



INDEX METHODOLOGY

## NASDAQ GENERATIONS 5 INDEX

### NDXGEN5

#### INDEX DESCRIPTION

The Nasdaq Generations 5 Index is designed to deliver exposure to the Nasdaq-100 Total Return Index (XNDX), the Nasdaq Next Generation 100 Total Return Index (NGXT), and 10-year (10Y) and 2-year (2Y) US Treasury futures while targeting a constant five percent (5%) level of volatility. The Index uses the truVol® Risk Control Engine (RCE) to dynamically allocate between XNDX, NGXT, 10Y, 2Y and non-remunerating cash in aiming to achieve the volatility target. Developed by Salt Financial, the RCE is designed to offer higher levels of responsiveness and accuracy in targeting volatility for risk-controlled indices. The mechanism generally allocates more to the equity components (i.e., XNDX and NGXT) when volatility falls and more to cash when it rises.

The Index is rebalanced daily and calculated in excess of a daily accrual of the Federal Funds Effective Rate to reflect the return of the components net of any hypothetical costs to fund an investment in them (Excess Return). Although the Index is designed to target a specific risk level, there are no guarantees the Index will achieve these results.

#### INSTRUMENT ELIGIBILITY CRITERIA

The Index may include the following instruments:

- NASDAQ-100 Total Return Index (XNDX)
- NASDAQ Next Generation 100 Total Return Index (NGXT)
- Citi 10y US Treasury Futures Market Tracker Index (CNAQBF1U)
- Citi 2y US Treasury Futures Market Tracker Index (CNAQBF2U)
- Non-Interest-Bearing Cash (Cash)<sup>1</sup>

---

<sup>1</sup> Any exposure to cash is non-remunerating, meaning the Index does not accrue (decrement) interest in the case where the Index exhibits positive (negative) cash exposure. The greater the exposure to cash, the smaller the impact on the Index from market fluctuations and consequently, the lower the potential for gains or losses.

## INDEX CALENDAR

### Reconstitution and rebalance schedule

The Index is reconstituted and rebalanced daily at market close according to the process described in Constituent Selection and Weighting.

### Reconstitution and rebalance reference dates

The Index is reconstituted and rebalanced using Last Sale Prices each day.

## CONSTITUENT SELECTION AND WEIGHTING

The Index always includes the equity indexes (i.e., XNDX and NGXT) and US Treasury futures indexes (CNAQBF1U and CNAQBF2U). Under certain conditions, as described below when its final weight is determined to be greater than zero, it also includes Non-Interest-Bearing Cash (Cash).

Each day the [truVol® Risk Control Engine \(RCE\)](#) is employed to determine initial component weights. The truVol® RCE is a proprietary risk management toolkit designed to enhance risk-controlled index strategies.

### Daily weighting process

At the end of each day, the Equity and Fixed Income components assume the following preliminary weights,

$$\begin{aligned}w_t &= \{w_t^{XNDX}, w_t^{NGXT}, w_t^{10Y}, w_t^{2Y}\}: \\w_t^{XNDX} &= w_t^{EQ} \times EQWeight_t^{XNDX} \\w_t^{NGXT} &= w_t^{EQ} \times EQWeight_t^{NGXT} \\w_t^{10Y} &= w_t^{FI} \times FinalSignal_t \times StopLossSignal_t^{10Y} \\w_t^{2Y} &= w_t^{FI} \times (1 - FinalSignal_t) \times StopLossSignal_t^{2Y} \\w_t^{EQ} &= \text{Min}\left(1, \frac{5\%}{\text{Max}(\sigma EQ_t^{\lambda_1}, \sigma EQ_t^{\lambda_2})}\right) \\w_t^{FI} &= 1 - w_t^{EQ} \\ \sigma EQ_t^\lambda &= \begin{cases} \sqrt{252 * \sigma^2 VTF_t^{XNDX, XNDX, \lambda}}, & \text{if } t < 996 \\ \sqrt{252 \times \sum_{A, B \in \{XNDX, NGXT\}} EQWeight_t^A \times EQWeight_t^B \times \sigma^2 VTF_t^{A, B, \lambda}}, & \text{else} \end{cases}\end{aligned}$$

where

$$\begin{aligned}\lambda_1 &= 0.93 \\ \lambda_2 &= 0.97\end{aligned}$$

$$EQWeight_t^{XNDX} = \begin{cases} 1, & \text{if } t < 996 \\ 0.7, & \text{else} \end{cases}$$

$$EQWeight_t^{NGXT} = 1 - EQWeight_t^{XNDX}$$

$$StopLossSignal_t^X = \begin{cases} 1, & \text{if } \frac{1}{\min(t+1, 10)} \times \sum_{i=0}^{\min(t,9)} MASignal_{t-i}^X = 1 \\ 0, & \text{elif } \frac{1}{\min(t+1, 10)} \times \sum_{i=0}^{\min(t,9)} MASignal_{t-i}^X = 0 \\ StopLossSignal_{t-1}^X, & \text{else} \end{cases}$$

$$MASignal_t^X = \begin{cases} 0, & \text{if } Close_t^X < MA_t^X \\ 1, & \text{else} \end{cases}$$

$$MA_t^X = \frac{1}{\min(t+1, 200)} \times \sum_{i=0}^{\min(t,199)} Close_{t-i}^X$$

$Close_t^X =$  The closing level of Underlying Component X on Index Calculation Day t

In plain English, the preliminary weights for 10Y and 2Y have their own respective stop loss mechanisms where there is zero allocation when the closing value of the respective component is below its 200-day moving average for 10 consecutive days. It reallocates to 10Y and 2Y after the respective component is equal to or above its 200-day moving average for 10 consecutive days. Otherwise, it simply defaults to the last available allocation.

These preliminary weights, along with a covariance matrix (i.e.,  $\sigma^2 VTF_t^{A,B,\lambda}$ ) specified by the truVol® RCE, determine the portfolio volatility on day t.

$$\sigma PTF_t^\lambda = \begin{cases} \sqrt{252 \times \sum_{A,B \in \{XNDX, 10Y, 2Y\}} w_t^A \times w_t^B \times \sigma^2 VTF_t^{A,B,\lambda}}, & \text{if } t < 996 \\ \sqrt{252 \times \sum_{A,B \in \{XNDX, NGXT, 10Y, 2Y\}} w_t^A \times w_t^B \times \sigma^2 VTF_t^{A,B,\lambda}}, & \text{else} \end{cases}$$

In an effort to consistently target the desired level of risk, the Index has the ability to scale up notional exposure, subject to a maximum of 150%. In other words, when volatility is below the target level, the Index has the potential to apply leverage. Alternatively, when volatility is above the target level, the Index may reduce exposure. This scaling mechanism, denoted as the “Leverage Ratio<sub>t</sub>”, is calculated as:

$$Leverage Ratio_t = \text{Min} \left( 1.5, \frac{5\%}{\text{Max}(\sigma PTF_t^{\lambda_1}, \sigma PTF_t^{\lambda_2})} \right)$$

The Leverage Ratio<sub>t</sub> is applied to the preliminary weights along with the SmoothedRiskScalars<sub>t</sub> (available in the truVol Calculation Module) to determine the scaled weights, capped by the maximum leverage<sup>2</sup>:

$$ScaledWeight_t^i = Weight_t^i * \left[ 1 - \text{Max} \left( 0, 1 - \frac{\text{MaxLeverage}}{\sum_i Weight_t^i} \right) \right]$$

<sup>2</sup> The Risk Scalars are proprietary elements of the truVol RCE with calculation steps available to authorized individuals in the truVol Calculation Module.

$$Weight_t^i = \begin{cases} SmoothedRiskScalars_t \times Leverage\ Ratio_t \times VAF_t^{Final} \times w_t^i, & i \in \{XNDX, NGXT\} \\ Leverage\ Ratio_t \times VAF_t^{Final} \times w_t^i, & i \in \{10Y, 2Y\} \end{cases}$$

where

$$MaxLeverage = 1.5$$

Lastly, the Index uses a volatility adjustment factor (VAF) deployed at the end of the process to help nudge the realized volatility back to the target and correct for any temporary over- or under-shoots from the risk scaling mechanism. It uses a slow decay EWMA on the index level itself, adding back the decremented index fee prior to calculation.

$$VAF_t^{Final} = \begin{cases} Min(VAF^{Cap}, VAF_t), & \text{if } |Min(VAF^{Cap}, VAF_t) - 1| > VAF^{Threshold} \\ 1, & \text{else} \end{cases}$$

$$VAF_t = \frac{Vol\ Target}{\sqrt{252 * EWMA_t^{Index}}}$$

$$EWMA_t^{Index} = \begin{cases} 0.97 * EWMA_{t-1}^{Index} + 0.03 * \ln\left(\frac{ER\ Level_t^{Index}}{ER\ Level_{t-1}^{Index}} + \frac{Fee}{360} \text{days}(t, t-1)\right)^2, & \text{if } t > BaseDate \\ \frac{Vol\ Target^2}{252}, & \text{else} \end{cases}$$

where

$$VAF^{Cap} = 1.5$$

$$VAF^{Threshold} = 0$$

$$Vol\ Target = 5\%$$

$$Fee = 0.5\%$$

$days(t, t-1)$  = Actual day count between day  $t$  (inclusive) and day  $t-1$  (exclusive)

$t-1$  = Index Calculation Day immediately preceding  $t$

$ER\ Level_t^{Index}$  = the final risk control index level on Index Calculation Day  $t$

Final weights are calculated as<sup>3</sup>

$$FinalWeight_t^i = \min\left(\begin{matrix} MaxWeight^i, \\ FinalWeight_{t-1}^i + Sign(ScaledWeight_t^i - FinalWeight_{t-1}^i) \times \\ \min(MaxChange^i, abs(ScaledWeight_t^i - FinalWeight_{t-1}^i)) \end{matrix}\right);$$

$$FinalWeight_{BaseDate-1}^i = ScaledWeight_{BaseDate-1}^i$$

**Table 1: Component Max Weight and Max Change**

Asset	MaxWeight <sup>i</sup>	MaxChange <sup>i</sup>
XNDX	150%	20%
NGXT	150%	20%

<sup>3</sup> The weight allocated to Cash is calculated by subtracting the sum of final XNDX, NGXT, 10Y, 2Y weights from 100%. A positive number indicates Cash is being used to de-leverage the portfolio in an attempt to reduce risk. A negative number indicates the portfolio is being leveraged above 100% exposure, seeking to increase risk.

10Y	150%	20%
2Y	150%	20%

## APPENDIX: SUPPLEMENTAL TRUVOL DEFINITION

This Index Methodology has a companion document, the Nasdaq Generations 5 Index truVol Calculation Module (“truVol Module” or “Calculation Module”), that contains proprietary information designated as trade secrets by Salt Financial LLC. This information is made available to a more limited group of authorized individuals with the Index Calculation Agent or banks engaging in hedging activity of the Index. References to specific elements in the truVol Module are made throughout this document and further detailed in footnotes.

## ADDITIONAL INFORMATION

### Excess Return Calculations

Each Underlying Component is transformed into an excess return series on a daily basis based on the following formula.<sup>4</sup> These series serve as the building blocks for the final index.

$$ER_t^i = \begin{cases} \left( \frac{Close_t^i}{Close_{t-1}^i} - 1 \right) - \frac{RFR_{t-1}}{360} * days(t, t - 1), & i \in \{XNDX, NGXT\} \\ \left( \frac{Close_t^i}{Close_{t-1}^i} - 1 \right), & else \end{cases}$$

where

$ER_t^i$  = Excess return of Underlying Component  $i$  on Index Calculation Day  $t$   
 $Close_t^i$  = The closing level of Underlying Component  $i$  on Index Calculation Day  $t$   
 $RFR_t$  = Fed Funds on Index Calculation Day  $t$  (ticker: USONFFE =)<sup>5</sup>  
 $days(t, t - 1)$  = Actual day count between day  $t$  (inclusive) and day  $t - 1$  (exclusive)  
 $t - 1$  = Index Calculation Day immediately preceding  $t$

### truVol Covariance Matrix

The full covariance matrix for a given  $\lambda$  requires six (6) covariance terms and four (4) variance terms, with one variance ( $\hat{y}_t^{XNDX, \lambda}$ ) and one input ( $eRiskRatio_t^{QQQ}$ ) required to compute another variance specified under separate cover in the truVol Calculation Module<sup>6</sup>. Subsequently, the following formula

<sup>4</sup> The 10Y and 2Y Treasury futures trackers (CNAQBF1U and CNAQBF2U) are “unfunded”, meaning their returns already reflect the hypothetical costs of funding and do not require accrual of the RFR to transform them into an excess return series.

<sup>5</sup> The Refinitiv ticker used by the Calculation Agent for Federal Funds, USONFFE=, is equivalent to FEDL01 on Bloomberg.

<sup>6</sup> These inputs are proprietary components of the truVol RCE with calculation steps available to authorized parties in the truVol Calculation Module.

represents the covariance between component A and component B, calculated as the product of the EWMA-derived correlation between A and B and the volatilities of A and B.

$$\sigma^2 VTF_t^{A,B,\lambda} = \frac{\sigma^2 VT_t^{A,B,\lambda}}{\sqrt{\sigma^2 VT_t^{A,A,\lambda} \times \sigma^2 VT_t^{B,B,\lambda}}} \times \sqrt{\hat{y}_t^{A,\lambda} \times \hat{y}_t^{B,\lambda}}$$

where

$$\hat{y}_t^{XNDX,\lambda} = XNDX \text{ truVol variance for given } \lambda$$

$$\hat{y}_t^{NGXT,\lambda} = \sigma^2 VT_t^{NGXT,NGXT,\lambda} \times eRiskRatio_t^{QQQ}$$

$$\hat{y}_t^{10Y,\lambda} = \sigma^2 VT_t^{10Y,10Y,\lambda}$$

$$\hat{y}_t^{2Y,\lambda} = \sigma^2 VT_t^{2Y,2Y,\lambda}$$

$$\sigma^2 VT_t^{A,B,\lambda} = \lambda \times \sigma^2 VT_{t-1}^{A,B,\lambda} + (1 - \lambda) \times \text{Ln}(1 + ER_t^A) \text{Ln}(1 + ER_t^B)$$

Assuming t=0 represents December 30th, 2005 and given the time series data for NGXT starts on December 18th, 2009, which corresponds to t=996, we must separately initialize the covariance terms. This implies there is no covariance term including NGXT when t < 996:

$$\sigma^2 VT_0^{A,B,\lambda} = \frac{(\sigma_{AInit} \times \sigma_{BInit} \times \rho_{A,B})}{252} \text{ for all } A \text{ and } B \notin \{NGXT\}$$

$$\sigma^2 VT_{996}^{NGXT,B,\lambda} = \begin{cases} \frac{(\sigma_{NGXTInit} \times \sqrt{\sigma^2 VT_{996}^{B,B,\lambda} \times 252 \times \rho_{NGXT,B}})}{252}, & B \in \{XNDX, 10Y, 2Y\} \\ \frac{\sigma_{NGXTInit}^2}{252}, & \text{else} \end{cases}$$

where

$\sigma_{AInit}$  is defined in Table 1

$\rho_{A,B}$  is defined in Table 2

$t = 0 = Dec\ 30th, 2005$

$A, B \in \{XNDX, NGXT, 10Y, 2Y\}$

**Table 2: Volatility Initialization**

Asset	$\sigma_{AInit}$
XNDX	17.5%
NGXT	17.5%
10Y	5.0%
2Y	1.0%

**Table 3: Correlation Initialization**

$\rho_{A,B}$	XNDX	NGXT	10Y	2Y
XNDX	100%	90%	-20%	-20%
NGXT	90%	100%	-20%	-20%
10Y	-20%	-20%	100%	75%
2Y	-20%	-20%	75%	100%

### Fixed Income Component

The fixed income component uses a correlation-based model developed by Salt to allocate between fixed income assets based on the correlation of the 10Y futures and the Reference Asset. Based on the Signal, the model allocates  $FinalSignal_t$  to the long duration asset (i.e. 10Y) and  $1 - FinalSignal_t$  to the short duration asset (i.e. 2Y).

$$FinalSignal_t = \frac{1}{\min(t + 1, 5)} \sum_{i=0}^{\min(t, 4)} BufferedSignal_{t-i}$$

$$BufferedSignal_t = \begin{cases} 1, & \text{if } \frac{\sum_{i=0}^{\min(t, 4)} Signal_{t-i}}{\min(t + 1, 5)} = 1, \\ 0, & \text{elif } \frac{\sum_{i=0}^{\min(t, 4)} Signal_{t-i}}{\min(t + 1, 5)} = 0, \\ BufferedSignal_{t-1}, & \text{else} \end{cases}$$

$$Signal_t = \begin{cases} 0, & \text{if } zScore_t > SignalThreshold \text{ and } t > 250 \\ 1, & \text{else} \end{cases}$$

$$zScore_t = \frac{\rho(Asset, 10Y)_t - \mu_t^{\rho(Asset, 10Y)}}{\sigma_t^{\rho(Asset, 10Y)}}$$

where

$$SignalThreshold = 1$$

$$Asset = Nasdaq\ 100\ Total\ Return\ Index\ (XNDX)$$

$$\mu_t^{\rho(X,Y)} = \frac{\sum_{i=0}^{251} \rho(X,Y)_{t-i}}{252}$$

$$\sigma_t^{\rho(X,Y)} = \sqrt{\frac{\sum_{i=0}^{251} (\rho(X,Y)_{t-i} - \mu_t^{\rho(X,Y)})^2}{251}}$$

$$\rho(X,Y)_t = \frac{EWMA_t^{X,Y}}{\sqrt{EWMA_t^{X,X} \times EWMA_t^{Y,Y}}}$$

$$EWMA_t^{X,Y} = 0.97 \times EWMA_{t-1}^{X,Y} + 0.03 \times \ln\left(\frac{Close_t^X}{Close_{t-1}^X}\right) \times \ln\left(\frac{Close_t^Y}{Close_{t-1}^Y}\right)$$

$$EWMA_0^{X,Y} = \frac{InitialVol^X \times InitialVol^Y \times InitCorr^{X,Y}}{252}$$

$Close_t^X$  = The closing value of Underlying Component X on Index Calculation Day t

**Table 4: Initial Volatilities**

Asset	InitialVol <sup>X</sup>
XNDX	17.5%
10Y	5.0%

**Table 5: Correlation Matrix**

InitCorr <sup>X,Y</sup>	XNDX	10Y
XNDX	100%	50%
10Y	50%	100%

### Excess Return Index Calculation with Fee Decrement

On each Index Calculation Day, the excess return level is calculated as follows:

$$ER\ Level_t^{Index} = ER\ Level_{t-1}^{Index} * (1 + ER_t^{Index});$$

$$ER_t^{Index} = \left[ \sum_{i \in \{XNDX, NGXT, 10Y, 2Y\}} ER_t^i * FinalWeight_{t-2}^i \right] - \frac{Fee}{360} * days(t, t-1)$$

where

$ER\ Level_t^{Index}$

= Excess return level of the final risk control Index on Index Calculation Day t

$ER_t^{Index}$  = Excess return of the final risk control Index on Index Calculation Day t

$ER_t^i$  = Excess return of Underlying Component i on Index Calculation Day t

(See Excess Return Calculation Section)

$FinalWeight_t^i$  = Final weight of Underlying Component i on Index Calculation Day t

Fee = 0.50% annual decrement

days(t, t - 1) = Actual day count between day t (inclusive) and day t - 1 (exclusive)

t - 1 = Index Calculation Day immediately preceding t

### Base Level and Date of the Index

The Index Value is calculated using a base value of 1,000 as of October 31, 2006.



## **Announcements**

Nasdaq announces Index-related information via the Nasdaq Global Index Watch (GIW) website at <http://indexes.nasdaq.com>.

For more information on the general Index Announcement procedures, refer to the **Nasdaq Index Methodology Guide**.

## **Holiday schedules**

The Index is calculated Monday through Friday, except on days when the Nasdaq Stock Market is closed.

## **Unexpected market closures**

For information on Unexpected Market Closures, please refer to the **Nasdaq Index Methodology Guide**.

## **Calculation types**

For information on the underlying XNDX and NGXT Index calculation types as well as the mathematical approach used to calculate the Index(es), refer to the **Calculation Manual – Equities and Commodities**.

## **Recalculation and restatement policy**

Nasdaq will communicate to the Calculation Agent when recalculations or restatements are required, for information on the Recalculation and Restatement Policy, refer to the **Nasdaq Index Recalculation Policy**.

## **Data sources**

Nasdaq supplies the XNDX and NGXT data and Citigroup supplies the CNAQBF1U and CNAQBF2U data to the Calculation Agent.

## **Contact information**

For any questions regarding an Index, contact the Nasdaq Index Client Services team at [indexservices@nasdaq.com](mailto:indexservices@nasdaq.com).

## **Index dissemination**

Index values and weightings information are available through Nasdaq Global Index Watch (GIW) website at <https://indexes.nasdaq.com/> as well as the Nasdaq Global Index FlexFile Delivery Service (GIFFD) and Global Index Dissemination Services (GIDS). Similar to the GIDS offerings, Genium Consolidated Feed (GCF) provides real-time Index values and weightings for the Nordic Indexes.

For more detailed information regarding Index Dissemination, refer to the **Nasdaq Index Methodology Guide**.

## **Index calculation and dissemination schedule**

End of Day values are disseminated to Nasdaq's website by the Calculation Agent, along with the base Constituent positions.

## **Website**

For further information, refer to Nasdaq GIW website at <https://indexes.nasdaq.com/>.

## **FTP and dissemination service**

Index values and weightings are available via FTP on the Nasdaq Global Indexes FlexFile Delivery Service (GIFFD). Index values are available via Nasdaq's Global Index Dissemination Services (GIDS).

# **GOVERNANCE**

## **Index governance**

All Nasdaq Indexes are managed by the governance committee structure and have transparent governance, oversight, and accountability procedures for the index determination process. For further details on the Index Methodology and Governance overlay, refer to the **Nasdaq Index Methodology Guide**.

## **Nasdaq Index Management Committee**

The Nasdaq Index Management Committee is responsible for the overall oversight of activities related to the development, issuance, and operation of Nasdaq Indexes. The Committee reviews and approves all new Index Methodologies as well as updates to existing methodologies. For a detailed overview of the Index Management Committee, refer to the **Nasdaq Index Methodology Guide**.

## **Nasdaq U.S. Oversight Committee**

The U.S. Oversight Committee is responsible for the oversight of the overall Benchmark determination process and is responsible for the overall governance of the U.S.-based Index business including review and approval of the control framework, certain policies and procedures, certain methodologies and methodology changes and other Index management oversight.

For a detailed overview of the U.S. Oversight Committee, refer to the **Nasdaq Index Methodology Guide**.

## **Internal reviews of methodology**

All new methodologies or updates to existing methodologies must be reviewed by the Index Management Committee. Additionally, all in-scope Index methodologies are subject to an annual review

by the Index Management Committee and U.S. Oversight Committee. For a detailed description on internal reviews of the Methodology, refer to the **Nasdaq Index Methodology Guide**.

### **Communication with stakeholders and consultations**

In certain circumstances, Nasdaq will seek feedback from clients and market participants via consultations. For a detailed description on Consultations and Communications with Stakeholders, refer to the **Nasdaq Index Methodology Guide**.

### **Index cessation**

Nasdaq has a documented procedure that is followed for Index Cessation that includes termination/retirement of an Index or Index Family. For more information, refer to the **Nasdaq Index Cessation Policy**.

### **Discretionary adjustment**

This Index Methodology was created by Nasdaq to achieve the aforementioned objective of measuring the underlying purpose of each Index governed by this methodology document. Any deviations from this methodology are made in the sole judgment and discretion of Nasdaq so that the Index continues to achieve its objective.

For more information on potential adjustments including Calculation and Pricing Disruptions, Expert Judgment, and Unexpected Reconstitution/Rebalances, Refer to the **Nasdaq Index Methodology Guide**.

## **GLOSSARY OF TERMS AS USED IN THIS DOCUMENT**

For the glossary of key terms, refer to the **Nasdaq Index Methodology Guide**.

## **DISCLAIMER**

Nasdaq may, from time to time, exercise reasonable discretion as it deems appropriate in order to ensure Index integrity, including but not limited to, quantitative inclusion criteria. Nasdaq may also, due to special circumstances, if deemed essential, apply discretionary adjustments to ensure and maintain the high quality of the index construction and calculation. Nasdaq does not guarantee that any Index accurately reflects future market performance.

Neither Nasdaq, Inc., nor any of its affiliates (collectively “Nasdaq”) makes any recommendation to buy or sell any security or any representation about the financial condition of any company. Investors should undertake their own due diligence and carefully evaluate companies before investing. The information contained herein is provided for informational and educational purposes only, and nothing contained herein should be construed as investment advice, either on behalf of a particular security or an overall investment strategy. **ADVICE FROM A SECURITIES PROFESSIONAL IS STRONGLY ADVISED.**

Salt Financial LLC licenses its truVol Risk Control Engine (RCE) and other methodologies (collectively, “Salt IP”) to Nasdaq as a contributor to the Nasdaq Generations 5 Index. Salt Financial LLC and its affiliates, employees, partners, and vendors shall not be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Salt IP even if advised of the possibility of such damages.

MerQube, Inc. calculates the Nasdaq Generations 5 Index for Nasdaq. MerQube, Inc. does not guarantee the accuracy, timeliness, or completeness of the calculations or any data or information relating to the Index. MerQube, Inc. makes no warranty, express or implied, as to the Index, or any values or data related thereto or results to be obtained therefrom, and expressly disclaims all warranties of merchantability and fitness for a particular purpose with respect thereto. To the maximum extent permitted by law, MerQube, Inc., its affiliates, and all their respective employees, subcontractors, partners, agents, suppliers, and vendors (collectively, the “protected parties”) shall have no liability, contingent or otherwise, for any injury or damages, whether caused by the negligence of a protected party or otherwise, arising in connection with the calculation of the Index or any data or values included therein or in connection therewith and shall not be liable for any losses (including lost profits), punitive, incidental, or consequential damages