

# NASDAQ-100 Index® Methodology

## Index Description

The NASDAQ-100 Index includes 100 of the largest non-financial securities listed on The NASDAQ Stock Market® (NASDAQ®) based on market capitalization. It does not contain securities of financial companies including investment companies.

## Index Calculation

The NASDAQ-100 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 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 Index 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 January 31, 1985 at a base value of 125.00, as adjusted.

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 – a price return index, a total return index and a notional net total return index.

- The price return index (NASDAQ: NDX) is ordinarily calculated without regard to cash dividends on Index Securities.
- The total return index (NASDAQ: XNDX) reinvests cash dividends on the ex-date. The total return index was synchronized to the value of the price return index at the close on March 4, 1999.
- The notional net total return index (NASDAQ: XNDXNNR) is designed to reflect a net total return index reinvesting 70% of cash dividends, and factors in a deduction based on an indicative 30% tax rate. The notional net total return index was synchronized to the value of the total return index at the close on October 7, 2011.

All Indexes reflect extraordinary cash distributions.

The Indexes are calculated during the trading day based on the Last Sale Price and are disseminated once per second from 09:30:01 to 17:16:00 Eastern Time (ET). The closing value of the Indexes may change up until 17:15:00 ET due to corrections to the Last Sale Price of the Index Securities.

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<sup>1</sup> For purposes of this document Last Sale Price refers to the last sale price on NASDAQ, which may be the NASDAQ Official Closing Price (NOCP).

## **Eligibility**

Index eligibility is limited to specific security types only. The security types eligible for the Index include common stocks, ordinary shares, and ADRs. Security or company types not included in the Index are closed-end funds, convertible debentures, exchange traded funds, limited liability companies, limited partnership interests, preferred stocks, rights, shares or units of beneficial interest, warrants, units and other derivative securities. The Index does not contain securities of investment companies.

### **Initial Eligibility Criteria**

To be eligible for initial inclusion in the Index a security must meet the following criteria:

- the security's U.S. listing must be exclusively on the NASDAQ Global Select Market or the NASDAQ Global Market (unless the security was dually listed on another U.S. market prior to January 1, 2004 and has continuously maintained such listing);
- be issued by a non-financial company<sup>2</sup>;
- may not be issued by an issuer currently in bankruptcy proceedings;
- have an average daily trading volume of at least 200,000 shares;
- if the issuer of the security is organized under the laws of a jurisdiction outside the U.S., then such security must have listed options on a recognized options market in the U.S. or be eligible for listed-options trading on a recognized options market in the U.S.;
- only one class of security per issuer is allowed;
- the issuer of the security may not have entered into a definitive agreement or other arrangement which would likely result in the security no longer being Index eligible;
- the issuer of the security may not have annual financial statements with an audit opinion that is currently withdrawn; and
- the security must have "seasoned" on NASDAQ, NYSE or NYSE Amex (generally, a company is considered to be seasoned if it has been listed on a market for at least three full months (excluding the first month of initial listing)).

### **Continued Eligibility Criteria**

To be eligible for continued inclusion in the Index, a security must meet the following criteria:

- the security's U.S. listing must be exclusively on the NASDAQ Global Select Market or the NASDAQ Global Market (unless the security was dually listed on another U.S. market prior to January 1, 2004 and has continuously maintained such listing);
- be issued by a non-financial company<sup>2</sup>;
- may not be issued by an issuer currently in bankruptcy proceedings;
- have average daily trading volume of at least 200,000 shares (measured annually during the Ranking Review process);
- if the issuer of the security is organized under the laws of a jurisdiction outside the U.S., then such security must have listed options on a recognized options market in the U.S. or be eligible for listed-options trading on a recognized options market in the U.S. (measured annually during the Ranking Review process);
- the security must have an adjusted market capitalization equal to or exceeding 0.10% of the aggregate adjusted market capitalization of the Index at each month-end. In the

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<sup>2</sup> Non-Financial companies are those securities that are classified under all Industry Codes except 8000 according to the Industry Classification Benchmark (ICB), a product of FTSE International Limited and has been licensed for use.

event a company does not meet this criterion for two consecutive month-ends, it is removed from the Index effective after the close of trading on the third Friday of the following month; and

- the issuer of the security may not have annual financial statements with an audit opinion that is currently withdrawn.

For the purposes of Index eligibility criteria, if the security is a depositary receipt representing a security of a non-U.S. issuer, then references to the "issuer" are references to the issuer of the underlying security.

## **Ranking Review**

Except under extraordinary circumstances that may result in an interim evaluation, Index composition is reviewed on an annual basis as follows. Securities which meet the applicable eligibility criteria are ranked by market value. Index-eligible securities which are already in the Index and which are ranked in the top 100 eligible securities (based on market capitalization) are retained in the Index. An Index Security that is ranked 101 to 125 is also retained, provided that such security was ranked in the top 100 eligible securities as of the previous Ranking Review or was added to the Index subsequent to the previous Ranking Review. Index Securities not meeting such criteria are replaced. The replacement securities chosen are those Index-eligible securities not currently in the Index that have the largest market capitalization. The data used in the ranking includes end of October market data and is updated for total shares outstanding submitted in a publicly filed SEC document via EDGAR through the end of November<sup>3</sup>.

Generally, the list of annual additions and deletions is publicly announced via a press release in the early part of December. Replacements are made effective after the close of trading on the third Friday in December. Moreover, if at any time during the year other than the Ranking Review, an Index Security no longer meets the Continued Eligibility Criteria, or is otherwise determined to have become ineligible for continued inclusion in the Index, it is replaced with the largest market capitalization security not currently in the Index and meeting the Initial Eligibility Criteria listed above. 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**

Changes in the price and/or Index Shares driven by corporate events such as stock dividends, stock splits and certain spin-offs and rights issuances are adjusted on the ex-date. If the change in total shares outstanding arising from other corporate actions is greater than or equal to 10.0%<sup>3</sup>, the change is made as soon as practicable. Otherwise, if the change in total shares outstanding is less than 10%, then all such changes are accumulated and made effective at one time on a quarterly basis after the close of trading on the third Friday in each of March, June, September and December. The Index Shares are derived from the security's total shares outstanding. The Index Shares are adjusted by the same percentage amount by which the total shares outstanding have changed.

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<sup>3</sup> If a security is a depositary receipt, the total shares outstanding is the actual depositary shares outstanding as reported by the depositary banks.

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 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, 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. All changes are announced in advance and are reflected in the Index prior to market open on the Index effective date.

### **Index Rebalancing**

On a quarterly basis, coinciding with the quarterly scheduled Index Share adjustment procedures, the Index will be rebalanced if it is determined that: (1) the current weight of the single largest market capitalization Index Security is greater than 24.0% and (2) the "collective weight" of those Index Securities whose individual current weights are in excess of 4.5%, when added together, exceed 48.0% of the Index. In addition, a special rebalancing of the Index may be conducted at any time if it is determined necessary to maintain the integrity of the Index.

If either one or both of these weight distribution requirements are met upon quarterly review or it is determined that a special rebalancing is required, a weight rebalancing will be performed.

First, relating to weight distribution requirement (1) above, if the current weight of the single largest Index Security exceeds 24.0%, then the weights of all Large Stocks (those greater than 1%) will be scaled down proportionately towards 1.0% by enough for the adjusted weight of the single largest Index Security to be set to 20.0%.

Second, relating to weight distribution requirement (2) above, for those Index Securities whose individual current weights or adjusted weights in accordance with the preceding step are in excess of 4.5%, if their "collective weight" exceeds 48.0%, then the weights of all Large Stocks will be scaled down proportionately towards 1.0% by just enough for the "collective weight," so adjusted, to be set to 40.0%.

The aggregate weight reduction among the Large Stocks resulting from either or both of the above rescalings will then be redistributed to the Small Stocks (those stocks less than or equal to 1%) in the following iterative manner.

In the first iteration, the weight of the largest Small Stock will be scaled upwards by a factor which sets it equal to the average Index weight of 1.0%. The weights of each of the smaller remaining Small Stocks will be scaled up by the same factor reduced in relation to each stock's relative ranking among the Small Stocks such that the smaller the Index Security in the ranking, the less the scale-up of its weight. This is intended to reduce the market impact of the weight rebalancing on the smallest component securities in the Index.

In the second iteration, the weight of the second largest Small Stock, already adjusted in the first iteration, will be scaled upwards by a factor which sets it equal to the average Index weight of 1.0%. The weights of each of the smaller remaining Small Stocks will be

scaled up by this same factor reduced in relation to each stock's relative ranking among the Small Stocks such that, once again, the smaller the stock in the ranking, the less the scale-up of its weight.

Additional iterations will be performed until the accumulated increase in weight among the Small Stocks exactly equals the aggregate weight reduction among the Large Stocks from rebalancing in accordance with weight distribution requirement (1) and/or weight distribution requirement (2).

Then, to complete the rebalancing procedure, once the final percent weights of each Index Security are set, the Index share weights will be determined anew based upon the Last Sale Price and aggregate capitalization of the Index at the close of trading on the last day in February, May, August and November. Changes to the Index share weights will be made effective after the close of trading on the third Friday in March, June, September and December and an adjustment to the divisor is made to ensure continuity of the Index.

Ordinarily, new rebalanced weights will be determined by applying the above procedures to the current Index share weights. However, NASDAQ OMX may from time to time determine rebalanced weights, if necessary, by applying the above procedure to the actual current market capitalization of the Index components. In such instances, NASDAQ OMX would announce the different basis for rebalancing prior to its implementation.

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

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