

NASDAQ AlphaDEX® Total US Market Index Methodology

Index Description

The NASDAQ AlphaDEX® Total US Market Index employs the AlphaDEX® stock selection methodology to select stocks from the NASDAQ US Large Cap Index, the NASDAQ US Mid Cap Index and the NASDAQ US Small Cap Index. The NASDAQ AlphaDEX Total US Market Index is constructed by ranking the stocks in the Indexes mentioned above separately on growth and value factors.

Index Calculation

The NASDAQ AlphaDEX Total US Market 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 Price¹, 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 September 12, 2014 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 version of the Index are calculated – a price return index, a total return index, and a net total return index.

- The price return index (Nasdaq: NQDXUSB) is ordinarily calculated without regard to cash dividends on Index Securities.
- The total return index (Nasdaq: NQDXUSBT) reinvests cash dividends on the ex-date.
- The net total return index (Nasdaq: NQDXUSBN) 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

¹ 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.

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.

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 Index a security must meet the following criteria:

- be a component of the NASDAQ US Large Cap Index (NQUSL); or
- be a component of the NASDAQ US Mid Cap Index (NQUSM); or
- be a component of the NASDAQ US Small Cap Index (NQUSS); Only the 1000 largest constituents of the NASDAQ US Small Cap Index passing the liquidity screen are eligible for the portfolio.

In addition, a security must meet the following:

- have a five-day global rolling average daily dollar trading volume over the last 60 trading days greater than USD 500,000; and
- one security per issuer is permitted.

Ranking Review

Rebalancing and selection take place quarterly, utilizing market data as of the last business day of March, June, September and December. Securities which meet the applicable eligibility criteria are ranked by growth and value factors.

The growth factors used for ranking eligible securities are:

- 3-, 6- and 12-month price appreciation
- sales to price
- 1-year sales growth

The value factors used for ranking eligible securities are:

- book value to price
- cash flow to price
- return on assets

Stock Selection

1. Stocks are ranked separately within each size class (Large, Mid, or Small) on the sum of ranks for both growth and value factors. A stock must have data available for all growth and/or value factors to receive a rank for that factor.

2. Stocks are classified as either a value stock or growth stock, as determined by Nasdaq. Stocks classified as a value stock will receive their value rank and stocks classified as a growth stock will receive their growth rank from Step 1 as their "selection score".
3. Based on the "selection score" determined in Step 2, the best scoring stocks comprise the "selected stocks" universe:
 - a. NASDAQ US Large Cap Index (NQUSL) top 200 stocks
 - b. NASDAQ US Mid Cap Index (NQUSM) top 400 stocks
 - c. NASDAQ US Small Cap Index (NQUSS) [Only the 1000 largest constituents of the NASDAQ US Small Cap Index passing the liquidity screen are eligible for the portfolio.] top 600 stocks
4. Each universe of "selected stocks", as determined in Step 3a, 3b and 3c, are then split into quintiles based on their selection score. The top ranked quintile receives 5/15 (33%) of the universe weight with successive quintiles receiving 4/15 (26.7%), 3/15 (20.0%), 2/15 (13.3%) and 1/15 (6.7%), respectively. Within each sub portfolio (Large, Mid, and Small), stocks are equally weighted within each quintile.

Index Evaluation

The Index is evaluated quarterly in March, June, September and December. Security additions and deletions are made effective at the market open on the 6th business day of the following month. At each quarter, the Index is rebalanced such that each "selected stock" universe will be set at a predetermined weight. The predetermined "selected stock" universe weights are:

US Large Cap securities: 50%
US Mid Cap securities: 30%
US Small Cap securities: 20%

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 Index eligible, 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, in 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 the official closing value of the Index is disseminated, which is ordinarily 17:16:00 ET

Index Maintenance

Index Share changes are not made during the quarter however changes arising from stock dividends and stock splits are made to the Index on the evening prior to the effective date of such corporate action. 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. However, for a spin-off event, if there is a 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.

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

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