

PHLX Semiconductor Sector Index Methodology

Index Description

The PHLX Semiconductor Sector Index is designed to track the performance of a set of companies engaged in the design, distribution, manufacture, and sale of semiconductors.

Index Calculation

The PHLX Semiconductor Sector Index is a modified 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 such security's Last Sale Price¹, and divided by the divisor of the Index. The divisor serves the purpose of scaling such aggregate index value to a lower order of magnitude which is more desirable for reporting purposes. The Index began on December 1, 1993 at a base value of 100.00, 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

Two versions of the Index are calculated – a price return index and a total return index.

- The price return index (NASDAQ: SOX) is ordinarily calculated without regard to cash dividends on Index Securities.
- The total return index (NASDAQ: XSOX) reinvests cash dividends on the ex-date.

Both Indexes reflect extraordinary cash distributions. The total return index was synchronized to the value of the price return index at the close on December 22, 2009.

The Index is calculated during the trading day and is disseminated once per second from 09:30:01 to 17:16:00 Eastern Time (ET) in USD. The closing value of the Index may change up until 17:15:00 ET due to corrections to the Last Sale Price of the Index Securities. If trading in an Index Security is halted on its primary listing market, the most recent Last Sale Price 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.

Eligibility

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.

Index eligibility is limited to specific security types only. The security types eligible for the Index include common stocks, ordinary shares, ADRs, shares of beneficial interest or limited partnership interests.

Initial Security Eligibility Criteria

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

- be listed on The Nasdaq Stock Market® (Nasdaq®), the New York Stock Exchange, NYSE American, or the CBOE Exchange;
- be classified as a company whose primary business is involved in the design, distribution, manufacture, and sale of semiconductors under Industry Classification Benchmark (ICB)² code 9576;
- have a minimum market capitalization of at least \$100 million;
- have traded at least 1.5 million shares in each of the last six months;
- one security per issuer is permitted. If an issuer has multiple securities, the security with the largest market capitalization will be selected for possible inclusion into the Index.
- 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.;
- may not be issued by an issuer currently in bankruptcy proceedings;
- 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
- have “seasoned” on a recognized market for at least 3 months.

Index Evaluation

The Index Securities are evaluated annually in September. The above Eligibility Criteria are applied using market data as of the end of July. Securities meeting the criteria are then ranked by market capitalization. The top 30 securities by market capitalization are included in the Index. Security additions and deletions are made effective after the close of trading on the third Friday in September.

Additionally, if at any time during the year other than the Ranking Review, an Index Security is determined to have become ineligible for continued inclusion in the Index, or at the end of January, April, July or October does not have a Last Sale Price of \$3.00 it is replaced with the largest market capitalization security not currently in the Index and meeting the Index Eligibility Criteria listed above as well as the \$3.00 Last Sale Price. 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 Index 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.

² Industry Classification Benchmark (ICB) is a product of FTSE International Limited and has been licensed for use.

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%³, the change is made as soon as practicable. Otherwise, if the change in total shares outstanding is less than 10.0%, then all such changes are accumulated through the end of February, May, August and November and made effective at one time on a quarterly basis after the close of trading on the third Friday in March, June, September and December, respectively. The Index Shares are adjusted by the same percentage amount by which the total shares outstanding have changed.

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 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 Rebalancing

The Index employs a modified market capitalization weighting methodology. At each quarter, the Index is rebalanced such that the maximum weight of any Index Security does not exceed 8% and no more than 5 securities are at that cap. The excess weight of any capped security is distributed proportionally across the remaining Index Securities. If after redistribution, any of the 5 highest ranked Index Securities are weighted below 8%, these securities are not capped. Next, any remaining Index Securities in excess of 4% are capped at 4% and the excess weight is redistributed proportionally across the remaining Index Securities. The process is repeated, if necessary, to derive the final weights.

The modified market capitalization 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 February, May, August and November. 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 trading on the third Friday in March, June, September and December.

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

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