



**CDCC Quantitative Disclosure
Qualitative Notes**

Q4-2018

# Principle	Notes
4	<p>4.1. CDCC default waterfall</p> <p><u>Defaulting Clearing Member Resources</u></p> <p>Defaulting Clearing Member Margin Deposit: The first line of financial protection is the Margin Deposit posted by the defaulting Clearing Member as part of the Corporation's routine collateralization process.</p> <p>Defaulting Clearing Member's Contribution to the Clearing Fund: Once the Corporation has exhausted the defaulting Clearing Member's Margin Deposit, it will next apply these resources to the loss mitigation effort.</p> <p><u>Resources of the Corporation and the System</u></p> <p>If after applying these resources of the defaulting Clearing Member, a shortfall still remains, the Corporation would look to the following common resources of the system to cover the loss:</p> <p>Corporation Capital Resources: The Corporation would first look to its own capital, but only to its capital reserves set aside for this purpose, which are currently a maximum of \$5 million.</p> <p>Other Clearing Member Clearing Fund Deposits: The Corporation would next apply the remaining balances in the Clearing Fund, on a pro-rata basis as determined by the size of each Clearing Member's contribution.</p> <p>Assessment of Other Clearing Members: If after applying all of the remedies specified above, a loss still persists, then the Corporation may request that the remaining Clearing Members replenish their Clearing Fund contributions to their original levels and use on a pro rata basis according to CDCC's exposure to each remaining Clearing Member, an amount that in total satisfies the outstanding obligation.</p> <p>4.1.8. Committed - Aggregate participant commitments to address an initial participant default</p> <p>CDCC's committed default resources are mainly composed of the second Clearing Fund replenishment which would be reduced by the defaulter's contribution in the event of a default. Therefore, since the defaulter is unknown, the reported amount of committed default resources is equal to the Clearing Fund size.</p>

	<p>4.4. Credit Risk Disclosures</p> <ul style="list-style-type: none"> • The estimated and the actual credit exposures are calculated against the required initial margin. • The credit exposure is set to zero if it generates a positive P&L. • The amount reported in item 4.4.5 is the estimated aggregate stress loss in excess of initial margin and not the amount in excess of actual pre-funded resources. <p>4.4.2. For each clearing service, state the number of business days within which the CCP assumes it will close out the default when calculating credit exposures that would potentially need to be covered by the default fund.</p> <p>In the event of a default, it is assumed that CDCC will close-out the defaulter's positions within 2 days. However, a liquidation period of 4 or 5 days are used for some products for the calibration of the Clearing Fund.</p> <p>4.4.4. Report the number of business days, if any, on which the above amount (4.4.3) exceeded actual pre-funded default resources (in excess of initial margin).</p> <p>Starting from January 2017, CDCC takes into account the DCMM to determine if the stress loss has exceeded the pre-funded default resources.</p>
5	<p>5.3.2. Assumed holding/liquidation period for the assets accepted</p> <p>Liquidation period by issuer:</p> <ul style="list-style-type: none"> • Canada = 2 days • Quebec & Ontario = 4 days • British Columbia & Alberta & Manitoba = 5 days • U.S. = 2 days • Valued Securities = 2 days <p>5.3.4. Results of testing of haircuts</p> <p>The number of days represents <u>the average number of breaches per asset</u> during the lookback period. As additional information, we included haircut back-testing results at the asset level:</p> <ul style="list-style-type: none"> • 221 breaches out of 214,009 for bonds which correspond to an achieved coverage level 99.90%. • 0 breaches out of 68,030 for equities which correspond to an achieved coverage level 100.00%.

6	<p>6.1. Total initial margin required split by house, client gross, client net and Total</p> <p>The initial margin requirement includes requirements of the Margin fund, the Intraday Variation Margin Call, the Mismatched Settlement Margin Call, Additional Margin for Uncovered Risk of LCMs, Additional Margin for Variation Margin Delivery Risk, DCMM, OTC Premium and Unsettled Items.</p> <p>Intraday Variation Margin Call, Mismatched Settlement Margin Call, Uncovered risk of LCMs, Variation Margin Delivery Risk, DCMM, OTC Premium and Unsettled Items are considered in the House account requirement.</p> <p>6.2. For each clearing service, total initial margin held, split by house and client</p> <p>Information regarding the pledged collateral is not available at an account type level.</p> <p>6.4. Frequency of Parameter Review</p> <p>Margin Intervals are reviewed on a daily basis while intra-commodity and inter-commodity spreads are reviewed on a weekly basis.</p>
7	<p>7.1. Size and composition of qualifying liquid resources for each clearing service</p> <ul style="list-style-type: none"> Stress market scenarios have been applied to the market value of the qualifying liquid resources. Haircuts required as per the prearranged funding arrangements have also been applied where relevant. The item 7.1.9 includes T-bills. T-Bills can be liquidated on a same-day basis and are therefore considered as cash (based on the prevailing market value). <p>7.3.1. Estimated largest same-day and, where relevant, intraday and multiday payment obligation in total that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions</p> <p>The estimated largest payment obligation is defined as the gross liquidity exposure underlying the estimated highest liquidity shortfall (gross liquidity exposure - qualifying liquid resources).</p> <p>7.3.4. Actual largest intraday and multiday payment obligation of a single participant and its affiliates</p> <p>The reported disclosure of this item represents the estimated largest payment obligation observed during the last year.</p>

15	<p>15. General business risk</p> <p>The reported financial disclosures of items 15.1 and 15.2 are relative to the year ended in December 31, 2017.</p>
16	<p>16.3. Rehypothecation of Clearing Members assets</p> <p>Only Clearing Fund assets can be rehypothecated.</p>
17	<p>17.2. Actual availability of the core system(s) over the previous twelve month period.</p> <p>CDCC's "Core System" definition : CDCC considers the Canadian Derivatives Clearing Service dedicated to day-to-day clearings and settlement activities as its core system.</p> <p>17.3. Total number and duration of failures affecting the core system(s) involved in clearing over the previous twelve month period</p> <p>CDCC's definition of a system failure : Any downtime of CDCC's "Core System" exceeding the two (2) hours Recovery Time Objectives impacting key business process(es) during a critical period where no alternate solution is available to meet requirements, significantly impacting Clearing Members.</p>
23	<p>23.1. Disclosure of rules, key procedures, and market data; Average Daily Volumes</p> <p>Volumes and notionals are single counted (only one side of the transaction is reported).</p>