



INDEX METHODOLOGY

NASDAQ US SMART SECTOR INDEXES

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

INDEX DESCRIPTION

The Nasdaq US Smart Sector Index Family is designed to deliver exposure to the top factor-ranked securities across the following classifications.

Nasdaq US Smart Banks Index (NQSSBA)

Consists of the 30 to 50 top factor-ranked securities from US Bank companies.

Nasdaq US Smart Food & Beverage Index (NQSSFB)

Consists of the 30 to 50 top factor-ranked securities from US Food & Beverage companies.

Nasdaq US Smart Oil & Gas Index (NQSSOG)

Consists of the 30 to 50 top factor-ranked securities from US Oil & Gas companies.

Nasdaq US Smart Pharmaceuticals Index (NQSSPH)

Consists of the 30 to 50 top factor-ranked securities from US Pharmaceutical and Biotechnology companies.

Nasdaq US Smart Retail Index (NQSSRE)

Consists of the 30 to 50 top factor-ranked securities from US Retail companies.

Nasdaq US Smart Semiconductor Index (NQSSSE)

Consists of the 30 to 50 top factor-ranked securities from US Semiconductor companies.

Nasdaq US Smart Transportation Index (NQSSTR)

Consists of the 30 to 50 top factor-ranked securities from US Transportation companies.

SECURITY ELIGIBILITY CRITERIA

Index inclusion

A security must be included in the Nasdaq US Benchmark Index (NQUSB) as of the Index Reconstitution Reference Date. Please refer to that methodology for further information on its constituent selection.

Multiple securities per issuer

One security per issuer is permitted. If an issuer has multiple otherwise-eligible securities, only the security with the highest three-month average daily traded value may be eligible.

Industries and sectors

Securities within each US Smart Sector index must be classified under the Subsector(s) indicated below. 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
20103010 Biotechnology

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

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, or other events as described in Section 3 of **Corporate Actions and Events Manual – Equities**.

INDEX CALENDAR

Reconstitution schedule

The Index Reconstitution is conducted semi-annually in March and September by applying the Constituent Selection Process to all securities meeting the applicable Security Eligibility Criteria.

Reconstitution reference dates

The Index is reconstituted using market data as of the last trading day of February or August, and income, return on assets (ROA), cash flows and book values data as of the last trading day of December or June.

Reconstitution announcement dates

Index Reconstitutions are announced in early March and September.

Reconstitution effective dates

Index Reconstitutions become effective at market open on the first trading day following the third Friday in March and September.

Rebalance schedule

The Index is rebalanced in conjunction with the Reconstitution by applying the Constituent Weighting Process. The Rebalance announcement, effective and reference dates are the same as those of the Index Reconstitution.

Holiday schedule

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

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.

CONSTITUENT SELECTION

Constituent selection process

Stage 1

By default, eligible securities are selected with at least 2.5 billion USD company market capitalization and at least 5 million USD three-month average daily traded value. Any security with missing values is still maintained in the eligible security list but assigned zero value.

If the eligible securities in the default selection process are less than 30 names, the following alternative selection process will become effective:

1. Select the 30 largest securities with at least 5 million USD three-month average daily traded value.
2. If the eligible securities are still less than 30 names, add most liquid securities not already in the list until there is exactly 30 names.

Stage 2

The remaining eligible securities are ranked by the total sum of the below four Factor Scores, producing Final Factor Scores. Any security with missing or negative values is still maintained in the eligible security list but will be ranked last.

1. Profit score is the ranking based on gross income (or net income for NQSSBA — Nasdaq US Smart Banks Index) in descending order.
2. ROA score is the ranking based on return on asset in descending order.
3. Momentum score is the ranking based on the average of 3 months, 6 months, 9 months and 12 months USD price returns in descending order.
4. Cash flow / Book value score¹ is the ranking based on cash flow, defined as operating cash flow minus stock-option expense (or book value for NQSSBA) in descending order.

Stage 3

If there are exactly 30 names, the selection process is complete and the screening below is not applied:

1. The bottom 25% ranked securities will be removed but 30 to 50 names will be kept in the final eligible security list.

CONSTITUENT WEIGHTING

Constituent weighting scheme

The Index is a modified factor-weighted index.

¹ Cash flow / Book value score is multiplied by 0.01. This Factor Score is given limited weight as it serves as a tiebreaker where other factors are inconclusive.

Constituent weighting process

Determination of initial weights

NQSSBA

Each Index Security's initial index weight is calculated by dividing its book value by the sum of book values of all Index Securities. Any security with a missing or negative book value is assigned a book value of \$0.

NQSSFB, NQSSOG, NQSSPH, NQSSRE, NQSSSE, NQSSTR

Each Index Security's initial index weight is calculated by dividing its cash flows (defined as operating cash flow minus stock-option expense) by the sum of the cash flows of all Index Securities. Any security with a missing or negative cash flow is assigned a cash flow of \$0.

Application of weight constraints

Each Index undergoes a three-stage weight adjustment process using the initial weights established above to determine the final Index Security weights.

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 an Index Security whose initial weight is among the five highest, its Stage 1 weight is maintained.
- For all other Index Securities, no weight may exceed 4%.

Stage 3

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

- No Index Security weight may be less than 0.5%.

For additional information about index weighting, refer to **Nasdaq Index Weight Calculations**.

INDEX MAINTENANCE

Deletion policy

If, at any time other than an Index Reconstitution, Nasdaq becomes aware that an Index Security has become ineligible for continued inclusion, it is removed from the Index(es) as soon as practicable. This includes events such as filing bankruptcy or similar protection from creditors, delisting, or other arrangements, including mergers and acquisitions. Refer to the **Corporate Actions and Events Manual – Equities** for further information.

Replacement policy

Index Securities are not replaced between Index Reconstitutions.

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

Other than as a direct result of corporate actions, the Index does not normally experience share adjustments between scheduled Index Rebalance and Reconstitution events.

APPENDIX: METHODOLOGY CHANGE LOG

Effective date	Methodology section	Description or summary of changes
March 20, 2023	Index description	The maximum number of securities allowed for all Indexes in the Index Family is set to 50.
March 20, 2023	Security eligibility: Industries and sectors	The industry eligibility for NQSSPH is expanded to include Biotechnology.
March 20, 2023	Index calendar: Reconstitution schedule	The Index Reconstitution schedule is changed to semi-annually. Reconstitution reference, announcement and effective dates are changed accordingly.
March 20, 2023	Index calendar: Rebalance schedule	The Index Rebalance schedule is changed to semi-annually. Rebalance reference, announcement and effective dates are changed accordingly.
March 20, 2023	Constituent selection: Constituent selection process	Ranking of eligible securities is changed to factor ranking. A default constituent selection process is introduced with a minimum company market capitalization and liquidity criteria. An alternative selection process is introduced and is applied only when the default process produces less than 30 names. The remaining eligible securities are ranked by four Factor Scores: Profit score, ROA score, Momentum score and Cash flow / Book value score. A new process of removing the bottom 25% ranked

		securities is applied while maintaining 30 to 50 securities in the final eligible security list.
March 20, 2023	Constituent weighting: Constituent weighting process	The initial index weight calculation is changed to be based on security cash flows for all Indexes except for the Banks Index (NQSSBA), which is based on security book values.
March 20, 2023	Constituent weighting: Constituent weighting process	The minimum Index security weight is set to 0.5%.

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**.

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 detailed information regarding Index Dissemination, see the **Nasdaq Index Methodology Guide**.

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

Nasdaq Indexes are managed by the governance committee structure and have transparent governance, oversight and accountability procedures for the index determination process. For further details on the Index Methodology and Governance overlay, refer to the **Nasdaq Index Methodology Guide**.

Nasdaq Index Management Committee

The Nasdaq Index Management Committee is responsible for the overall oversight of activities related to the development, issuance, and operation of Nasdaq Indexes. The Committee reviews and approves all new Index Methodologies as well as updates to existing methodologies. For a detailed overview of the Index Management Committee, refer to the **Nasdaq Index Methodology Guide**.

Nasdaq U.S. Oversight Committee

The U.S. Oversight Committee is responsible for the oversight of the overall Benchmark determination process and is responsible for the overall governance of the U.S.-based Index business including review and approval of the control framework, certain policies and procedures, certain methodologies and methodology changes and other Index management oversight.

For detailed about the U.S. Oversight Committee, refer to the **Nasdaq Index Methodology Guide**.

Internal reviews of methodology

All new methodologies or updates to existing methodologies must be reviewed by the Index Management Committee. Additionally, all in-scope Index methodologies are subject to an annual review

by the Index Management Committee and U.S. Oversight Committee. For a detailed description on internal reviews of the Methodology, refer to the **Nasdaq Index Methodology Guide**.

Communication with stakeholders and consultations

In certain circumstances, Nasdaq will seek feedback from clients and market participants via consultations. For a detailed description on Consultations and Communications with Stakeholders, refer to 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, 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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