



NATIONAL
SECURITIES
CLEARING
CORPORATION

RULES & PROCEDURES

TEXT OF PROPOSED RULE CHANGE

text indicates proposed added language.

text indicates proposed deleted language.

text indicates proposed language added in connection with a separate proposal that has not yet been approved (SR-NSCC-2020-002, filed on January 28, 2020).

text indicates proposed language deleted in connection with a separate proposal that has not yet been approved (SR-NSCC-2020-002, filed on January 28, 2020).

RULE 1. DEFINITIONS AND DESCRIPTIONS

Unless the context requires otherwise, the terms defined in this Rule shall, for all purposes of these Rules, have the meanings herein specified.

Illiquid Position

~~The term “Illiquid Position” means a Net Unsettled Position in an Illiquid Security that exceeds applicable volume thresholds. For net buy positions in an Illiquid Security, the volume thresholds shall be no greater than 100 million shares and based on the Member’s rating on the Credit Risk Rating Matrix. For net sell positions in an Illiquid Security, the volume threshold shall be no greater than 1 million shares on an absolute value basis, and based on both the Member’s excess net capital and the Member’s rating on the Credit Risk Rating Matrix.~~

~~In determining if the volume threshold is met with respect to a net sell position in Illiquid Securities, the Corporation shall apply an offset against shares of Illiquid Securities in the Member’s inventory at DTC to the quantity of shares in a Member’s Illiquid Position. Such offset shall not be applied to (1) net buy positions in Illiquid Securities, or (2) Members that have the weakest rating on the Credit Risk Rating Matrix.~~

Illiquid Security

The term “Illiquid Security” means a security, ~~other than a family-issued security as defined in Procedure XV,~~ that either

- (i) is not ~~traded on or subject to the rules of~~ listed on a national specified securities exchange (defined below) registered under the Securities Exchange Act of 1934, as amended, as determined on a daily basis; ~~or~~
- (ii) is listed on a specified securities exchange and, as determined on a monthly basis, (a)(i) its market capitalization is considered a micro-capitalization as of the last business day of the prior month or (ii) it is an American depositary receipt and (b) the median of its calculated illiquidity ratio (defined below) of the prior six months exceeds a threshold that will be determined by the Corporation on a monthly basis that is based on the 99th percentile of the illiquidity ratio of all non-micro-capitalization common stocks over the prior six months; or
- (iii) (ii) is an OTC Bulletin Board or OTC Link issue is listed on a specified securities exchange, and, as determined on a monthly basis, has fewer than 31 business days of trading history over the

past 153 business days on such exchange.

For purposes of this definition,

- (i) a “specified securities exchange” is a national securities exchange that has established listing services and is covered by industry pricing and data vendors.
- (ii) a security’s market capitalization shall be considered micro-capitalization if its capitalization is below a threshold to be determined by the Corporation from time to time. The Corporation will set the micro-capitalization threshold at a level that the Corporation determines indicates that securities with such capitalization exhibit illiquid characteristics based on its regular review of margining methodologies. Initially, the capitalization threshold shall be \$300 million and may be updated from time to time as announced by Important Notice. For purposes of this criterion, NSCC would calculate the product of the outstanding shares and market price with respect to a security on a daily basis. Each month, NSCC would use the average of those calculations over the prior month to determine market capitalization with respect to a security.
- (iii) the “illiquidity ratio” of a security on any day is equal to (i) the price return of such security on such day (based on the natural logarithm of the ratio between the closing price of the security on such day to the closing price of the security on the prior trading day) divided by (ii) the average daily trading amount¹ of such security over the prior 20 business days.²

¹ The daily trading amount equals the daily trading volume multiplied by the end of day price.

² Securities that are exchange-traded products or American depositary receipts are not included when calculating the illiquidity ratio threshold. In addition, if the Corporation is unable to retrieve data to calculate the illiquidity ratio for the median illiquidity ratio for a security on any day, the Corporation will use a default value for that day for purposes of the calculation for the security (i.e., the security would essentially be treated as illiquid for that day).

PROCEDURE XV. CLEARING FUND FORMULA AND OTHER MATTERS³

I.(A) Clearing Fund Formula for Members

(1) For CNS Transactions

(a)(i) The volatility of such Member's net of unsettled Regular Way, When-Issued and When-Distributed pending positions (i.e., net positions that have not yet passed Settlement Date) and fail positions (i.e., net positions that did not settle on Settlement Date), hereinafter collectively referred to as Net Unsettled Positions, which shall be the highest resultant value among the following:

I. an estimation of volatility calculated in accordance with any generally accepted portfolio volatility model including, but not limited to, any margining formula employed by any other clearing agency registered under Section 17A of the Securities Exchange Act of 1934, provided, however, that not less than two standard deviations' volatility shall be calculated under any model chosen. Such calculation shall be made utilizing (1) such assumptions and based on such historical data as the Corporation deems reasonable and shall cover such range of historical volatility as the Corporation from time to time deems appropriate; and (2) each of the following estimations:

- A. an exponentially-weighted moving average volatility estimation using a decay factor of less than 1, and
- B. an evenly-weighted volatility estimation using a look-back period of not less than 253 days.

The higher of the two estimations described in (A) and (B) above, shall be the "Core Parametric Estimation".

II. if the absolute value of the largest non-index position in the portfolio represents more than 30 percent of the value of the entire portfolio (the "concentration threshold"), an amount determined by multiplying the gross market value of such position by a percentage designated by the Corporation, which percentage shall be not less than 10 percent. Such percentage shall be determined by selecting the largest of the 1st and 99th percentiles of three-day returns of a composite set of equities, using a look-back period of not less than 10 years that includes a one-year

³ All calculations shall be performed daily or, if the Corporation deems it appropriate, on a more frequent basis.

stress period,⁴ and then rounding the result up to the nearest whole percentage.

The concentration threshold would be no more than 30 percent, and would be determined by the Corporation from time to time and calibrated based on the portfolio's backtesting results during a time period of not less than the previous 12 months.

III. the sum of:

- A. the net directional market value of the portfolio, which shall be the absolute difference between the market value of the long positions and the short positions in the portfolio, multiplied by a percentage; such percentage shall be determined by the Corporation based on a percentile of the annual historical volatility levels of relevant equity indices (which shall be no less than the historical minimum volatility of the indices), as determined by the Corporation from time to time; and
- B. the balanced market value of the portfolio, which shall be the lowest corresponding market value of long positions and short positions in the portfolio, multiplied by a percentage; such percentage shall be a fraction of the percentage used in (A) above, determined by the Corporation from time to time by considering the model backtesting performance of the applicable balanced portfolios.

(ii)(A) The Corporation shall have the discretion to exclude from the calculations in subsection (i) above Net Unsettled Positions in:

- (I) ~~classes of securities that are not Illiquid Securities~~ whose volatility is ~~(x)~~ less amenable to statistical analysis, and shall instead calculate an amount by multiplying the absolute value of such positions by a percentage designated by the Corporation, which percentage shall not be less than 10%; and, such as OTC Bulletin Board or Pink Sheet issues or issues trading below a designated dollar threshold (e.g., five dollars),
- (II) ~~or (y) securities that are not unit investment trusts whose volatility is~~ amenable to generally accepted statistical analysis only in a complex manner, ~~other than municipal and corporate bonds, and shall instead calculate an amount. The amount of Clearing Fund required with respect to such Net Unsettled Positions shall be~~

⁴ If the one-year stress period overlaps with the ten-year look-back, only the non-overlapping period will be combined with the look-back window.

~~determined~~ by multiplying the absolute value of such positions by a percentage designated by the Corporation, which percentage ~~shall be not less than 10% in respect of the positions covered by subsection x of this paragraph and~~ shall be not less than 2% ~~in respect of the positions covered by subsection y of this paragraph.~~

(B) The Corporation shall exclude from the calculations in subsection (i) above Net Unsettled Positions in:

- (I) Illiquid Securities, and shall instead (A) group such securities by price level, and Illiquid Securities that are sub-penny securities shall be separately grouped by long or short positions, and (B) calculate an amount for each such grouping by multiplying the absolute value of the positions in each group by a percentage designated by the Corporation at least annually, which percentage shall be based on the security's Current Market Price,⁵ and shall be the highest of (1) 10%, (2) a percent benchmarked to be sufficient to cover 99.5th percentile of the historical 3-day return of each group in each Member's portfolio using a look-back period of no less than 5 years, and (3) a percent benchmarked to be sufficient to cover 99th percentile of the historical 3-day return of each group in each Member's portfolio using a look-back period of no less than 5 years after incorporating a fixed transaction cost equal to one-half of the estimated bid-ask spread; and**
- (II) unit investment trusts, and shall instead calculate an amount by multiplying the absolute value of such positions by a percentage designated by the Corporation at least annually, which percentage shall be based on the security's Current Market Price, and shall be the highest of (1) 2% and (2) a percent benchmarked to be sufficient to cover 99.5th percentile of the historical 3-day return of unit investment trusts in each Member's portfolio using a look-back period of no less than 5 years.**

The Corporation shall exclude from the calculations in subsection (i) above **and this subsection (ii), (A) Net Unsettled Positions in** municipal and corporate bonds, which are addressed in subsection (iii) below, and (B) **long Net Unsettled Positions in** Family-Issued Securities, which are addressed in subsection (iv) below.

⁵ **The Current Market Price of each sub-penny security is deemed to be one cent.**

(iii) The Corporation shall exclude from the calculations in subsections (i) and (ii) above Net Unsettled Positions in corporate and municipal bonds. The amount of Clearing Fund required with respect to Net Unsettled Positions in corporate and municipal bonds shall be determined by multiplying the absolute value of such positions by a percentage designated by the Corporation, which shall be not less than 2%, calculated as follows:

(iv) The Corporation shall exclude from the calculations in subsections (i) and (ii) above long Net Unsettled Positions in Family-Issued Securities. The amount of Clearing Fund required with respect to long Net Unsettled Positions in Family-Issued Securities shall be determined by multiplying the absolute value of such positions by a percentage designated by the Corporation; such percentage shall be **(A) no less than 480% for long Net Unsettled Positions in fixed income securities that are Family-Issued Securities, and (B) up to 100% for long Net Unsettled Positions in equity securities that are Family-Issued Securities,** ~~and shall be determined, from time to time, in the sole discretion of the Corporation, within parameters described below, based on the Member's rating on the Credit Risk Rating Matrix and the type of Family-Issued Securities submitted to the Corporation;~~

~~(A) Fixed income securities that are Family-Issued Securities shall be charged a haircut rate of no less than 80% for firms that are rated 6 or 7 on the Credit Risk Rating Matrix, and no less than 40% for firms that are rated 1 through 5 on the Credit Risk Rating Matrix.~~

~~(B) Equity securities that are Family-Issued Securities shall be charged a haircut rate of 100% for firms that are rated 6 or 7 on the Credit Risk Rating Matrix, and no less than 50% for firms that are rated 1 through 5 on the Credit Risk Rating Matrix;~~

(g) a coverage component charge calculated as the EWMA of the Member's daily backtesting coverage deficiency amount over a 100-day look back period; the Member's backtesting deficiency amount for each day is determined as the difference between the simulated profit and loss on the Member's portfolio and the sum of the Member's (i) volatility component, and (ii) margin requirement differential component, ~~and (iii) Illiquid Charge.~~

plus

~~(h) For Illiquid Positions, an amount ("Illiquid Charge") equal to:~~

~~(1) for buy positions in sub-penny Illiquid Securities, the aggregate shares in such positions multiplied by \$0.01, or~~

- ~~(2) for sell positions,~~
- ~~(a) if the position has a Current Market Price equal to or below \$1.00, the product of the aggregate quantity of Illiquid Securities in the position and either (i) the One Month High Price, or (ii) the Current Market Price of the Illiquid Securities in the position multiplied by a factor of between 2 and 10, based on the minimum share price, which shall not be less than \$0.01; and~~
- ~~(b) if the position has a Current Market Price that is greater than \$1.00, the product of the aggregate quantity of Illiquid Securities in the position and either (i) the One Month High Price, or (ii) the Current Market Price of the Illiquid Securities in the position rounded up to the next \$0.50.~~

~~For purposes of (2)(a) and (b) above, in determining whether to use the One Month High Price or the Current Market Price of the Illiquid Securities in the Illiquid Position,~~

- ~~(A) if the share quantity in the Illiquid Position is less than 100 percent and greater than or equal to 25 percent of the average daily volume ("ADV"), the calculation shall use the lesser of the One Month High Price or the Current Market Price of the Illiquid Securities (rounded up to the next \$0.50, if applicable); and~~
- ~~(B) if the share quantity in the Illiquid Position is greater than or equal to 100 percent of the ADV, the calculation shall use the greater of the One Month High Price or the Current Market Price of the Illiquid Securities (rounded up to the next \$0.50, if applicable).~~

~~Members that are not rated by the Credit Risk Rating Matrix are not subject to the Illiquid Charge.~~

(2) For Balance Order Transactions

(a) (i) The volatility of such Member's net of unsettled Regular Way, When-Issued and When-Distributed positions that have not yet passed Settlement Date, hereinafter collectively referred to as Net Balance Order Unsettled Positions, which shall be the highest resultant value among the following:

- I. an estimation of volatility calculated in accordance with any generally accepted portfolio volatility model, including, but not limited to, any margining formula employed by any other clearing agency registered

under Section 17A of the Securities Exchange Act of 1934, provided, however, that not less than two standard deviations' volatility shall be calculated under any model chosen. Such calculation shall be made utilizing (1) such assumptions and based on such historical data as the Corporation deems reasonable and shall cover such range of historical volatility as the Corporation from time to time deems appropriate; and (2) each of the following estimations:

- A. an exponentially-weighted moving average volatility estimation using a decay factor of less than 1, and
- B. an evenly-weighted volatility estimation using a look-back period of not less than 253 days.

The higher of the two estimations described in (A) and (B) above, shall be the "Core Parametric Estimation".

II. if the absolute value of the largest non-index position in the portfolio represents more than 30 percent of the value of the entire portfolio (the "concentration threshold"), an amount determined by multiplying the gross market value of such position by a percentage designated by the Corporation, which percentage shall be not less than 10 percent. Such percentage shall be determined by selecting the largest of the 1st and 99th percentiles of three-day returns of a composite set of equities, using a look-back period of not less than 10 years that includes a one-year stress period,⁶ and then rounding the result up to the nearest whole percentage.

The concentration threshold would be no more than 30 percent, and would be determined by the Corporation from time to time and calibrated based on the portfolio's backtesting results during a time period of not less than the previous 12 months.

III. the sum of:

- A. the net directional market value of the portfolio, which shall be the absolute difference between the market value of the long positions and the short positions in the portfolio, multiplied by a percentage; such percentage shall be determined by the Corporation based on a percentile of the annual historical volatility levels of relevant equity indices (which shall be no less than the historical minimum volatility

⁶ If the one-year stress period overlaps with the ten-year look-back, only the non-overlapping period will be combined with the look-back window.

of the indices), as determined by the Corporation from time to time; and

- B. the balanced market value of the portfolio, which shall be the lowest corresponding market value of long positions and short positions in the portfolio, multiplied by a percentage; such percentage shall be a fraction of the percentage used in (A) above, determined by the Corporation from time to time by considering the model backtesting performance of the applicable balanced portfolios.

(ii)(A) The Corporation shall have the discretion to exclude from the calculations in subsection (i) above Net Balance Order Unsettled Positions in:

- (I) ~~classes of securities~~ **that are not Illiquid Securities** whose volatility is ~~(x) less amenable to statistical analysis,~~ **and shall instead calculate an amount by multiplying the absolute value of such positions by a percentage designated by the Corporation, which percentage shall not be less than 10%; and, such as OTC Bulletin Board or Pink Sheet issues or issues trading below a designated dollar threshold (e.g., five dollars),**
- (II) ~~or (y) securities that are not unit investment trusts whose volatility is~~ **amenable to generally accepted statistical analysis only in a complex manner, other than municipal and corporate bonds, and shall instead calculate an amount** ~~The amount of Clearing Fund required with respect to such Net Unsettled Positions shall be determined~~ by multiplying the absolute value of such positions by a percentage designated by the Corporation, which percentage **shall be not less than 10% in respect of the positions covered by subsection x of this paragraph and shall be not less than 2%, in respect of the positions covered by subsection y of this paragraph.**

(B) The Corporation shall exclude from the calculations in subsection (i) above Net Balance Order Unsettled Positions in:

- (I) **Illiquid Securities, and shall instead (A) group such securities by price level, and Illiquid Securities that are sub-penny securities shall be separately grouped by long or short positions, and (B) calculate an amount for each such grouping by multiplying the absolute value of the positions in each group by a percentage designated by the Corporation at least annually, which percentage shall be based on the security's Current Market Price,⁷ and shall be the highest of (1) 10%, (2) a percent benchmarked to**

⁷ **The Current Market Price for each sub-penny security is deemed to be one cent.**

be sufficient to cover 99.5th percentile of the historical 3-day return of each group in each Member's portfolio using a look-back period of no less than 5 years, and (3) a percent benchmarked to be sufficient to cover 99th percentile of the historical 3-day return of each group in each Member's portfolio using a look-back period of no less than 5 years after incorporating a fixed transaction cost equal to one half of the estimated bid-ask spread; and

- (II) unit investment trusts, and shall instead calculate an amount by multiplying the absolute value of such positions by a percentage designated by the Corporation at least annually, which percentage shall be based on the security's Current Market Price, and shall be the highest of (1) 2% and (2) a percent benchmarked to be sufficient to cover 99.5th percentile of the historical 3-day return of unit investment trusts in each Member's portfolio using a look-back period of no less than 5 years.**

The Corporation shall exclude from the calculations in subsection (i) above **and this subsection (ii), (A) Net Balance Order Unsettled Positions in** municipal and corporate bonds, which are addressed in subsection (iii) below, and **(B) long Net Balance Order Unsettled Positions in** Family-Issued Securities, which are addressed in subsection (iv) below.

(iii) The Corporation shall exclude from the calculations in subsections **(i) and (ii)** above Net Balance Order Unsettled Positions in corporate and municipal bonds. The amount of Clearing Fund required with respect to Net Balance Order Unsettled Positions in corporate and municipal bonds shall be determined by multiplying the absolute value of such positions by a percentage designated by the Corporation, which shall be not less than 2%, calculated as follows:

(iv) The Corporation shall exclude from the calculations in subsections **(i) and (ii)** above long Net Balance Order Unsettled Positions in Family-Issued Securities. The amount of Clearing Fund required with respect to long Net Balance Order Unsettled Positions in Family-Issued Securities shall be determined by multiplying the absolute value of such positions by a percentage designated by the Corporation; such percentage shall be **(A) no less than 480% for long Net Balance Order Unsettled Positions in fixed income securities that are Family-Issued Securities,** and **(B) up to 100% for long Net Balance Order Unsettled Positions in equity securities that are Family-Issued Securities,** and shall be determined, from time to time, in the sole discretion of the Corporation, within parameters described below, based on the Member's

~~rating on the Credit Risk Rating Matrix and the type of Family-Issued Securities submitted to the Corporation.;~~

~~(A) Fixed income securities that are Family-Issued Securities shall be charged a haircut rate of no less than 80% for firms that are rated 6 or 7 on the Credit Risk Rating Matrix, and no less than 40% for firms that are rated 1 through 5 on the Credit Risk Rating Matrix.~~

~~(B) Equity securities that are Family-Issued Securities shall be charged a haircut rate of 100% for firms that are rated 6 or 7 on the Credit Risk Rating Matrix, and no less than 50% for firms that are rated 1 through 5 on the Credit Risk Rating Matrix;~~

plus

(e) a coverage component charge calculated as the EWMA of the Member's daily backtesting coverage deficiency amount over a 100-day look back period; the Member's backtesting deficiency amount for each day is determined as the difference between the simulated profit and loss on the Member's portfolio and the sum of the Member's (i) volatility component, and (ii) margin requirement differential component, ~~and (iii) Illiquid Charge.~~

plus

~~(f) For Illiquid Positions, an Illiquid Charge equal to:~~

~~(1) for buy positions in sub-penny Illiquid Securities, the aggregate shares in such positions multiplied by \$0.01, or~~

~~(2) for sell positions,~~

~~(a) if the position has a Current Market Price equal to or below \$1.00, the product of the aggregate quantity of Illiquid Securities in the position and either (i) the One Month High Price, or (ii) the Current Market Price of the Illiquid Securities in the position multiplied by a factor of between 2 and 10, based on the minimum share price, which shall not be less than \$0.01; and~~

~~(b) if the position has a Current Market Price that is greater than \$1.00, the product of the aggregate quantity of Illiquid Securities in the position and either (i) the One Month High Price, or (ii) the Current Market Price of the Illiquid Securities in the position rounded up to the next \$0.50.~~

~~For purposes of (2)(a) and (b) above, in determining whether to use the One Month High Price or the Current Market Price of the Illiquid Securities in the Illiquid Position,~~

~~(A) if the share quantity in the Illiquid Position is less than 100 percent and greater than or equal to 25 percent of the ADV, the calculation shall use the lesser of the One Month High Price or the Current Market Price of the Illiquid Securities (rounded up to the next \$0.50, if applicable); and~~

~~(B) if the share quantity in the Illiquid Position is greater than or equal to 100 percent of the ADV, the calculation shall use the greater of the One Month High Price or the Current Market Price of the Illiquid Securities (rounded up to the next \$0.50, if applicable).~~

~~Members that are not rated by the Credit Risk Rating Matrix are not subject to the Illiquid Charge.~~
