



INDEX METHODOLOGY

NASDAQ US SMART SECTOR INDEXES

**NQSSBA, NQSSFB, NQSSOG, NQSSPH, NQSSRE,
NQSSSE, NQSSTR**

INDEX DESCRIPTION

The Nasdaq US Smart Sector Index Family offers modified factor-weighted exposure to liquidity-ranked securities across the following classifications.

Nasdaq US Smart Banks Index (NQSSBA)

Consists of the 30 most liquid securities from US Bank companies.

Nasdaq US Smart Food & Beverage Index (NQSSFB)

Consists of the 30 most liquid securities from US Food & Beverage companies.

Nasdaq US Smart Oil & Gas Index (NQSSOG)

Consists of the 50 most liquid securities from US Oil & Gas companies.

Nasdaq US Smart Pharmaceuticals Index (NQSSPH)

Consists of the 30 most liquid securities from US Pharmaceutical companies.

Nasdaq US Smart Retail Index (NQSSRE)

Consists of the 50 most liquid securities from US Retail companies.

Nasdaq US Smart Semiconductor Index (NQSSSE)

Consists of the 30 most liquid securities from US Semiconductor companies.

Nasdaq US Smart Transportation Index (NQSSTR)

Consists of the 30 most liquid securities from US Transportation companies.

SECURITY ELIGIBILITY CRITERIA

Parent index

A security must be included in the Nasdaq US Benchmark Index (NQUSB).

Multiple classes of securities

One security per issuer is permitted. If an issuer has multiple listed security classes, the security with the highest three-month average daily dollar traded value will generally be selected for Index inclusion.

Industry or sector eligibility

Securities within each US Smart Sector index must be classified under the Subsector(s) indicated below at reconstitution or rebalance. Securities are classified according to the Industry Classification Benchmark (ICB), a product of FTSE International Limited that is used under license.

NQSSBA

30101010 Banks

NQSSFB

45101010 Brewers

45101015 Distillers and Vintners

45101020 Soft Drinks

45102010 Farming, Fishing, Ranching and Plantations

45102020 Food Products

45102030 Fruit and Grain Processing

45102035 Sugar

NQSSOG

60101000 Integrated Oil and Gas

60101010 Oil: Crude Producers

60101015 Offshore Drilling and Other Services

60101020 Oil Refining and Marketing

60101030 Oil Equipment and Services

60101035 Pipelines

NQSSPH

20103015 Pharmaceuticals

NQSSRE

40201010	Education Services
40201020	Funeral Parlours and Cemetery
40201030	Printing and Copying Services
40201040	Rental and Leasing Services: Consumer
40201050	Storage Facilities
40201070	Consumer Services: Misc.
40401010	Diversified Retailers
40401020	Apparel Retailers
40401025	Home Improvement Retailers
40401030	Specialty Retailers
45201010	Food Retailers and Wholesalers
45201015	Drug Retailers

NQSSSE

10102010	Semiconductors
10102020	Production Technology Equipment

NQSSTR

40101010	Auto Services
40101015	Tires
40101020	Automobiles
40101025	Auto Parts
40501010	Airlines
50206010	Trucking
50206015	Commercial Vehicles and Parts
50206020	Railroads
50206025	Railroad Equipment
50206030	Marine Transportation
50206040	Delivery Services
50206050	Commercial Vehicle-Equipment Leasing
50206060	Transportation Services

Float eligibility criteria

At least 20% of a security's total shares outstanding must be publicly available for trading (float shares).

Other eligibility criteria

If, at reconstitution, Nasdaq becomes aware that an issuer or security will soon undergo a fundamental change that makes it ineligible, Nasdaq will remove the security from consideration. This includes entering into a definitive merger or acquisition agreement or other pending arrangement that would make it ineligible for Index inclusion, or a filing of bankruptcy or similar protection from creditors.

INDEX CALENDAR

Reconstitution schedule

The Index Reconstitution is conducted once annually in March.

Reconstitution reference dates

The Security Eligibility Criteria are applied using market data as of the end of February.

Reconstitution announcement dates

Index Reconstitutions are announced in early March.

Reconstitution effective dates

Index Reconstitutions are effective at market open on the first trading day after the third Friday in March.

Rebalance schedule

The Index is rebalanced quarterly in March, June, September and December.

Rebalance reference dates

Index rebalances use value factor data for Index Securities as of each previous quarter-end (December, March, June, and September, respectively) and volatility and growth factor data of all Index Securities as of the prior month-end (February, May, August and November, respectively).

Rebalance announcement dates

Index Rebalance changes are announced in early March, June, September and December.

Rebalance effective dates

Index Rebalance changes become effective at market open on the trading day following the third Friday in March, June, September and December.

CONSTITUENT SELECTION

Constituent selection process

Eligible securities are ranked by descending three-month average daily traded value. The top 30 securities are selected for the Semiconductor (NQSSSE), Food & Beverage (NQSSFB), Pharmaceuticals (NQSSPH), Transportation (NQSSTR), and Banks (NQSSBA) indexes. The top 50 securities are selected for the Retail (NQSSRE) and Oil & Gas (NQSSOG) indexes.

CONSTITUENT WEIGHTING

Constituent weighting scheme

The Index is a modified factor-weighted index.

Constituent weighting process

Index Securities receive factor values for three factors: Volatility, Value and Growth:

- Volatility is calculated as the trailing one-year volatility as of the last trading day in the prior month.
- Value is defined as the Cash Flow to Price ratio, which is calculated as the most recent reported cash flow data divided by market capitalization as of the previous quarter. (The Value scores are subject to an 80% winsorization: no score can be above the 90% percentile value or below the 10% percentile value.)
- Growth is calculated as the average of the three-month, six-month, nine-month and twelve-month price returns as of the last trading day in the prior month.

Index Securities' Factor Scores are calculated as the averages of the Index Securities' normalized Volatility, Value, and Growth factor z-scores. Negative Factor Scores are adjusted to equal the minimum positive Factor Score. Initial index weights are calculated as these adjusted Factor Scores divided by the sum of the adjusted Factor Scores of all securities in the Index. The Indexes then each undergo a three-stage weight adjustment process.

Stage 1

Initial Index weights are adjusted to meet the following Stage 1 constraint, producing the Stage 1 weights:

- No Index Security weight may exceed 8%.

Stage 2

Stage 1 weights are adjusted to meet the following Stage 2 constraints, producing the Stage 2 weights:

- For the Index Securities with the five highest adjusted Factor Scores, stage 1 weights are maintained.
- For all other Index Securities, no weight may exceed 4%.

Stage 3

Stage 2 weights are adjusted to meet the following Stage 3 constraints, producing the final weights:

- No Index security weight may be less than 0.25%.

INDEX MAINTENANCE

Deletion policy

If, at any time during the year other than the Index Reconstitution(s), an Index Security no longer meets the Eligibility Criteria, or is otherwise determined to have become ineligible for inclusion in the Index, it is removed from the Index. This includes circumstances where an Index Security is determined to be 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. Please refer to **Nasdaq's Corporate Actions and Events Manual – Equities** for detailed handling of the aforementioned event types.

Replacement policy

Index securities deleted at any time during the year other than the Index Reconstitution(s) are not replaced.

Corporate actions

In the interim periods between scheduled index reconstitution events, individual Index securities may be the subject to a variety of corporate actions and events that require maintenance and adjustments to the Index. Specific treatment of each type of corporate action or event is described in Nasdaq **Corporate Actions and Events Manual – Equities**, which is incorporated herein by reference.

In certain cases, corporate actions and events are handled according to the weighting scheme or other index construction techniques employed. Wherever alternate methods are described, the Index will follow the "Market Cap Corporate Action Method."

Index share adjustments

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.

For handling of changes in total shares outstanding (TSO) greater than 10% arising from other corporate events, please refer to Nasdaq **Corporate Actions and Events Manual – Equities**.

ADDITIONAL INFORMATION

Announcements

Nasdaq announces Index-related information via the Nasdaq Global Index Watch (GIW) website at <http://indexes.nasdaqomx.com>.

For more information on the general Index Announcement procedures, please refer to the **Nasdaq Index Methodology Guide**.

Holiday schedules

The Indexes are calculated Monday through Friday, except on days when the Nasdaq US exchange is closed.

Unexpected market closures

For information on Unexpected Market Closures, please refer to the **Nasdaq Index Methodology Guide**.

Calculation types

For information on the Index calculation types as well as the mathematical approach used to calculate the Index(es), please refer to the **Calculation Manual – Equities & Commodities**.

Recalculation and restatement policy

For information on the Recalculation and Restatement Policy, please refer to the **Nasdaq Index Recalculation Policy**.

Data sources

For information on data sources, please refer to the **Nasdaq Index Methodology Guide**.

Contact information

For any questions regarding an Index, please contact the Nasdaq Index Client Services team at indexservices@nasdaq.com.

Index dissemination

Index values and weightings information are available through Nasdaq Global Index Watch (GIW) website at <https://indexes.nasdaqomx.com/> 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, see the **Nasdaq Index Methodology Guide**.

Index calculation and dissemination schedule

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 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.

Website

For further information, please refer to Nasdaq GIW website at <https://indexes.nasdaqomx.com/>.

FTP and dissemination service

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 follow the same governance structure. For a detailed list of this information, please see the **Nasdaq Index Methodology Guide**.

Nasdaq Index Management Committee

The Nasdaq Index Management Committee approves all new Index Methodologies. This committee is comprised of full-time professional members of Nasdaq. The committee meets regularly, and reviews items including, but not limited to, pending corporate actions that may affect Index constituents, statistics comparing the composition of the indexes to the market, companies that are being considered as candidates for addition to an Index, and any significant market events.

For a detailed overview of the Index Management Committee, please see the **Nasdaq Index Methodology Guide**.

Internal reviews of methodology

For a detailed description on internal reviews of the Methodology, please see the **Nasdaq Index Methodology Guide**.

Communication with stakeholders and consultations

For a detailed description on Consultations and Communications with Stakeholders, please see the **Nasdaq Index Methodology Guide**.

Index cessation

Nasdaq has a documented procedure that is followed for Index Cessation that includes termination/retirement of an Index or Index Family.

For more information, please refer to the **Nasdaq Index Cessation Policy**.

Discretionary adjustment

This Index Methodology was created by Nasdaq to achieve the aforementioned objective of measuring the underlying purpose of each Index governed by this methodology document. Any deviations from this methodology are made in the sole judgment and discretion of Nasdaq so that the Index continues to achieve its objective.

For more information on potential adjustments including Calculation and Pricing Disruptions, Expert Judgment, and Unexpected Reconstitution/Rebalances, please refer to the **Nasdaq Index Methodology Guide**.

GLOSSARY OF TERMS AS USED IN THIS DOCUMENT

For the glossary of key terms, 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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