S&P Dow Jones Indices

A Division of S&P Global

S&P 500 Volatility Stabilizer Indices
Methodology

January 2026

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Introduction

Index Objective

The S&P 500 Volatility Stabilizer Indices measure the performance of an equity futures position that rebalances intraday to maintain a target volatility.

Index Family and Highlights

S&P 500 Volatility Stabilizer 10% Base Index. The index measures the performance of an S&P 500 Futures position that rebalances intraday to maintain a target volatility of 10%.

The index comprises the E-mini S&P futures contract with the nearest expiry date ("SPX front future") until the end of two business days prior to expiry ("roll day"), after which the index rolls into the next quarterly contract.

The index uses E-mini S&P 500 futures contracts that scheduled to expire quarterly on the third Friday of March, June, September and December.

S&P 500 Volatility Stabilizer 10% VT Intraday TCA 1.50% Decrement Index (USD) ER. The index applies a risk control overlay on top of the S&P 500 Volatility Stabilizer 10% Base Index to maintain the target 10% annualized volatility.

For information on the S&P 500 E-Mini Futures Index and the S&P 500, please refer to the S&P Futures Indices Methodology and S&P U.S. Indices Methodology documents, respectively, available at www.spglobal.com/spdji/.

Index Family

The index family includes the following:

Index	Volatility Target	Transaction Cost	Replication Cost	Decrement
S&P 500 Volatility Stabilizer 10% Base Index	10%	0.0125%	0.2%	
S&P 500 Volatility Stabilizer 10% VT Intraday TCA 1.50% Decrement Index (USD) ER	10%			1.5%
S&P 500 Volatility Stabilizer 10% VT Intraday TCA Index (USD) ER	10%			0%

Supporting Documents

This methodology is meant to be read in conjunction with supporting documents providing greater detail with respect to the policies, procedures and calculations described herein. References throughout the methodology direct the reader to the relevant supporting document for further information on a specific topic. The list of the main supplemental documents for this methodology and the hyperlinks to those documents is as follows:

Supporting Document	URL
S&P Dow Jones Indices' Commodities Indices Policies & Practices Methodology	Commodities Indices Policies & Practices
S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology	Equity Indices Policies & Practices

Supporting Document	URL
S&P Dow Jones Indices' Index Mathematics Methodology	Index Mathematics Methodology

This methodology was created by S&P Dow Jones Indices to achieve the aforementioned objective of measuring the underlying interest of each index governed by this methodology document. Any changes to or deviations from this methodology are made in the sole judgment and discretion of S&P Dow Jones Indices so that the index continues to achieve its objective.

Index Construction

S&P 500 Volatility Stabilizer 10% Base Index

On the index inception date the index level initializes at a base value of 1000. For each subsequent index calculation, the index calculates as:

Index Value at Each Fixing

If t is the index base date and h is the closing index fixing:

$$Index_{t,h} = 1000$$

Afterwards:

If h is a rebalancing fixing**:**

$$Index_{t,h} = Index_{t,h-1} + Units_{t,h-1} \times \left(Price_{t,h} - Price_{t,h-1}\right) - TraCost_{t,h} - RepCost_{t,h}$$

$$TraCost_{t,h} = abs\left(Units_{t,h} - Units_{t,h-1}\right) \times Price_{t,h} \times TCost$$

$$RepCost_{t,h} = \begin{cases} 0, & \text{if } h \neq \hat{h} \\ Units_{t-1,\hat{h}} \times Price_{t-1,\hat{h}} \times \frac{N_{t,t-1}}{360} \times RCost, & \text{otherwise} \end{cases}$$

where:

$\hat{h}$ = The closing fixing

$t-1$ = The business day preceding day t

If $t-1$ was a roll day, then $Price_{t-1,\hat{h}}$ corresponds to the "far" contract, i.e. the contract with expiry immediately following the nearest expiry to business day t

If $\boldsymbol{h}$ is an observation fixing:

If $t-1$ was a roll day and h is the first fixing of day t, then:

$$Index_{t,h} = Index_{t,h-1} + Units_{t,h-1} \times \left(Price_{t,h} - Price_{t,h-1,far}\right)$$

Otherwise:

$$Index_{t,h} = Index_{t,h-1} + Units_{t,h-1} \times \left(Price_{t,h} - Price_{t,h-1}\right)$$

Rounded index value at each fixing:

$$RoundedIndex_{t,h} = \text{round}\left(Index_{t,h}, 7\right)$$

where:

round = Rounding to the specified number of significant digits

Number of Units at Each Fixing

If t is the index base date and h is the closing index fixing[1]:

[1] For more information on the time-periods corresponding to each business day's observation fixings and rebalancing fixings, please refer to *Appendix A*.

$$Units_{t,h} = \frac{TargetWeight_{t,h} \times RoundedIndex_{t,h}}{Price_{t,h-1}}$$

Afterwards:

If h is a rebalancing fixing:

If t is a roll day and h is the last fixing of the day, then:

$$Units_{t,h} = \frac{TargetWeight_{t,h} \times RoundedIndex_{t,h-1}}{Price_{t,h-1,far}}$$

Otherwise:

$$Units_{t,h} = \frac{TargetWeight_{t,h} \times RoundedIndex_{t,h-1}}{Price_{t,h-1}}$$

where:

$Units_{t,h}$	= Number of units of the relevant E-mini S&P500 futures contract held at fixing h on business day t
$TargetWeight_{t,h}$	= Target weight of the relevant contract at fixing h on business day t
$h-1$	= The fixing immediately preceding h on business day t (this would be an observation fixing if h is a rebalancing fixing)
$RoundedIndex_{t,h}$	= The index value at fixing h on business day t
$Price_{t,h-1}$	= The TWAP price of the E-mini S&P 500 futures contract that was held at fixing $h-1$ on business day t
$Price_{t,h-1,far}$	= The TWAP price of the E-mini S&P 500 futures "far" contract at fixing $h-1$ on business day t .For the avoidance of doubt, the "far" contract refers to the contract with expiry immediately following the nearest expiry to business day t

If h is an observation fixing:

$Units_{t,h} = Units_{t,h-1}$

where:

$Units_{t,h-1}$	= The number of units of the relevant contract held at the fixing immediately preceding fixing h on business day t For the avoidance of doubt, if h is the first fixing of the day, then $Units_{t,h-1}$ refers to the number of units of the relevant contract held at the closing fixing $\hat{h}$ on the business day immediately preceding day t.

Target Weight at Each Fixing

If h is the closing index fixing on business day t, then:

$$TargetWeight_{t,h} = OptimalTargetWeight_{t,h}$$

Otherwise:

$$TargetWeight_{t,h} = \max\left(\begin{matrix} TargetWeight_{t,h-2} \\ -MaxDeltaDown, \min\left(OptimalTargetWeight_{t,h}, TargetWeight_{t,h-2} + MaxDeltaUp\right)\end{matrix}\right)$$

$$OptimalTargetWeight_{t,h} = \max\left(MinDelta, \min\left(\frac{TargetVolatility}{HLVolatility_t} \times IDMOTilt_{t,h-1} \times LTVC_t, MaxDelta\right)\right)$$

where:

$HLVolatility_t$ = The High-Low volatility on business day t

$IDMOTilt_{t,h-1}$ = The IDMO tilt at fixing $h-1$ on business day t

$LTVC_t$ = Long-term variance control on business day t

If h is the first fixing of the day, then $h-1$ refers to the closing fixing $\hat{h}$ on the business day immediately preceding day t. Similarly, if h is the second fixing of the day, then $h-2$ refers to the closing fixing $\hat{h}$ on the business day immediately preceding business day t .

High-Low Volatility

$$HLVolatility_t = \sqrt{\frac{252 \times EWMVar_t}{4 \times \ln(2)}}$$

where:

$EWMVar_t$ = The exponentially weighted moving variance on business day t.

If t is the index base date or the first business day after the index base date, then:

$$EWMVar_t = SeedValue$$

Thereafter:

$$EWMVar_t = 0.5^{\frac{1}{HalfLife1}} \times EWMVar_{t-1} + (\left(1 - 0.5^{\frac{1}{HalfLife1}}\right) \times \left(\ln\left(\frac{High_{t-1}}{Low_{t-1}}\right)\right)^2\right)$$

where:

$High_t = \max\left(\max_{h=1}^{h=\hat{h}}(Price_{t,h}), ClosePrice_t, ClosePrice_{t-1}\right)$

$Low_t = \min\left(\min_{h=1}^{h=\hat{h}}(Price_{t,h}), ClosePrice_t, ClosePrice_{t-1}\right)$

$\max_{h=1}^{h=\hat{h}}(Price_{t,h})$ = The maximum TWAP price of the relevant E-mini S&P 500 futures contract across all fixings on business day t

$\min_{h=1}^{h=\hat{h}}(Price_{t,h})$ = The minimum TWAP price of the relevant E-mini S&P 500 futures contract across all fixings on business day t

$ClosePrice_t$ = The settlement price of the relevant E-mini S&P 500 futures contract on business day t

$Price_{t,h}$, $Close\ Price_t$ and $Close\ Price_{t-1}$ correspond to the relevant contract that was held at the immediately previous closing fixing to business day t.

Intraday Momentum Tilt

If h is one of the last four fixings on business day t, then:

$$IDMOTilt_{t,h} = 1$$

Otherwise:

$$IDMOTilt_{t,h} = \max\Bigg(MinIDMOTilt, \min\Bigg(1 + \max\left(0, abs\left(\frac{Price_{t,h}}{Price_{t-1,\hat{h}}} - 1\right) - DynamicIDMOThreshold_{t,h}\right) \times sign\left(\frac{Price_{t,h}}{Price_{t-1,\hat{h}}} - 1\right) \times IDMOMultiplier \times (1 + \max\left(0, \frac{abs\left(\frac{Price_{t,h}}{Price_{t-1,\hat{h}}} - 1\right)}{DynamicIDMOThreshold_{t,h}} - 1\right))^2, MaxIDMOTilt\Bigg)\Bigg)$$

If $t-1$ was a roll day, then $Price_{t-1,\hat{h}}$ corresponds to the "far" contract, i.e. the contract with expiry immediately following the nearest expiry to business day t.

Dynamic IDMO Threshold

If t is the index base date:

$$DynamicIDMOThreshold_{t,h} = PrelimDynamicIDMOThreshold_{t,h} = SeedIDMOThreshold$$

Thereafter:

$$DynamicIDMOThreshold_{t,h} = \max\left(MinIDMOThreshold, \min\left(MaxIDMOThreshold, PrelimDynamicIDMOThreshold_{t,h}\right)\right)$$

$$PrelimDynamicIDMOThreshold_{t,h}^2 = \left(1 - 0.5^{\frac{1}{HalfLife2}}\right) \times (\ln\left(\frac{Price_{t,h}}{Price_{t-1,\hat{h}}}\right))^2 + 0.5^{\frac{1}{HalfLife2}} \times PrelimDynamicIDMOThreshold_{t*,h}^2$$

If $t-1$ is an early market close day and fixing $h > 6$, then:

$PrelimDynamicIDMOThreshold_{t*,h}$ = $PrelimDynamicIDMOThreshold_{t-2,h}$.

Otherwise:

$$PrelimDynamicIDMOThreshold_{t*,h} = PrelimDynamicIDMOThreshold_{t-1,h}$$

Long-term Variance Control

If t is less than or equal to $LBLTVC$ days after the index base date:

$$LTVC_t = 1$$

Otherwise:

$$LTVC_t = \max\left(MinLTVC, \min\left((2 - \left(\frac{\sqrt{\frac{252}{LBLTVC-1} \times \sum_{k=1}^{LBLTVC} \ln\left(\frac{Index_{t-k,\hat{h}}}{Index_{t-k-1,\hat{h}}}\right)^2}}{TargetVolatility}\right)^2\right)^{PowerLTVC}, MaxLTVC\right)\right)$$

where:

$Index_{t-k,\hat{h}}$ = The index value at the closing index fixing $\hat{h}$ on the business day that precedes day t by k business days

$Index_{t-k-1,\hat{h}}$ = The index value at the closing index fixing $\hat{h}$ on the business day that precedes day t by $k+1$ business days

S&P 500 Volatility Stabilizer 10% VT Intraday TCA Indices

On the index inception date the index level initializes at a base value of 1000. For each subsequent index calculation, the index calculates as:

If t is the index base date:

$$IndexRC_t = 1000$$

$$UnitsRC_t = 1$$

Afterwards:

$$IndexRC_t = IndexRC_{t-1} + UnitsRC_{t-1} \times (RoundedIndex_t - RoundedIndex_{t-1}) - Dec_t$$

$$UnitsRC_t = \frac{TargetWeightRC_t \times IndexRC_t}{RoundedIndex_t}$$

$$Dec_t = IndexRC_{t-1} \times \frac{N_{t,t-1}}{365} \times Decrement$$

where:

$IndexRC_t$ = the relevant S&P 500 Volatility Stabilizer 10% VT Intraday TCA Index under consideration, value at the end of business day t

$TargetWeightRC_t$ = The target weight at the end of business day t

$RoundedIndex_t$ = The rounded S&P 500 Volatility Stabilizer 10% Base Index value at the end of business day t (i.e. $RoundedIndex_{t,\hat{h}}$ where $\hat{h}$ is the last fixing on day t)

Dec_t = The decrement cost incurred at the end of business day t

$N_{t,t-1}$ = The number of calendar days from (but excluding) business day $t-1$ to (and including) business day t

Target Weight at Each Fixing

On the index base date:

$$TargetWeightRC_t = \min(\omega_t, LeverageCap)$$

Thereafter, if δ_t is greater than or equal to the $RebalanceThreshold$:

$$TargetWeightRC_t = \min(\omega_{t-1}, LeverageCap)$$

Otherwise:

$$TargetWeightRC_t = TargetWeightRC_{t-1}$$

where:

$$\omega_t = \frac{TargetVolatility}{\sqrt{\max(\sigma^2_{t,hl1}, \sigma^2_{t,hl2})}}$$

$\sigma^2_{t,hl1}, \sigma^2_{t,hl2}$ = Exponentially weighted variance with half-lives $hl1$ and $hl2$ respectively, calculated on business day t

$$\delta_t = abs(\omega_{t-1} - TargetWeightRC_{t-1})$$

Exponentially Weighted Variance

On the index base date:

$$\sigma_{t,hl1}^2 = \sigma_{t,hl2}^2 = TargetVolatility^2$$

Thereafter:

$$\sigma_{t,hl1}^2 = 252 \times \left(1 - 0.5^{1/hl1}\right) \times \left(\frac{RoundedIndex_t}{RoundedIndex_{t-1}} - 1\right)^2 + 0.5^{1/hl1} \times \sigma_{t-1,hl1}^2$$

$$\sigma_{t,hl2}^2 = 252 \times \left(1 - 0.5^{1/hl2}\right) \times \left(\frac{RoundedIndex_t}{RoundedIndex_{t-1}} - 1\right)^2 + 0.5^{1/hl2} \times \sigma_{t-1,hl2}^2$$

Index Maintenance

Rebalancing

S&P 500 Volatility Stabilizer 10% Base Index. The index rebalances intraday at the end of each TWAP execution window.

S&P 500 Volatility Stabilizer 10% VT Intraday TCA Indices. The indices rebalance at the end of each business day.

Due to certain market events, the timing of the rebalancing can change:

- For any regularly scheduled early market closure there are fewer rebalances, as described in *Appendix A.*
- For any unscheduled full-day market closure, the index does not rebalance.
- For any unscheduled partial-day market closure in which the market does not re-open, all execution windows after the halt are canceled.

Currency of Calculation and Additional Index Return Series

In addition to the indices detailed in this methodology, additional return series versions of the indices may be available, including, but not limited to: currency, currency hedged, decrement, fair value, inverse, leveraged, and risk control versions. For a list of available indices, please refer to the *S&P DJI Methodology & Regulatory Status Database*.

Base Date and History Availability

The index history availability, base dates, and base values are shown in the table below.

Index	Launch Date	First Value Date	Base Date	Base Value
S&P 500 Volatility Stabilizer 10% Base Index	7/14/2025	12/31/2003	12/31/2003	1000
S&P 500 Volatility Stabilizer 10% VT Intraday TCA 1.50% Decrement Index (USD) ER	7/14/2025	12/31/2003	12/31/2003	1000
S&P 500 Volatility Stabilizer 10% VT Intraday TCA Index (USD) ER	7/14/2025	12/31/2003	12/31/2003	1000

Index Governance

Index Committee

An Index Committee maintains the index. All committee members are full-time professional members of S&P Dow Jones Indices' staff. The Index Committee meets regularly. At each meeting, the Committee reviews pending corporate actions that may affect index constituents, statistics comparing the composition of the indices to the market, companies that are being considered as candidates for addition to the indices, and any significant market events. In addition, the Index Committee may revise index policy covering rules for selecting companies, treatment of dividends, share counts or other matters.

S&P Dow Jones Indices considers information about changes to its indices and related matters to be potentially market moving and material. Therefore, all Index Committee discussions are confidential.

S&P Dow Jones Indices' Index Committees reserve the right to make exceptions when applying the methodology if the need arises. In any scenario where the treatment differs from the general rules stated in this document or supplemental documents, clients will receive sufficient notice, whenever possible.

In addition to the daily governance of indices and maintenance of index methodologies, at least once within any 12-month period, the Index Committee reviews the methodology to ensure the indices continue to achieve the stated objectives, and that the data and methodology remain effective. In certain instances, S&P Dow Jones Indices may publish a consultation inviting comments from external parties.

For information on Quality Assurance and Internal Reviews of Methodology, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Index Policy

Announcements

All index constituents are evaluated daily for data needed to calculate index levels and returns and are communicated to clients in end-of-day files. Any unusual treatment or short notice of an event may be communicated to clients via email.

For more information, please refer to the Announcements section of S&P Dow Jones Indices' Commodity Indices Policies & Practices Methodology.

Holiday Schedule

The index calculates daily throughout the calendar year on each Business Day, as defined in *Appendix A*.

A complete holiday schedule for the year is available on S&P Dow Jones Indices' Web site at www.spglobal.com/spdji/.

Rebalancing

The Index Committee may change the date of a given rebalancing for reasons including market holidays occurring on or around the scheduled rebalancing date. Any such change will be announced with proper advance notice where possible.

Unexpected Exchange Closures

A stock market circuit breaker that halts trading for the remainder of a given business day is considered a market disruption event.

For information on Unexpected Exchange Closures, please refer to S&P Dow Jones Indices' Commodity Indices Policies & Practices Methodology.

Recalculation Policy

Intraday index calculations are executed for some index versions whenever the index's primary exchanges are open. In case an issue arises during calculation, the index is restated, based on feasibility assessment by the index committee, for every reported intraday index level period following the issue.

Real-Time Calculation

Real-time, intraday index calculations are executed for some versions of the index, whenever the index's primary exchanges are open. Real-time indices are not restated.

For information on Calculations and Pricing Disruptions, Expert Judgment and Data Hierarchy, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Contact Information

For questions regarding an index, please contact: index_services@spglobal.com.

Index Dissemination

Index levels are available through S&P Dow Jones Indices' Web site at *www.spglobal.com/spdji/,* major quote vendors (see codes below), numerous investment-oriented Web sites, and various print and electronic media.

Tickers

The table below lists headline indices covered by this document. All versions of the below indices that may exist are also covered by this document. Please refer to the *S&P DJI Methodology & Regulatory Status Database* for a complete list of indices covered by this document.

Index	BBG	RIC
S&P 500 Volatility Stabilizer 10% VT Intraday TCA 1.50% Decrement Index (USD) ER	SPXVSB10	.SPXVSB10

Index Data

Daily constituent and index level data are available via subscription.

For product information, please contact S&P Dow Jones Indices, www.spglobal.com/spdji/en/contact-us.

Web Site

For further information, please refer to S&P Dow Jones Indices' Web site at www.spglobal.com/spdji/.

Appendix A: Business Day Definition

A calendar day is an index "Business Day" for the index when:

- New York Stock Exchange (NYSE) or any successor thereto is scheduled to be open for business, and
- Chicago Mercantile Exchange (CME) or any successor thereto is scheduled to be open for business for Equity Futures.

If at least one of the two (NYSE or CME Equity Futures) is scheduled to be a half/partial business day, then that business day is considered a half/partial index business day.

Appendix B: TWAP Calculation

The indices calculate each fixing's TWAP according to the following:

- Identify the last trade price of the E-mini S&P 500 futures contract in each 10-second interval over the specified time window, from the start time (inclusive) to the end time (exclusive) in Eastern Time Zone (ET). If there are ticks with duplicate timestamps, use a volume-weighted average price for them.
- Compute the average of the prices identified above, and round it to 4 decimal places.

Due to an extraordinary event, an exchange could be scheduled to halt trading or close before the scheduled trading time. In such cases, apply the following rules:

- If the TWAP cannot be calculated due to lack of data in the window, use the TWAP of the preceding window on the same day.
- If the TWAP is still missing, use the previous day's settlement price for the contract.

TWAP Windows

For each scheduled full trading day, the TWAP calculation windows are defined as follows:

Window	Index Fixing	Fixing Type
1	9:48 to 9:53 ET	Observation
2	9:58 to 10:08 ET	Rebalancing
3	10:48 to 10:53 ET	Observation
4	10:58 to 11:08 ET	Rebalancing
5	11:48 to 11:53 ET	Observation
6	11:58 to 12:08 ET	Rebalancing
7	12:48 to 12:53 ET	Observation
8	12:58 to 13:08 ET	Rebalancing
9	13:48 to 13:53 ET	Observation
10	13:58 to 14:08 ET	Rebalancing
11	14:48 to 14:53 ET	Observation
12	14:58 to 15:08 ET	Rebalancing
13	15:40 to 15:45 ET	Observation
14	15:50 to 16:00 ET until 2021-09-14 (inclusive), contract settlement price thereafter	Rebalancing

For any trading day scheduled as an early market close day (13:00 ET):

Window	Index Fixing	Fixing Type
1	9:48 to 9:53 ET	Observation
2	9:58 to 10:08 ET	Rebalancing
3	10:48 to 10:53 ET	Observation
4	10:58 to 11:08 ET	Rebalancing
5	11:48 to 11:53 ET	Observation
6	11:58 to 12:08 ET until 2021-09-14 (inclusive), contract settlement price thereafter	Rebalancing

Market Disruptions

Execution Window. If the underlying futures experience a failure or interruption such that there is not at least one value in each minute with a valid price and volume, the execution window is considered disrupted, and the number of units adjust only by the Executed Size.

Executed Size. Calculates as the number of consecutive minutes (up to and including the first minute affected by a failure or interruption occurred) with a level, divided by the total number of minutes in the execution window, according to the process below:

- If there are no failures, if the execution window is from 9:58 to 10:08 Eastern Time, there are 10 valid minutes during the window. Since Executed Size is calculated based on the number of consecutive minutes with a valid price, once there is a disruption event, all the following one-minute intervals in such execution windows are considered disrupted.
- For example, if the first 4 minutes have valid trade price and volume, but a failure or interruption occurred during the 4th minute, the Executed Size is defined as 4/10 = 40%, and all the remaining windows are considered disrupted.
- If the disruption starts prior to the first minute and continues throughout the first minute such that there are no valid ticks during the first minute, the entire window is considered disrupted, and the units are carried over from the previous non-disrupted window.
- If the disruption starts during the first minute such that there are some valid ticks during the first minute but no valid ticks in the second minute then the Executed Size equals 10% and the remaining window is disrupted.

The number of units held at the end of the observation window calculates as:

$$Previous\ Effective\ Units\ *\ (1\ -\ Executed\ Size)\ +\ Executed\ Size\ x\ Target\ Units$$

Appendix C: Parameters

S&P 500 Volatility Stabilizer 10% Base Index

Index Term	Parameter
Target Volatility	10%
Max Delta	100%
Min Delta	0
Max Delta Up	15%
Max Delta Down	60%
IDMO Multiplier	30
Seed IDMO Threshold	0.8%
Max IDMO Threshold	1.2%
Min IDMO Threshold	0.4%
Max IDMO Tilt	200%
Min IDMO Tilt	0
LBLTVC	21
Power LTVC	1
Max LTVC	1
Min LTVC	0.5
Tcost	0.0125%
Rcost	0.2%
Half Life 1	5
Half Life 2	63
Seed Value	0.000025

S&P 500 Volatility Stabilizer 10% VT Intraday TCA Indices

Index Term	Parameter
Target Volatility	10%
Leverage Cap	120%
Half Life 1	10.5
Half Life 2	63
Rebalancing Threshold	5%

Appendix D

Methodology Changes

Methodology changes since July 14, 2025, are as follows:

Change	Effective Date (After Close)	Methodology	
		Previous	Updated
Market Disruptions	01/09/2026	--	**Execution Window.** If the underlying futures experience a failure or interruption such that there is not at least one value in each minute with a valid price and volume, the execution window is considered disrupted, and the number of units adjust only by the Executed Size. **Executed Size.** Calculates as the number of consecutive minutes (up to and including the first minute affected by a failure or interruption occurred) with a level, divided by the total number of minutes in the execution window, according to the process below: • If the execution window is from 9:58 to 10:08 Eastern Time and no failures occur, then there are 10 valid minutes during the window. Since Executed Size is calculated based on the number of consecutive minutes with a valid price, once there is a disruption event, all of the following one-minute intervals of that execution window are considered disrupted. • For example, if the first four minutes have valid trade price and volume (or tick), but a failure or interruption occurred during the fourth minute, the Executed Size is defined as 4/10 = 40%, and all the remaining intervals of the window are considered disrupted. • If the disruption starts prior to the first minute and continues throughout the first minute such that there are no valid ticks during the first minute, the whole window is considered to be disrupted, and the units are carried over from the previous non-disrupted window. • If the disruption starts during the first minute such that there are some valid ticks during the first minute but no valid ticks in the second minute then the Executed Size equals 10% and the remaining intervals of the window are disrupted. The number of units held at the end of the observation window calculate as: $Previous\ Effective\ Units * (1 - Executed\ Size) + Executed\ Size\ x\ Target\ Units$

Disclaimer

Performance Disclosure/Back-Tested Data

Where applicable, S&P Dow Jones Indices and its index-related affiliates ("S&P DJI") defines various dates to assist our clients by providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P DJI defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Information presented prior to an index's launch date is hypothetical back-tested performance, not actual performance, and is based on the index methodology in effect on the launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Also, the treatment of corporate actions in back-tested performance may differ from treatment for live indices due to limitations in replicating index management decisions. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

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