Consultation Regarding Options Pricing in the Cboe MLPX ATM BuyWrite Index and Cboe QDIV ATM BuyWrite Index

Reference ID: C2025072402

Applicable Cboe Data Vantage Platform: Cboe Global Indices

OVERVIEW

July 24, 2025: Cboe Global Indices, LLC ("CGI") is conducting a consultation with members of the financial community regarding a potential modification to the options prices used in the Cboe MLPX ATM BuyWrite Index (BXPX) and the Cboe QDIV ATM BuyWrite Index (BXQD), referred to in this document as "the Indices".

IMPACTED INDICES

INDEX NAME	INDEX TICKER	METHODOLOGY DOCUMENT
Cboe MLPX ATM BuyWrite Index	BXPX	Cboe_ETF_BuyWrite_Indices_Methodology.pdf
Cboe QDIV ATM BuyWrite Index	BXQD	

SUMMARY OF THE CHANGES

Currently, the prices of the MLPX and QDIV Exchange Traded Fund (ETF) options used in the Indices' calculations leverage the Cboe Hanweck Options Analytics methodology as a primary source as described in the Cboe_TPS_Policies_Practices. CGI is proposing to modify the theoretical ETF options prices used to enhance the representativeness and replicability of the particular Indices, specifically:

1) CGI proposes to use implied volatility data from an alternate underlying instrument to determine the theoretical MLPX and QDIV ETF option prices. The proxy instrument has been selected based on factors such as liquidity and correlation.
2) CGI proposes to determine the option premium paid or received for entering and exiting option positions using a Volume-Weighted Average Price (VWAP) based on trades in Flexible Exchange Options (FLEX options) recorded on Cboe Options Exchange, Cboe C2 Options Exchange, or Cboe BZX Options Exchange between 2:00 PM ET and 2:30 PM ET.

CGI is proposing to modify three sections of the methodology as described below.

Current Methodology

2.2.2 Rebalance BXPX and BXQD

"The Indices' covered call strategy reflects that the ETF call option is held to the day prior to maturity, generally the Thursday prior to the third Friday of each month. On the roll date, the soon to be expiring option is bought back at the theoretical price at 2:00 p.m. ET. [1]

On the roll date, a new at-the-money call option expiring in the next month is then deemed written, or sold, a transaction commonly referred to as a roll. The new European-Style PM-settled option is selected in line with the rules described in the table above. If no trades occur during this period, then the last mid-price (based on National Best Bid and Offer (NBBO)) of the ETF before 1:00 p.m. ET will be used. If two strikes have the same numerical difference from the Volume Weighted Average Price (VWAP) of the ETF, the higher strike is chosen. The long ETF component and the short call option component are held in equal notional amounts, i.e., the short position in the call option is covered by the long ETF component.

Once the strike price of the new call option has been identified, the new call option is deemed sold at a price equal to the European-Style theoretical bid price of the new call option at 2:00 p.m. ET on the roll date. If no bid price is available for the new call option, the theoretical mid-price of the new call option will be used. The value of option premium deemed received from the new call option is functionally re-invested in the portfolio."

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[1] *In the back-tested history prior to February 14, 2024, the expiring option for BXPX and BXQD was bought back at the theoretical mid-close price on the roll date. The strike of the new call option was the listed option strike closest to the closing value of the ETF one business day prior to the roll date and the new call option was sold at the theoretical bid close price on the roll date.*

2.3.2 Options Pricing BXPX and BXQD

"The option prices used in the calculation of the Indices are European-Style PM-settled theoretical values generated using Cboe Hanweck Options Analytics theoretical prices as a primary source as described in the Cboe_TPS_Policies_Practices[2]."

3.2.2 Roll-Date Calculations BXPX and BXQD

"On roll dates, the intraday calculations from the market open until the time the soon to be expiring call option is bought back and the new call option is sold at 2:00 p.m. ET are calculated as:

$$Index_{t,s} = Unit_{t-1} * (ETF_{t,s} - C_{Old_{t,s}})$$

The intraday calculations on the roll date from 2:00 p.m. ET to 4:00 p.m. ET are calculated as:

$$Index_{t,s} = (ETF_{t,s} - C_{new_{t,s}}) * Unit_t$$

$$Unit_t = Unit_{t-1} * \left(1 + \frac{C_{Bid_{Roll}} + Div_t - C_{Old_{Roll}}}{(ETF_{Roll} - C_{Bid_{Roll}})}\right)$$

The closing calculation on the roll date is calculated as:

$$Index_t = (ETF_t - C_{new_t}) * Unit_t$$

where:

- $Index_{t,s}$ *is the level of the Index for day t at time s;*
- $ETF_{t,s}$ *is the last reported value of the ETF on date t at time s;*
- $C_{Old_{t,s}}$ *is the theoretical price of the expiring Call option for day t at time s;*
- $C_{new_{t,s}}$ *is the theoretical price of the new Call option for day t at time s;*
- $C_{Bid_{Roll}}$ *is the theoretical bid price of the new Call option for day t at 2:00 p.m. ET;*

[2] *In the back-tested history prior to February 14, 2024, the option prices used in the calculation of BXPX Index were theoretical European-Style values generated using a volatility surface constructed in accordance with the Cboe American-Style Options Implied Volatility Calculation Methodology.*

- $C_{Old_{Roll}}$ *is theoretical price of the expiring Call option for day t at 2:00 p.m. ET;*
- ETF_{Roll} *is the last reported mid price of the ETF on date t before 2:00 p.m. ET;*
- ETF_t *is the closing value of the ETF on date t;*
- C_{new_t} *is the theoretical price of the new Call option for day t at 4:00 p.m. ET;"*

Proposed Methodology

2.2.2 Rebalance BXPX and BXQD

"The Indices' covered call strategy reflects that the ETF call option is held to the day prior to maturity, generally the Thursday prior to the third Friday of each month. ***On the roll date, the soon to be expiring option is bought back at a price equal to the Volume-Weighted Average Price (VWAP) based on trades in Flexible Exchange Options (FLEX options) recorded on Cboe Options Exchange, Cboe C2 Options Exchange, or Cboe BZX Options Exchange between 2:00 PM ET and 2:30 PM ET.***[1]

On the roll date, a new at-the-money call option expiring in the next month is then deemed written, or sold, a transaction commonly referred to as a roll. The new European-Style PM-settled option is selected in line with the rules described in the table above. If no trades occur during this period, then the last mid-price (based on National Best Bid and Offer (NBBO)) of the ETF before 1:00 p.m. ET will be used. If two strikes have the same numerical difference from the Volume Weighted Average Price (VWAP) of the ETF, the higher strike is chosen. The long ETF component and the short call option component are held in equal notional amounts, i.e., the short position in the call option is covered by the long ETF component.

Once the strike price of the new call option has been identified, ***the option is sold at a price equal to the Volume-Weighted Average Price (VWAP) based on trades in Flexible Exchange Options (FLEX options) recorded on Cboe Options Exchange, Cboe C2 Options Exchange, or Cboe BZX Options Exchange between 2:00 PM ET and 2:30 PM ET****. The value of option premium deemed received from the new call option is functionally re-invested in the portfolio."*

2.3.2 Options Pricing BXPX and BXQD

"The option prices used in the calculation are European-Style PM-settled theoretical values generated using Cboe Hanweck Options Analytics theoretical prices as a primary source as described in the [Cboe_TPS_Policies_Practices][2].

Notwithstanding anything set out in this Methodology, the implied volatility data used in the determination of the option prices is based on the below proxy instruments[3].

INDEX NAME	INDEX TICKER	UNDERYLING TICKER	IMPLIED VOLATILITY PROXY INSTRUMENT
Cboe MLPX ATM BuyWrite Index	BXPX	MLPX	AMLP
Cboe QDIV ATM BuyWrite Index	BXQD	QDIV	SCHD

3.2.2 Roll-Date Calculations BXPX and BXQD

"On roll dates, the intraday calculations from the market open until the time the soon to be expiring call option is deemed bought back and the new call option is deemed sold are calculated as:

$$Index_{t,s} = Unit_{t-1} * (ETF_{t,s} - C_{Old_{t,s}})$$

The intraday calculations on the roll date from the moment the old option is deemed bought back and the new option is deemed sold to 4:00 p.m. ET are calculated as:

$$Index_{t,s} = (ETF_{t,s} - C_{new_{t,s}}) * Unit_t$$

$$Unit_t = Unit_{t-1} * \left(1 + \frac{C_{New_{Roll}} + Div_t - C_{Old_{Roll}}}{(ETF_{Roll} - C_{New_{Roll}})}\right)$$

The closing calculation on the roll date is calculated as:

$$Index_t = (ETF_t - C_{new_t}) * Unit_t$$

where:

- $Index_{t,s}$ *is the level of the Index for day t at time s;*
- $ETF_{t,s}$ *is the last reported value of the ETF on date t at time s;*
- $C_{Old_{t,s}}$ *is the theoretical price of the expiring Call option for day t at time s;*

[3] *The proxy instruments will be reviewed annually by the Index Committee, per its internal timetable. Any changes to the proxy instruments are subject to Index Committee approval and may be preceded by a consultation for market participant feedback. Notwithstanding, the Index Committee may, at any time in its sole discretion, notify market participants via an announcement that a proxy instrument will no longer be used.*

- $C_{new_{t,s}}$ *is the theoretical price of the new Call option for day t at time s;*
- $C_{New_{Roll}}$ ***is the Volume-Weighted Average Price (VWAP) of the new Call option based on trades in Flexible Exchange Options (FLEX options) recorded on Cboe Options Exchange, Cboe C2 Options Exchange, or Cboe BZX Options Exchange between 2:00 PM ET and 2:30 PM ET;***
- $C_{Old_{Roll}}$ ***is the Volume-Weighted Average Price (VWAP) of the old Call option based on trades in Flexible Exchange Options (FLEX options) recorded on Cboe Options Exchange, Cboe C2 Options Exchange, or Cboe BZX Options Exchange between 2:00 PM ET and 2:30 PM ET;***
- ETF_{Roll} *is the last reported mid price of the ETF on date t before* ***2:30 p.m. ET****;*
- ETF_t *is the closing value of the ETF on date t;*
- C_{new_t} *is the theoretical price of the new Call option for day t at 4:00 p.m. ET;"*

TIMING OF CONSULTATION AND POTENTIAL CHANGES

The consultation period will end at the close of business on **Wednesday, August 20, 2025**.

Following the close of the consultation period, all feedback will be reviewed and considered. The Index Committee will decide whether to implement any of the proposed changes and announce the consultation results. An additional consultation may be initiated if CGI has additional questions.

Consultation results are currently expected to be available by the week of **Monday, August 25, 2025**, with any changes becoming effective with the roll on **Thursday, September 18, 2025**.

CONSULTATION QUESTIONS

In responding to this consultation, please address the following questions. Additionally, please include other information you feel would be helpful for assessing the subject matter of this consultation.

1. Do you agree with the proposal to use implied volatility data from an alternate underlying instrument to determine the theoretical MLPX and QDIV ETF option prices?

2. Do you agree with the proposal to modify the option premium paid or received for entering and exiting option positions using a Volume-Weighted Average Price (VWAP)?
3. If the VWAP is adopted, should it only be based on trades in Flexible Exchange Options (FLEX options) recorded on Cboe Options Exchange, Cboe C2 Options Exchange, or Cboe BZX Options Exchange between 2:00 PM ET and 2:30 PM ET? (E.g., no other exchanges or timing?)
4. Do you agree with the proposed proxy instruments of AMLP and SCHD for MLPX and QDIV, respectively?
5. Do you agree with the proposed timeline to implement the changes?
6. Any additional comments or suggestions?

To participate in this consultation, please send responses to: IndexConsultation@cboe.com

Please include "Index Consultation: Options Pricing in the Cboe MLPX ATM BuyWrite Index and Cboe QDIV ATM BuyWrite Index" in the subject line of any response.

We appreciate your participation in this consultation and will publish a summary of feedback in the results announcement. No feedback will be attributed to a particular respondent in the summary published.

Consultation documents can be accessed here.

ADDITIONAL INFORMATION

We appreciate your business. Our trading community inspires and drives our purpose of building trusted markets.

Contact Information

Please contact the Cboe Operations Support Center for technical questions. Market data questions can be directed to the Cboe Index Data Group.

Cboe Operations Support Center (Index Data Feed questions): 312.786.7642 | indexsupport@cboe.com

Cboe Index Data Group: 312.786.7764 | indexdata@cboe.com

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