

FTSE TWSE Taiwan Dividend+ Index

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Introduction

1.0 Introduction

1.1 Methodology

This methodology is to be read in conjunction with the FTSE TWSE Taiwan Index Series Ground Rules which are available on the FTSE Russell website (www.ftserussell.com).

1.2 The FTSE TWSE Taiwan Dividend+ Index Series does not take account of ESG factors in its index design.

1.3 FTSE TWSE Taiwan Dividend+ Index

The FTSE TWSE Taiwan Dividend+ Index is a yield weighted index designed to select and measure the performance of higher yielding stocks within the universe of the FTSE TWSE Taiwan 50 Index and the FTSE TWSE Taiwan Mid-Cap 100 Index. The FTSE TWSE Taiwan Dividend+ Index selects the top 50 stocks by one-year forecast dividend yield. The constituents' weightings within the index are determined by their dividend yield as opposed to market capitalisation.

1.4 FTSE Russell

FTSE Russell is a trading name of FTSE International Limited, Frank Russell Company, FTSE Global Debt Capital Markets Limited (and its subsidiaries FTSE Global Debt Capital Markets Inc. and FTSE Fixed Income Europe Limited), FTSE Fixed Income LLC, The Yield Book Inc and Beyond Ratings.

- 1.4.1 FTSE Russell hereby notifies users of the index series that it is possible that circumstances, including external events beyond the control of FTSE Russell, may necessitate changes to, or the cessation of, the index series and therefore, any financial contracts or other financial instruments that reference the index series or investment funds which use the index series to measure their performance should be able to withstand, or otherwise address the possibility of changes to, or cessation of, the index.
- 1.4.2 Index users who choose to follow this index series or to buy products that claim to follow this index series should assess the merits of the index's rules-based methodology and take independent investment advice before investing their own or client funds. No liability whether as a result of negligence or otherwise is accepted by FTSE Russell for any losses, damages, claims and expenses suffered by any person as a result of:
 - any reliance on these Ground Rules, and/or
 - any inaccuracies in these Ground Rules, and/or

- any non-application or misapplication of the policies or procedures described in these Ground Rules, and/or
- any inaccuracies in the compilation of the index or any constituent data.



Management Responsibilities

2.0 Management Responsibilities

- 2.1 FTSE International Limited (FTSE)
- 2.1.1 FTSE is the benchmark administrator of the index series.1
- 2.1.2 FTSE is responsible for the daily calculation, production and operation of the index series and will:
 - maintain records of the index weightings of all constituents;
 - make changes to the constituents and their weightings in accordance with the Ground Rules;
 - carry out the periodic index reviews of the index series and apply the changes resulting from the reviews as required by the Ground Rules;
 - publish changes to the constituent weightings resulting from their ongoing maintenance and the periodic reviews;
 - disseminate the indices.

2.2 Amendments to These Ground Rules

2.2.1 These Ground Rules shall be subject to regular review (at least once a year) by FTSE Russell to ensure that they continue to best reflect the aims of the index. Any proposals for significant amendments to these Ground Rules will be subject to consultation with FTSE Russell advisory committees and other stakeholders if appropriate. The feedback from these consultations will be considered by the FTSE Russell Index Governance Board before approval is granted.

¹ The term administrator is used in this document in the same sense as it is defined in Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds (the European Benchmark Regulation) and The Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019 (the UK Benchmark Regulation).



FTSE Russell Index Policies

3.0 FTSE Russell Index Policies

These Ground Rules should be read in conjunction with the following policy documents which can be accessed using the links below:

- 3.1 Corporate Actions and Events Guide
- 3.2 Full details of changes to constituent companies due to corporate actions and events can be accessed in the Corporate Actions and Events Guide for Non Market Cap Weighted Indices using the following link:
 - Corporate_Actions_and_Events_Guide_for_Non_Market_Cap_Weighted_Indices.pdf
- 3.3 Queries, Complaints and Appeals
- 3.3.1 FTSE Russell's complaints procedure can be accessed using the following link:
 - Benchmark_Determination_Complaints_Handling_Policy.pdf
- 3.4 Index Policy for Trading Halts and Market Closures
- 3.4.1 Guidance for the treatment of index changes in the event of trading halts or market closures can be found using the following link:
 - Index_Policy_for_Trading_Halts_and_Market_Closures.pdf
- 3.5 Index Policy in the Event Clients are Unable to Trade a Market or a Security
- 3.5.1 Details of FTSE Russell's treatment can be accessed using the following link:
 - Index Policy in the Event Clients are Unable to Trade a Market or a Security.pdf
- 3.6 Recalculation Policy and Guidelines
- 3.6.1 Where an inaccuracy is identified, FTSE Russell will follow the steps set out in the FTSE Russell Index Recalculation Guidelines when determining whether an index or index series should be recalculated and/or associated data products reissued. Users of the FTSE TWSE Dividend+ Index will be notified through appropriate media.

For further information refer to the FTSE Russell Recalculation Policy and Guidelines document which is available from the FTSE Russell website using the link below or by contacting info@ftserussell.com.

Recalculation_Policy_and_Guidelines_Equity_Indices.pdf

3.7 Policy for Benchmark Methodology Changes

3.7.1 Details of FTSE Russell's policy for making benchmark methodology changes can be accessed using the following link:

Policy_for_Benchmark_Methodology_Changes.pdf

3.8 FTSE Russell Governance Framework

3.8.1 To oversee its indices, FTSE Russell employs a governance framework that encompasses product, service and technology governance. The framework incorporates the London Stock Exchange Group's three lines of defence risk management framework and is designed to meet the requirements of the IOSCO Principles for Financial Benchmarks², the European benchmark regulation³ and the UK benchmark regulation⁴. The FTSE Russell Governance Framework can be accessed using the following link:

FTSE_Russell_Governance_Framework.pdf

3.9 Real Time Status Definitions

3.9.1 For indices which are calculated in real time, please refer to the following guide for details of real time status definitions:

Real_Time_Status_Definitions.pdf

 $^{^{\}rm 2}$ IOSCO Principles for Financial Benchmarks Final Report, FR07/13 July 2013

³ Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds

⁴ The Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019



Index Review and Implementation

4.0 Index Review and Implementation

- 4.1 Periodic Review
- 4.1.1 The FTSE TWSE Taiwan Dividend+ Index will be reviewed semi-annually in June and December using data as at the close of business on the Monday 4 weeks prior to the review effective date.
- 4.1.2 Changes arising from each semi-annual review will be made effective after the close of business on third Friday (i.e. effective Monday) of the review month.
- 4.2 Review of Index Constituents
- 4.2.1 Review Universe

At review the universe will comprise of constituents from the FTSE TWSE Taiwan 50 Index and the FTSE TWSE Taiwan Mid-Cap 100 Index, which together covers the largest 150 companies, by full market value, listed on the Taiwan Stock Exchange.

Should they appear in the universe, Equity Investment Instruments classified by the Industry Classification Benchmark⁵ as Closed End Investments (30204000), will be excluded from the index. Under the Industry Classification Benchmark (ICB), Equity Investment Instruments are defined as corporate closed-ended investment entities identified under distinguishing legislation, such as investment trusts and venture capital trusts.

4.2.2 I/B/E/S Forecast/Estimate Dividend Yields

The dividend yield data is based on the mean dividends per share forecast/estimates from I/B/E/S for the next 12 months. For FTSE TWSE Taiwan 50 and FTSE TWSE Taiwan Mid-Cap 100 constituents that do not have this information FTSE's historical dividend yield data is used. To be able to rank the review universe the I/B/E/S mean dividends per share forecast/estimates for the next 12 months are divided by the underlying stock price at the review data cut-off date. I/B/E/S data will be taken from the review data cut-off date.

4.2.3 The review universe is ranked in descending order by the forecast/estimate 12 month forward dividend yields (see below). The current index constituents are marked. To reduce index turnover buffers are used. Securities that rank 35th place or above are added to the index, constituents that rank 66th or below are removed from the index.

⁵ FTSE Indices migrated to the new ICB classification system in March 2021

- 4.2.4 To maintain a consistent 50 stocks at review, if there are less than 50 constituents after the above process, the next highest-ranking non-constituent is included until the 50 index stocks are selected. If more constituents are added than deleted at review, and this leads to an index of greater than 50 constituents, the lowest ranking constituents are removed until the index comprises of 50 constituents.
- 4.2.5 Where a company has more than one line of stock and both are eligible for inclusion into the index, the line with the largest dividend yield will be included. Where both lines have the same dividend yield, the largest by full market capitalisation is included.
- 4.2.6 Where a company declares zero dividend for the previous financial year prior to the review it will be not eligible for inclusion into the index. Existing constituent which declares zero dividend for the previous financial year prior to the review will be removed from the index.
- 4.2.7 To prevent a large number of constituent changes a maximum limit of 5 additions and 5 deletions are used at each semi-annual review except the following scenarios:
 - Where the total number of proposed constituents is less than 50, the maximum limit of 5 additions will be disregarded in order to maintain the required number of stocks;
 - Where the total number of deletions due to failing to meet stock eligibility criteria as outlined in 4.2.1 and 4.2.6 is equal to or greater than 5, at such point there will be no further deletions at the index review.
 - For illustration purposes: If eight existing constituents have been identified for deletion under rules 4.2.1 and/or 4.2.6 (i.e. being removed from the underlying universe or having declared a zero dividend for the previous financial year), then these eight constituents will be deleted at the index review and no other further deletions will be applied
- 4.2.8 Potential additions that prevent the index from trading TWD 1.5 billion (the notional value) within one trading day are not eligible for inclusion into the index. To conduct the liquidity test, the number of days to trade for each security in the pro forma index is calculated as the notional value times its weight and then divided by its 6-month average daily traded value, where its weight is estimated as the ratio of its 12 month forward dividend yield and the aggregate12 month forward dividend yield of the current index. Existing constituents are not subject to this liquidity requirement.

4.3 Weighting Methodology

4.3.1 Each of the index constituents are weighted within the index at review by their 12 month forward dividend yields.

4.4 Capping Constituent Weights at Quarterly Reviews

- 4.4.1 The index constituent weights are capped quarterly in March, June, September and December with an assumed assets under management (AUM) that is 1.2 times the overall passive assets tracking the index. The AUM is then rounded up to the nearest multiple of TWD 25 billion.
- 4.4.2 Using the assumed AUM, individual company holdings are capped so they do not exceed 6% of their full market capitalisation and 15% of their investable market capitalisation, whichever is less. The assumed AUM used in the capping process is calculated based on data available on the Monday 4 weeks prior to the review effective date.
- 4.4.3 The calculation of the constituent capping factors (c) will be based on prices at close on the Monday 4 weeks prior to the review effective date using shares in issue and investability weights as designated to take effect after close on the third Friday of the review month (i.e. effective from the open the following Monday).

- 4.4.4 The calculation will take into account any corporate actions/events that take effect after close on the Monday 4 weeks prior to the review effective date if they have been announced and confirmed by the Monday 4 weeks prior to the review effective date.
- 4.4.5 Corporate actions / events announced after the Monday 4 weeks prior to the review effective date that become effective up and including the review effective date will not result in any further adjustment.
- 4.4.6 For constituents that do not trade on the Monday the previous day's closing prices are used and the capping implemented after close on the third Friday of the review month (i.e. effective from the open the following Monday).

4.5 Implementation of Review Changes

4.5.1 During semi-annual review and quarterly capping, the index is rebalanced over five consecutive trading days starting from the review effective date (the rebalancing period). A transitional weight is applied to each security in the index during the rebalancing period.

The transitional weight of stock i is calculated for each day in the rebalancing period, according to the following formulae:

$$W_{i,J}^{Rebalance} = \frac{(5-J)}{5} W_i^{Current} + \frac{J}{5} W_i^{New}$$

Where

- J is the rebalancing day and is equal to 1, 2, 3, 4 or 5.
- W_i^{Current} is the stock weight i in the current index based on the cutoff date data, adjusted for all corporate actions since the current cut-off date to review effective date.
- W_i^{New} is the stock weight i in the new index based on the cutoff date data, adjusted for all corporate actions since the current cut-off date to review effective date.
- W_{i,J} is the stock weight i in the index during the rebalancing period. It will become W_i^{New} at the end of the rebalancing period.
- 4.5.2 Treatments on corporate actions and events during the rebalancing period can be found in Section 6.



Changes to Constituent Companies

5.0 Changes to Constituent Companies

- 5.1 Intra-review Additions
- 5.1.1 Additions into the FTSE TWSE Taiwan Dividend+ Index will only be applied at the next semi-annual review.
- 5.2 Intra-review Deletions
- 5.2.1 Intra-review changes will be in line with the underlying FTSE TWSE Taiwan 50 and FTSE TWSE Taiwan Mid-Cap 100 Indices. A constituent will be removed from the FTSE TWSE Taiwan Dividend+ Index if it is also removed from the underlying FTSE TWSE Taiwan 50 or FTSE TWSE Taiwan Mid-Cap 100 Indices. The deletion will be concurrent with its deletion from the underlying indices and its weight will be distributed pro-rata amongst the remaining constituents in the FTSE TWSE Taiwan Dividend+ Index.
- 5.2.2 Intra-review deletions arising from quarterly reviews of the underlying FTSE TWSE Taiwan 50 and FTSE TWSE Taiwan Mid-Cap 100 Indices in March and September will follow Rule 4.5. Deletions will be removed from the index and the index rebalanced over five consecutive trading days commencing from the review effective date of the underlying indices.



Corporate Actions and Events

6.0 Corporate Actions and Events

- 6.1 If a constituent in the underlying index has a stock split, stock consolidation, rights issue, bonus issue, a change in the number of shares in issue or a change in free float (with the exception of tender offers), the constituent's weighting in the corresponding FTSE TWSE Taiwan Dividend+ Index will remain unchanged pre and post such an event.
- 6.2 Full details of changes to constituent companies due to corporate actions and events can be accessed in the Corporate Actions and Events Guide for Non Market Cap Weighted Indices using the following link:

Corporate_Actions_and_Events_Guide_for_Non_Market_Cap_Weighted_Indices.pdf

A Corporate 'Action' is an action on shareholders with a prescribed ex date. The share price will be subject to an adjustment on the ex date. The index will be adjusted in line with the ex date.

These include the following:

- Capital Repayments
- Rights Issues/Entitlement Offers
- Stock Conversion
- Splits (sub-division) / Reverse splits (consolidation)
- Scrip issues (Capitalisation or Bonus Issue)

A Corporate 'Event' is a reaction to company news (event) that may impact the index depending on the index rules. For example, a company announces a strategic shareholder is offering to sell their shares (secondary share offer) – this could result in a free float weighting change in the index. Where an index adjustment is required FTSE Russell will provide notice advising of the timing of the change.

6.3 Suspension of Dealing

Suspension of Dealing rules can be found within the Corporate Actions and Events Guide for Non Market Cap Weighted Indices.

6.4 Takeovers, Mergers and Demergers

The treatment of takeovers, mergers and demergers can be found within the Corporate Actions and Events Guide for Non Market Cap Weighted Indices.



Index Algorithm and Calculation Method

7.0 Index Algorithm and Calculation Method

- 7.1 Calculation Currency and Frequency
- 7.1.1 The index will be calculated and published in New Taiwan dollars on a real-time basis (every 5 seconds). New Taiwan and US dollars index values will also be calculated on an end-of-day basis.
- 7.2 Index Calculation
- 7.2.1 The index is calculated using the algorithm described below.

$$\sum_{i=1}^{N} \frac{\left(p_{i} \times e_{i} \times s_{i} \times f_{i} \times c_{i}\right)}{d}$$

Where,

- i = 1, 2, ..., N
- *N* is the number of securities in the index.
- p_i is the latest trade price of the component security (or the price at the close of the index on the previous day).
- e_i is the exchange rate required to convert the security's currency into the index's base currency.
- s_i is the number of shares in issue used by FTSE Russell for the security, as defined in these Ground Rules.
- f_i is the Investability Weighting Factor to be applied to a security to allow amendments to its weighting, expressed as a number between 0 and 1, where 1 represents a 100% free float. This factor is published by FTSE Russell for each security in the underlying index.
- c_i is the Weight Adjustment Factor to be applied to a security to correctly weight that security in the index. This factor maps the investable market capitalisation of each stock to a notional market capitalisation for inclusion in the index.
- *d* is the divisor, a figure that represents the total issued share capital of the index at the base date. The divisor can be adjusted to allow changes in the issued share capital of individual securities to be made without distorting the index.



Appendix A: Further Information

A Glossary of Terms used in FTSE Russell's Ground Rule documents can be found using the following link:

Glossary.pdf

Further information on the FTSE TWSE Taiwan Index Series is available from FTSE Russell and the Taiwan Stock Exchange.

To contact FTSE Russell, please visit the FTSE Russell website at www.ftserussell.com or contact FTSE Russell via e-mail at info@ftserussell.com.

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