

Consultation Regarding Proposed Changes to the Cboe SKEW Index® (SKEW®)

Reference ID: C2025052000

OVERVIEW

May 20, 2025: Cboe Global Indices, LLC (“CGI”) is conducting a consultation with members of the financial community regarding potential modifications to the Cboe SKEW Index. This consultation is intended to gather initial feedback on potential changes to the Cboe SKEW Index methodology. If the proposal results in planned changes to the methodology, an additional consultation may be issued that includes more details on the proposed new methodology document.

IMPACTED INDEX

Index Name	Index Ticker	Methodology Document
Cboe SKEW Index	SKEW	SKEW Index White Paper.pdf

SUMMARY OF THE PROPOSED CHANGES

Background of the Cboe SKEW Index Methodology

Currently, the calculation of the Cboe SKEW Index is based on the statistical definition of skewness applied to S&P 500 Index options. Specifically, statistical S&P 500 skewness is:

$$S = E\left\{\left(R - \frac{R - \mu}{\sigma}\right)^3\right\}$$

where R is the 30-day log-return of the S&P 500, μ is its mean, and σ is its standard deviation,

$x = \left(R - \frac{R - \mu}{\sigma}\right)^3$ represents a skewness payoff, and $S = E[x]$ is its market price, a risk adjusted expectation of x.

Since S tends to be negative and to vary within a narrow range, it is inconvenient to use it as an index. S is therefore transformed to SKEW by the following linear function: $SKEW = 100 - 10 * S$ under its current methodology. With this definition, SKEW increases as S becomes more negative and tail risk increases.

Feedback on the Cboe SKEW Index and Proposed Changes

While the current Cboe SKEW Index methodology is firmly grounded in academic finance literatures, CGI has received feedback that the academic measure of skewness applied is at variance with current common interpretations of skewness used by market practitioners.

As a result, CGI is considering a modification to the Cboe SKEW Index to better align its calculation methodology with that of current market practitioners’ interpretations of skew. Specifically, CGI is considering adopting a methodology that uses a differential or ratio of standardized strikes (e.g., using the ratio or the differential of the 25-delta put and call) of a specified SPX option expiration (e.g., one-month or three-month SPX options). If CGI modifies the Cboe SKEW Index methodology per this proposal, the index history would be recalculated in accordance with the updated methodology.

Additionally, the Cboe SKEW Index is currently calculated once per day, at the close of U.S. trading hours. In addition to the potential calculation methodology changes, CGI is proposing intraday

calculation and dissemination of the Cboe SKEW Index, as well as the end-of-day dissemination of the index.

TIMING OF CONSULTATION AND POTENTIAL CHANGE

The consultation period will end at the close of business on **Friday, June 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.

Consultation results are currently expected to be available in **July 2025**. As mentioned in the “Overview” section, an additional consultation may be issued, potentially including the proposed new methodology document. If, following the second consultation, any of the proposals would be adopted, the updated methodology and effective date of the changes would be announced at least two weeks prior to the change.

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.

Proposed Changes to the SKEW Index Methodology

1. Do you agree CGI should modify the current Cboe SKEW Index methodology?
2. Do you prefer that CGI modify the Cboe SKEW Index by adopting a differential of standardized delta strikes and a standardized SPX expiration?
3. Do you prefer that CGI modify the Cboe SKEW Index by adopting a ratio of standardized delta strikes and a standardized SPX expiration?
4. Do you have feedback on an alternative calculation methodology for the Cboe SKEW Index?
5. Do you agree that the Cboe SKEW Index history should be recalculated using the updated methodology?
6. Any other relevant feedback or suggestions?

Proposed Changes to the Cboe SKEW Index Publication Frequency

1. Do you prefer that Cboe publish the Cboe SKEW Index intraday, e.g., every 15 seconds, as well as after the close of U.S trading hours?
2. Do you prefer that Cboe continues to publish the Cboe SKEW Index on an end of day basis?

ADDITIONAL INFORMATION

Please contact the Cboe Operations Support Center with technical questions, or the Cboe Index Data Group with market data questions.

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

Cboe Operations Support Center

312.786.7642 | osc@cboe.com

Cboe Index Data Group

312.786.7317 | indexdata@cboe.com

Disclosures and Disclaimers Related to Cboe Indices

Cboe Global Indices, LLC and Cboe Europe Indices, B.V. (collectively, the “Cboe Index Providers”, and individually a “Cboe Index Provider”), are both subsidiaries of Cboe Global Markets, Inc. (Cboe Global Markets, Inc., the Cboe Index Providers, and the other subsidiaries and affiliates of Cboe Global Markets, Inc. are collectively referred to herein as the “Cboe Companies” and those entities are individually referred to as a “Cboe Company”).

The Cboe Index Providers are each an index provider that administers, calculates and distributes indices and other values (as applicable) (collectively, “Cboe Indices” and individually a “Cboe Index”). Additional information regarding the Cboe Index Providers and their operations is available at www.cboe.com/indices/.

Nothing herein constitutes an offer of services. The information herein is provided solely for informational purposes. Cboe Indices are calculated and administered (as described in relevant methodologies, rules and other information) without regard to the needs of any particular person, entity, or group of persons, using market information, including, without limitation, market data from exchanges owned and operated by other Cboe Companies.

Index and benchmark values for dates or time periods prior to an index launch date, if any, are calculated using a theoretical approach involving back-testing historical data in accordance with the methodology in place on the launch date (unless otherwise stated). Back-testing involves the theoretical application of the index methodology in hindsight and therefore does not involve actual performance and may not produce performance commensurate with prospective application of the methodology. No back-tested approach can completely account for the impact of decisions that might have been made if calculations were made at the same time as certain underlying market conditions occurred. Supporting documentation for statements, comparisons, statistics or other technical data provided in this document is available by request at www.cboe.com/contact/.

Past performance of an index or financial product is not indicative of future results. Indices are not financial products that can be invested in directly, but they can be used as the basis for financial products (for example, without limitation, options, futures, mutual funds or exchange-traded funds) or to help manage portfolios.

The Cboe Index Providers are not investment advisers or tax advisers. No decision to buy, hold, or sell any financial product should be made in reliance on any of the information provided herein, and no representation is made regarding the advisability or tax consequences of any investment, whether based on an index or not. Nothing herein should be construed as investment advice. No representation or assurance is made that any financial product will accurately track the performance of an underlying index or provide positive investment returns. Index values and returns are theoretical, and do not reflect the results of actual trading of financial products, nor the value of an actual portfolio, and may not reflect the fees, taxes or other expenses associated with buying, holding or selling investments or the effect of actual market conditions or events. The Cboe Index Providers are not broker-dealers, intermediaries, investment firms or securities exchanges and they do not manage actual financial products. None of the Cboe Companies sponsor, endorse, promote, manage, sell or administer any financial product that is created, sponsored, issued or sold by a third-party, whether based on any Cboe Index or not.

No data, values, or other content contained herein (“Content”) may be copied, modified, reverse-engineered, reproduced, distributed, or stored in a database or retrieval system, in any form or by any means, nor may any Content be used to create a derivative work (e.g., a financial product, service or index) or used to verify or correct other data or information, without the Cboe Index Provider’s prior written consent. Without derogating from the aforementioned, Content shall not be used for any unlawful or unauthorized purposes.

The Cboe Companies, their third-party service or data providers, or any party from whom they have licensed trademarks or indices (collectively, the “Cboe Parties”) do not guarantee the accuracy, completeness, or timeliness of the Content, trademarks, strategies or values, or the methodologies or input data used to calculate index values. The Cboe Parties are not responsible for any errors or omissions, regardless of the cause, or for the results obtained from the use of the Content, index strategies or values, methodologies or input data. THE CONTENT, INDICES AND RELATED STRATEGIES AND METHODOLOGIES ARE PROVIDED “AS IS” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY WITH RESPECT TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE. USERS OF CONTENT AND/OR THE CBOE INDICES BEAR ALL RISKS OF LOSS.

WITHOUT LIMITING THE FOREGOING AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL THE CBOE PARTIES BE RESPONSIBLE OR LIABLE TO ANY PERSON OR ENTITY FOR ANY DAMAGES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, DIRECT, INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, LOST PROFITS OR LOST OPPORTUNITIES, WHETHER OR NOT A CBOE PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE FOREGOING LIMITATIONS SHALL APPLY REGARDLESS OF WHETHER A CLAIM ARISES IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE.

The Cboe Index Providers receive compensation in connection with licensing Cboe Indices to third parties and providing calculation services to third parties. Some Cboe Companies operate markets for the trading of financial products and provide services to many organizations, including issuers of securities, investment advisers, broker-dealers, investment banks, other financial institutions and financial intermediaries, and accordingly may provide or receive fees or other economic benefits to or from those organizations. These organizations may also be Cboe Index Provider licensees or customers, and the Cboe Index Providers may include securities of or relating to such organizations in Cboe Indices.

Cboe[®], C2SM, Cboe ClearSM, Cboe Closing Cross[®], Cboe DigitalSM, Cboe LIS[®], Cboe Futures ExchangeSM, Cboe Global IndicesSM, Cboe Global Markets[®], Cboe Options Institute[®], Cboe Volatility Index[®], Bats[®], BIDS Trading[®], Buffer ProtectSM, BuyWriteSM, BYX[®], BZX[®], CFE[®], EDGA[®], EDGX[®], Eris Exchange[®], ErisX[®], f(t)optionsSM, FLEX[®], FLEXible EXchange[®], HanweckSM, Hybrid[®], LiveVol[®], NANO[®], Options Institute[®], PutWriteSM, Silexx[®], SRVIXSM, Trade AlertSM, VIX[®], and XSPSM are trademarks and service marks of the Cboe Companies. Trademarks of the Cboe Companies may only be used with written permission, subject to applicable Cboe Company trademark usage guidelines as published from time to time. Third-party trademarks and service marks used in this document are described below. The values and methodologies for indices branded with the “Cboe” trademark are the property of the relevant Cboe Index Provider.

The Cboe Companies have licensed several trademarks from third parties from whom they have also licensed indices which may be included in this document or in other materials related to Cboe Indices, as follows:

- Dow Jones[®], Dow Jones Industrial Average[®] and DJIA[®] are trademarks or service marks of Dow Jones Trademark Holdings LLC (“Dow Jones”), have been licensed for use for certain purposes by the Cboe Companies. Derivative indices created, used and distributed by Cboe Companies and any investment products based thereon are not sponsored, endorsed, sold or promoted by Dow Jones, and Dow Jones makes no representation regarding the advisability of investing in any investment product that is based on any such derivative indices.
- FTSE[®] and the FTSE indices are trademarks and service marks of FTSE International Limited, used under license.
- IHS, IHS Markit, CDX, iBoxx, and iTraxx are trademarks of IHS Markit Limited and its affiliates (“IHS”) and have been licensed for use by the Cboe Companies. Any IHS Markit index referenced herein is the property of IHS Markit and is used under license. Any products that have an IHS Markit index as their underlying interest are not sponsored, endorsed, or promoted by IHS Markit.
- MSCI and the MSCI index names are service marks of MSCI Inc. (“MSCI”) or its affiliates and have been licensed for use by the Cboe Companies. Any derivative indexes and any financial products based on the derivative indexes (“Products”) are not sponsored, guaranteed or endorsed by MSCI, its affiliates or any other party involved in, or related to, making or compiling such MSCI index. Neither MSCI, its affiliates nor any other party involved in, or related to, making or compiling any MSCI index makes any representations regarding the advisability of investing in such Products; or any warranty, express or implied; or bears any liability as to the results to be obtained by any person or any entity from the use of any such MSCI index or any data included therein. No purchaser, seller or holder of any Product, or any other person or entity, should use or refer to any MSCI trade name, trademark or service mark to sponsor, endorse, market or promote Products without first contacting MSCI to determine whether MSCI’s permission is required.
- Nasdaq[®], Nasdaq-100[®], and Nasdaq-100 Index[®], are trademarks of Nasdaq, Inc. (together with its affiliates, the “Corporations”) and are licensed for use by Cboe Exchange, Inc. The CBOE Nasdaq-100 Volatility Index (the “Volatility Index”) and CBOE Nasdaq-100 BuyWrite Index (the “BuyWrite Index”) are not derived, maintained, published, calculated or disseminated by the Corporations. Neither the Volatility Index, the BuyWrite Index nor any product based on such indexes have been passed on by the Corporations as to their legality or suitability. Such products are not issued, endorsed, sold, or promoted by the Corporations. THE CORPORATIONS MAKE NO WARRANTIES AND BEAR NO LIABILITY WITH RESPECT TO THE VOLATILITY INDEX OR BUYWRITE INDEX.
- Russell, Russell 1000[®], Russell 2000[®], Russell 3000[®] and Russell MidCap[®] are registered trademarks of the Frank Russell Company, used under license.
- S&P, S&P 500, US500, 500, THE 500, SPDR, SPX, and DSPX are trade names or trademarks of S&P Dow Jones Indices, LLC or its affiliates (“S&P”). Any products that have an S&P index as their underlying interest are not sponsored, endorsed, sold or promoted by S&P and S&P makes no representation regarding the advisability of investing in any investment product that is based on any such indices.

© 2025 Cboe Exchange, Inc. and its affiliates. All Rights Reserved.

v20230405