

# Nasdaq Global Millennial Opportunity Index<sup>SM</sup> Methodology

## Index Description

The Nasdaq Global Millennial Opportunity Index<sup>SM</sup> is designed to provide exposure to companies within the Nasdaq Global Index that are considered to be driven by Millennials.

## Index Calculation

The Nasdaq Global Millennial Opportunity Index is a modified equal dollar 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 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 reporting purposes. The Index began on May 23, 2016 at a base value of 1000.

The formula for index value is as follows:

$$\text{Aggregate Adjusted Market Value/Divisor}$$

The formula for the divisor is as follows:

$$\frac{\text{(Market Value after Adjustments/Market Value before Adjustments)} \times \text{Divisor before Adjustments}}$$

Three versions of the Index are calculated:

- The price return index (Nasdaq: NQGMOI) is ordinarily calculated without regard to cash dividends on Index Securities.
- The total return index (Nasdaq: NQGMOIT) reinvests cash dividends on the exdate.
- The net total return index (Nasdaq: NQGMOIN) reinvests cash dividends on the exdate based on an Index security's country of incorporation withholding rate.

All Indexes reflect extraordinary cash distributions.

The Indexes are calculated during the trading day and are disseminated once per second. The Indexes are calculated five (5) days a week, Monday through Friday, starting by the earliest time zone Asia/Tokyo and close by the latest time zone America/New York in USD.

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<sup>1</sup> 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.

## Eligibility

Index eligibility is limited to specific security types only. The security types eligible for the index include common stocks, ordinary shares, depository receipts, shares of beneficial interest 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 Global Index (NQGI); ○ If a security is not a component of the Nasdaq Global Index but is listed on an eligible global exchange, then that security may also be eligible if it meets all other eligibility criteria.
- one security per issuer is permitted<sup>2</sup>;
- have a minimum market capitalization of \$200 million;
- be classified as having high or medium exposure to Millennials;
- may not have entered into a definitive agreement or other arrangement which would likely result in the security no longer being Index eligible;
- may not be issued by an issuer currently in bankruptcy proceedings; and □ additional proprietary eligibility are applied.

## Ranking Review

Securities in the high exposure Millennials are broken up into large capitalization (cap) and small-mid cap by having the largest 50% of securities by market cap considered to be large cap and the rest as small-mid cap. The same process is done for securities that have medium exposure to Millennials.

Then, securities are ranked based upon the following two factors: with quality growth and value (using data as of the most recent year-end).

Every security receives a rank based upon their scores for these two factors. Each of these factors are then combined and equally weighted. Securities must receive either high or medium exposure to Millennials in order to be included in the two factor analysis. Securities having high exposure to Millennials receive 70% of the weight of the index and the remaining 30% of the weight of the index contains companies with medium exposure. High exposure companies are broken down into two groups – large cap (40% index weight) and small-mid-cap (30% index weight). Large cap high exposure Millennial companies in the top 50% of the two factor ranking receive 24% index weight and large cap high exposure securities in the bottom 50% of the two factor ranking receive 16% index weight. Smallmid-cap high exposure Millennial companies in the top 50% of the two factor ranking system receive 18% index weight and securities in the bottom 50% of the two factor ranking system receive 12% index weight. Securities deemed to have medium exposure to

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<sup>2</sup> If an issuer has multiple securities, the security with the highest dollar trading volume will be selected for possible inclusion into the Index.

Millennials must be ranked in the top 50% of the large or small-mid-cap counterparts to receive a weight in the index. Large cap medium exposure Millennial companies receive 20% of the index weight (in the top 50% of the two factor ranking system) and small-midcap medium exposure Millennial companies receive 10% of the index weight (in the top 50% of the two factor ranking system). Securities within each of the six assigned buckets are equally weighted.

Six eligible buckets of securities:

1. Large cap, high exposure to Millennials, top 50% of the two factor ranking system (24% index weight)
2. Large cap, high exposure to Millennials, bottom 50% of the two factor ranking system (16% index weight)
3. Small-mid-cap, high exposure to Millennials, top 50% of the two factor ranking system (18% index weight)
4. Small-mid-cap, high exposure to Millennials, bottom 50% of the two factor ranking system (12% index weight)
5. Large cap, medium exposure to Millennials, top 50% of the two factor ranking system (20% index weight)
6. Small-mid-cap, medium exposure to Millennials, top 50% of the two factor ranking system (10% index weight)

## **Index Evaluation**

The Index is evaluated annually in May. The above Eligibility Criteria are applied using market data through the end of March. Securities meeting the criteria are included in the Index. Security additions and deletions are made effective after the close of trading on the second Friday in May.

Additionally, if at any time during the year other than the Evaluation, an Index Security no longer meets the Eligibility Criteria, or is otherwise determined to have become ineligible for inclusion in the Index, 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.

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

### **Index Weighting**

The Index employs a modified equal dollar weighting methodology. At the rebalancing, the Index is rebalanced such that the weights laid out in the ranking review for each Index security are applied.

The weighting methodology is applied to the capitalization of each Index Security, using the Last Sale Price of the security at the close of trading on the last trading day in March. Index Shares are then calculated multiplying the weight of the security derived above by the new market value of the Index and dividing the modified market capitalization for each Index Security by its corresponding Last Sale Price. The changes are effective after the close of trading on the second Friday in May.

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

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