

Nasdaq Victory Multi-Factor Minimum Volatility Index Family Methodology

Index Description

The Nasdaq Victory Multi-Factor Minimum Volatility Indexes seek to deliver superior risk-adjusted returns by constructing rules-based equity portfolios which minimize expected volatility while outperforming over a market cycle. The Indexes select securities in the top quintile of the multi-factor model from their parent Nasdaq Indexes based on nine different groups of fundamental factors such as value, growth, quality and momentum. The selected securities are then optimized to minimize the portfolio's absolute volatility and mitigate potential turnover.

Index Calculation

The Nasdaq Victory Multi-Factor Minimum Volatility Indexes are modified market capitalization weighted indexes. 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 May 26, 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 each Index are calculated – a price return index, a total return index, and a net total return index (See Appendix A for a list of Index Symbols, Names and Launch Dates).

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

All Indexes reflect extraordinary cash distributions.

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.

The Indexes containing only US listed securities 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.

The Indexes containing global listed securities are calculated during the trading day and are disseminated once per second. The Indexes are calculated five (5) days a week, Monday through Friday, during European and American hours.

Eligibility

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

Eligibility Criteria

To be eligible for inclusion in the Nasdaq Victory Multi-Factor Minimum Volatility Indexes, a security must first meet the following criteria:

- be a member of its parent Nasdaq Index:
 - the parent index for the Nasdaq Victory Global Multi-Factor Minimum Volatility is the Nasdaq Global Large Mid Cap Index;
 - the parent index for the Nasdaq Victory US Multi-Factor Minimum Volatility Index is the Nasdaq US Large Mid Cap Index;
 - the parent index for the Nasdaq Victory International Multi-Factor Minimum Volatility Index is the Nasdaq Developed Markets Ex United States Large Mid Cap Index;
- one security per issuer is permitted (if an issue has multiple securities, the security with the highest three-month average daily dollar trading volume will be selected for possible inclusion in the indexes);
- may not have entered into a definitive agreement or other arrangement which would likely result in the security no longer being Index eligible; and
- may not be issued by an issuer currently in bankruptcy proceedings.

All eligible securities in the respective parent indexes are split into two sets: Financials and Non-Financials.

The multi-factor scores for Financials are calculated based on the weighted percentile ranking of the following six super factors with factor weights listed in brackets:

- Earning Quality (14.29%)
- Momentum (14.29%)
- Profitability (14.29%)
- Cash Deployment (14.29%)
- Credit/Leverage (14.29%)
- Valuation (28.57%)

The multi-factor scores for Non-Financials are calculated based on the weighted percentile ranking of the following nine super factors with factor weights listed in brackets:

- Earning Quality (10%)
- Growth (10%)
- Momentum (10%)
- Profitability (10%)
- Cash Deployment (10%)
- Capital Spending (10%)
- Credit/Leverage (10%)
- Stability (10%)
- Valuation (20%)

The top (best) quintiles are selected for input into an optimization weighting process in order to minimize the absolute volatility.

Index Evaluation

The Indexes are evaluated semi-annually at the end of March and September. The above Eligibility Criteria are applied using market data as of the end of March and September. Security additions and deletions are made effective after the close of trading on the third Friday in April and October. If Friday is an Index holiday, the effective date will be pushed to the close of trading on the following Monday.

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.

Index Rebalancing

The Indexes employ a modified market capitalization weighting methodology. At each semi-annual evaluation, the Index is rebalanced using an optimization process.

For the US Index, the following constraints are applied:

- Securities that are in the first quintile are eligible for inclusion.
- Securities that are in the second quintile are only eligible for inclusion if they were in the Index during the prior period and their weight cannot increase as of the Index Evaluation reference date.
- Industry weights must be +/- 5.0% of the parent Nasdaq Indexes.
- Growth, Value and Size style factors are constrained to +/- 0.5 standard deviations of the parent Nasdaq Indexes.
- The maximum individual security weight is 2.5% greater than the weight of the security in its parent Nasdaq Index at time of initial inclusion and 3% greater than the weight of the security in its parent Nasdaq Index if it is already a component in the Index.
- The minimum individual security weight is 0.10% at time of initial inclusion and 0.05% once it is already a component in the Index.
- Individual security weights are additionally constrained to a maximum weight as defined by the security's liquidity (20 Day ADDTV/\$500 Million).

For the Global and International Indexes, the following constraints are applied:

- Securities that are in the first quintile are eligible for inclusion.
- Securities that are in the second quintile are only eligible for inclusion if they were in the Index during the prior period and their weight cannot increase as of the Index Evaluation reference date.
- Country weights must be +/- 5.0% of the parent Nasdaq Indexes.
- Country weights have a maximum weight of five times that of the parent Nasdaq Indexes².
- Industry weights must be +/- 5.0% of the parent Nasdaq Indexes.
- Growth, Value and Size style factors are constrained to +/- 0.5 standard deviations of the parent Nasdaq Indexes.
- The maximum individual security weight is 2.5% greater than the weight of the security in its parent Nasdaq Index at time of initial inclusion and 3% greater than

² Maximum country weight is the lesser of five times the parent index weight or 5% more than the parent Nasdaq Index. Minimum country weight is the greater of 0% or 5% less than the parent Nasdaq Index.

the weight of the security in its parent Nasdaq Index if it is already a component in the Index.

- The maximum individual security weight is 50 times the weight of the security in its parent Nasdaq Index.
- Individual security weights are additionally constrained to a maximum weight as defined by the security's liquidity (20 Day ADDTV/\$500 Million)³.
- The minimum individual security weight is 0.10% at time of initial inclusion and 0.05% once it is already a component in the Index.

The changes are effective after the close of trading on the third Friday in April and October.

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

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³ Maximum individual security weight is the lesser of (1) 2.5% greater than the weight of the security in its parent Nasdaq Index at time of initial inclusion and 3% greater than the weight of the security in its parent Nasdaq Index if it is already a component in the Index, (2) 50 times the weight of the security in its parent Nasdaq Index, and (3) the security's liquidity (20 Day ADDTV/\$500 Million).

Appendix A:

Ticker	Type	Name	Launch Date
NQVMVG	Price Return	Nasdaq Victory Global Multi-Factor Minimum Volatility Index	8/10/17
NQVMVGT	Total Return	Nasdaq Victory Global Multi-Factor Minimum Volatility Total Return Index	8/10/17
NQVMVGN	Net Total Return	Nasdaq Victory Global Multi-Factor Minimum Volatility Net Total Return Index	8/10/17
NQVMVUS	Price Return	Nasdaq Victory US Multi-Factor Minimum Volatility Index	5/26/17
NQVMVUST	Total Return	Nasdaq Victory US Multi-Factor Minimum Volatility Total Return Index	5/26/17
NQVMVUSN	Net Total Return	Nasdaq Victory US Multi-Factor Minimum Volatility Net Total Return Index	5/26/17
NQVMVI	Price Return	Nasdaq Victory International Multi-Factor Minimum Volatility Index	9/18/17
NQVMVIT	Total Return	Nasdaq Victory International Multi-Factor Minimum Volatility Total Return Index	9/18/17
NQVMVIN	Net Total Return	Nasdaq Victory International Multi-Factor Minimum Volatility Net Total Return Index	9/18/17