S&P Asia 50

Methodology

December 2019
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Introduction

Index Objective and Highlights

The S&P Asia 50 measures the performance of 50 of the largest companies from the four major Asian markets of Hong Kong, Korea, Singapore, and Taiwan.

Constituents are analyzed for size and liquidity, and each component region has appropriate sector and country representation. The size of each market corresponds to its relative size in the index universe based on float-adjusted market capitalization.

Index Family

The index is a component index of S&P Global 1200. Each of the S&P Global 1200 component indices has its own distinct evolution and history, but all feature a consistent methodology. Other component indices of the S&P Global 1200 include the following:

- S&P 500
- S&P Europe 350
- S&P/TOPIX 150 (Japan)
- S&P/TSX 60 (Canada)
- S&P/ASX All Australian 50 (Australia)
- S&P Latin America 40

Representation

The index mirrors the sector weights of the broader universe of stocks from the four markets. Similarly, the index mirrors the country weights of the four markets within that same universe of stocks. This policy ensures that, with 50 companies, investors are approximating the sector and country mix of the region.

Supporting Documents

This methodology is meant to be read in conjunction with supporting documents providing greater detail with respect to the policies, procedures and calculations described herein. References throughout the methodology direct the reader to the relevant supporting document for further information on a specific topic. The list of the main supplemental documents for this methodology and the hyperlinks to those documents is as follows:

<table>
<thead>
<tr>
<th>Supporting Document</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P Dow Jones Indices’ Index Mathematics Methodology</td>
<td><a href="#">Index Mathematics Methodology</a></td>
</tr>
<tr>
<td>S&amp;P Dow Jones Indices’ Float Adjustment Methodology</td>
<td><a href="#">Float Adjustment Methodology</a></td>
</tr>
<tr>
<td>S&amp;P Dow Jones Indices’ Global Industry Classification Standard (GICS) Methodology</td>
<td><a href="#">GICS Methodology</a></td>
</tr>
</tbody>
</table>

This methodology was created by S&P Dow Jones Indices to achieve the aforementioned objective of measuring the underlying interest of each index governed by this methodology document. Any changes to or deviations from this methodology are made in the sole judgment and discretion of S&P Dow Jones Indices so that the index continues to achieve its objective.

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1 For more information on the S&P Global 1200 index series, please refer to the S&P Global 1200 Methodology available at [www.spdji.com](http://www.spdji.com).
Eligibility Criteria

Index Eligibility

The index constituents are drawn from the S&P BMI country indices of Hong Kong, China, Korea, Singapore, and Taiwan and must be trading on the stock exchanges of Hong Kong, Korea, Singapore, or Taiwan.

Eligibility Factors

Market Capitalization. The index is designed to include large companies from the five aforementioned markets. Market capitalization is a key criterion for constituent selection. Companies are included if they are among the largest companies from the four Asian markets in terms of float-adjusted market capitalization.

For companies with multiple share class lines, eligibility for index inclusion is based on the aggregated float-adjusted market capitalization of the company. The decision to include each publicly listed share class is evaluated line by line; the weight of each line will only reflect its own float, not the combined float of all the company’s lines.

In countries with regulated environments, where binding foreign investment limits exist at the sector or company level, the constituent's weight reflects either the foreign investment limit or the percentage float, whichever is more restrictive.

Liquidity. Liquidity is measured by the float turnover of the 12-month volume traded divided by the float-adjusted shares outstanding as of the rebalancing reference date. The higher a stock’s float turnover the more likely its inclusion (given two comparably sized companies). Generally, a minimum float turnover of 0.3 is necessary for inclusion for new constituents, and 0.24 for current constituents. For companies with multiple share classes, each listed line is reviewed independently to determine if it meets the liquidity criteria.

Domicile. A company’s domicile is determined based on a number of criteria that include headquarters of the company, registration, country of exchange listing, place of operations, and residence of the senior officers.


Eligible Securities. All common and preferred shares are eligible for inclusion in the S&P Dow Jones’ indices. Convertible stock, bonds, warrants, rights, and preferred stock that provide a guaranteed fixed return are not eligible.

Multiple Share Classes. All publicly listed multiple share class lines are eligible for index inclusion, subject to meeting the eligibility criteria. For more information regarding the treatment of multiple share classes, please refer to Approach A within the Multiple Share Classes section of the S&P Dow Jones Indices’ Equity Indices Policies & Practices document.

Sector Classification. Companies are classified by the Global Industry Classification Standard (GICS®). Many of the S&P Dow Jones Indices’ global indices provide geographic and economic balance over the 11 GICS sectors. These sectors, consistent throughout all the S&P Dow Jones indices, are Consumer Discretionary, Consumer Staples, Energy, Financials, Health Care, Industrials, Information Technology, Materials, Communication Services, Utilities, and Real Estate.
Index Construction

Constituent Selection
Constituent selection is at the discretion of the Index Committee and is based on the eligibility criteria.

Constituent Weighting
The index is weighted by float-adjusted market capitalization.

Index Calculations
The index is calculated by means of the divisor methodology used in all S&P Dow Jones Indices’ equity indices.

For more information on the index calculation methodology, please refer to the Market Capitalization Weighted Indices section of S&P Dow Jones Indices’ Index Mathematics Methodology.
Index Maintenance

Rebalancing

The index is rebalanced quarterly, effective after the close of trading on the third Friday of March, June, September and December. Except for the September rebalancing, the rebalancing reference date is after the market close of the last business day of the previous month. The rebalancing reference date for the September rebalancing is after the market close of the second to last Friday of August.

Additions. Index additions are made according to market size and liquidity, with a view to preserving regional, country, and sector representation in the index. An initial public offering (IPO) is added to the index only when an appropriate vacancy occurs and is subject to proven liquidity for at least six months. An exception may be made for extraordinary large global offerings where expected trading volume justifies inclusion.

Deletions. Deletions can occur due to acquisitions, mergers and spin-offs or due to bankruptcies or suspension. The latter is removed from the index at the best available price in the market. In some cases, stocks are removed at zero in recognition of constraints faced by investors in trading bankrupt or suspended stocks. Imposition of restrictive foreign investments in the sector or country within any of the countries is handled expeditiously to allow investors to exit the sector or country in the least unfavorable manner.

Spin-offs. The spun-off company is added to all the indices of which the parent company is a constituent at a zero price at the market close of the day before the ex-date (with no divisor adjustment). At the discretion of the Index Committee, a spin-off company may be retained in the parent stock’s index if the Committee determined it has a float-adjusted market capitalization representative of the parent index. If the spun-off company is determined not to be eligible to remain in the index, it will be removed after at least one day of regular trading (with a divisor adjustment).

Corporate Actions

For information on Corporate Actions, please refer to S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology.

Currency of Calculation and Additional Index Return Series

The index is calculated in real-time in U.S. dollars and Korean won using real-time spot Forex rates, as supplied by Reuters.

Daily index closing values are calculated in U.S. dollars and Korean won using spot exchange rates.

In addition to the indices detailed in this methodology, additional return series versions of the indices may be available, including, but not limited to: currency, currency hedged, decrement, fair value, inverse, leveraged, and risk control versions. For a list of available indices, please refer to S&P DJI’s All Indices by Methodology Report.

For information on various index calculations, please refer to S&P Dow Jones Indices’ Index Mathematics Methodology.
**Investable Weight Factor (IWF)**

All constituents of the index are assigned a float-adjustment factor, called an Investable Weight Factor (IWF). The IWF ranges between 0 and 1, and is an adjustment factor that accounts for the publicly available shares of a company. The company’s adjusted market capitalization is used to determine a constituent’s weight in the index.

*Please refer to S&P Dow Jones Indices’ Float Adjustment Methodology for a detailed description of float adjustment and Investable Weight Factor (IWF).*

**Other Adjustments**

In cases where there is no achievable market price for a stock being deleted, it may be removed at a zero or minimal price at the Index Committee’s discretion, in recognition of the constraints faced by investors in trading bankrupt or suspended stocks.

**Base Date and History Availability**

Index history availability, base date, and base value are shown in the table below.

<table>
<thead>
<tr>
<th>Index</th>
<th>Launch Date</th>
<th>First Value Date</th>
<th>Base Date</th>
<th>Base Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P Asia 50</td>
<td>08/30/1999</td>
<td>12/31/1997</td>
<td>06/10/2003</td>
<td>1000</td>
</tr>
</tbody>
</table>
Index Data

Calculation Return Types

S&P Dow Jones Indices calculates multiple return types which vary based on the treatment of regular cash dividends. The classification of regular cash dividends is determined by S&P Dow Jones Indices.

- Price Return (PR) versions are calculated without adjustments for regular cash dividends.
- Gross Total Return (TR) versions reinvest regular cash dividends at the close on the ex-date without consideration for withholding taxes.
- Net Total Return (NTR) versions, if available, reinvest regular cash dividends at the close on the ex-date after the deduction of applicable withholding taxes.

In the event there are no regular cash dividends on the ex-date, the daily performance of all three indices will be identical.

For a complete list of indices available, please refer to the daily index levels file (".SDL").

For more information on the classification of regular versus special cash dividends as well as the tax rates used in the calculation of net return, please refer to S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology.

For more information on the calculation of return types, please refer to S&P Dow Jones Indices’ Index Mathematics Methodology.
Index Governance

Index Committee

S&P Dow Jones Indices’ Asia Index Committee - Beijing maintains the index. All committee members are full-time professionals at S&P Dow Jones Indices. The Index Committee meets regularly. At each meeting, the Committee may review pending corporate actions that may affect index constituents, statistics comparing the composition of the index to the market, companies that are being considered as candidates for addition to the index, and any significant market events. In addition, the Index Committee may revise index policy covering rules for selecting companies, treatment of dividends, share counts or other matters.

S&P Dow Jones Indices considers information about changes to its indices and related matters to be potentially market moving and material. Therefore, all Index Committee discussions are confidential.

S&P Dow Jones Indices’ Index Committees reserve the right to make exceptions when applying the methodology if the need arises. In any scenario where the treatment differs from the general rules stated in this document or supplemental documents, clients will receive sufficient notice, whenever possible.

In addition to the daily governance of indices and maintenance of index methodologies, at least once within any 12-month period, the Index Committee reviews the methodology to ensure the indices continue to achieve the stated objectives, and that the data and methodology remain effective. In certain instances, S&P Dow Jones Indices may publish a consultation inviting comments from external parties.

For information on Quality Assurance and Internal Reviews of Methodology, please refer to S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology.
Index Policy

Announcements
All index constituents are evaluated daily for data needed to calculate index levels and returns. All events affecting the daily index calculation are typically announced in advance via the Index Corporate Events report (.SDE), delivered daily to all clients. Any unusual treatment of a corporate action or short notice of an event may be communicated via email to clients.

Market-sensitive announcements, including index constituent additions or deletions, are normally made outside of trading hours.

For more information, please refer to the Announcements section of S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology.

Pro-forma files
In addition to the corporate events file (.SDE), S&P Dow Jones Indices provides constituent pro-forma files each time the index rebalances. The pro-forma file is typically provided daily in advance of the rebalancing date and contains all constituents and their corresponding weights and index shares effective for the upcoming rebalancing.

Please visit www.spdji.com for a complete schedule of rebalancing timelines and pro-forma delivery times.

Holiday Schedule
The index is calculated on all business days of the year except when all component stock exchanges are closed.

A complete holiday schedule for the year is available at www.spdji.com.

Rebalancing
The Index Committee may change the date of a given rebalancing for reasons including market holidays occurring on or around the scheduled rebalancing date. Any such change will be announced with proper advance notice where possible.

Unexpected Exchange Closures
For information on Unexpected Exchange Closures, please refer to S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology.

Recalculation Policy
For information on the recalculation policy, please refer to S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology.

Intraday Recalculation
In the event that an international stock changes its Sedol and, consequently, its Reuters Code (RIC) at the opening, the new RIC is input for calculation purposes even if the information has not been publicly
disseminated on time. In such events when a new RIC is not available, the index calculation is based on the last traded price during the official trading hours on the stock exchange.

**Real-Time Calculation**

Real-time, intra-day, index calculations are executed for certain indices, whenever any of their primary exchanges are open. Real-time indices are not restated.

*For information on Calculations and Pricing Disruptions, Expert Judgment and Data Hierarchy, please refer to S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology.*

**Contact Information**

For questions regarding an index, please contact: index_services@spglobal.com.
Index Dissemination

Index levels are available through S&P Dow Jones Indices’ Web site at wwwspdji.com major quote vendors (see codes below), numerous investment-oriented Web sites, and various print and electronic media.

Tickers

The table below lists headline indices covered by this document. All versions of the below indices that may exist are also covered by this document. Please refer to S&P DJI’s All Indices by Methodology Report for a complete list of indices covered by this document.

<table>
<thead>
<tr>
<th>Index</th>
<th>Return Type</th>
<th>Bloomberg</th>
<th>Reuters</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P Asia 50 Index</td>
<td>Price Return</td>
<td>SPA50</td>
<td>.SPASIA</td>
</tr>
<tr>
<td></td>
<td>Total Return</td>
<td>SPAS50TR</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Net Total Return</td>
<td>SPAS50NT</td>
<td>--</td>
</tr>
<tr>
<td>S&amp;P Asia 50 (KRW) Index</td>
<td>Price Return</td>
<td>SPAS50KP</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Total Return</td>
<td>SPAS50KT</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Net Total Return</td>
<td>SPAS50KN</td>
<td>--</td>
</tr>
</tbody>
</table>

Index Data

Daily constituent and index level data are available via subscription.

For product information, please contact S&P Dow Jones Indices, wwwspdji.com/contact-us.

Web site

For further information, please refer to S&P Dow Jones Indices’ Web site at wwwspdji.com.
Appendix

Methodology Changes

Methodology changes since June 1, 2016 are as follows:

<table>
<thead>
<tr>
<th>Change</th>
<th>Effective Date (After Close)</th>
<th>Previous Methodology</th>
<th>Updated Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rebalancing Reference date</td>
<td>08/23/2019</td>
<td>The rebalancing reference date is after the market close of the last business day of the previous month.</td>
<td>Except for the September rebalancing, the rebalancing reference date is after the market close of the last business day of the previous month. The rebalancing reference date for the September rebalancing is after the market close of the second to last Friday of August.</td>
</tr>
<tr>
<td>Sector Classification</td>
<td>09/21/2018</td>
<td>Companies are classified by the Global Industry Classification Standard (GICS®). Many of the S&amp;P Dow Jones Indices' global indices provide geographic and economic balance over the 11 GICS sectors. These sectors, consistent throughout all the S&amp;P Dow Jones indices, are Consumer Discretionary, Consumer Staples, Energy, Financials, Health Care, Industrials, Information Technology, Materials, Telecommunication Services, Utilities, and Real Estate.</td>
<td>Companies are classified by the Global Industry Classification Standard (GICS®). Many of the S&amp;P Dow Jones Indices' global indices provide geographic and economic balance over the 11 GICS sectors. These sectors, consistent throughout all the S&amp;P Dow Jones indices, are Consumer Discretionary, Consumer Staples, Energy, Financials, Health Care, Industrials, Information Technology, Materials, Communication Services, Utilities, and Real Estate.</td>
</tr>
<tr>
<td>Multiple share classes</td>
<td>03/16/2018</td>
<td>Each company is represented once by the primary listing.</td>
<td>All publicly listed share class lines are eligible for index inclusion, provided they meet all other eligibility criteria on an individual share class line basis.</td>
</tr>
<tr>
<td>Liquidity</td>
<td>12/19/2016</td>
<td>Index constituents are ranked according to liquidity, measured by dollar value traded. The higher the 12-month value traded or float turnover of a stock, the more likely its inclusion (given two comparably sized companies). Generally, a minimum float turnover of 0.3 is necessary for inclusion.</td>
<td>Index constituents are ranked according to liquidity, measured by dollar value traded. The higher the 12-month value traded or float turnover of a stock, the more likely its inclusion (given two comparably sized companies). Generally, a minimum float turnover of 0.3 is necessary for inclusion for new constituents, and 0.24 for current constituents.</td>
</tr>
</tbody>
</table>
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