

**NOTICE TO MEMBERS**

No. 114-23

October 3, 2023

**SELF-CERTIFICATION**

**AMENDMENTS TO THE RULES AND RISK MANUAL OF THE CANADIAN DERIVATIVES CLEARING CORPORATION TO LIST CASH SETTLED BITCOIN PRICE INDEX FUTURES**

On **July 26, 2022**, the Board of Directors of the Canadian Derivatives Clearing Corporation (“**CDCC**”) approved amendments to the Rules and Risk Manual of CDCC in order to introduce Cash Settled Bitcoin Price Index Futures Contracts.

CDCC wishes to inform the Clearing Members that these amendments have been self-certified pursuant to the self-certification process set forth in the *Derivatives Act* (C.Q.L.R., c I-14.01) and submitted to the Ontario Securities Commission in accordance with the “Rule Change Requiring Approval in Ontario” process.

You will find attached hereto the amendments set to come into force and to be incorporated into the version of the Rules and Risk Manual of CDCC that will be made available on the CDCC website at [www.cdcc.ca](http://www.cdcc.ca) on **January 15, 2024**, after market close.

If you have any questions or concerns regarding this notice, please contact Sophie Brault, Legal Counsel, at 514-268-0591 or by e-mail at [sophie.brault@tmx.com](mailto:sophie.brault@tmx.com).

George Kormas  
President

Bourse de Montréal Inc. has entered into a licence agreement with CoinDesk Indices, Inc. (“CDI”) to be permitted to use the CoinDesk Bitcoin Price Index (XBX) that CDI owns rights in, in connection with the listing, trading and marketing of derivative products linked to CoinDesk Bitcoin Price Index (XBX).

CoinDesk Indices, Inc. (“CDI”) licenses Bourse de Montréal Inc. (“Bourse”) to use various indices (the “CDI indices”) in connection with the trading of Bourse exchange-traded futures contracts, exchange-traded options on futures contracts and exchange-traded options contracts. The CDI indices are based on various data and other inputs that may not always be accurate, complete, timely, adequate, or otherwise valid, and may contribute to undesirable trading decisions, among other scenarios. CDI does not guarantee the accuracy, completeness, timeliness, adequacy, or validity of any such data or other inputs or of the CDI indices (or of any communications, whether oral or written, including electronic, with respect thereto). CDI and its affiliates and their respective third-party licensors shall have no liability for any damages, claims, losses or expenses arising from the CDI indices, including due to any errors, omissions, or delays in calculating or disseminating the CDI indices. CDI and its affiliates and their respective third-party licensors make no representation or warranty, express or implied, as to the results to be obtained by any person or entity from the use of the CDI indices (or any data or other inputs included therein) in connection with the trading of exchange-traded futures contracts, exchange-traded options on futures contracts, exchange-traded options contracts, or any other uses. Further, CDI and its affiliates and their respective third-party licensors make no express or implied warranties, and expressly disclaim all warranties of merchantability or fitness for a particular purpose or use, with respect to the CDI indices (or any data or other inputs included therein). Without limiting any of the foregoing, in no event shall CDI or any of its affiliates or their respective third-party licensors be liable for any indirect, special, incidental, consequential, or punitive damages, or lost profits, trading losses, or lost time or goodwill, even if they have been advised of the possibility of such damages, and irrespective of the cause of action, whether in contract, tort, strict liability or otherwise.

CDI and its affiliates and their respective third-party licensors make no representation or warranty regarding the advisability of investing in exchange-traded futures contracts, exchange-traded options on futures contracts or exchange-traded options contracts generally or the ability of any of the CDI indices to track the market performance of the securities, commodities or other assets underlying such contracts. CDI and its affiliates and their respective third-party licensors shall have no obligation to consider the needs of traders of exchange-traded futures contracts, exchange-traded options on futures contracts or exchange-traded options contracts in determining, composing, or calculating the CDI indices. CDI and its affiliates and their respective third-party licensors are not responsible for and have not participated in the determination of the prices and amount of any financial product issued by Bourse or the timing of the issuance or sale of such products or in the determination or calculation of the equation by which any such product is to be converted into cash, surrendered, or redeemed, as the case may be. CDI is not an investment advisor. Inclusion of a security, commodity or other asset within an index is not a recommendation by CDI or any of its affiliates or their respective third-party licensors to buy, sell, or hold such security, commodity or other asset nor is it considered to be investment advice. There is no guarantee that any investment product based on any of the CDI indices will accurately track index performance or provide positive investment returns. The Bourse exchange-traded futures contracts, exchange-traded options on futures contracts or exchange-traded options contracts are not sponsored, endorsed, sold, or promoted by CDI or any of its affiliates or any of their respective third-party licensors. Disclaimer: Bourse de Montréal Inc. does not: (a) assume any liability or obligations in connection with the trading of any contract based on the CoinDesk Bitcoin Price Index (XBX); or (b) accept any responsibility for any losses, expenses or damages arising in connection with the trading of any contract linked to the CoinDesk Bitcoin Price Index (XBX) except as provided in Rule 10.1 the Bourse de Montréal Inc. Rules.

**BOURSE DE MONTRÉAL INC. MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, AS TO THE RESULT, ACCURACY, COMPLETENESS, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR THE RESULTS TO BE OBTAINED BY ANY PERSON OR ANY ENTITY FROM THE USE OF THE CDI INDICES (OR ANY DATA OR OTHER INPUTS INCLUDED THEREIN) ANY INTRADAY PROXY RELATED THERETO OR ANY DATA INCLUDED THEREIN IN CONNECTION WITH THE TRADING OF EXCHANGE-TRADED FUTURES CONTRACTS, EXCHANGE-TRADED OPTIONS ON FUTURES CONTRACTS, EXCHANGE-TRADED OPTIONS CONTRACTS OR FOR ANY OTHER USE.**

**Canadian Derivatives Clearing Corporation**

100 Adelaide Street W 1800-1190 av des Canadiens-de-Montréal  
3<sup>rd</sup> Floor P.O. Box 37  
Toronto ON M5H 1S3 Montreal, Quebec H3B 0G7  
416.367.2470 514.871.3545  
www.cdcc.ca

**APPENDIX 1: PROPOSED AMENDMENTS TO THE RULES AND MANUALS**

**BLACKLINE VERSION**

**CANADIAN DERIVATIVES CLEARING CORPORATION**

**RULES**

**XX, 202X**

[...]

## PART C – FUTURES

### RULE C- 24 FUTURES CONTRACTS ON BITCOIN PRICE INDEX WITH CASH SETTLEMENT IN US DOLLARS

The Sections of this Rule C-24 are applicable only to Futures contracts on Bitcoin Price Index with Cash settlement in US Dollars.

#### SECTION C-2401 DEFINITIONS

Notwithstanding Section A-102, for the purposes of Futures contracts on Bitcoin Price Index with Cash settlement in US Dollars, the following terms are as defined:

“Cash” – means money in the lawful currency of the United States.

“Eligible Bitcoin Price Index” – means the CoinDesk Bitcoin Price Index (XBX).

“Exchange” – means Bourse de Montréal Inc.

“Final Settlement Price” – means the price, expressed in US Dollars, on the final settlement date which equals the value of the Underlying Interest at 4:00 pm on the last trading day, as determined by the Exchange.

“Multiplier” – means one multiplied by the value of the Futures contract, as specified by the Exchange.

“Underlying Interest” – means 1/10 of the Eligible Bitcoin Price Index, as specified by the Exchange.

#### SECTION C- 2402

##### FINAL SETTLEMENT IN CASH THROUGH THE CORPORATION

Unless otherwise specified by the Corporation, settlement of positions held following the close of trading on the last day of trading in a Series of Futures contracts shall be made on the first Business Day following the last day of trading. Settlement shall be made by an exchange of cash between the Corporation and each of the Clearing Members holding Long Positions and Short Positions. The amount to be paid or received in final settlement of:

- a. each position opened prior to the last day of trading is the difference between:

- i. the Final Settlement Price, and
  - ii. the Settlement Price of the Futures contract on the Business Day before the last day of trading, multiplied by the Multiplier of the Futures contract; and
- b. each position opened on the last day of trading is the difference between
  - i. the Final Settlement Price, and
  - ii. the Trade Price of the open Futures contract multiplied by the Multiplier of the Futures contract.

**SECTION C- 2403**  
**TENDER NOTICES**

Rule C-5 shall not apply to Futures contracts on Bitcoin Price Index indices with Cash settlement in US Dollars as they are Cash settled.

**SECTION C- 2404**  
**ADJUSTMENTS**

No adjustments will ordinarily be made in the terms of Bitcoin Price Index Futures with Cash settlement in US Dollars. However, the Corporation may, at the request of the Exchange, adjust the terms of the affected Futures contracts on the Bitcoin Price Index with Cash settlement in US Dollars.

**SECTION C- 2405**  
**UNAVAILABILITY OR INACCURACY OF CURRENT VALUE**

1. If the Corporation shall determine that the Final Settlement Price for a Bitcoin Price Index with Cash settlement in US Dollars is unreported or otherwise unavailable for purposes of calculating the gains and losses, then, in addition to any other actions that the Corporation may be entitled to take under these Rules, the Corporation may do any or all of the following:

a. suspend the Settlement of Gains and Losses. At such times as the Corporation determines that the required Final Settlement Price is available, the Corporation shall fix a new date for Settlement of the Gains and Losses.

b. fix the Final Settlement Price in accordance with the best information available as to the correct Final Settlement Price.

-2 The Final Settlement Price as reported by the Exchange shall be conclusively deemed to be accurate except that where the Corporation determines in its discretion that there is a material inaccuracy in the reported Final Settlement Price, it may take such action as it determines in its discretion to be fair and appropriate in the circumstances. Without limiting the generality of the foregoing, the Corporation may amend the Final Settlement Price to be used for settlement purposes.

**SECTION C- 2406**  
**PAYMENT AND RECEIPT OF PAYMENT OF THE TRADE PRICE**

The settlement value of maturing contracts will be included with other settlements on the daily Futures Consolidated Activity Report.

**SECTION C- 2407**  
**CURRENCY**

All trading, settlement and variation margin requirements related to the Futures contracts on Bitcoin Price Index with Cash settlement in US Dollars takes place in United States funds. Initial margin requirements will be converted to Canadian funds. All clearing fees in relation to the Futures contract with Cash settlement in US Dollars will be payable in Canadian funds.

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**CDI and its affiliates and their respective third-party licensors make no representation or warranty, express or implied, as to the results to be obtained by any person or entity from the use of the CDI indices (or any data or other inputs included therein) in connection with the trading of exchange-traded futures contracts, exchange-traded options on futures contracts, exchange-traded options contracts, or any other uses. Further, CDI and its affiliates and their respective third-party licensors make no express or implied warranties, and expressly disclaim all warranties of merchantability or fitness for a particular purpose or use, with respect to the CDI indices (or any data or other inputs included therein). Without limiting any of the foregoing, in no event shall CDI or any of its affiliates or their respective third-party licensors be liable for any indirect, special, incidental, consequential, or punitive damages, or lost profits, trading losses, or lost time or goodwill, even if they have been advised of the possibility of such damages, and irrespective of the cause of action, whether in contract, tort, strict liability or otherwise.**

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such contracts. CDI and its affiliates and their respective third-party licensors shall have no obligation to consider the needs of traders of exchange-traded futures contracts, exchange-traded options on futures contracts or exchange-traded options contracts in determining, composing, or calculating the CDI indices. CDI and its affiliates and their respective third-party licensors are not responsible for and have not participated in the determination of the prices and amount of any financial product issued by Bourse or the timing of the issuance or sale of such products or in the determination or calculation of the equation by which any such product is to be converted into cash, surrendered, or redeemed, as the case may be. CDI is not an investment advisor. Inclusion of a security, commodity or other asset within an index is not a recommendation by CDI or any of its affiliates or their respective third-party licensors to buy, sell, or hold such security, commodity or other asset nor is it considered to be investment advice. There is no guarantee that any investment product based on any of the CDI indices will accurately track index performance or provide positive investment returns.

The Bourse exchange-traded futures contracts, exchange-traded options on futures contracts or exchange-traded options contracts are not sponsored, endorsed, sold, or promoted by CDI or any of its affiliates or any of their respective third-party licensors.

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**CLEAN VERSION**

**CANADIAN DERIVATIVES CLEARING CORPORATION**

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# **RISK MANUAL**

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## Section 6: Appendix

1.

### 6.5 MARGIN INTERVAL

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

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

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

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

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

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

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

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

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

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

The SVaR is applicable to all Index and Share Futures and Options<sup>1</sup>, [Bitcoin Price Index Futures<sup>2</sup>](#), as well as all Government of Canada Bond Futures and Option on Government of Canada Bond Futures. For all other products- (all short term Interest Rate Futures), the weighting factor is set to zero and only the Historical Risk component is applicable<sup>3</sup>.

- A volatility floor, calculated using the EWMA approach:

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

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

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

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

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<sup>1</sup> CDCC sets the weighting factor to zero and uses a 25% buffer on the volatility floor as an alternative method in specific cases where a Stress Risk component is not available

<sup>2</sup> [Conservative calibration in order to fully capture extreme events and the high intraday risk](#)

<sup>3</sup> Also true for the calculation of the Intra-Commodity.

# **RISK MANUAL**

**XX, 202X**



## Section 6: Appendix

1.

### 6.5 MARGIN INTERVAL

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

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

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

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

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

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

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

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

[...]

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

The SVaR is applicable to all Index and Share Futures and Options<sup>1</sup>, Bitcoin Price Index Futures<sup>2</sup>, as well as all Government of Canada Bond Futures and Option on Government of Canada Bond Futures. For all other products (all short term Interest Rate Futures), the weighting factor is set to zero and only the Historical Risk component is applicable<sup>3</sup>.

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

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

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

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

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<sup>1</sup> CDCC sets the weighting factor to zero and uses a 25% buffer on the volatility floor as an alternative method in specific cases where a Stress Risk component is not available

<sup>2</sup> Conservative calibration in order to fully capture extreme events and the high intraday risk

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