



## INDEX METHODOLOGY

# NASDAQ PRIVA BASE™ INDEX

## NDXPRIVB™

### INDEX DESCRIPTION

The Nasdaq Priva Base Index (NDXPRIVB), the “Index”, is designed to provide an all-cap strategy that allocates exposure amongst specified Nasdaq equity Indexes, each a “Component”, based on a monthly evaluation of changes in interest rates and inflation. Allocation changes occur over a five-day period. In addition, the Index uses the truVol® Risk Control Engine to dynamically adjust exposure on a daily basis with the aim of achieving a 12% volatility target.

The truVol® Risk Control Engine is a proprietary risk management tool designed by Salt Financial LLC to offer higher levels of responsiveness and accuracy in targeting volatility for risk-controlled indices. The mechanism generally increases exposure to the equity Components when volatility falls and decreases exposure when it rises.

The primary Components are the Nasdaq-100 Total Return Index®, the Nasdaq Next Generation 100 Total Return Index and the Nasdaq-100 Top 30 Total Return Index. A fourth Component, the Nasdaq-100 Futures Excess Return Index, is utilized when the change of the primary Components is limited due to the maximum exposure change limit.

Although the Index is designed to target a specific level of volatility, there is no guaranty the Index will achieve this result.

### INDEX CALCULATION

The Index value is equal to the Index Base Value on the Index Base Date. For each Index Day thereafter, the value of the Index is calculated in accordance with the following formula:

$$I_t = I_{t-1} + \sum_i (U_{i,t-1} \times (P_{i,t} - P_{i,t-1}) - TC_{i,t} - FC_{i,t}) - AF_t$$

where:

$t$  = an Index Day  $t$ .

$i$  = an identifier for the respective Component (see *Component parameters* section below for a list of Components and their respective identifiers).

$t - 1$  = the Index Day immediately preceding Index Day  $t$ .

$I_x$  = the value of the Index for Index Day  $x$ .

$U_{i,x}$  = the number of units of Component  $i$  for Index Day  $x$  (see *Rebalancing process* section below for more details).

$P_{i,x}$  = the value of Component  $i$  for Index Day  $x$  (rounded to two decimal places). Please see the *Component parameters* section below for further information on the Components.

$TC_{i,t}$  = the assumed trading costs for Component  $i$  for Index Day  $t$  as determined in accordance with the following formula:

$$TC_{i,t} = |U_{i,t} - U_{i,t-1}| \times P_{i,t} \times CTC_i$$

where:

$CTC_i$  = the assigned Component trading cost for Component  $i$  as detailed in *Component parameters* below.

$FC_t$  = the assumed funding costs for the Components for Index Day  $t$  as determined in accordance with the following formula:

$$FC_t = |U_{i,t-1}| \times P_{i,t-1} \times FS_i \times \frac{Days_{t-1,t}}{360}$$

where:

$FS_i$  = the assigned Component funding spread as detailed in *Appendix C: Component Funding Spread*.

$AF_t$  = the Index fee for Index Day  $t$  as determined by the following formula:

$$AF_t = I_{t-1} \times F \times \frac{Days_{t-1,t}}{360}$$

where:

$F$  = the assigned Index fee rate as detailed in *Index parameters* below.

$Days_{t-1,t}$  = the number of calendar days from Index Day  $t - 1$  (inclusive) to Index Day  $t$  (exclusive).

Index values are rounded to four decimals places.

*If the value for an underlying Component is unavailable on a given Index Day  $t$ , then such value shall be the last available value for that Component, as determined by the Index Administrator.*

## INDEX CONSTRUCTION

### Index parameters

The table below details the target volatility, exposures, and assumed Index-level costs specific to the construction and calculation of the Index.

Index (Symbol)	Target Volatility	Maximum Exposure <sup>1</sup>	Minimum Exposure	Index Fee Rate (F)
Nasdaq Priva Base Index (NDXPRIVB)	12%	200%	0%	0.0050

### Component parameters

The table below details the Components and assumed Component-level costs specific to the construction and calculation of the Index.

Component Identifier (i)	Component (Symbol)	Exchange	Maximum Exposure Change <sup>2</sup>	Component Trading Cost (CTC <sub>i</sub> )	Component Funding Spread (FS <sub>i</sub> )
<i>XNDX</i>	Nasdaq-100 Total Return Index (XNDX)	Nasdaq	20%	0.0001	See Appendix B: Component Funding Spread
<i>NGXT</i>	Nasdaq Next Generation 100 Total Return Index (NGXT)		5%	0.0002	
<i>TOP30</i>	Nasdaq-100 Top 30 Total Return Index (NDX30T)		10%	0.0001	
<i>NQER</i>	Nasdaq-100 Futures Excess Return Index (NDXNQER)	Chicago Mercantile Exchange (CME)	200%	0.0001	

### Index components and weighting

The Index may only include the Components as detailed above in *Component parameters*.

For each Index Day, the truVol® Risk Control Engine is employed to determine the Index's exposure to the equity Components. These exposures are then transformed into units of each Component (see *Rebalancing process* section below).

### Rebalancing process

Subject to a Hedge Delay, the Index is rebalanced daily after the market close. The number of units of each Component is determined in accordance with the following process:

$$U_{i,t} = \begin{cases} TargetUnits_{i,t}, & t \text{ is a Component Trading Day for Component } i \\ U_{i,t-1}, & otherwise \end{cases}$$

<sup>1</sup> The maximum exposure for the portfolio.

<sup>2</sup> The maximum daily change in exposure for each Component within the portfolio.

where:

$$TargetUnits_{i,t} = \frac{FE_{i,t-1} \times I_{t-1}}{P_{i,t-1}}$$

For the Index Base Date ( $t_0$ ), the units of each Component  $i$  is calculated in accordance with the following formula:

$$TargetUnits_{i,t_0} = \frac{FE_{i,t_0-1} \times Index\_Base\_Value}{P_{i,t_0-1}}$$

where:

$FE_{i,t}$  = the Final Exposure for Component  $i$  on Index Day  $t$ . See *Appendix C: Exposure Determination Process* for more details.

$I_{t-1}$  = the Index value on Index Day  $t - 1$ .

$P_{i,x}$  = the value of Component  $i$  for Index Day  $x$  (rounded to two decimal places).

Units are rounded to eight decimal places.

## INDEX CALENDAR

### Holiday schedule

The Index is calculated Monday through Friday, except on days when the Nasdaq Stock Exchange is scheduled to be closed (the “Holiday Schedule”).

### Index calculation and dissemination schedule

Index values are made available after the market close on each Index Day via the [Nasdaq Global Index Watch \(GIW\) website](#).

## ADDITIONAL INFORMATION

### Announcements

Nasdaq announces Index-related information via the [Nasdaq Global Index Watch \(GIW\) website](#).

For more information on the general Index Announcement procedures, please refer to the [Nasdaq Index Methodology Guide](#).

### Recalculation and restatement policy

For information on the Recalculation and Restatement Policy, please refer to the [Nasdaq Index Recalculation Policy](#).

## Contact information

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

## Index dissemination

Where applicable, Index values and weightings information are available through the [Nasdaq Global Index Watch \(GIW\) website](#) 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, please see the [Nasdaq Index Methodology Guide](#).

## Website

For further information, please refer to the [Nasdaq Global Index Watch \(GIW\) website](#).

## FTP and dissemination service

Where applicable, 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, please refer to the [Nasdaq Index Methodology Guide](#).

## APPENDIX A: DEFINITIONS

Term	Description
<b>Allocation Date</b>	The last Index Day of each Month.
<b>Allocation Period</b>	In respect of an Allocation Date, the five Index Days starting from the Allocation Date (inclusive).
<b>Calculation Disruption Event</b>	<p>The occurrence of one or more of the following events that affects a Component of the Index, or any underlying instrument of such Component, and that the Index Administrator deems to be material to the Index:</p> <ul style="list-style-type: none"> <li>• <b>Price Failure:</b> Any event that impairs or prevents the ability of the Index Administrator to obtain a relevant price, level, rate, value or any other information from an exchange or other source necessary, on a timely basis and in a manner acceptable to the Index Administrator, in order to perform the calculation of the Index.</li> <li>• <b>Inaccurate Data:</b> The price or value of a component, or other input data, used directly or indirectly in the Index that, in the determination of the Index Administrator, is inaccurate, incomplete and/or does not adequately reflect the true market price or value of such component or input data.</li> <li>• <b>Force Majeure:</b> Any event or circumstance (including, without limitation, a systems failure, natural or man-made disaster, act of God, armed conflict, act of terrorism, riot or labor disruption or any similar intervening circumstance, or restrictions due to emergency powers enforced by federal, state or local government agencies), that is beyond the reasonable control of the Index Administrator and that the Index Administrator determines, in its sole discretion, affects the Index, a Component of the Index, any input data required to calculate the Index, or that prevents the ability of the Index Administrator to calculate the Index.</li> <li>• <b>General Moratorium:</b> the Index Administrator observes on any day that there has been a declaration of a general moratorium in respect of banking activities in any relevant jurisdiction.</li> </ul>
<b>Components</b>	Each of the Components as detailed in the <i>Component parameters</i> section.
<b>Component Trading Day</b>	In respect of a Component, each Index Day that the Exchange(s) for that Component is scheduled to be open for trading.
<b>Consequences of a Market Disruption Event or a Calculation Disruption Event</b>	<p>If a Market Disruption Event or a Calculation Disruption Event occurs or is occurring on an Index Day that the Index Administrator determines materially affects the Index, the Index Administrator may:</p> <ul style="list-style-type: none"> <li>• Delay the calculation of the Index and halt the dissemination of the value of the Index and /or other information relating to the Index until such time, which may be a subsequent Index Day, that the Index Administrator determines that such Market Disruption Event or Calculation Disruption Event is no longer occurring.</li> <li>• Determine a good faith estimate of any affected or missing input data required to calculate the Index or the value of the Index for such Index Day or time for such Index Day.</li> </ul>
<b>Disrupted Day</b>	In respect of a Component, an Index Day on which there is a Market Disruption Event in respect of that Component.
<b>Evaluation Date</b>	Each Index Day.

<b>Exchange</b>	In respect of a Component, the exchange(s) listed for that Component in the <i>Component parameters</i> section.
<b>Hedge Delay</b>	In respect of a Component, if a Market Disruption Event occurs on a scheduled Rebalance Day for such Component, then no change of units of that Component shall occur on that day.
<b>Index Administrator</b>	Nasdaq, Inc.
<b>Index Base Date</b>	December 31, 2009
<b>Index Base Value</b>	1,000.00
<b>Index Day</b>	Starting with the Index Base Date, each weekday that is not a scheduled holiday according to the Holiday Schedule as defined in the <i>Index Calendar</i> section.
<b>Market Disruption Event</b>	<p>In respect of a Component, the occurrence of one or more of the following events that affects that Component, or any underlying instrument of that Component, and that the Index Administrator deems to be material to the Index:</p> <ul style="list-style-type: none"> <li>• <b>Exchange Disruption:</b> Any exchange related event on a relevant exchange that disrupts or impairs the ability of market participants to effect transactions or obtain market values or price discovery of a component used directly or indirectly in the Index.</li> <li>• <b>Trading Disruption:</b> Any unscheduled closure of the relevant exchange; a material suspension, limitation or disruption of trading on such exchange; a failure of such exchange to publish the relevant price, level, value or other information; a halt in trading, such as a circuit breaker or other exchange imposed halt, including an exchange imposed daily “limit price”; or any other event that materially affects the ability of market participants to trade, effect transactions in, maintain or unwind positions in that Component or any underlying instrument of that Component.</li> </ul>
<b>Rebalance Day</b>	In respect of a Component and an Evaluation Date, the Index Day after that Evaluation Date that is not a Disrupted Day for that Component.

For additional key terms not defined above, please refer to the [Nasdaq Index Methodology Guide](#).

## APPENDIX B: EXPOSURE DETERMINATION PROCESS

Once a month an allocation signal is determined, and the equity exposure is rebalanced over the following five consecutive Index Days.

For each Evaluation Date, the preliminary portfolio exposures are determined for the Index based on the latest allocation signal and then scaled to target the Index's specified volatility target. Components within the Index are rebalanced daily on days that the underlying assets of those Components are tradable. The daily rebalance process is further subject to a maximum leverage constraint and a maximum daily change constraint.

The daily exposure determination mechanism consists of the following determination steps:

### 1. Allocation Signal

For each Allocation Date, determine the monthly allocation signal (*Signal*) based on monthly inflation and interest rate data, as represented by the Consumer Price Index and 10-Year U.S. Treasury Yield, respectively.

$$Signal_t = \begin{cases} 0, & \text{if } s_t \leq Q1 \\ 1, & \text{if } Q1 < s_t \leq Q2 \\ 2, & \text{if } Q2 < s_t \leq Q3 \\ 3, & \text{if } s_t > Q3 \end{cases}$$

$$s_t = CPI_t + 10yYield_t$$

where:

$Q(X)$  = the "x"th quartile value of the past 60 month-end  $s_t$  values through  $t$  (inclusive).

$CPI_t$  = the year-over-year percentage change in the Consumer Price Index derived from the latest available Consumer Price Index (Not Seasonally Adjusted) for the current observation month-end published by the Bureau of Labor Statistics (rounded to two decimal places).

$10yYield_t$  = the 10-Year U.S. Treasury Yield for Index Day  $t$ .

### 2. Preliminary Portfolio Allocation

For each Index Day in the Allocation Period, a preliminary portfolio allocation for the Index is determined and represented as a vector of exposures ( $w$ ), defined as:<sup>3</sup>

$$w_t = \{w_{XNDX,t}, w_{NGXT,t}, w_{TOP30,t}\}$$

$$w_{i,t} = \frac{1}{5} \times \sum_{k=0}^4 InitialW_{i,t-k}$$

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<sup>3</sup>  $w_t$  for the first five Index Days, including the Index Base Date, is set the same based on the initial allocation.



$$InitialW_{i,t} = \begin{cases} 100\%, & \text{if } (Signal_t = 1 \text{ or } 2 \text{ and } i = XNDX) \text{ OR } (Signal_t = 3 \text{ and } i = TOP30) \\ 50\%, & \text{if } Signal_t = 0 \text{ and } i = XNDX \text{ or } NGXT \\ 0\%, & \text{otherwise} \end{cases}$$

where:

$InitialW_{i,t}$  = the initial exposure of a Component for Index Day  $t$ .

$Signal_t$  = the monthly allocation signal as of the most recent Allocation Date.

The preliminary portfolio exposures do not change between Allocation Periods. Therefore, between Allocation Periods:

$$w_t = w_{t-1}$$

### 3. Exponential Weighted Moving Average Covariance ( $EWCoVar$ )

For each Evaluation Date,  $EWCoVar$  is determined for each component pair  $(i, j)$  within the Index.

For each Index Day that is a common trading day for both components of a component pair  $(i, j)$  then:

$$EWCoVar_{i,j,t}^\lambda = \lambda \times EWCoVar_{i,j,t-1}^\lambda + (1 - \lambda) \times \ln\left(\frac{P_{i,t}}{P_{i,t-1}} - RF_{t-1} * \frac{Days_{t-1,t}}{360}\right) \times \ln\left(\frac{P_{j,t}}{P_{j,t-1}} - RF_{t-1} * \frac{Days_{t-1,t}}{360}\right)$$

where:

$t$  = an Index Day

$t - 1$  = the Index Day that is a common Component Trading Day for the relevant components immediately preceding Index Day  $t$ .

$P_{i,x}$  = the value of Component  $i$  for Index Day  $x$  (rounded to two decimal places).

$P_{j,x}$  = the value of Component  $j$  for Index Day  $x$  (rounded to two decimal places).

$RF_{t-1}$  = the Effective Federal Funds Rate published by the Federal Reserve Bank of New York for Index Day  $t - 1$ . If such rate is unavailable, then the rate shall be the most recent rate available on an Index Day preceding Index Day  $t - 1$ .

$Days_{t-1,t}$  = the number of calendar days from Index Day  $t - 1$  (inclusive) to Index Day  $t$  (exclusive).

For the Index Day immediately preceding the Index Base Date ( $t_0$ ), the  $EWCoVar$  of each component pair  $(i, j)$  is calculated as follows:

$$EWCoVar_{i,j,t_0-1}^\lambda = \frac{(\sigma_{i,t_0} \times \sigma_{j,t_0} \times \rho_{i,j,t_0})}{252}$$

where all initial volatilities ( $\sigma_{i,t_0}$ ) and correlations between components ( $\rho_{i,j,t_0}$ ) are set at 21% and 100%, respectively.

#### 4. truVol Covariance Matrix

Construct the truVol Covariance Matrix for the Index in accordance with the following process:

$$\Sigma_t^\lambda = \begin{pmatrix} \sigma_{1,1,t}^\lambda & \sigma_{1,2,t}^\lambda & \sigma_{1,3,t}^\lambda \\ \sigma_{2,1,t}^\lambda & \sigma_{2,2,t}^\lambda & \sigma_{2,3,t}^\lambda \\ \sigma_{3,1,t}^\lambda & \sigma_{3,2,t}^\lambda & \sigma_{3,3,t}^\lambda \end{pmatrix}$$

with Components (i) and (j) identified as  $XNDX = 1$ ,  $NGXT = 2$ , and  $TOP30 = 3$ .

where:

For  $i = j$ ,  $\sigma_{i,j,t}^\lambda$ :

$$\sigma_{XNDX,XNDX,t}^\lambda = \sigma_{1,1,t}^\lambda = \begin{cases} \widehat{y}_t^{QQQ}, & \text{truVol\_Risk\_Model}_t = \text{"Intraday"} \\ EWCoVar_{XNDX,XNDX,t}^\lambda, & \text{otherwise} \end{cases}$$

$$\sigma_{NGXT,NGXT,t}^\lambda = \sigma_{2,2,t}^\lambda = \begin{cases} EWCoVar_{NGXT,NGXT,t}^\lambda \times eRiskRatio_t^{QQQ}, & \text{truVol\_Risk\_Model}_t = \text{"Intraday"} \\ EWCoVar_{NGXT,NGXT,t}^\lambda, & \text{otherwise} \end{cases}$$

$$\sigma_{TOP30,TOP30,t}^\lambda = \sigma_{3,3,t}^\lambda = \begin{cases} \widehat{y}_t^{QQQ}, & \text{truVol\_Risk\_Model}_t = \text{"Intraday"} \\ EWCoVar_{TOP30,TOP30,t}^\lambda, & \text{otherwise} \end{cases}$$

For  $i \neq j$ :

$$\sigma_{i,j,t}^\lambda = \frac{EWCoVar_{i,j,t}^\lambda}{\sqrt{EWCoVar_{i,i,t}^\lambda \times EWCoVar_{j,j,t}^\lambda}} \times \sqrt{\sigma_{i,i,t}^\lambda \times \sigma_{j,j,t}^\lambda}$$

#### 5. Exposure Ratio

Determine the daily exposure ratio for the Index based on the target volatility and the estimated portfolio volatility for two specific values for lambda ( $\lambda = 0.93, 0.97$ ) in accordance with the following process:

$$Exposure\_Ratio_t = \text{Min} \left( \text{MaxExposure}, \frac{VolTarget}{\text{Max}(\sigma PTF_t^{0.93}, \sigma PTF_t^{0.97})} \right)$$

where:

*MaxExposure* = see Maximum Exposure in the *Index parameters* section.

*VolTarget* = see Target Volatility in the *Index parameters* section.

$$\sigma PTF_t^\lambda = \sqrt{252 \times w_t \times \Sigma_t^\lambda \times w_t'}$$

$w_t$  = the vector of component exposures for Index Day  $t$ , as defined in step 2 *Preliminary Portfolio Allocation* above.

$w'_t$  = the transpose vector of  $w_t$ .

Note: If  $\sigma PTF_t^\lambda$  is undefined for any reason<sup>4</sup>, then  $\sigma PTF_t^\lambda = \sigma PTF_{t-1}^\lambda$ .

## 6. Volatility Adjustment Factor

The volatility adjustment factor (*VAF*) is used 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 exponential weighted moving average on the volatility-controlled Index.

The volatility adjustment factor for the Index is determined in accordance with the following formulae:

$$VAF_t = \text{Min} \left( 1.5, \frac{VolTarget^2}{252 \times EWVar_{Index,t}^{0.97}} \right)$$

$$EWVar_{Index,t}^{0.97} = 0.97 \times EWVar_{Index,t-1}^{0.97} + (1 - 0.97) \times \ln \left( \frac{I_t + \sum_i (TC_{i,t} + SC_{i,t}) + AF_t}{I_{t-1}} \right)^2$$

where:

$VolTarget$  = see Target Volatility in the *Index parameters* section.

$EWVar_{Index,t}^{0.97}$  = the exponential weighted moving average variance of the volatility-controlled Index for Index Day  $t$ .

$I_t$  = the Index value on Index Day  $t$ .

$TC_{i,t}$  = as defined in the *Index Calculation* section above.

$SC_{i,t}$  = the spread costs for the Component  $i$  for Index Day  $t$ , determined as follows:

$$SC_{i,t} = |U_{i,t-1}| \times P_{i,t-1} \times \frac{Days_{t-1,t}}{360} \times (FS_{i,t} - RF_{t-1}), \quad i = XNDX, NGXT, \text{ or } TOP30$$

$$SC_{i,t} = |U_{i,t-1}| \times P_{i,t-1} \times \frac{Days_{t-1,t}}{360} \times FS_{i,t}, \quad i = NQER$$

$FS_{i,t}$  = the assigned funding spread as detailed in *Appendix C: Component Funding Spread*.

$AF_t$  = as defined in the *Index Calculation* section above.

On the Index Base Date  $t_0$  and the Index Day immediately preceding:

$$EWVar_{Index,t_0}^{0.97} = EWVar_{Index,t_0-1}^{0.97} = \frac{VolTarget^2}{252}$$

<sup>4</sup> The primary reason for an undefined portfolio volatility is a negative variance (i.e.,  $w_t \times \Sigma_t^\lambda \times w'_t < 0$ ), which can occur under extremely rare circumstances.

## 7. Scaled Exposures

The scaled exposure for each Component within the Index is determined in accordance with the following formulae:

$$\begin{aligned} Scaled\_Exposure_{i,t} = \\ Exposure_{i,t} \times \left( 1 - \text{Max} \left( 0, 1 - \frac{MaxExposure}{\sum_i Exposure_{i,t}} \right) \right), i = XNDX, NGXT, \text{ or } TOP30 \end{aligned}$$

where:

$$\begin{aligned} Exposure_{i,t} = \\ Smoothed\_Risk\_Scalars_t \times Exposure\_Ratio_t \times VAF_t \times w_{i,t}, i = XNDX, NGXT, \text{ or } TOP30 \end{aligned}$$

The  $Smoothed\_Risk\_Scalars_t$  are proprietary elements of the truVol® Risk Control Engine that are detailed in the truVol Calculation Module, which is made available to relevant authorized individuals by Salt Financial LLC.

## 8. Final Exposure<sup>5</sup>

The final exposures ( $FE$ ) are determined in accordance with the following process:

$$FE_{i,t} = \text{Min} \left( \begin{array}{l} MaxExposure_i, FE_{i,t-1} + MaxChange_i, \\ Max(Scaled\_Exposure_{i,t}, FE_{i,t-1} - MaxChange_i) \end{array} \right), i = XNDX, NGXT, \text{ or } TOP30$$

$$FE_{NQER,t} = \sum_{i = XNDX, NGXT, \text{ or } TOP30} (Scaled\_Exposure_{i,t} - FE_{i,t}) \times \mathbb{I}_{i,t}$$

$$\mathbb{I}_{i,t} = \begin{cases} 1, & \text{if } abs(Scaled\_Exposure_{i,t} - FE_{i,t-1}) > MaxChange_i \\ 0, & \text{otherwise} \end{cases}$$

For the Index Day immediately preceding the Index Base Date ( $t_0$ ), the final exposures of each Component  $i$  are determined in accordance with the following formula:

$$FE_{i,t_0-1} = Scaled\_Exposure_{i,t_0-1}$$

<sup>5</sup> For Index dissemination purposes, the Index Administrator may publish the effective exposure ( $EE$ ) of a Component daily as of after the market close. The effective exposure is determined as follows:

$$EE_{i,t} = \frac{U_{i,t} \times P_{i,t}}{I_t}$$

## APPENDIX C: COMPONENT FUNDING SPREAD

The assigned Component funding spread ( $FS_{i,t}$ ) is determined according to the following formula:

$$FS_{i,t} = \begin{cases} RF_{t-1} + Implied\_Spread_{i,t-1}, & \text{if } i = XNDX, NGXT, \text{ or } TOP30 \\ 0.001, & \text{if } i = NQER \end{cases}$$

where the  $Implied\_Spread_{i,t}$  is determined in accordance with the following formulae:<sup>6</sup>

$$Implied\_Spread_{i,t} = \frac{1}{10} \times \text{Max} \left( 0, \sum_{k=0}^9 \left( \frac{ERI_{XNDX,t-k}}{ERI_{XNDX,t-k-65}} - \frac{P_{NQER,t-k}}{P_{NQER,t-k-65}} \right) \times \frac{360}{Days_{t-k-65,t-k}} \right)$$

$$ERI_{XNDX,t} = ERI_{XNDX,t-1} \times \left( \frac{P_{XNDX,t}}{P_{XNDX,t-1}} - RF_{t-1} \times \frac{Days_{t-1,t}}{360} \right)$$

$$ERI_{XNDX,t_0} = P_{XNDX,t_0}$$

where:

$RF_{t-1}$  = the Effective Federal Funds Rate published by the Federal Reserve Bank of New York for Index Day  $t - 1$ . If such rate is unavailable, then the rate shall be the most recent rate available on an Index Day preceding Index Day  $t - 1$ .

$P_{i,t}$  = the value of Component  $i$  for Index Day  $t$  (rounded to two decimal places).

$Days_{x,y}$  = the number of calendar days from Index Day  $x$  (inclusive) to Index Day  $y$  (exclusive).

$ERI_{XNDX,t}$  = the excess return index level for Index Day  $t$  based on the Component  $XNDX$ .

<sup>6</sup> Prior to January 1, 2022, the  $Implied\_Spread_i$  was assumed to be 0.005.

## APPENDIX D: SUPPLEMENTAL TRUVOL DEFINITION

This Methodology document has a companion document, the Nasdaq Priva Base Index – truVol Calculation Module (“truVol Calculation Module”) that contains proprietary information designated as trade secrets by Salt Financial LLC. The truVol Calculation Module is made available to a more limited group of authorized individuals with the banks engaging in hedging activity of the Index.

The key output of the truVol Calculation Module is the truVol+ QQQ Variance estimate and the eRiskRatio+ parameter for a given day  $t$  ( $\widehat{y^+}_t, eRiskRatio +_t$ ). By default,  $\widehat{y^+}_t$  for day  $t$  is equal to the truVol Variance estimate for day  $t$  ( $\widehat{y}_t$ ), which incorporates intraday and overnight price values of the Invesco QQQ Trust<sup>SM</sup>, Series 1 (“QQQ”), up to the close of day (t). However, if the maximum intraday truVol Variance estimate ( $\widehat{y}^{\sim}_t$ ) observed up to 2:00PM<sup>7</sup> ET on the following day ( $t + 1$ ) is greater than a specified proportion (15%) of the prior days end-of-day truVol Variance estimate ( $\widehat{y}_t$ ), then  $\widehat{y^+}_t$  for day  $t$ , is updated to take on the value of such intraday truVol Variance estimate ( $\widehat{y}^{\sim}_t$ ).

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<sup>7</sup> Or 11:00AM ET for days where the Nasdaq Stock Exchange is scheduled to close early.

## DISCLAIMER

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