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Thomson Reuters Global Resource Protection Select Index Index Methodology

August 2018

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Intended Readership

This document provides details on the construction and maintenance of the Thomson Reuters Global Resource Protection Select Index.

Feedback

Your questions about the document, suggestions, and contributions are welcome. Please address enquiries to: index_queries@thomsonreuters.com

INTRODUCTION

Thomson Reuters Indices

Thomson Reuters is world's leading source of intelligent information for businesses and professionals. We combine industry expertise with innovative technology to deliver critical information to leading decision makers in the financial, legal, tax and accounting, scientific, healthcare and media markets, powered by the world's most trusted news organization.

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Whether you require indices for benchmarking, or for the development of investment vehicles, Thomson Reuters offers a range of index solutions to satisfy your requirements.

Index Description

The Thomson Reuters Global Resource Protection Select Index captures the performance of stocks that tend to reduce the use of materials, energy or water, and to find more eco-efficient solutions by improving supply chain management. The index uses Resource Use Scores under ESG methodology to capture these criteria. The index excludes industries like Tobacco or Coal, and companies which predominant activity is linked to Unconventional Oil & Gas Production, Unconventional Oil & Gas Drilling, Arms & Ammunitions Manufacturing, Military Aircraft Manufacturing, Military Vehicles Manufacturing, or Military Clothing & Accessories.

The index tracks the price return of 30 publicly traded equities across the world that display relatively high Resource Use scores, in addition to high dividend and low volatility.

Constituent Universe

Parent Index

The constituents' universe is derived from Thomson Reuters Europe Index, Thomson Reuters Americas Index and Thomson Reuters Asia Index. These indices are free float adjusted market capitalization weighted indices. They are broad market indices including large, mid and small caps. They have following inclusion criteria:

- A minimum 15% free float (companies are dropped if free float falls below 10% after inclusion);
- A minimum of 3 months trading history;

- Companies with multiple international listings are included on the basis of country of incorporation, security's primary listing and volume. In most cases, the country of incorporation is same as primary listing. For few exceptions where the country of incorporation is not where the security has the primary listing, Thomson Reuters uses the security's primary listing to determine membership.
- Various liquidity measures are used to ensure illiquid companies are not included in the index, and all constituents need to satisfy the following criteria:
 - Be part of the top 99.5% of the free float market capitalisation of the exchanges under consideration;
 - Be part of the top 99.5% of the trading value of the exchanges under consideration;
 - Trade on at least 90% of trading days; and
 - Have a minimum unadjusted market cap of US\$150mn and free float adjusted market cap of US\$75mn

They are rebalanced biannually every April and October.

For a complete description of the index rules, please refer to the methodology for Thomson Reuters Global Equity indices, [here](#)

Exclusions

To select the universe for the Thomson Reuters Global Resource Protection Index, the following exclusions apply:

- i) As a very first step, exclude securities from following TRBC¹ industries and activities:
 1. Industries:
 - a. Tobacco
 - b. Coal
 2. Activities:
 - a. Unconventional Oil & Gas Production
 - b. Unconventional Oil & Gas Drilling
 - c. Arms & Ammunitions Manufacturing
 - d. Military Aircraft Manufacturing

¹ Parent index follows Thomson Reuters Business Classification (TRBC) Sector Schema. For detail on TRBC, click [here](#).

- e. Military Vehicles Manufacturing
- f. Military Clothing & Accessories
- ii) Remove HSBC's Hong Kong listing.
- iii) Apply multiple issues/listings filter.
- iv) Apply dual listing filter.

The composition obtained represents the Parent Index.

Thomson Reuters Global Resource Protection Select Index

Universe:

The Index Universe is made of companies that fulfill the following criteria within the indicated Region below:

1. Asia:

The 600 companies with the highest Free Float Market Capitalizations from the Parent Index that are members of the Thomson Reuters Asia Pacific Index and that are listed in Australia, Japan, Hong Kong, New Zealand or Singapore are included in the Index Universe.

2. Europe:

The 600 companies with the highest Free Float Market Capitalizations from the Parent Index that are members of the Thomson Reuters Europe Index are included in the Index Universe.

3. North America:

The 600 companies with the highest Free Float Market Capitalizations from the Parent Index that are members of the Thomson Reuters Americas Index are included in the Index Universe.

With 600 stocks from each region, the total Index Universe includes 1800 companies.

The universe is as observed on the review effective date.

Base values and Inception dates:

95.50, on 21/12/2007

Live date:

10/07/2018

Index types, currencies, calculation frequency:

Price return in EUR, ticks real time, pricing every 15 seconds.

Selection list:

All stocks in the base universe are first screened for the following indicators:

- i) Average daily traded volume (ADTV) in EUR, calculated over the three month period ending on the review cut-off date
- ii) Thomson Reuters Resource Use Scores. For details, please refer to the link on rating methodology:
<https://financial.thomsonreuters.com/content/dam/openweb/documents/pdf/financial/esg-scores-methodology.pdf>
- iii) 12-month historical dividend yield
- iv) 3-month and 12-month historical volatility

All values above are observed as of the cut-off date.

If the ADTV or the historical volatility of a stock has missing information, then the company is removed from the base universe.

If the Thomson Reuters Resource Use score or the dividend yield of a stock has missing information, then zero is substituted for that indicator.

Composition list:

- i) All eligible stocks with ADTV smaller than EUR 5mn are removed from the universe.
- ii) Next, remaining stocks are sorted based on their Thomson Reuters Resource Use scores, and the top 900 stocks with highest scores are selected.
In case two companies for a given cut-off date have identical Thomson Reuters Resource Use scores, priority goes to the stock with the highest dividend yield.
- iii) Next, remaining stocks are sorted in descending order in terms of 12-month historical dividend yield and the top 120 (highest dividend yield) stocks are selected.
- iv) Next, stocks are sorted in ascending order in terms of volatility (maximum between the 3-month and 12-month historical volatility). For each economic sector, maximum 7 stocks are kept and for each country, maximum 5 stocks are kept. In both, selection is based on lowest volatility.
- v) The final index composition is obtained by keeping the 30 stocks with the lowest volatilities.

Weighting scheme:

The index components are weighted according to the inverse of their volatility.

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{30} \frac{1}{\sigma_j}}$$

Where:

w_i = weight of component i

σ_i = maximum between the 3 months and 12 months historical volatility of component i

Security types

Only the common stocks types are included in the Index. When multiple listings of a candidate stocks are available, the constituent selected is the one with the highest average traded value.

Country Designation: Issues are assigned to a country based on their country of exchange.

Calculation Methodology

The index follows the methodology of Thomson Reuters Global Equity Indices. For details on data requirement, construction and calculation methodology of Thomson Reuters Global Equity Indices, please refer Thomson Reuters Global Equity indices Methodology document [here](#).

Maintenance

Daily Index Maintenance

The securities which form the Index are re-weighted due to changes in the price of the underlying securities change.

The index is maintained on a daily basis by a dedicated support team. This team is in direct collaboration with the Thomson Reuters Data Operations Global Corporate Actions teams, and is responsible for identifying all corporate action events that affect the capital structure of a constituent in the index including stock splits, delisting, and symbol changes and ensure these changes are implemented into the index. The team also monitors divisor movements and performs constituent pricing comparisons between independent constituent price sources to ensure the accuracy of the index return values. Where a security in the Index is subject to a merger or acquisition activity or delisting, the security will be deleted from the Index as set out in the Thomson Reuters Corporate Action Methodology that is available [here](#).

Index Rebalance

Rebalance cut-off dates are quarterly i.e. end of February, May, August, November with an effective date of third Friday in following month. This rebalance is the major source of additions and deletions to index. There are no additions to the Index outside of the re-balance process.

Governance

There is a committee to oversee the Index at Thomson Reuters Index Business that constructs the index, and ensures that the attributes the index claims to possess are indeed present. This committee also owns index rebalances.

Index Action Committee at Thomson Reuters Indices

There is an index action committee (IAC) for Thomson Reuters Indices that oversees the Index. It is composed of the Thomson Reuters Equity Indices Index Manager, Thomson Reuters Commodities Index Manager, Head of Index Research and Design, Head of Product Management, Head of Data Operations and the Head of Technology.

The main activity of this Index Action Committee is to insure that the attributes the index claims to possess – are indeed present. The Index Action Committee also deals with unusual corporate actions which are not handled by the pricing methodology or by the internal data management team that makes hand- adjustments to the index for items such as mergers and delistings. These reviews take place on a quarterly basis.

IAC also uses its discretion in the event of market disruption. If the Index cannot be published due to market stress or disruption (e.g., because prices are not reliably available), the processes that govern Changes to Index Methodologies will be started, to review and possibly adjust the Index Methodology to market realities. If the Market Disruption Event continues over a period of five Trading Days, then the Committee will determine the necessary action so that the affected securities resulting from the Market Disruption Event are no longer causing such disruption to occur.

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