

# S&P Dow Jones Indices

A Division of **S&P Global**

# S&P/HKEX GEM Index *Methodology*

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# Introduction

## Index Objective

S&P Dow Jones Indices and Hong Kong Exchanges and Clearing Limited (HKEX) together created the S&P/HKEX GEM Index, measuring the Growth Enterprise Market (GEM), an alternative stock market operated by Hong Kong Exchanges and Clearing Limited. The index is designed to measure the performance of high growth companies and is float-adjusted market capitalization weighted.

Subject to S&P Dow Jones Indices' compliance with the applicable law (including, without limitation, sanctions law), the index is maintained from a China-based investor perspective<sup>1</sup> and may include securities that would not be eligible for inclusion if maintained from a U.S./U.K./EU investor perspective.

## Highlights

The index is a benchmark for the GEM stocks listed on the Stock Exchange of Hong Kong (SEHK). The index does not have a fixed number of index constituents.

## Index Family

The S&P/HKEX index family includes the S&P/HKEX LargeCap Index, measuring the SEHK main board, and the S&P/HKEX GEM Index, which measures the SEHK Growth Enterprise Market.

*For information on the S&P/HKEX LargeCap index, please refer to the S&P/HKEX LargeCap Methodology available on our Web site, [www.spglobal.com/spdji/](http://www.spglobal.com/spdji/).*

## 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 & Practices Methodology	<a href="#">Equity Indices Policies &amp; Practices</a>
S&P Dow Jones Indices' Index Mathematics Methodology	<a href="#">Index Mathematics Methodology</a>
S&P Dow Jones Indices' Float Adjustment Methodology	<a href="#">Float Adjustment Methodology</a>

This methodology was created by S&P Dow Jones Indices to achieve the aforementioned objective of measuring the underlying interest of the 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.

<sup>1</sup> The investor perspective is the viewpoint of the investor relative to the index and component securities.

# Eligibility Criteria

## Eligibility Factors

**GEM Listing.** Any company whose shares are candidates for inclusion in the index must be listed on GEM. Limited partnerships, income trusts, preferred shares, exchangeable shares, warrants, units, rights, U.S. dollar-denominated securities and other financial instruments the Index Committee deems not appropriate as candidates are not eligible for inclusion in the index.

**Listing History.** All stocks must be listed on GEM for at least 12 full calendar months, as of the effective date of the quarterly rebalancing, before becoming eligible for inclusion in the index. Stocks listed for at least six full calendar months are eligible only if they rank in the top quartile of the index for both size and liquidity. The Index Committee, at its sole and absolute discretion, has the right to add any company before the 12-month period, if the Index Committee determines that the company's history warrants early inclusion.

**Multiple Share Classes.** Each company is represented once by the Designated Listing. For more information regarding the treatment of multiple share classes, please refer to Approach B within the Multiple Share Classes section of the S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

*Please refer to the Investable Weight Factor (IWF) section of Index Maintenance for further details on float adjustment.*

# Index Construction

## Constituent Selection

1. As of the reference date, all eligible candidates listed on GEM are combined with current index constituents to form the eligible index universe.
2. All companies in the universe are ranked by their total float-adjusted market capitalization in descending order, using updated shares and last traded board lot price.
3. A cumulative market value is calculated starting with the largest company and concluding with the smallest company in the universe.
4. The cumulative market values calculated above become the capitalization aggregates used for the relative weight calculations. A relative weight for each company is calculated against the cumulative market value up to and including that stock (i.e. each company's relative weight is calculated using a cumulative market cap, which includes the stock and all the stocks ranked above it in the pool).
5. Any security with a relative weight less than 0.25% is removed from the eligible universe.
6. Any security with a relative weight greater than or equal to 0.5% is marked for potential addition to the index. A current constituent with a relative weight between 0.25% and 0.5% is kept in the index.
7. All companies in the remaining eligible index universe are ranked by their annual dollar value traded figure.
8. For each company, the dollar value traded relative to the overall market's dollar value traded figure is calculated.
9. Any security with a relative dollar value traded less than 0.025% is removed from the eligible index universe.
10. Any security with a relative dollar value traded figure greater than or equal to 0.05% is marked for potential addition to the index. A current constituent with a relative dollar value traded between 0.025% and 0.05% is kept in the index.
11. All securities which meet eligibility criteria #6 and #10, and where the number of non-trading days in the previous 12 calendar months does not exceed 120, make up the index after the quarterly revision.

## Constituent Weighting

The index is weighted by float-adjusted market capitalization.

## Index Calculations

Index calculations are based on stock prices taken from the Stock Exchange of Hong Kong (SEHK). The official daily index close is based on constituent prices calculated through the Hong Kong Stock Exchange's Market-on-the-Close process and are calculated after the market close. Real-time quotes are provided and updated every 15 seconds through SEHK and recognized international data vendors.

*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, with the reference date for data the close of the second to last Friday of February, May, August, and November. The new index composition is effective after the close of business on the third Friday of March, June, September, and December, respectively.

**Addition and Deletions.** Except for major corporate actions, such as mergers, delisting, spin-offs, or the change of the listing board, additions and deletions of stocks generally only take place at the time of the rebalancings. If a stock transfers from the GEM board to the SEHK main board, it is removed from the index on the change effective date.

**Share Updates.** Please refer to *S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology*.

## Corporate Actions

For information on Corporate Actions, please refer to the Market Capitalization Indices section within S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

## Currency of Calculation and Additional Index Return Series

The index is calculated in Hong Kong dollars.

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 the [S&P DJI Methodology & Regulatory Status Database](#).

*For information on various index calculations, please refer to S&P Dow Jones Indices' Index Mathematics Methodology.*

*For the inputs necessary to calculate certain types of indices, including decrement, dynamic hedged, fair value, and risk control indices, please refer to the Parameters documents available at [www.spglobal.com/spdji/](http://www.spglobal.com/spdji/).*

## Investable Weight Factor (IWF)

Constituents of the index are assigned a float-adjustment factor, called an Investable Weight Factor (IWF), which 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).*

### Base Date and History Availability

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

<b>Index</b>	<b>Launch Date</b>	<b>First Value Date</b>	<b>Base Date</b>	<b>Base Value</b>
S&P/HKEX GEM	03/03/2003	12/31/2002	02/28/2003	1000

# 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

An S&P Dow Jones Indices' Index Committee maintains the indices. The Index Committee meets regularly. All committee members are full-time professional members of S&P Dow Jones Indices' staff and are responsible for setting policy and determining index composition.

Subject to the index policies and guidelines outlined in this document, the Index Committee in its sole and absolute discretion may add or remove any company from the index as part of its index maintenance responsibilities. Deliberations of the Index Committee are kept strictly confidential. This methodology document is continually reviewed with the advice of, and in consultation with, the Index Committee and may be subject to change at any time.

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 Action 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.

*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 actions 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.spglobal.com/spdji/](http://www.spglobal.com/spdji/) for a complete schedule of rebalancing timelines and pro-forma delivery times.*

## Holiday Schedule

The index is calculated on every trading day as set in the calendar released by the Stock Exchange of Hong Kong.

*A complete holiday schedule for the year is available at [www.spglobal.com/spdji/](http://www.spglobal.com/spdji/).*

## 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.

## Real-Time Calculation

Real-time, intra-day, index calculations are executed for the price return series, whenever any of the index's 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](mailto:index_services@spglobal.com).

# Index Dissemination

Index levels are available through S&P Dow Jones Indices' Web site at [www.spglobal.com/spdji/](http://www.spglobal.com/spdji/), 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 the [S&P DJI Methodology & Regulatory Status Database](#) for a complete list of indices covered by this document.

Index	BBG	RIC
S&P/HKEX GEM	HKSPGEM	.SPHKGEM

## Index Data

Daily constituent and index level data are available via subscription.

For product information, please contact S&P Dow Jones Indices, [www.spglobal.com/spdji/en/contact-us](http://www.spglobal.com/spdji/en/contact-us).

## Web site

For further information, please refer to S&P Dow Jones Indices' Web site at [www.spglobal.com/spdji/](http://www.spglobal.com/spdji/).

# Appendix I

## Methodology Changes

Methodology changes since January 1, 2015 are as follows:

Change	Effective Date (After Close)	Methodology	
		Previous	Updated
Rebalancing Reference Date	12/17/2021	The index is rebalanced quarterly, with the reference date for data the close of trading on the last day of February, May, August, and November.	The index is rebalanced quarterly, with the reference date for data the close of the second to last Friday of February, May, August, and November.
Investor Perspective	06/18/2021	--	Subject to S&P Dow Jones Indices' compliance with the applicable law (including, without limitation, sanctions law), the index is maintained from a China based investor perspective <sup>2</sup> and may include securities that would not be eligible for inclusion if maintained from a U.S./U.K./EU investor perspective.
Treatment of Spin-offs	04/27/2018	The spun-off company is added to the index at a zero price at the market close of the day before the ex-date (with no divisor adjustment). If the spun-off company's relative weight is greater than 0.25% of the index it will remain a constituent, otherwise it is removed with one trading days' notice.	A spun-off company is added to the index at a zero price on the ex-date. Should the spun-off company not be considered eligible then it will be removed from the index after at least one day of regular way trading.
Treatment of Spin-offs	09/30/2015	Any spin-off is reviewed for index inclusion or exclusion.	The spun-off company is added to the index at a zero price at the market close of the day before the ex-date (with no divisor adjustment). If the spun-off company's relative weight is greater than 0.25% of the index it will remain a constituent, otherwise it is removed with one trading days' notice.

<sup>2</sup> The investor perspective is the viewpoint of the investor relative to the index and component securities.

# Appendix II

## ESG Disclosures

<b>EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL &amp; GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY<sup>3</sup></b>		
1.	<b>Name of the benchmark administrator.</b>	S&P Dow Jones Indices LLC.
2.	<b>Underlying asset class of the ESG benchmark.<sup>4</sup></b>	N/A
3.	<b>Name of the S&amp;P Dow Jones Indices benchmark or family of benchmarks.</b>	<a href="#">S&amp;P DJI Equity Indices Benchmark Statement</a>
4.	<b>Do any of the indices maintained by this methodology take into account ESG factors?</b>	No
<b>Appendix latest update:</b>		February 2021
<b>Appendix first publication:</b>		February 2021

<sup>3</sup> The information contained in this Appendix is intended to meet the requirements of the European Union Commission Delegated Regulation (EU) 2020/1817 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the minimum content of the explanation of how environmental, social and governance factors are reflected in the benchmark methodology and the retained EU law in the UK [The Benchmarks (amendment and Transitional Provision) (EU Exit) Regulations 2019].

<sup>4</sup> The 'underlying assets' are defined in European Union Commission Delegated Regulation (EU) 2020/1816 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the explanation in the benchmark statement of how environmental, social and governance factors are reflected in each benchmark provided and published.

# Disclaimer

## Performance Disclosure/Back-Tested Data

Where applicable, S&P Dow Jones Indices and its index-related affiliates (“S&P DJI”) defines various dates to assist our clients by providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live: index values provided for any date or time period prior to the index’s Launch Date are considered back-tested. S&P DJI defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company’s public website or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed “Date of introduction”) is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index’s public release date.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Information presented prior to an index’s launch date is hypothetical back-tested performance, not actual performance, and is based on the index methodology in effect on the launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Also, the treatment of corporate actions in back-tested performance may differ from treatment for live indices due to limitations in replicating index management decisions. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

Typically, when S&P DJI creates back-tested index data, S&P DJI uses actual historical constituent-level data (e.g., historical price, market capitalization, and corporate action data) in its calculations. As ESG investing is still in early stages of development, certain datapoints used to calculate certain ESG indices may not be available for the entire desired period of back-tested history. The same data availability issue could be true for other indices as well. In cases when actual data is not available for all relevant historical periods, S&P DJI may employ a process of using “Backward Data Assumption” (or pulling back) of ESG data for the calculation of back-tested historical performance. “Backward Data Assumption” is a process that applies the earliest actual live data point available for an index constituent company to all prior historical instances in the index performance. For example, Backward Data Assumption inherently assumes that companies currently not involved in a specific business activity (also known as “product involvement”) were never involved historically and similarly also assumes that companies currently involved in a specific business activity were involved historically too. The Backward Data Assumption allows the hypothetical back-test to be extended over more historical years than would be feasible using only actual data. For more information on “Backward Data Assumption” please refer to the FAQ. The methodology and factsheets of any index that employs backward assumption in the back-tested history

will explicitly state so. The methodology will include an Appendix with a table setting forth the specific data points and relevant time period for which backward projected data was used. Index returns shown do not represent the results of actual trading of investable assets/securities. S&P DJI maintains the index and calculates the index levels and performance shown or discussed but does not manage any assets.

Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the Index or investment funds that are intended to track the performance of the Index. The imposition of these fees and charges would cause actual and back-tested performance of the securities/fund to be lower than the Index performance shown. As a simple example, if an index returned 10% on a US \$100,000 investment for a 12-month period (or US \$10,000) and an actual asset-based fee of 1.5% was imposed at the end of the period on the investment plus accrued interest (or US \$1,650), the net return would be 8.35% (or US \$8,350) for the year. Over a three-year period, an annual 1.5% fee taken at year end with an assumed 10% return per year would result in a cumulative gross return of 33.10%, a total fee of US \$5,375, and a cumulative net return of 27.2% (or US \$27,200).

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