

**S&P/TWSE Taiwan Low Volatility  
High Dividend Index  
*Methodology***

April 2018

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# Introduction

## Index Objective

The S&P/TWSE Taiwan Low Volatility High Dividend Index is designed to measure 40 high yielding companies within the S&P Taiwan BMI, while meeting diversification, volatility and tradability requirements.

## Highlights

The index methodology aims to achieve a balance between dividend yield and volatility. The index is weighted by trailing 12-month dividend yield, with constituents re-weighted semi-annually.

The index's constituent universe is reviewed twice a year in April and October. At each rebalancing, modifications are made to stock weights to ensure diversification across individual stocks and sectors. The weight of each index constituent is constrained between 0.05% and 5.0%, and the weight of each GICS Sector is capped at 30%.

## 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>
S&P Dow Jones Indices' Global Industry Classification Standard (GICS) Methodology	<a href="#">GICS Methodology</a>

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.

# Eligibility Criteria

## Index Eligibility

To qualify for membership in the index, a stock must satisfy the following criteria:

1. Be a constituent of the S&P Taiwan BMI.
2. Have a three-month average daily traded value greater than TWD 100 million.
3. Have been issued and trading for at least one calendar year leading up to the rebalancing reference date. However, there is no minimum number of days that the stock must have actually traded. Index Committee discretion may be used to determine eligibility in situations where a stock was subject to a long term suspension during that period.
4. Be listed on the Taiwan Stock Exchange (i.e. stocks listed on the GreTai Securities Market are not eligible).
5. Have paid a non-zero dividend in the prior twelve months as of rebalancing reference date.

*For information on stock eligibility criteria and index management rules of the S&P Taiwan BMI, please refer to the S&P Global BMI, S&P/IFCI Methodology available at [www.spdji.com](http://www.spdji.com).*

## Dividend Payment Types

S&P Dow Jones Indices only considers cash dividend payments declared as regular by the paying company for index eligibility, selection, and weighting purposes. Cash dividend payments declared as special by the paying company, including recurring special cash dividends, are not considered. For both eligibility and weighting purposes, annualized cash dividend amounts, before withholding tax, are used.

# Index Construction

## Approaches

The methodology employs a yield driven-weighting scheme.

There are two steps in the creation of the index. The first is the selection of the index constituents; the second is the weighting of the constituents within the index. S&P Dow Jones Indices believes turnover in index membership should be avoided when possible.

## Constituent Selection

The selection of index constituents is done as follows:

1. All stocks in the selection universe are ranked in descending order by their 12-month trailing dividend yield, calculated as their dividends per share for the prior 12 months divided by the stock price as of rebalancing reference date.
2. The top 60 stocks with the highest dividend yield are selected, with the number of stocks from each GICS sector capped at 15. If the number of stocks from a sector reaches 15, the remaining highest yielding stocks from other sectors are selected until the number of selected stock reaches 60.
3. Using available price return data for the trailing one year of trading days leading up to each index rebalancing reference date, the realized volatilities of the 60 selected high dividend yielding stocks are calculated. Realized volatility is defined as the standard deviation of the security's daily price returns over the prior one year of trading days.
4. The 60 selected high dividend yielding stocks are, then, ranked in ascending order by realized volatility. The top 40 securities with the lowest realized volatility form the index.

During each semi-annual rebalancing, the selection of the 60 high dividend yielding stocks is subject to buffer rules favoring existing index constituents:

1. If a current index constituent's dividend yield ranks in the top 50<sup>th</sup> percentile of the total number of eligible stocks, it remains in the 60 high dividend yielding stock universe. Non-constituent stocks are then selected by dividend yield ranks in ascending order until the stock count reaches 60, with the number of stocks from each GICS sector capped at 15.
2. The 60 selected highest dividend yielding stocks are, then, ranked in ascending order by realized volatility. The top 40 securities with the lowest realized volatility form the index.

## Constituent Weightings

In order to achieve a relatively high index dividend yield, the index constituents are weighted by trailing 12-month dividend yield. At each rebalancing, modifications are made to stock weights to ensure diversification across individual stocks and sectors. The weight of each index constituent is constrained between 0.05% and 5.0%, and the weight of each GICS Sector is capped at 30%.

## Index Calculations

The index is calculated by means of the divisor method used for all S&P Dow Jones equity indices.

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

# Index Maintenance

## Rebalancing

The index is rebalanced semi-annually. Constituent changes as a result of the rebalancings are effective after the close of the last business day of April and October. The rebalancing reference date for each semi-annual rebalancing is the last business day of March and September, respectively.

**Additions.** Additions are made to the index only during the semi-annual rebalancings, except for spin-offs as detailed in below in *Corporate Actions*.

**Deletions.** Constituents removed from the S&P Taiwan BMI are simultaneously removed from the S&P/TWSE Taiwan Low Volatility High Dividend Index. Other deletions may occur during the semi-annual rebalancings.

## Corporate Actions

Corporate Action	Adjustment Made to Index	Divisor Adjustment?
Spin-off	The spun-off company is added to all the indices of which the parent is a constituent, at a zero price at the market close of the day before the ex-date (with no divisor adjustment). The spun-off company is then removed after at least one day of regular way trading. <i>For further information, please refer to the Treatment of Spin-offs in S&amp;P Dow Jones Indices' Equity Indices Policies &amp; Practices document.</i>	No
Rights Offering	The price is adjusted to the Price of the Parent Company minus (the Price of the Rights Offering/Rights Ratio). Index shares change so that the company's weight remains the same as its weight before the rights offering.	No
Stock Dividend, Stock Split, Reverse Stock Split	Index shares are multiplied by and price is divided by the split factor.	No
Share Issuance, Share Repurchase, Equity Offering or Warrant Conversion	None.	No
Special Dividends	The price of the stock making the special dividend payment is reduced by the per share special dividend amount after the close of trading on the day before the dividend ex-date.	Yes
Constituent Change	There are no intra-rebalancing additions.	-
	Deletions due to delistings, acquisition or any other corporate event resulting in the deletion of the stock from the index will cause the weights of the rest of the stocks in the index to change. Relative weights will stay the same.	Yes

*For more information on corporate actions, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices document.*

## Currency, Currency Hedged, and Risk Control Indices

The index is calculated in Taiwan and U.S. dollars. Daily index closing values are calculated in U.S. dollars using spot exchange rates as supplied by Reuters at 4:17 PM Sydney time.

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](mailto: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 Value
S&P/TWSE Taiwan Low Volatility High Dividend Index	01/15/2014	10/31/2003	10/31/2003	1000
S&P/TWSE Taiwan Low Volatility High Dividend Index USD	08/29/2016	06/30/2005	06/30/2005	1000

## Investable Weight Factor (IWF)

All issues in the index are assigned a float 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.

*Please refer to S&P Dow Jones Indices' Float Adjustment Methodology for further details.*

## 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.*

# Index Governance

## Index Committee

The index is maintained by the Asia Indices Index Committee. All committee members are full-time professional members of S&P Dow Jones Indices' staff. The committee meets at least twice every quarter. At each meeting, the Index 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.

All methodology changes are posted to the S&P Dow Jones Indices' Web site and announced via email to all clients. The latest available version is posted on our Web site, [www.spdji.com](http://www.spdji.com).

*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 it contains all constituents and their corresponding weights and index shares effective for the upcoming rebalancing. Since index shares are assigned based on prices seven business days prior to the rebalancing, the actual weight of each stock at the rebalancing will differ from these weights due to market movements.

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

## **Holiday Schedule**

The index is calculated on all calendar days of the year whenever the Taiwan Stock Exchange is open.

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

*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](mailto:index_services@spglobal.com).

# Index Dissemination

Index levels are available through S&P Dow Jones Indices' Web site at [www.spdji.com](http://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](mailto:index_services@spglobal.com) for a complete list of indices covered by this document.

Index	Return Type	Bloomberg
S&P/TWSE Taiwan Low Volatility High Dividend Index	Price Return	SPTLHDP
	Total Return	SPTLHDT
	Net Total Return	SPTLHDN
S&P/TWSE Taiwan Low Volatility High Dividend Index USD	Price Return	SPTLHDUP
	Total Return	SPTLHDUT
	Net Total Return	SPTLHDUN

## 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](http://www.spdji.com/contact-us).

## Web site

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

# Appendix

## Methodology Changes

Methodology changes since January 1, 2015 are as follows:

<b>Change</b>	<b>Effective Date (After Close)</b>	<b>Previous</b>	<b>Methodology</b>	<b>Updated</b>
Consideration of recurring special cash dividends for eligibility, selection, and weighting purposes	01/31/2018	Recurring special cash dividends that S&P Dow Jones Indices considers to be part of the normal payment pattern established by the company are considered regular for eligibility, selection, and weighting purposes.	S&P Dow Jones Indices only considers cash dividend payments declared as regular by the paying company for index eligibility, selection, and weighting purposes. Cash dividend payments declared as special by the paying company, including recurring special cash dividends, are not considered.	

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