S&P Asia 50 *Methodology*

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Introduction

Index Objective and Highlights

The S&P Asia 50 measures the performance of 50 leading, large blue-chip 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 1200.¹ 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:

Supporting Document	URL
S&P Dow Jones Indices' Equity Indices Policies	Equity Indices Policies & Practices
& Practices Methodology	<u>Equity marcoon oncree an radiaced</u>
S&P Dow Jones Indices' Index Mathematics	Index Mathematics Methodology
Methodology	index Mathematics Methodology
S&P Dow Jones Indices' Float Adjustment	Float Adjustment Methodology
Methodology	Float Adjustment Methodology
S&P Dow Jones Indices' Global Industry	CICC Methodology
Classification Standard (GICS) Methodology	GICS Methodology

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.

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.

Eligibility Criteria

Index Eligibility

The index constituents are drawn from a universe of stocks representing over 95% of the market capitalization of the stock exchanges of Hong Kong, Korea, Singapore and Taiwan.

Eligibility Factors

Market Capitalization. The index is designed to include blue-chip companies from the four 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. 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. 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.

For a detailed description of Domiciles, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices document.

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, Telecommunication Services, Utilities and Real Estate.

Turnover. S&P Dow Jones Indices believes turnover in index membership should be avoided when possible. At times a company may appear to temporarily violate one or more of the addition criteria. However, the addition criteria are for addition to an index, not for continued membership. As a result, an index constituent that appears to violate criteria for addition to that index is not deleted unless ongoing conditions warrant an index change.

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 Capitalization Weighted Indices section of S&P Dow Jones Indices' Index Mathematics Methodology.

Index Maintenance

Changes in the index level reflect changes in the total market capitalization of the index that are caused by price movements in the market. They do not reflect changes in the market capitalization of the index, or of the individual stocks, that are caused by corporate actions such as dividend payments, stock splits, distributions to shareholders, mergers, or acquisitions. When a corporate action affects the price of a security – such as when the price drops on a special distribution ex-date – the price of the security is adjusted to reflect the ex-date and the index divisor is adjusted to offset any change in the total market value of the index.

When a stock is replaced by another stock, the index divisor is adjusted so that the change in index market value that results from the addition or deletion does not change the index level.

Please refer to S&P Dow Jones Indices' Index Mathematics Methodology for mathematical formulae and tables defining specific corporate actions.

Rebalancing

The index is rebalanced quarterly, effective after the close of trading on the third Friday of March, June, September and December.

Additions. An index addition generally is made only if a vacancy is created by an index deletion. 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.

Corporate Actions

For information on Corporate Actions, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices document located.

Currency, Currency Hedged, and Risk Control Indices

The index is calculated in real-time in U.S. dollars and Korean won using real-time spot Forex rates, as supplied by an established market information vendor.

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

Additional currency, currency hedged, and risk control versions of the index may be available. For a list of available currency, currency hedged, and risk control indices, please contact Client Services at index services@spglobal.com.

For more information on currency, currency hedged, and risk control indices, please refer to S&P Dow Jones Indices' Index Mathematics Methodology.

Base Date and History Availability

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

Index	Launch Date	First Value Date	Base Date	Base Valu e
S&P Asia 50	08/30/1999	12/31/1997	06/10/2003	1000

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.

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 document.

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

Settlement Price

The Final Settlement Price for CME Index Futures is the special opening quotation of the S&P Asia 50 stock price index calculated by S&P Dow Jones Indices, rounded to the nearest 1/100th of an index point. This value is based on the opening prices of the stocks at their respective primary exchanges on the third Friday of the contract month. Opening prices are converted from local currency to U.S. dollars based on the spot exchange rate provided by Reuters at 10:00AM Hong Kong Time on the day of Final Settlement Price calculation.

If a component stock in the index does not trade on the day scheduled for determination of the Final Settlement Price while the primary market for that stock is open for trading, the price of that stock is determined, for the purposes of calculating the Final Settlement Price, based on the most recent closing price of that stock.

If all primary exchanges are not scheduled to be open for trading, or the S&P Asia 50 stock price index is otherwise not scheduled to be published, on the third Friday of the contract month, the Final Settlement Price is determined on the first earlier day for which the index is scheduled to be published. The spot exchange rate at 10:00AM Hong Kong Time on the first earlier day for which the index is scheduled to be published is used to convert prices from local currency to U.S. dollars.

If one or more primary exchange(s) are scheduled to be open for trading while one or more primary exchange(s) are not scheduled to be open for trading on the day of Final Settlement calculation, the following method is employed for the purpose of determining the special opening quotation:

1. If the primary exchange of a component stock is scheduled to be open for trading on the day of Final Settlement Price calculation, the opening price of the stock at its primary exchange(s) is used. If the stock does not open for trading on the day scheduled for determination of the Final

Settlement Price while the primary market for that stock is open for trading, the price of that stock is determined, for the purposes of calculating the Final Settlement Price, based on the most recent closing price of that stock. The most recent closing prices are converted using the spot exchange rate used for all other open stocks on the primary exchange on the day of Final Settlement; (i.e. 10:00AM Hong Kong Time) on the third Friday of the contract month.

2. If the primary exchange of a component stock is not scheduled to be open for trading on the day of Final Settlement Price calculation, the most recent available closing price of the stock at its primary exchange is used. The 10:00AM Hong Kong Time spot exchange rate is used to convert prices from local currency to U.S. dollars on the day of Final Settlement irrespective of the exchanges different opening and closing times.

If the primary market for a component stock in the index does not open on the day scheduled for determination of the Final Settlement Price due to unforeseen circumstances, then the price of that stock is determined, for the purposes of calculating the Final Settlement Price, based on the opening price of that stock on the next day that its primary market is open for trading.

In event of an unscheduled close of one or more exchanges, the following actions are taken:

- 1. Friday's opening quotes from the exchange(s) that are open are converted to U.S. dollars using the 10:00AM Hong Kong Time spot exchange rate on the day of Final Settlement;
- 2. The next available opening price for the closed exchange(s) is used. The next available spot exchange rate at 10:00AM Hong Kong Time is used to convert prices from local currency to U.S. dollars.

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 document.

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 via ftp 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 document.

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 <u>www.spdji.com</u> 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 document.

Recalculation Policy

For information on the recalculation policy, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices document.

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 document.

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 www.spdji.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 currency, currency hedged, risk control, and return type versions of the below indices that may exist are also covered by this document. Please contact index_services@spglobal.com for a complete list of indices covered by this document.

Index	Return Type	Bloomberg	Reuters
S&P Asia 50 Index	Price Return	SPA50	.SPASIA
	Total Return	SPAS50TR	
	Net Total Return	SPAS50NT	
S&P Asia 50 (KRW) Index	Price Return	SPAS50KP	
	Total Return	SPAS50KT	
	Net Total Return	SPAS50KN	

FTP

Daily constituent and index level data are available via FTP subscription.

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

Web site

For further information, please refer to S&P Dow Jones Indices' Web site at www.spdji.com.

Appendix

Methodology Changes

Methodology changes since June 1, 2016 are as follows:

	Effective Date	Methodology	
Change	(After Close)	Previous	Updated
Multiple share classes	03/16/2018	Each company is represented once by the primary listing.	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.
Liquidity	12/19/2016	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.	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 companies) sized companies). Generally, a minimum float turnover of 0.3 is necessary for inclusion for new constituents, and 0.24 for current constituents.

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