

# NASDAQ Asia ex Japan Dividend Achievers™ Index Methodology

## Index Description

The NASDAQ Asia ex Japan Dividend Achievers Index is comprised of accepted securities with at least three consecutive years of increasing annual regular dividend payments from a universe of components that are determined to be Hong Kong, Singapore, China, India, Indonesia, Korea, Malaysia, Philippines, Taiwan, and Thailand.

## Index Calculation

The NASDAQ Asia ex Japan Dividend Achievers Index is a float adjusted modified market capitalization weighted index. The value of the Index equals the aggregate value of the Index share weights, also known as the Index Shares<sup>1</sup>, of each of the Index Securities multiplied by each such security's Last Sale Price<sup>2</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 Index reporting purposes. The Index began on January 13, 2014 at a 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

Six version of the Index are calculated – a price return index, a total return index and a net total return index.

- The price return Index in USD (Nasdaq: DAAXJP) is ordinarily calculated without regard to cash dividends on Index Securities.
- The total return Index in USD (Nasdaq: DAAXJPT) reinvests cash dividends on the ex-date.
- The net total return Index in USD (Nasdaq: DAAXJPN) reinvests cash dividends on the ex-date and adjusts for an Index security's country of incorporation withholding rate.
- The price return Index in HKD (Nasdaq: DAAXJPHKD) is ordinarily calculated without regard to cash dividends on Index Securities.
- The total return Index in HKD (Nasdaq: DAAXJPHKDT) reinvests cash dividends on the ex-date.

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<sup>1</sup> Index Shares are the free float shares outstanding determined by multiplying the total shares outstanding by the free float factor provided by Thomson Reuters.

<sup>2</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.

- The net total return Index in HKD (Nasdaq: DAAXJPHKDN) reinvests cash dividends on the ex-date and adjusts for 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 during Asia hours.

## **Eligibility**

Index eligibility is limited to specific security types only. The security types eligible for the Index include common stocks, limited partnership interests, REITs, shares or units of beneficial interest, and shares of limited liability companies.

## **Eligibility Criteria**

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

- be included in the NASDAQ Asia Pacific Ex-Japan Index (NQASPAXJP);
- not be classified as New Zealand or Australia by Nasdaq;
- not be classified as a 'B' Share if a security is classified as China by Nasdaq
- not be classified as Mortgage Real Estate Investment Trusts or Real Estate Investment Trusts at the Sector level, as defined by the Industry Classification Benchmark (ICB);
- not have met foreign ownership restriction limitations;
- must have a minimum float adjusted market capitalization of \$200 million;
- must have a minimum three-month average daily dollar trading volume of \$500 thousand;
- must have at least three consecutive years of increasing annual regular dividends based on ex-date;
- must have a Dividend Sustainability score greater than or equal to 80 as calculated in Appendix B;
- must rank within the top 70% of components by yield at the time of review;
- must rank within the top 80% of components by yield at the time of review if they were in the index in the prior period;
- one security per issuer is permitted. If an issuer has multiple securities, the security with the highest three-month average daily dollar trading volume will be selected for possible inclusion into the Index;
- 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.

## **Ranking Review**

The Index Securities are evaluated annually in March. The above Eligibility Criteria are applied using market data through the end of December. Securities meeting the eligibility criteria and are in the top 70% by yield are included in the index. Index Securities which are already included in the index and rank within the top 80% by yield are also retained in the index and those Index Securities which meet all eligibility rules but are outside the top 80% by yield are removed from the index. Security additions and deletions are made effective after the close of trading on the third Friday in March.

## **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%, 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 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. Intra-quarter, 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.

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. Additionally, at each month-end, if an Index Security suspends its dividend payments based on the prior ex-date of the last dividend distributed, then the Index Security will be removed from the Index after the close of trading on the third Friday of the following month. In all cases, a security is 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 Rebalancing**

The Index employs a float adjusted modified market capitalization weighting methodology. Float takes into account strategic and government holdings, as well as foreign ownership limits. Under the methodology,

- 1.) No single country can have a weight greater than 40%.
- 2.) The aggregate weight of securities listed on exchanges not approved by MPFA regulation is no greater than 10%.
- 3.) No single stock can have a weight of more than 8% in the Index.
- 4.) No country can have more than two (2) securities in excess of 4%.
- 5.) The maximum number of securities in excess of 4% is five (5).

The Index is rebalanced such that the maximum, aggregate weight of Index Securities of any single country is not greater than 40%. When applicable, the excess weight of a

country (when greater than 40%) and/or the aggregate unapproved exchange-listed securities (when greater than 10%) is distributed to all other securities that have not been capped. Simultaneously, the securities are reviewed to ensure that no single security has a weight greater than 8%. The excess weight of any capped country or capped security is distributed proportionally across the securities in the remaining countries.

If, after redistribution, another country's weight is greater than 40%, the process is repeated until no country's weight is greater than 40%. If a security is greater than 8%, it is capped at 8% and the excess weight is redistributed proportionally across all the remaining Index Securities that have not already been capped, including the unapproved exchange listed securities when applicable. If, after redistribution, any of the five (5) highest ranked Index Securities are weighted above 4% and less than or equal to 8%, these securities are not capped. However, if a country has more than two (2) securities greater than 4%, all securities greater than 4% will be capped at 4% if possible and their excess weight will be redistributed proportionally across the remaining securities, including the unapproved exchange listed securities when applicable. The same process is repeated for any Index Securities in excess of 4%. The process is repeated, if necessary, to derive the final weights.

The modified market capitalization weighted 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 float adjusted modified market capitalization for each Index Security by its corresponding Last Sale Price. The changes are effective after the close of trading on the third Friday in March, June, September and December.

**Appendix A: List of Exchanges Approved by MPFA**

<b>Country</b>	<b>Name of Approved Stock Exchanges</b>
Australia	Australian Securities Exchange
Austria	Vienna Stock Exchange
Belgium	Euronext Brussels
Brazil	B3 S.A. - Brasil, Bolsa, Balcão
Canada	Toronto Stock Exchange
China	Shanghai Stock Exchange
China	Shenzhen Stock Exchange
China	Taiwan Stock Exchange
Denmark	Nasdaq Copenhagen
Finland	Nasdaq Helsinki
France	Euronext Paris
Germany	Frankfurt Stock Exchange
Greece	Athens Stock Exchange
India	BSE
India	National Stock Exchange of India
Indonesia	Indonesia Stock Exchange
Ireland	Euronext Dublin
Israel	Tel-Aviv Stock Exchange
Italy	Borsa Italiana
Japan	Nagoya Stock Exchange
Japan	Tokyo Stock Exchange
Korea	Korea Exchange

Luxembourg	Luxembourg Stock Exchange
Malaysia	Bursa Malaysia
Mexico	Mexican Stock Exchange
Netherlands	Euronext Amsterdam
New Zealand	NZX
Norway	Oslo Børs
Philippines	Philippine Stock Exchange
Poland	Warsaw Stock Exchange
Portugal	Euronext Lisbon
Singapore	Singapore Exchange Securities Trading
South Africa	Johannesburg Stock Exchange
Spain	Madrid Stock Exchange
Sweden	Nasdaq Stockholm
Switzerland	SIX Swiss Exchange
Thailand	Stock Exchange of Thailand
United Kingdom	London Stock Exchange
USA	Cboe BZX Exchange
USA	NYSE American
USA	NASDAQ Stock Market
USA	New York Stock Exchange
USA	NYSE Arca
USA	Nasdaq PHLX

## Appendix B: Dividend Sustainability Score

The Dividend Sustainability Score (DSS) is a measure used to evaluate the reliability of a company's dividend payments over a five-year period. The calculation is based on the company's Payout Ratio (PR), which is the proportion of operating cash flow paid out as dividends to shareholders.

The DSS of a security is calculated by following these four steps:

### Step 1: Determine Payout Ratio

PR is only calculated for securities with positive OCF, using the formula  $PR = \text{Dividends Per Share (DPS)} / \text{Operating Cash Flow Per Share (OCF Per Share)}$ . If OCF is negative in a given year, the PR is left blank for that year, but the security remains under consideration.

### Step 2: Assign Initial Scores

Initial Scores (IS) are assigned based on the PR of each year, from the current year ( $t=0$ ) to the previous four years ( $t=-4$ ). The IS values ranges from 0 to 5.

$$IS_{Year_t} = \begin{cases} 5 & \text{if } 0.0 < PR < 0.5 \\ 4 & \text{if } 0.5 \leq PR < 0.8 \\ 3 & \text{if } 0.8 \leq PR < 1.0 \\ 2 & \text{if } 1.0 \leq PR < 1.3 \\ 1 & \text{if } 1.3 \leq PR < 2.0 \\ 0 & \text{otherwise} \end{cases}$$

### Step 3: Calculate Weighted Scores

Each year's IS is multiplied by a factor decreasing from 10 to 6, depending on the recency of the year, to calculate Weighted Scores (WS).

$$\begin{aligned} WS_{Year_0} &= IS_{Year_0} \times 10 \\ WS_{Year_{-1}} &= IS_{Year_{-1}} \times 9 \\ WS_{Year_{-2}} &= IS_{Year_{-2}} \times 8 \\ WS_{Year_{-3}} &= IS_{Year_{-3}} \times 7 \\ WS_{Year_{-4}} &= IS_{Year_{-4}} \times 6 \end{aligned}$$

### Step 4: Calculate the Final Score

The final score, DSS, is the sum of the Weighted Scores from the current year and the previous four years.

$$DSS = WS_{Year_0} + WS_{Year_{-1}} + WS_{Year_{-2}} + WS_{Year_{-3}} + WS_{Year_{-4}}$$

## Appendix C: Methodology Change Log

Effective Date	Methodology Section	Previous	Updated
12/18/2023	Appendix A: List of Exchanges Approved by MPFA	--	<p>Added exchanges by country:</p> <ol style="list-style-type: none"> <li>1.) China: Shanghai Stock Exchange, Shenzhen Stock Exchange</li> <li>2.) Indonesia: Indonesia Stock Exchange</li> <li>3.) Philippines: Philippine Stock Exchange</li> <li>4.) Poland: Warsaw Stock Exchange</li> <li>5.) United States: Cboe BZX Exchange</li> </ol> <p>Removed exchanges by country:</p> <ol style="list-style-type: none"> <li>1.) Japan: Jasdaq Securities Exchange, Osaka Securities Exchange</li> </ol>
12/18/2023	Appendix A: List of Exchanges Approved by MPFA	<ol style="list-style-type: none"> <li>1. Wiener Börse AG</li> <li>2. Sao Paulo Stock Exchange (BOVESPA)</li> <li>3. Copenhagen Stock Exchange</li> <li>4. Helsinki Exchanges</li> <li>5. Deutsche Börse AG</li> <li>6. Bombay Stock Exchange of India</li> <li>7. Irish Stock Exchange</li> <li>8. Italian Stock Exchange</li> <li>9. New Zealand Exchange</li> <li>10. JSE Securities Exchange South Africa</li> <li>11. Stockholmsbörsen</li> <li>12. American Stock Exchange</li> <li>13. Philadelphia Stock Exchange</li> </ol>	<ol style="list-style-type: none"> <li>1. Vienna Stock Exchange</li> <li>2. B3 S.A. - Brasil, Bolsa, Balcão</li> <li>3. Nasdaq Copenhagen</li> <li>4. Nasdaq Helsinki</li> <li>5. Frankfurt Stock Exchange</li> <li>6. BSE</li> <li>7. Euronext Dublin</li> <li>8. Borsa Italiana</li> <li>9. NZX</li> <li>10. Johannesburg Stock Exchange</li> <li>11. Nasdaq Stockholm</li> <li>12. NYSE American</li> <li>13. Nasdaq PHLX</li> </ol>
12/18/2023	Appendix B: Dividend Sustainability Score	--	See Appendix B: Dividend Sustainability Score.

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

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