCC) approved amendments to the Operations Manual and Risk Manual of CDCC. CDCC wishes to inform the Clearing Members that this amendments have been self-certified pursuant to the self-certification process set forth in the *Derivatives Act* (R.S.Q., c I-14.01) and approved by the Ontario Securities Commission in accordance with the "Rule Change Requiring Approval in Ontario" process.

The purpose of the amendments is to address the Mismatched Settlement Risk for Fixed Income transactions in the calculation of the margin requirement currently requested by CDCC from its Clearing Members.

You will find attached hereto the amendments set to come into force and to be incorporated into the version of the Operations Manual and Risk Manual of CDCC that will be made available on the CDCC website at www.cdcc.ca as of May 25, 2015.

If you have any questions or concerns regarding this notice, please contact CDCC's Corporate Operations department or direct your e-mail inquiries to cdcc-ops@cdcc.ca.

Glenn Goucher
President and Chief Clearing Officer

CANADIAN DERIVATIVES CLEARING CORPORATION
CORPORATION CANADIENNE DE COMPENSATION DE PRODUITS DÉRIVÉS

OPERATIONS MANUAL

VERSION OF JUNE ~~9~~, 2014

TIME FRAMES FOR ON-LINE ACCESS

ON EVERY BUSINESS DAY

Activity	**Deadlines**
Settlement Time with respect to payments for overnight settlement	7:45 a.m.
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)	10:00 to 10:15 a.m.
Morning Net DVP Settlement Timeframe	10:15 to 10:30 a.m.
Morning Intra-Day Margin Call	10:30 a.m.
Afternoon Intra-Day Margin Call	1:15 p.m.
Specific Deposits (same day withdrawal)	1:15 p.m.
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)	2:00 to 2:15 p.m.
Cash Deposits (Margin Deposits) – under $2,000,000 (same day deposit)	2:45 p.m.
Cash Deposits (Margin Deposits) – of and over $2,000,000 (2 Business Days notice)	2:45 p.m.
Cash withdrawal requests (Margin Deposits) – under $2,000,000 (same day withdrawal)	2:45 p.m.
Cash withdrawal requests (Margin Deposits) – of and over $2,000,000 (2 Business Days notice)	2:45 p.m.
Fixed Income Transactions – (Same Day Transactions) – Submission Cut-Off Time	3:30 p.m.
All assets deposits other than cash (Margin Deposits)	3:30 p.m.
All assets withdrawal requests other than cash (Margin Deposits) for same day withdrawal	3:30 p.m.
All assets substitution requests other than cash (Margin Deposits) for same day substitution	3:30 p.m.
Specific Deposits (overnight valuation)	3:30 p.m.
End of Day DVP Settlement Time	4:00 p.m.
OTCI (other than Fixed Income Transactions) – Unmatched entry	4:30 p.m.
Position Transfers	5:25 p.m.
Same Day and T+1 Trade corrections	5:30 p.m.
Open Position changes	5:30 p.m.
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)	5:30 p.m.

TIME FRAMES FOR ON-LINE ACCESS (continued)

ON EVERY BUSINESS DAY (continued)

Activity	**Deadlines**
Futures – Request for Standard vs Mini Offset	5:00 p.m.
Futures – Tender Notices submission	5:30 p.m.
Options – Exercise Notices submission	5:30 p.m.
CDCC Clearing Application shutdown – Close of Business	5:30 p.m.
Fixed Income Transactions – available (next Business Day start)	7:00 p.m.
Unsettled Item	
Confirmation of settled items to be sent to CDCC	4:15 p.m.
Daily Capital Margin Monitoring Calls	
CDCC notifies Clearing Members of additional Margin required	9:30 a.m.
Clearing Member's obligation to cover any deficit	12:00 (noon)
Additional Charge for Mismatched Settlement Risk	
CDCC notifies Clearing Members of additional Margin required	1:45 p.m.
Clearing Member's obligation to cover any deficit	2:45 p.m.

DIFFERENCE FUND

The Difference Fund is Margin Deposits held by CDCC as discretionary margin, such as: (1) Unsettled Items Margin, (2) Daily Capital Margin Monitoring, (3) Advance calls for settlement of losses, (4) OTCI Additional Margin, ~~and~~ (5) Intra-Day Margin, and (6) Additional Margin for the Mismatched Settlement Risk. CDCC accepts Deposits to the Difference Fund in the forms of Margin set forth in Section A-709 of the Rules, in the proportions specified therein.

(1) Unsettled Items Margin

Security Funds, as such term is defined in Sections B-401, C-501 and D-301 of the Rules, corresponding to an amount equal to not less than 105% of the market value of the Underlying Interest which a Clearing Member has failed to timely deliver, in accordance with Sections B-412, C-517 and D-307 respectively of the Rules.

(2) Daily Capital Margin Monitoring

The amount by which the Margin requirements of a Clearing Member exceeds its capital, in accordance with Section A-710 of the Rules.

(3) Advance Calls for Settlement of Losses

An amount that CDCC estimates will be needed to meet losses resulting from particular marked conditions or price fluctuations, in accordance with Section C-303 of the Rules.

(4) OTCI Additional Margin

An amount representing the premium value collected from the Buyer before an OTCI Option is confirmed, which amount shall be available for withdrawal the morning after the Transaction has been processed, in accordance with Section D-107 of the Rules.

(5) Intra-Day Margin

Additional margin may be requested from a Clearing Member, at CDCC's sole discretion at any time and from time to time as it deems appropriate, due to some adverse change in the market of a given Underlying Interest or in the financial position of the Clearing Member, in accordance with Section A-705 of the Rules.

(6) Additional Margin for the Mismatched Settlement Risk

Additional margin will be applied to fixed income transactions where Mismatch S~~s~~ettlement Risk, as defined in the Difference Fund section of the Risk Manual, arises.

Deposits, Withdrawals, Substitutions

Deposits, withdrawals and substitutions of assets (other than cash) in the Difference Fund are made in the same manner and subject to the same deadlines as Margin Fund deposits, withdrawals and substitutions of assets (other than cash), in accordance with Section 2 of this Operations Manual.

Note:
Information with respect to the Margin Fund is to be found in the Risk Manual, Schedule A of this Operations Manual.

Risk Manual

Glossary

Margin Interval: Parameter established by the Corporation which reflects the maximum price fluctuation that the Underlying Interest could be expected to have during the liquidation period. The Margin Interval (MI) calculations are based on the historical volatility of the Underlying Interest and these calculations are re-evaluated on a weekly basis. If necessary, the Corporation may update the Margin Intervals more frequently. The Margin Interval is used to calculate the Initial Margin of every Derivative Instrument.

Haircut: Percentage discounted from the market value of Securities pledged as collateral for Margin Deposit. The discount reflects the price movement volatility of the collateral pledged. Thus, this reduction assures that even if the collateral's market value declines, there is time to call for additional collateral to adjust its value to the required level.

Initial Margin: The Initial Margin covers the potential losses that may occur over the next liquidation period as a result of market fluctuations. The Initial Margin amount is calculated using the historical volatility of the Underlying Interest return for Options contracts, futures prices for Futures contracts and yield-to-maturity (YTM) of the on-the-run security for Fixed Income Transactions.

Variation Margin: The Variation Margin takes into account the portfolio’s liquidating value (this is also known as the Replacement Cost or RC) which is managed through the Mark-to-Market daily process.

Price Scan Range: The maximum price movement reasonably likely to occur, for each Derivative Instrument or, for Options, their Underlying Interest. The term PSR is used by the Risk Engine to represent the potential variation of the product value and it is calculated through the following formula:

PSR = Underlying Interest Price x MI x Contract Size

Volatility Scan Range: The maximum change reasonably likely to occur for the volatility of each Option's Underlying Interest price.

Risk Array: A Risk Array (RA) is a set of 16 scenarios defined for a particular contract specifying how a hypothetical single position will lose or gain value if the corresponding risk scenario occurs from the current situation to the near future (usually next day).

Combined Commodity: The Risk Engine divides the positions in each portfolio into groupings called Combined Commodities. Each Combined Commodity represents all positions on the same ultimate Underlying Interest – for example, all Futures contracts and all Options contracts ultimately related to the S&P/TSX 60 Index.

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

Active Scenario: The number of the Risk Arrays scenario that gives the largest amount (worst case scenario).

Short Option Minimum: Rates and rules to provide coverage for the special situations associated with portfolios of deep out-of-the-money short option positions. This amount will be called if it is higher than the result of the Risk Arrays.

Liquidity Interval: The Liquidity Interval is calculated based on the historical bid-ask price spread of the Underlying Interest according to the same formula for Margin Interval.

Buckets: All Acceptable Securities of Fixed Income Transactions that behave in a similar manner are grouped together into "Buckets" and each Bucket behaves as a Combined Commodity. Acceptable Securities are bucketed according to their remaining time to maturity and issuer. Due to the nature of the bucketing process, the Acceptable Securities' assignation will be dynamic in that they will change from one Bucket to the other as the Acceptable Security nears maturity.

MTM Price Valuation: The MTM Price Valuation is the difference between the market value of the Security and the funds borrowed. This amount is collateralized and should be credited (or debited) to the Repo Party's Margin Fund and debited (or credited) to the Reverse Repo Party's Margin Fund.

Intra-Commodity (Inter-Month) Spread Charge: Underlying Interests' prices, from a maturity month to another are not perfectly correlated. Gains on a maturity month should not totally offset losses on another. To fix this issue, the Risk Engine allows the user to calculate and to apply a margin charge relative to the Inter-Month spread risk in order to cover the risk of these two positions.

Inter-Commodity Spread Charge: The Corporation considers the correlation that exists between different classes of Futures contracts when calculating the Initial Margin. For example, different interest rate Futures contracts are likely to react to the same market indicators, but at different degrees. For instance, a portfolio composed of a long position and a short position on two different interest rate Futures contracts will be likely less risky than the sum of the two positions taken individually.

Clearing Engine: The Corporation uses SOLA® Clearing as its Clearing Engine.

Risk Engine: The Corporation uses the Standard Portfolio Analysis system (SPAN®) as its Risk Engine.

Mismatched Settlement Risk: The Corporation considers this risk as the intraday risk arising from a lag between the following three events:

1) The settlement of a position that provided a Margin offset prior to the next calculation of the Margin Requirement;
2) The calculation of the credit risk exposure and the settlement of the collateral deposits at CDCC;
3) A trade initiation and the calculation of the Margin Requirement.

Some of ~~T~~the terms and concepts herein defined, as used in this Risk Manual, are derived from the CME Group proprietary SPAN® margin system, adapted for CDCC's licensed use thereof.

DIFFERENCE FUND

As defined in Section 8.2 of the Operations Manual, the Difference Fund is Margin Deposits held by the Corporation as discretionary margin, such as: (1) Unsettled Items Margin, (2) Daily Capital Margin Monitoring, (3) Advance calls for settlement of losses, (4) OTCI Additional Margin, ~~and~~ (5) Intra-Day Margin and (6) Additional Margin for Mismatched Settlement Risk[1]. The Corporation accepts Deposits to the Difference Fund in the same form and proportion as for the Margin Fund, as set forth in Section A-709 of the Rules.

Additional Margin for the Mismatched Settlement Risk

In order to address the Mismatched Settlement Risk CDCC will perform forward looking analysis to forecast material changes in total margin requirement (IM + VM) as a result of intra-day settlement for fixed income transaction.

The additional charge for Mismatched Settlement Risk will be calculated by using the maximum of ***A*** or ***B***, minus the current calculated margin requirement for fixed income transaction:

Where ***A*** represents the maximum of (IM + VM) of buys transactions of the current day (t) or (IM + VM) of sells transactions of the current day (t) to which is added the remaining margin requirement for fixed income transaction of t+1 and beyond.

Where ***B*** represents the maximum of (IM + VM) of buys transactions of the next day (t+1) or (IM + VM) of sells transactions of the current day (t) and the next day (t+1) to which is added the remaining margin requirement for fixed income transaction of t+2 and beyond.

Despite the fact that the Difference Fund is used to cover all the above elements, the sub-section regarding the Daily Capital Margin Monitoring intends to capture the credit risk. Consequently, this sub-section is described in details thereunder.

Daily Capital Margin Monitoring:

The Corporation measures the credit exposure to its Clearing Members on a daily basis through the Daily Capital Margin Monitoring Calls (the Difference Fund). The capital level is derived from regulatory reports received on a monthly basis in a timely manner (and on a quarterly basis if it is a Bank Clearing Member).

As prescribed in Section A-710 of the Rules, the Corporation may call for a contribution in the Difference Fund from Members that are undercapitalized in relation to their respective Initial Margin. The Corporation compares the Clearing Member's capital amount to the Initial Margin on a daily basis and requires, if applicable, that the Clearing Member makes up any difference in the form of acceptable Deposits. Each Clearing Member's capital is analyzed and updated on a monthly basis.

[1] The additional margin for Mismatched Settlement Risk will not be applied for physical delivery of Government of Canada Bond Futures (CGB, CGZ, CGF and LGB).

In order to determine the contribution to the Difference Fund of Clearing Members, the Corporation uses the Net Allowable Assets (NAA). The Net Allowable Asset is a more restrictive type of capital, since it is the net result of the financial statement capital less the non allowable assets. Non allowable assets are composed of less liquid assets like capitalized leases, Investments in and Advances to Subsidiaries, etc. For Bank Clearing Members, the Corporation uses the Net Tier 1 capital.

The Corporation has access to the Clearing Member's financial statements from the CIPF (Canadian Investor Protection Fund), and the OSFI (Office of the Superintendent of Financial Institutions Canada) for Bank Clearing Members.

In addition to the monthly update of capital numbers, the Corporation performs a qualitative analysis of the financial statements of each member. The Corporation has defined specific thresholds to analyze the profitability, the margin required, the liquidity and the capital level. The Corporation could ask Clearing Members for more clarifications, if necessary.

Indeed, Investment Industry Regulatory Organization of Canada (IIROC) evaluates the financial condition of its Members. If an IIROC Member, who is also a Clearing Member, fails the tests designed to detect the risk of insolvency, the Corporation will be notified by IIROC. The Clearing Member itself shall also advise the Corporation immediately if it enters in an early warning level situation. IIROC may issue two types of warning, early warning level 1 or 2. This is function of the severity of the financial deficiency. The Corporation will be informed by IIROC and will closely monitor the situation. IIROC may impose sanctions or restrictions against the Member. The Corporation will judge if it necessary to take any additional actions and will report the situation to the Risk Management and Advisory Committee (RMAC).