

# Nasdaq Factor Family US Value Index Methodology

## Index Description

The Nasdaq Factor Family US Value Index Methodology seeks to select a portfolio of securities exhibiting desirable valuation characteristics. The Index selects 50 securities from the Nasdaq US 500 Large Cap Index based on a series of quantitative and qualitative factors.

## Index Calculation

The Nasdaq Factor Family US Value Index is a modified market capitalization weighted index. The value of the Index equals the aggregate value of the Index share weights, also known as the Index Shares, of each of the Index Securities multiplied by each such security's Last Sale Price<sup>1</sup>, and divided by the divisor of the Index. The divisor serves the purpose of scaling such aggregate value to a lower order of magnitude which is more desirable for reporting purposes. If trading in an Index Security is halted on its primary listing market, the most recent Last Sale Price for that security is used for all index computations until trading on such market resumes. Likewise, the most recent Last Sale Price is used if trading in a security is halted on its primary listing market before the market is open. The Index began on May 15, 2017 at a base value of 1000.00.

The formula for index value is as follows:

Aggregate Adjusted Market Value/Divisor

The formula for the divisor is as follows:

(Market Value after Adjustments/Market Value before Adjustments) X Divisor before Adjustments

Three versions of the Index are calculated:

- The price return index (NQFFUSV) is ordinarily calculated without regard to cash dividends on Index Securities.
- The total return index (NQFFUSVT) reinvests cash dividends on the ex-date.
- The net total return index (NQFFUSVN) reinvests cash dividends on the ex-date based on the securities incorporation withholding rate.

All Indexes reflect extraordinary cash distributions.

The Indexes are calculated and disseminated once per second from 9:30:01 to 17:16:00 Eastern Time (ET) in USD. The closing value of the Index(es) may change up until 17:15:00 ET due to corrections to the Last Sale Price of the Index Securities.

---

<sup>1</sup> For purposes of this document, Last Sale Price refers to the last regular way trade reported on such security's Index Market. The Index Market is the listing market for which prices are received and used by Nasdaq in the Index calculation and generally will represent the most liquid trading market of the Index Security. If a security does not trade on its Index Market on a given day or the Index Market has not opened for trading, the most recent last sale price from the Index Market (adjusted for corporate actions, if any) is used. For securities where Nasdaq is the Index Market, the Last Sale Price may be the Nasdaq Official Closing Price (NOCP) when Nasdaq is closed.

## Eligibility

Index eligibility is limited to specific security types only. The security types eligible for the Index include common stocks and REITs.

## Eligibility Criteria

To be eligible for inclusion in the Nasdaq Factor Family US Value Index, a security must first meet the following criteria:

- be a member of the Nasdaq US 500 Large Cap Index;
- have “seasoned” for at least 12 months on a recognized market;
- may not have entered into a definitive agreement or other arrangement which would likely result in the security no longer being Index eligible;
- may not be issued by an issuer currently in bankruptcy proceedings; and

The remaining securities are then evaluated based on their Growth Score and Value Score, which are the final scores assigned to securities in the [Nasdaq US Select Style Index Family](#). Securities ranked in the top 50 by Growth Score and/or outside the top 50 by Value Score are excluded.

The securities that pass the above screens are then weighted by their Value Score as follows:

$$\frac{\text{Value Score}_{\text{Security } x}}{(\text{Value Score}_{\text{Security } 1} + \dots + \text{Value Score}_{\text{Security } 50})}$$

## Index Evaluation

The Index is evaluated semi-annually in March and September. The above Eligibility Criteria are applied using available market data as of the ninth business day prior to the fourth business day in April and October.. Security additions and deletions are made effective at the market open on the fourth business day in April and October.

Additionally, if at any time during the year other than the Evaluation, an Index Security is determined to have become ineligible for continued inclusion in the Index due to bankruptcy, delisting, or a definitive agreement that would likely result in the security no longer being eligible for inclusion in the Index, the security is removed from the Index and is not replaced. Ordinarily, a security will be removed from the Index at its Last Sale Price. If, however, at the time of its removal the Index Security is halted from trading on its primary listing market and an official closing price cannot readily be determined, the Index Security may, at Nasdaq’s discretion, be removed at a zero price. The zero price will be applied to the Index Security after the close of the market but prior to the time at which the official closing value of the Index is disseminated, which is ordinarily 17:16:00 ET.

## **Index Maintenance**

While Index Share changes are not made outside of the semi-annual evaluations, changes arising from stock dividends and stock splits are made to the Index on the evening prior to the effective date of such corporate actions. In the case of certain spin-offs or rights issuances, the price of the Index Security is adjusted and a corresponding adjustment is made to the Index Shares such that the weight of the Index Security does not change as a result of the action. Additionally, for a spin-off event, if there is no when-issued trading available for the spin-co security, the spin-co security may be added to the index at a zero value. In this case, the spin-co security will be removed from the Index after two full days of trading.

A special cash dividend announced by the listing exchange will result in an adjustment to the Last Sale Price of an Index Security prior to market open on the ex-date for the special amount distributed. A corresponding adjustment will be made to the Index Shares of the security such that the weight of the Index Security will not change as a result of the action. A special dividend may also be referred to as extra, extraordinary, non-recurring, one-time, unusual, etc.

Ordinarily, whenever there is a change in Index Shares, a change in an Index Security or a change to the price of an Index Security due to spin-offs, rights issuances or special cash dividends as mentioned above, the divisor is adjusted to ensure that there is no discontinuity in the value of the Index which might otherwise be caused by any such change.

## **Index Rebalancing**

The weighting methodology is applied using data as of the ninth business day before the fourth business day in April and October. Index Shares are calculated by multiplying the weight of the security derived above by the new market value of the Index and dividing the modified market capitalization for each Index Security by its corresponding Last Sale Price. The changes are made effective at the market open on the fourth business day in April and October.

Nasdaq may, from time to time, exercise reasonable discretion as it deems appropriate in order to ensure Index integrity.

October 2018