INDEX METHODOLOGY

NASDAQ-100 TOP 30 JST FIXING JPY™ INDEX

NDX30JF™

INDEX DESCRIPTION

The Nasdaq-100 Top 30 JST Fixing JPY Index (NDX30JF), the "Index", is a Japanese Yen ("JPY") currency version of the Nasdaq-100 Top 30 Index, calculated by applying the 10:00 AM Japan Standard Time (JST) FX spot fixing to the previous day's Component index level.

In addition to the Nasdaq-100 Top 30 JST Fixing JPY Index (NDX30JF), total return and notional net total return versions of the Index are also calculated, as detailed in the *Index parameters* section below.

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

INDEX CONSTRUCTION

Index parameters

The table below details parameters specific to the construction and calculation of each Index.

Index (Symbol)	Component (Symbol)	Index Currency	Component Currency	FX Spot Fixing
Nasdaq-100 Top 30 Index JST Fixing JPY (NDX30JF)	Nasdaq-100 Top 30 Index (NDX30)	JPY	USD	10:00 AM JST
Nasdaq-100 Top 30 Total Return Index JST Fixing JPY (NDX30TJF)	Nasdaq-100 Top 30 Total Return Index (NDX30T)	JPY	USD	10:00 AM JST
Nasdaq-100 Top 30 Notional Net Total Return Index JST Fixing JPY (NDX30NJF)	Nasdaq-100 Top 30 Notional Net Total Return Index (NDX30N)	JPY	USD	10:00 AM JST

For information on the Components, please refer to the Nasdaq-100 Top 30 Index Methodology.

INDEX CALCULATION

On the Index Base Date, the value of the Index shall be the Index Base Value. Thereafter, on each Index Day t, Index values are calculated in accordance with the following formula:

$$I_t^{JPY} = \left[\frac{I_B^{JPY}}{I_{B-1}^{USD} \times FX_B}\right] \times \left(I_{t-1}^{USD} \times FX_t\right)$$

where:

I_t^{JPY} = Index value in JPY on Index Day t.

I_B^{JPY} = Index value in JPY on the Index Base Date.

I_{B-1}^{USD} = Component value in USD on the Index Day immediately preceding the Index Base Date.

I_{t-1}^{USD} = Component value in USD on the Index Day immediately preceding Index Day t.

FX_B = USDJPY spot fixing on the Index Base Date.

FX_t = USDJPY spot fixing on Index Day t.

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 CALENDAR

Holiday schedule

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

Index calculation and dissemination schedule

The Index is calculated based on the contract settlement price provided by the Exchange at market close. Index values are made available on 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.

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

<table>
<tr><th>Term</th><th>Description</th></tr>
<tr><td>Calculation Disruption Event</td><td>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:
Price Failure: 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.
Inaccurate Data: 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.
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.
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.</td></tr>
<tr><td>Components</td><td>The Components as detailed in the Index parameters section.</td></tr>
<tr><td>Consequences of a Market Disruption or Calculation Disruption Event</td><td>If a Market Disruption Event or Calculation Disruption Event occurs or is occurring on an Index Day that the Index Administrator determines materially affects the Index, the Index Administrator may:
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.
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.</td></tr>
<tr><td>Disrupted Day</td><td>In respect of a Component, an Index Day on which there is a Market Disruption Event.</td></tr>
<tr><td>Index Administrator</td><td>Nasdaq, Inc.</td></tr>
<tr><td>Index Base Date</td><td>December 2, 2016</td></tr>
<tr><td>Index Base Value</td><td>1000.00</td></tr>
</table>

Index 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 *Index Calendar* section.
Market Disruption Event	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: • **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, 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. • **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.

For additional key terms not defined above, please 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.

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