NOTICE AND REQUEST FOR COMMENT – MATERIAL AMENDMENTS TO CDS EXTERNAL PROCEDURES

AMENDMENTS TO THE EXTERNAL PROCEDURES RELATED TO THE PARTICIPANT FUND ADMINISTERED BY CDS FOR THE NEW YORK LINK SERVICE

A. DESCRIPTION OF THE PROPOSED CDS EXTERNAL PROCEDURE AMENDMENTS

Principle 7 of the CPMI-IOSCO Principles for Financial Market Infrastructure (PFMIs), originally published in April 2012, states that a financial market infrastructure like CDS "*should maintain sufficient liquid resources in all relevant currencies to effect sameday and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions*". In fact, a financial market infrastructure "*should have a robust framework to manage its liquidity risks from its participants*", among others. On the one hand, a financial market infrastructure like CDS must "*have effective operational and analytical tools to identify, measure, and monitor its settlement and funding flows on an ongoing and timely basis, including its use of intraday liquidity*" and on the other hand "*regularly assess its design and operations to manage liquidity risk in the system*".

Based on the foregoing, and following an internal assessment, CDS would like to enhance the risk methodology used to calculate the requirements to the CDS Participant Fund for the New York Link service ("**NYL Service**"), as described in the document entitled "**New York Link Participant Procedures**" (section 6.3.1). The NYL Service is a service established by CDS to facilitate the clearing and settlement of transactions in securities that are eligible for the services of the National Securities Clearing Corporation ("**NSCC**") and the Depository Trust Company ("**DTC**"). Eligible transactions by NYL Service participants are reported to NSCC and settled through DTC by making use of the NYL Service. CDS has determined that NYL Service participants' trading market activities may, on certain occasions including, without limitation, at the "derivative contract quarterly expiry and settlement cycle" (i.e. triple witching activity), result in a larger-than-usual liquidity shortfall, which may require larger-than-usual fund requirements from all participants to the NYL Service. An historical data analysis of firm activity profiles was performed when the NYL Service was developed and put in place but did not identify instances of a larger-than-usual liquidity shortfall. Based on these facts and considering other circumstances when trading activities between expiry periods (triple witching activity) may also exhibit larger-than-usual liquidity shortfall, CDS is in the view that a revised allocation methodology will improve how the NSCC settlement component is allocated across all the NYL Service participants by better aligning the trading activities and the contribution to the NYL Service.

Today, the NSCC settlement component of the NYL Service is sized in order to have sufficient resources to cover potential liquidity stress scenarios that include, but are not limited to, the default of an NYL Service participant and its affiliates that would potentially cause the largest aggregate liquidity shortfall in extreme, but plausible, market conditions. Moreover, the size of the NYL Service is reviewed on a monthly basis and is driven by the highest shortfall observed during the previous month, or the previous "20 days" for intra-month monitoring. Given the foregoing and according to the current methodology, a liquidity requirement causing a resizing event would therefore be included in the next scheduled monthly resizing procedure and would result in CDS maintaining a substantial NSCC settlement component until the following monthly resizing. In addition, intra-month resizing can only be made upward.

Although a liquidity shortfall may be the result of only one NYL Service participant, all participants using the NYL Service are affected by a raise in the NSCC settlement component since the liquidity shortfall is mutualized using NYL participants' respective liquidity exposure. NYL Service participants may have concerns about the following: (1) a sense of contributing to the NYL Service in a greater proportion than their trading activities; (2) prolonged holding period as imposed by CDS Rules and Procedures; (3) unpredictability of such sizeable collateral requirements; and (4) implicit impact on borrowing costs.

Proposed Amendments

CDS has decided to enhance its risk management practices by making the following adjustments to the risk methodology to be used for the NYL Service. The NSCC settlement component of the NYL Service will be subdivided into two amounts:

1. **The "Main" NSCC settlement component**. This component will be monitored by CDS on a daily basis and based on the activity level of the NYL Service participants to reflect the liquidity exposure risks that they pose. The activity level will be measured using two distinct lookback periods designed to improve the reactivity while ensuring a minimal floor value. In terms of allocation methodology, the NSCC settlement component will consider the liquidity shortfall instead of relying on the liquidity exposure. As stated above, this modification will ensure a better alignment with trading activities and collateral requirements; and

2. **The "Prefunded" NSCC settlement component**. This component could be required by CDS in the case CDS anticipates or expects an increase in the daily liquidity shortfall from one or more NYL Service participants. However, CDS reserves the right to withhold all or any part of any participant's Prefunded NSCC settlement component, if CDS determines the participant's anticipated activities in the near future may reasonably be expected to be materially different than its historic level of activity.

All proposed amendments are provided in Appendix "A" to this Notice.

B. NATURE AND PURPOSE OF THE PROPOSED CDS PROCEDURE AMENDMENTS

The "NSCC settlement component" of the NYL Service follows a Cover 1 standard and is sized using CDS' liquidity stress testing methodology. The liquidity stress testing method incorporates projected stressed cash inflows and outflows from settlements and daily mark-to-market payments in order to calculate the largest cumulative liquidity requirement during a default management process (i.e., Close-Out).

The NSCC settlement component is currently sized on a monthly basis (and intra-month, if necessary). It takes into consideration the maximum of the largest liquidity shortfall over the previous month (or the largest liquidity shortfall over the previous 20 business days for an intra-month resizing, if necessary). Each NYL Service participant's contribution is equal to its pro-rata share, as observed by the average liquidity exposure.

By the proposed amendments to the external procedures, CDS would like to align the trading activities with the contribution to the NYL Service by relying on the liquidity shortfall for allocating the NYL Participant's contribution. Moreover, following a resizing, the NSCC settlement component of the NYL Service should return more quickly to an optimal fund size allowing NYL Service participants to withdraw excess collateral.

In addition, the new Prefunded NSCC settlement component will allow CDS to request additional individual contributions in anticipation of expiry periods (triple witching activity) and larger-than-usual trading activities. The Prefunded NSCC settlement component could be required by CDS at its discretion and at any time including, without limitation, in expectation of any relevant triple witching activity and at any time between those periods. As indicated above, in the event an NYL Service participant provides CDS with a Prefunded NSCC settlement component amount, CDS may return such amount, in full or in part, to the NYL Service participant when such amount is not required anymore unless CDS determines that the NYL Service participant's anticipated level of activity in the near future may reasonably be expected to remain at a level materially different than its historic level of activity.

Without limiting the foregoing, in the context of triple witching activity periods, CDS will calculate and determine if a Prefunded NSCC settlement component must be required from an NYL Service participant, and require such a Prefunded NSCC settlement component, on the fourth business day that precedes the triple witching settlement day (otherwise commonly known as the "value date" that occurs two business days following the third Friday of the last month of every quarter). The amount calculated as part of this step remains valid until the business day prior to the triple witching settlement day.

However, on the business day prior to the triple witching settlement day, CDS will calculate and update the NYL Participants' value of the NSCC settlement component. If the difference between (i) the new NSCC settlement component amount; and (ii) the total of any previous "Main" NSCC settlement component plus the "Prefunded" NSCC settlement component calculated on the fourth business day that precedes the triple witching settlement day:

- is greater than zero, CDS will, on that business day, require the NYL Service participant to provide CDS will the incremental requirements; or
- is lower than zero, CDS may, after the triple witching settlement day, return, return partially or keep the excess of the "Prefunded" NSCC settlement component.

C. IMPACT OF THE PROPOSED CDS PROCEDURE AMENDMENTS

Since the current risk methodology takes into consideration the cumulative level of liquidity requirements of all NYL Service participants, an NYL Service participant exhibiting stable trading activity could be subject to the same liquidity requirements as another, more active NYL Service participant during the same period. In addition, since the current lookback period is fixed and shorter in time, any surge in trading activity could influence the NYL Service. In order to address this situation, the new methodology will better align the trading activities and the contributions to the NYL Service. In addition, the NYL Service should return to an optimal level more quickly, allowing NYL Service participants to withdraw excess collateral.

The "Main" NSCC settlement component allocation methodology will rely on a longer lookback period (to include a peak in trading activities, like triple witching activity) in order to improve alignment with historical trading activity. In addition, CDS will apply more weight to the most recent observations to improve alignment with trading activity.

More specifically, the size of the "Main" NSCC settlement component takes the greater of:

i) ***a weighted average lookback period amount***, determined using the following formula:

a) w x the maximum liquidity shortfall amount identified during a short-term lookback period;
b) (1 - w) x the maximum liquidity shortfall amount identified during a medium-term lookback period;

Where,
w = weight of the short-term lookback period
(1 - w) = weight of the medium-term lookback period

or

ii) ***a long-term floor amount***, determined as an average of the weighted average lookback period amount during a long-term lookback period (this amount may be subject to a buffer as determined by CDS from time to time), plus any amount that may be required to be paid or disbursed by CDS to access any other qualifying financial resources when needed.

For the purposes of this above, CDS has determined that the initial applicable variables would be:

- w = 80;
- short-term lookback period = 2 business days;
- medium-term lookback period = 20 business days;
- long-term lookback period = 260 business days; and
- the long-term floor will be initially calibrated with a buffer of 1.2x.

The values above are submitted by CDS as initial calibration for the purposes of calculating the size of the "Main" NSCC settlement component, and they are subject to change by CDS from time to time.

CDS allocates the "Main" NSCC settlement component on a pro-rata basis, taking into account each participant's largest liquidity shortfall during a lookback period. This approach ensures that NYL Service participants that bring the most liquidity risks are asked to mutualize a greater share of the "Main" NSCC settlement component.

CDS will monitor the value of the NSCC settlement component daily to ensure that it covers the highest liquidity shortfall. The "Main" NSCC settlement component may be resized on any given day due to a newly observed liquidity shortfall. If a resizing occurs, a collateral call will be allocated amongst all NYL Service participants using the same methodology. Finally, for greater certainty, although the daily monitoring only applies to the calculation of the "Main" NCSS settlement component, such daily monitoring shall take into account the value of the "Prefunded" NSCC settlement component.

C.1 Competition

The proposed external procedure amendments will apply to the CDS participants using the NYL Service. With respect to fair access and conflict of interest issues, no NYL Service participant will be disadvantaged or otherwise prejudiced by the introduction of the proposed amendments, which are applicable to all of them.

C.2 Risks and Compliance Costs

The proposed external procedure amendments are intended to maintain compliance with PFMI standards (including Principle 7).

C.3 Comparison to International Standards – (a) Committee on Payment and Settlement Systems of the Bank for International Settlements, (b) Technical Committee of the International Organization of Securities Commissions, and (c) the Group of Thirty

The proposed external procedure amendments are intended to enhance CDS' observance of PFMI standards (including Principle 7), as required under CDS' recognition orders as well as under National Instrument 24-102 (Clearing Agency Requirements) and related Companion Policy 24-102CP.

D. DESCRIPTION OF THE PROCEDURE DRAFTING PROCESS

D.1 Development Context

CDS risk management and legal teams have prepared documents describing the proposed amendments to External Procedures.

D.2 Procedure Drafting Process

The proposed external procedure amendments were drafted by representatives of CDS risk management team, in consultation with CDS legal team.

CDS external procedure amendments were reviewed and approved by CDS' strategic development review committee (SDRC) on July 28, 2022. The SDRC determines or reviews, prioritizes and oversees CDS-related systems development and other changes proposed by participants and CDS. The SDRC's membership includes representatives from the CDS participant community.

D.3 Issues Considered

In drafting the proposed external procedure amendment, CDS' primary consideration was to update its risk management practices with respect to PFMI 7 and amend, update or clarify CDS' external procedures. More specifically, CDS wishes to update the risk methodology used to calculate the requirements to the CDS Participant Fund for the NYL Service by improving the reactivity to trading activities, aligning with the trading activity of the NYL Service participants and enhancing the return of the collateral to the NYL Service participants following a decrease in the liquidity shortfalls.

D.4 Consultation

The proposed procedure amendments were presented to the SDRC on July 28, 2022. The CDS risk management team, in collaboration with the CDS legal team, has handled the preparation of these material amendments to be presented for Board approval and for Public Comment.

D.5 Alternatives Considered

The following alternatives to the proposed amendments have been considered by CDS:

- **Adjusting the existing methodology by only considering the addition of the "Prefunded" component**. This solution would have permitted a better alignment between the trading activities of the NYL Service participants and their respective NYL contributions. However, the update frequency of the ''Main'' NSCC component would have continued on a monthly basis. As a consequence, the return of the collateral to the NYL Service participants would have been less proactive.
- **Applying a different set of variables for the calibration of the ''Main" Settlement Component**. CDS considered a number of different calibrations in order to achieve an adequate coverage level and optimize the number of fund resizing events. Resizing events involves operational considerations for the NYL Service participants and CDS. Section C of this Notice for request and comment details the choice of the initial variables.

D.6 Implementation Plan

CDS is recognized as a clearing agency by the Ontario Securities Commission pursuant to section 21.2 of the *Securities Act* (Ontario), by the British Columbia Securities Commission pursuant to Section 24(d) of the *Securities Act* (British Columbia) and by the Autorité des marchés financiers ("AMF") pursuant to section 169 of the *Securities Act* (Québec). In addition, CDS is deemed to be the clearing house for CDSX®, a clearing and settlement system designated by the Bank of Canada pursuant to section 4 of the *Payment Clearing and Settlement Act*. The Ontario Securities Commission, the British Columbia Securities Commission, the Autorité des marchés financiers and the Bank of Canada will hereafter be collectively referred to as the "Recognizing Regulators". The amendments to CDS Participant external procedures are expected to become effective on a date to be determined by CDS (such date expected to be in Q4 2022), such date to fall subsequent to approval of the amendments by the Recognizing Regulators following public notice and comment and be contingent on completion of applicable notice to CDS participants.

E. TECHNOLOGICAL SYSTEMS CHANGES

The proposed procedure amendments are not expected to have an impact on technological systems or require changes to such systems for CDS, CDS participants or other market participants.

F. COMPARISON WITH OTHER CLEARING AGENCIES

CDS performed extensive research and benchmarking when formulating the new methodology for the new NSCC Settlement Component. The general conclusion is that CDS' global peer group has incorporated into their risk model and/or rules a number of similar solutions to manage their liquidity risk through the creation of independent liquidity funds or implicitly embedded in their risk management practices. Considering the specificity of the NYL Service where CDS offers NYL Service participants to clear and settle trades in the United States, the CDS Participant Fund for the New York Link service ensures with other sources of Qualifying Liquidity Resources that CDS maintains sufficient resources to cover potential liquidity stress scenarios that include, but are not limited to, the default of an NYL Service participant and its affiliates that would potentially cause the largest aggregate liquidity shortfall in extreme, but plausible, market conditions.

G. PUBLIC INTEREST ASSESSMENT

CDS has determined that the proposed amendments are not contrary to the public interest.

H. COMMENTS

Comments on the proposed amendments should be in writing and submitted within 30 calendar days following the date of publication of this notice in the Ontario Securities Commission Bulletin to:

Jonathan Bérubé, Risk Management, CDS
Téléphone : 514 787-6664
Courriel : jonathan.berube@tmx.com

Relationship Management
Email: CDSrelationshipmgmt@tmx.com

CDS Clearing and Depository Services Inc.
100 Adelaide Street West
Toronto, Ontario
M5H 1S3

Copies should also be provided to the Autorité des marchés financiers and the Ontario Securities Commission by forwarding a copy to each of the following individuals:

Philippe Lebel
Corporate Secretary and
Executive Director, Legal Affairs
Autorité des marchés financiers
Place de la Cité, tour Cominar
2640 Laurier boulevard, suite 400
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Télécopieur: (514) 864-8381
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Manager, Market Regulation
Capital Markets Branch
Ontario Securities Commission
Suite 1903, Box 55,
20 Queen Street West
Toronto, Ontario, M5H 3S8

Fax: 416-595-8940
email: marketregulation@osc.gov.on.ca

CDS will make available to the public, upon request, all comments received during the comment period.

6.3.1 DTC and NSCC settlements components

~~The CDS~~

New York Link participants must also contribute to a participant fund administered by CDS. The CDS Participant Fund for New York Link ~~is~~will be made up of the following components:

- ~~DTC settlements component on page 31~~
- ~~NSCC settlements component on page 32.~~

~~**DTC settlements components**~~

1. DTC settlement component; and
2. NSCC settlement component.

The ~~DTC settlements~~NSCC settlement component is itself comprised of two amounts:

a. Main NSCC settlement component; and
b. Prefunded NSCC settlement component.

Participants will be notified of their:

- DTC settlement component requirements on a quarterly basis;
- Main NSCC settlement component requirements on a monthly basis (at a minimum); and
- Prefunded NSCC settlement component requirements on an “as needed or ad hoc basis”.

Collateral requirements may be satisfied by delivering the ~~CDS~~ collateral to CDS in the form of eligible collateral and within the collateral limits. If CDS does not receive the required collateral contribution by the specified deadline, the participant ~~fund~~ may be subject to suspension from CDS.

DTC Settlement Component

The DTC settlement component of the CDS Participant Fund for New York Link covers the risk of default for the ~~New York Link~~ NYL participant with the largest payment obligation to DTC. In a default situation, CDS must pay DTC the amount owed by the ~~New York Link~~NYL participant by the end~~-~~ of~~-~~ the day.

CDS ~~updates~~will update the DTC ~~settlements~~settlement component requirements on a quarterly basis as follows:

1. Each ~~New York Link~~NYL participant is allocated a DTC net debit cap ~~by CDS. Each New York Link~~ by CDS. The maximum net debit cap allocated to a NYL participant or NYL participant family is USD $20 million. NYL participants are able to elect a zero DTC net debit cap, which would enable them to reduce their DTC settlements component amount to zero. However, as a consequence of having a zero DTC net debit cap, they would be required to pre- fund their DTC settlements. NYL participants can only adjust their CDS allocated DTC net debit cap on a quarterly basis. As part of the quarterly process, each NYL participant

informs ~~their~~ CDS ~~collateral administrator~~ in writing if any changes are required to the amount of their CDS allocated DTC net debit cap at least 10 business days before the end of the quarter. In case of an increase in the DTC net debit cap, CDS may require the ~~New York Link~~NYL participant to provide information, such as the reasons for the increase, pre-funding incidents and a business plan.

~~Note: New York Link participants can only adjust their CDS allocated DTC net debit cap on a quarterly basis.~~

2. ~~In order to~~To calculate the DTC ~~settlements~~settlement component for each ~~New York Link~~NYL participant, CDS calculates the leverage factor as follows:

$$\text{Leverage factor} = \frac{\text{Total of all New York Link particiants' allocated net debit caps}}{\text{Largest CDS allocated individual DTC net debit cap}}$$

3. CDS calculates each New York Link participant's required DTC settlement component collateral contribution as follows:

$$\text{Individual participant's required DTC settlement component} = \frac{\text{CDS allocated net debit cap}}{\text{Leverage factor}}$$

   The maximum individual DTC net debit cap must be equal to the aggregate value of the DTC settlement component.

4. CDS informs each New York Link participant of their required DTC settlement component collateral contribution.

NSCC Settlement Component

The NSCC ~~settlements~~settlement component covers the liquidity shortfalls of the ~~New York Link~~NYL service with CDS participants' resources through a pooling-of-resources arrangement. The NSCC ~~settlements~~ settlement component is sized to have resources sufficient to cover potential liquidity stress scenarios that include, but are not limited to, the default of a NYL participant and its affiliates that would potentially cause the largest aggregate liquidity exposure in extreme, but plausible, market conditions.

~~CDS updates the~~ The NSCC ~~settlements~~settlement component is composed of two amounts: (a) the Main NSCC settlement component, and (b) the Prefunded NSCC settlement component.

a. **Main NSCC settlement component**

The Main NSCC settlement component requirements ~~on a monthly basis and the requirements~~ are based on the activity level of the participants in the ~~New York Link~~NYL service to reflect the risks that ~~they~~ such participants pose to the operations of the clearing and settlement system.

To determine the size of the liquidity shortfalls used to calculate the Main NSCC ~~settlements~~ settlement component, the liquidity ~~shortfalls~~ shortfall of unwinding ~~New York Link~~NYL outstanding positions on each day is calculated for every NYL participant, for every day of the lookback periods, using stress-test scenarios and all available qualifying financial resources.

The daily liquidity shortfalls are calculated based on the following inputs:

1. Liquidity requirements over the close out period; and

2. Qualifying financial resources~~.~~

The Main NSCC ~~settlements~~settlement component is then calculated ~~so as~~ to collateralize~~,~~ the largest daily liquidity shortfalls over the lookback periods. ~~The first~~To determine the size of the Main NSCC settlement component, CDS takes the greater of:

i) a weighted average lookback period ~~corresponds to~~amount, determined using the ~~previous month and~~following formula:

a) □ x the ~~second~~maximum liquidity shortfall amount identified during a short-term lookback period ~~is equal to the previous 20 business days.~~ ;

~~Mutualization is achieved by allocating the NSCC settlements collateral requirements on a pro rata basis, taking account of the cumulative CDS participants for New York Link liquidity requirements over the last month~~

b) ~~. As part of CDS's monthly review~~(1 - □) x the maximum liquidity shortfall amount identified during a medium-term lookback period;

Where,
□ = weight of the short-term lookback period
(1 - □) = weight of the medium-term lookback period

or

ii) a long-term floor amount, determined as an average of the ~~size of the NSCC settlements component, CDS participants for New York Link will be advised of any changes~~weighted average lookback period amount during a long-term lookback period, times an applicable buffer determined by CDS from time to ~~their NSCC settlements component collateral requirement which~~ time, plus any amount that may be required~~.~~ to be paid or disbursed by CDS to access any other qualifying financial resources, when needed.

The variables will be updated by CDS from time to time.

CDS allocates the Main NSCC settlement component ~~collateral requirement will be enforced for all CDS participants for New York Link throughout~~on a pro-rata basis, taking into account each participant's largest liquidity shortfall during a lookback period. At a minimum, the ~~month (subject to intra-month re-sizing – see Regularly scheduled review of NCSS~~ NSCC settlement component ~~fund size and intramonth monitoring).~~will be updated on a monthly basis. This approach ensures that NYL participants that bring the most liquidity risk are asked to mutualize a greater share of the Main NSCC settlement component.

~~Regularly scheduled review of NCSS~~b. **Prefunded NSCC settlement component**

CDS may also require a Prefunded NSCC settlement component **~~fund size~~**amount in the event CDS anticipates an increase in the daily liquidity shortfall from one or more NYL participants.

The primary causes for such an increase could be due to, without limitation (i) an increase in market volume related to the expiry period for stock options, (ii) an overall increase in market volume from one or more Participants, or (iii) any other market factors that may impact liquidity exposure.

This Prefunded NSCC settlement component may be required by CDS at its discretion and at any time including, without limitation, in expectation of any relevant expiry periods for stock options and **~~intramonth monitoring~~** at any time between those expiry periods. In addition, in the event an NYL participant provides CDS with a Prefunded NSCC settlement component amount, CDS may return such amount to the NYL participant in full when such amount is not required anymore, or in part when CDS determines that the NYL participant's anticipated level of activity in the near future may reasonably be expected to remain at a level materially different than its historic level of activity, among other reasons.

Notwithstanding the foregoing, in the context of expiry periods for stock options, also known as the triple witching activity periods:

Step 1: CDS will calculate and determine if a Prefunded NSCC settlement component must be required from an NYL participant, and require such a Prefunded NSCC settlement component, on the fourth business day that precedes the Triple Witching Settlement Day (as defined in section 5.2.9). The amount calculated as part of this step 1 remains valid until the business day prior to the Triple Witching Settlement Day.

Step 2: On the business day prior to the Triple Witching Settlement Day, CDS will calculate and update the NYL Participants' value of the NSCC settlement component.

If the difference between (i) the amount calculated in step 2; and (ii) the total of any previous requested Main NSCC settlement component plus the amount calculated and requested in step 1;

(a) is greater than zero, CDS will, on that business day, require the NYL participant to provide CDS with the incremental requirements; or
(b) is lower than zero, CDS may, after the Triple Witching Settlement Day, and subject to the other provisions herein, return, partially return or keep the excess of the Prefunded NSCC settlement component amount.

As indicated above, CDS may return any excess amount to the NYL participant in full when such amount is not required anymore, or in part when CDS determines that the NYL participant's anticipated level of activity in the near future may reasonably be expected to remain at a level materially different than its historic level of activity, among other reasons.

Daily Monitoring of the NSCC settlement component

CDS monitors the value of the ~~NCSS~~NSCC settlement component ~~fund~~ on a daily basis to ensure that it covers the highest shortfall observed ~~during either: (1) the previous month or (2) the previous 20 business days.~~. As such, the ~~size of the NCSS~~Main NSCC settlement component ~~fund is revised, at~~ may be resized on any given day due to a newly observed liquidity shortfall. At a minimum, ~~on~~ the NSCC settlement component will be updated on a monthly basis. ~~However, CDS can adjust the size of the fund between the monthly updates if a new highest shortfall is observed during the previous 20 business days. The intra-month~~If a resizing occurs, a collateral call is then allocated amongst all ~~CDS Participants for NY Link with the same methodology as the scheduled monthly review.~~NYL participants using the same methodology. For greater certainty, although the daily monitoring only applies to the calculation of the Main NSCC settlement component, such daily monitoring shall take into account the value of the Prefunded NSCC settlement component.

6.3.1 DTC and NSCC settlements components

New York Link participants must also contribute to a participant fund administered by CDS. The CDS Participant Fund for New York Link will be made up of the following components:

1. DTC settlement component; and
2. NSCC settlement component.

The NSCC settlement component is itself comprised of two amounts:

a. Main NSCC settlement component; and
b. Prefunded NSCC settlement component.

Participants will be notified of their:

- DTC settlement component requirements on a quarterly basis;
- Main NSCC settlement component requirements on a monthly basis (at a minimum); and
- Prefunded NSCC settlement component requirements on an “as needed or ad hoc basis”.

Collateral requirements may be satisfied by delivering the collateral to CDS in the form of eligible collateral and within the collateral limits. If CDS does not receive the required collateral contribution by the specified deadline, the participant may be subject to suspension from CDS.

<u>DTC Settlement Component</u>

The DTC settlement component of the CDS Participant Fund for New York Link covers the risk of default for the NYL participant with the largest payment obligation to DTC. In a default situation, CDS must pay DTC the amount owed by the NYL participant by the end of the day.

CDS will update the DTC settlement component requirements on a quarterly basis as follows:

1. Each NYL participant is allocated a DTC net debit cap by CDS. The maximum net debit cap allocated to a NYL participant or NYL participant family is USD $20 million. NYL participants are able to elect a zero DTC net debit cap, which would enable them to reduce their DTC settlements component amount to zero. However, as a consequence of having a zero DTC net debit cap, they would be required to pre- fund their DTC settlements. NYL participants can only adjust their CDS allocated DTC net debit cap on a quarterly basis. As part of the quarterly process, each NYL participant informs CDS in writing if any changes are required to the amount of their CDS allocated DTC net debit cap at least 10 business days before the end of the quarter. In case of an increase in the DTC net debit cap, CDS may require the NYL participant to provide information, such as the reasons for the increase, pre-funding incidents and a business plan.

2. To calculate the DTC settlement component for each NYL participant, CDS calculates the leverage factor as follows:

$$\text{Leverage factor} = \frac{\text{Total of all New York Link particiants' allocated net debit caps}}{\text{Largest CDS allocated individual DTC net debit cap}}$$

3. CDS calculates each New York Link participant's required DTC settlement component collateral contribution as follows:

$$\text{Individual participant's required DTC settlement component} = \frac{\text{CDS allocated net debit cap}}{\text{Leverage factor}}$$

The maximum individual DTC net debit cap must be equal to the aggregate value of the DTC settlement component.

4. CDS informs each New York Link participant of their required DTC settlement component collateral contribution.

NSCC Settlement Component

The NSCC settlement component covers the liquidity shortfalls of the NYL service with CDS participants' resources through a pooling- of- resources arrangement. The NSCC settlement component is sized to have resources sufficient to cover potential liquidity stress scenarios that include, but are not limited to, the default of a NYL participant and its affiliates that would potentially cause the largest aggregate liquidity exposure in extreme, but plausible, market conditions.

The NSCC settlement component is composed of two amounts: (a) the Main NSCC settlement component, and (b) the Prefunded NSCC settlement component.

a. **Main NSCC settlement component**

The Main NSCC settlement component requirements are based on the activity level of the participants in the NYL service to reflect the risks that such participants pose to the operations of the clearing and settlement system.

To determine the size of the liquidity shortfalls used to calculate the Main NSCC settlement component, the liquidity shortfall of unwinding NYL outstanding positions on each day is calculated for every NYL participant, for every day of the lookback periods, using stress-test scenarios and all available qualifying financial resources.

The daily liquidity shortfalls are calculated based on the following inputs:
1. Liquidity requirements over the close out period; and
2. Qualifying financial resources

The Main NSCC settlement component is then calculated to collateralize the largest daily liquidity shortfalls over the lookback periods. To determine the size of the Main NSCC settlement component, CDS takes the greater of:

i) a weighted average lookback period amount, determined using the following formula:

a) □ x the maximum liquidity shortfall amount identified during a short-term lookback period;
b) (1 - □) x the maximum liquidity shortfall amount identified during a medium-term lookback period;

   Where,
   □ = weight of the short-term lookback period
   (1 - □) = weight of the medium-term lookback period

or

ii) a long-term floor amount, determined as an average of the weighted average lookback period amount during a long-term lookback period, times an applicable buffer determined by CDS from time to time, plus any amount that may be required to be paid or disbursed by CDS to access any other qualifying financial resources, when needed.

The variables will be updated by CDS from time to time.

CDS allocates the Main NSCC settlement component on a pro-rata basis, taking into account each participant's largest liquidity shortfall during a lookback period. At a minimum, the NSCC settlement component will be updated on a monthly basis. This approach ensures that NYL participants that bring the most liquidity risk are asked to mutualize a greater share of the Main NSCC settlement component.

b. **Prefunded NSCC settlement component**

CDS may also require a Prefunded NSCC settlement component amount in the event CDS anticipates an increase in the daily liquidity shortfall from one or more NYL participants.

The primary causes for such an increase could be due to, without limitation (i) an increase in market volume related to the expiry period for stock options, (ii) an overall increase in market volume from one or more Participants, or (iii) any other market factors that may impact liquidity exposure.

This Prefunded NSCC settlement component may be required by CDS at its discretion and at any time including, without limitation, in expectation of any relevant expiry periods for stock options and at any time between those expiry periods. In addition, in the event an NYL participant provides CDS with a Prefunded NSCC settlement component amount, CDS may return such amount to the NYL participant in full when such amount is not required anymore, or in part when CDS determines that the NYL participant’s anticipated level of activity in the near future may reasonably be expected to remain at a level materially different than its historic level of activity, among other reasons.

Notwithstanding the foregoing, in the context of expiry periods for stock options, also known as the triple witching activity periods:

Step 1: CDS will calculate and determine if a Prefunded NSCC settlement component must be required from an NYL participant, and require such a Prefunded NSCC settlement component, on the fourth business day that precedes the Triple Witching Settlement Day (as defined in section 5.2.9). The amount calculated as part of this step 1 remains valid until the business day prior to the Triple Witching Settlement Day.

Step 2: On the business day prior to the Triple Witching Settlement Day, CDS will calculate and update the NYL Participants' value of the NSCC settlement component.

If the difference between (i) the amount calculated in step 2; and (ii) the total of any previous requested Main NSCC settlement component plus the amount calculated and requested in step 1;

(a) is greater than zero, CDS will, on that business day, require the NYL participant to provide CDS with the incremental requirements; or
(b) is lower than zero, CDS may, after the Triple Witching Settlement Day, and subject to the other provisions herein, return, partially return or keep the excess of the Prefunded NSCC settlement component amount.

As indicated above, CDS may return any excess amount to the NYL participant in full when such amount is not required anymore, or in part when CDS determines that the NYL participant's anticipated level of activity in the near future may reasonably be expected to remain at a level materially different than its historic level of activity, among other reasons.

Daily Monitoring of the NSCC settlement component

CDS monitors the value of the NSCC settlement component on a daily basis to ensure that it covers the highest shortfall observed. As such, the Main NSCC settlement component may be resized on any given day due to a newly observed liquidity shortfall. At a minimum, the NSCC settlement component will be updated on a monthly basis. If a resizing occurs, a collateral call is then allocated amongst all NYL participants using the same methodology. For greater certainty, although the daily monitoring only applies to the calculation of the Main NCSS settlement component, such daily monitoring shall take into account the value of the Prefunded NSCC settlement component.