

# NASDAQ-100 DAILY COVERED CALL TARGET PREMIUM $15\%^{\text{TM}}$ INDEX NDXDCP15 $^{\text{TM}}$

#### INDEX DESCRIPTION

The Nasdaq-100 Daily Covered Call Target Premium 15% Index (NDXDCP15), the "Index", tracks the performance of a systematic at-the-money covered call strategy. The strategy aims to generate a specific target annual income via short positions of at-the-money Nasdaq-100® Index call options sized based on the coverage ratio. These options typically have one day to expiration.

On each Index Calculation Day, the strategy has exposure to the Nasdaq-100® Total Return Index and short call options on the Nasdaq-100® Index. Each Index Calculation Day that the short call options in the Index expire, new call options are notionally sold that expire on the following expiration date of the Exchange listed PM-settled NDX options.

The calculation details for a related index are also described in this methodology. The Nasdaq-100® Daily Covered Call Target Premium 15% - Call Only Index (NDXDP15C), the "Call Only Index", which measures the performance of only the short call portion of the Nasdaq-100® Daily Covered Call Target Premium 15% Index. The Call Only Index includes a cash account but does not include a long underlying Nasdaq-100® Total Return Index position.

Unless stated otherwise, all capitalized terms used in this document are defined in Appendix A: Definitions.

# INDEX CALCULATIONS

#### Index Value

On the Index Base Date, the value of the Index is initialized to the Index Base Value. For any Index Calculation Day t after the Index Base Date, the Index values are calculated in accordance with the following formula:

$$I_t = U_t \times XNDX_t - V_t \times C_t$$

Please reference Appendix B: Glossary of Symbols for variable definitions.

# **Short Call Option Units**

For each Roll Date t, the units of the new call options for that date are calculated, based on the coverage ratio (CR), in accordance with the following formula:

$$V_t = CR_{t-1} \times \frac{I_{t-1}}{NDX_{t-1}}$$

where the coverage ratio is given by:

$$CR_{t-1} = min\left(1, \frac{TP}{252} \times \frac{NDX_{t-1}}{C_{bid,t-1}^{new,t}}\right)$$

If the Index Calculation Day is not a Roll Date, then the units do not change:

$$V_t = V_{t-1}$$

For the Index Base Date ( $t_0$ ), the units of the new call option in the Index are calculated in accordance with the following formula:

$$V_{t_0} = CR_{t_0-1} \times \frac{Index\_Base\_Value}{NDX_{t_0-1}}$$

where the coverage ratio is given by:

$$CR_{t_0-1} = \frac{TP}{252} \times \frac{NDX_{t_0-1}}{C_{bid,t_0-1}^{new,t_0}}$$

note:  $t_0 - 1$  = the day prior to the Index Base Date (i.e., January 2, 2019).

# Long Equity Units

For each Roll Date t, the units of Nasdaq-100 $^{\circ}$  Total Return Index in the Index are calculated in accordance with the following formula:

$$U_t = \frac{U_{t-1} \times XNDX_t - V_{t-1} \times \max(0, XQC_t - K_{t-1}) + V_t \times C_{bid,t}^{new}}{XNDX_t}$$

If the Index Calculation Day is not a Roll Date, then the units do not change:

$$U_t = U_{t-1}$$

For the Index Base Date  $(t_0)$ , the units of Nasdaq-100 $^{\circ}$  Total Return Index are calculated in accordance with the following formula:

$$U_{t_0} = \frac{Index\_Base\_Value \ + \ V_{t_0} \times C_{t_0}}{XNDX_{t_0}}$$

## CALL ONLY INDEX CALCULATIONS

#### **Index Value**

For the Index Base Date, the value of the Call Only Index is initialized to the Index Base Value. Thereafter, the Call Only Index values are calculated in accordance with the following formula:

$$I_t^{CI} = CA_t^{CI} - V_t^{CI} \times C_t$$

# **Short Call Option Units**

For each Roll Date t, the units of the new call option for that date are calculated, based on the coverage ratio (CR), in accordance with the following formula:

$$V_t^{CI} = CR_{t-1} \times \frac{I_{t-1}^{CI}}{NDX_{t-1}}$$

where the coverage ratio for the Call Only Index is the same as the Index.

If the Index Calculation Day is not a Roll Date, then the units do not change:

$$V_t^{CI} = V_{t-1}^{CI}$$

For the Index Base Date  $(t_0)$ , the units of the new call option for the Call Only Index are equal to the units for the Index:

$$V_{t_0}^{CI} = V_{t_0}$$

#### Cash Account

For each Roll Date t, the value of the Cash Account for the Call Only Index is calculated in accordance with the following formula:

$$CA_t^{CI} = CA_{t-1}^{CI} - V_{t-1}^{CI} \times \max(0, XQC_t - K_{t-1}) + V_t^{CI} \times C_{bid,t}^{new}$$

If the Index Calculation Day is not a Roll Date, then the Cash Account does not change:

$$CA_t^{CI} = CA_{t-1}^{CI}$$

For the Index Base Date  $t_0$ , the value of the Cash Account is calculated in accordance with the following formula:

$$CA_{t_0}^{CI} = Index\_Base\_Value + \ V_{t_0}^{CI} \times C_{t_0}$$

#### **OPTION SELECTION**

## **Expiration Selection**

For each Roll Date, the selected option expiration date (the "the Selected Expiration Date") will be the expiration date of the next nearest available PM-settled NDX options on or after the Index Calculation Days following that Roll Date. This will generally be the following Exchange business day.

However, as of April 2024, there are no Exchange listed PM-settled NDX options on dates when there are Exchange listed AM-settled NDX options (usually the third Friday of each month). Therefore, in respect of the Roll Date before the third Friday of each month (usually a Thursday), the Selected Expiration Date will be the next PM-settled expiration (usually Monday), not the AM-settled Friday expiration. In the event the third Friday is a scheduled Exchange holiday, the above days will be adjusted accordingly.

During the backtest period prior to August 2022, Exchange listed PM-settled NDX options with expiration dates for each day of the week were not always available. Thus, while the Index was calculated using the same logic for each Roll Date, gaps between Roll Dates do exist.

#### Strike Price Selection

For each Roll Date, the selected call option shall be the Exchange listed PM-settled NDX option with an expiration date equal to the Selected Expiration Date and a strike price ( $K_t$ ) equal to the lowest strike price of the Exchange listed PM-settled NDX options that is greater than or equal to the Nasdaq-100® Index closing level on the prior Index Calculation Day ( $K_t \ge NDX_{t-1}$ ).

If the Index Calculation Day is not a Roll Date, no new options are selected:

$$K_t = K_{t-1}$$

# INDEX CALENDAR

#### Holiday schedule

The Index is calculated Monday through Friday, except on days when either the Nasdaq Stock Market or Nasdaq Options Market are scheduled to be closed.

#### Index calculation and dissemination schedule

Index values are made available after the market close on each Index Calculation 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 at https://indexes.nasdaq.com/.

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 <a href="mailto:indexservices@nasdaq.com">indexservices@nasdaq.com</a>.

#### Index dissemination

Where applicable, Index values and weightings information are available through the Nasdaq Global Index Watch (GIW) website at <a href="https://indexes.nasdaq.com/">https://indexes.nasdaq.com/</a> 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 GIW website at <a href="https://indexes.nasdaq.com/">https://indexes.nasdaq.com/</a>.

#### 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

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
Components	In respect of an Index Calculation Day, the Nasdaq-100® Total Return Index and the short call options on the Nasdaq-100® Index referenced in the Index for that day.
Consequences of a Market Disruption Event	If a Market Disruption Event occurs or is occurring on an Index Calculation Day that the Index Administrator determines materially affects the Index, the Index Administrator may:
	<ul> <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 Calculation Day, that the Index Administrator determines that such Market 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</li> </ul>
	Calculation Day or time for such Index Calculation Day.
Disrupted Day	In respect of a Component, an Index Calculation Day on which there is a Market Disruption Event.
Exchange	The Nasdaq Stock Market and Nasdaq Options Market.
Index Base Date	The Index January 3, 2019
Index Base Value	The Index base date $(t_0)$ is 100.00.
Index Calculation Day	Starting with the Index Base Date, each weekday that is not a scheduled holiday according to the Index Holiday Schedule as defined in the <i>Index Calendar</i> section.
Market Disruption Event	In respect of a Component, the occurrence of one or more of the following events that affects that Component and that the Index Administrator deems to be material to the Index:
	<ul> <li>Trading Disruption: Any unscheduled closure of the Exchange; a material suspension, limitation or disruption of trading on the Exchange; a failure of the 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; or any other event that materially affects the ability of market participants to trade, effect transactions in, maintain or unwind positions in that Component.</li> <li>Exchange Disruption: Any exchange related event 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>Price Failure: Any event that impairs or prevents the ability of the Index</li> </ul>
	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.  • Inaccurate Data: The price or value of a component that has been calculated by reference to data 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.

Roll Date	<ul> <li>Force Majeure: 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>General Moratorium: 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> <li>The first Roll Date of the Index is the Index Base Date. Thereafter, a Roll Date is</li> </ul>
	each Index Calculation Day where there are PM-settled NDX options for that day.
Roll Date Disruption	If a Market Disruption Event occurs on a scheduled Roll Date for a Component, then no change of units of that Component shall occur on that day.
Target Premium	The target premium is 15%.

For additional key term not defined above, refer to the **Nasdaq Index Methodology Guide**.

# APPENDIX B: GLOSSARY OF SYMBOLS

Symbol	Description
$I_t$	The Index value calculated on day $t$ .
$U_t$	The units of Nasdaq-100 $^{\circ}$ Total Return Index in the Index for day $t$ .
$V_t$	The units of the selected NDX call option in the Index for day $t$ .
$K_t$	The strike price of the NDX call option for day $t$ .
$XNDX_t$	The closing level of the Nasdaq-100 $^{\circ}$ Total Return Index for day $t$ .
$NDX_t$	The closing level of the Nasdaq-100 $^{\circ}$ Index for day $t$ .
$XQC_t$	The value of the Nasdaq-100 $^{\circ}$ PM Settlement Value Index for day $t$ .
$C_t$	The closing NBBO mid-price of the NDX call option in the Index for day t.
$C_{bid,t}^{new}$	The closing NBBO bid price of the new NDX call option for Roll Date t.
$C_{bid,t-1}^{new,t}$	The closing NBBO bid price of the new NDX call option for Roll Date t, as of the prior
Bia,t 1	Index Calculation Day t-1.
TP	The Target Premium expressed as a percentage.
$I_t^{CI}$	The Call Only Index value calculated on day $t$ .
$CA_t^{CI}$	The Cash Account in the Call Only Index on day t.
$V_t^{CI}$	The units of the selected NDX call option in the Call Only Index for day $t$ .

## **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.

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