REFINITIV EUROZONE ESG SELECT INDEX

Index Methodology

September 2020

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Intended Readership

This document provides details on the construction and maintenance of the Refinitiv Eurozone ESG Select Index.

Document Publication

This document is available on the Refinitiv website and on request.

Feedback

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

1. INTRODUCTION

1.1 Refinitiv Indices

Serving more than 40,000 institutions in over 190 countries, Refinitiv provides information, insights and technology that drive innovation and performance in global financial markets. Our heritage of integrity enables our customers to make critical decisions with confidence while our best-in-class data and cutting-edge technologies enable greater opportunity.

We enable the financial community to trade smarter and faster, overcome regulatory challenges, and scale intelligently.

Refinitiv provides trusted and innovative indices and index-related services to the investment community. Whether one requires indices for benchmarking, or for the development of investment vehicles, Refinitiv offers a range of index solutions to satisfy the requirements.

1.2 The Index

The Refinitiv Eurozone ESG Select Index captures the performance of stocks of Europeans companies in selected countries that actively invest in and promote environmental, social and governance (ESG) values and principles in the running of their businesses. The index tracks the price return, total return and net total return with a synthetic dividend of 5%. The index is an equal weighted index with a constituent cap of 10%.

1.3 Constituent Universe

The constituents' universe is derived from Refinitiv Europe Index. The parent index is free float adjusted market capitalization weighted index. It is a broad market index including large, mid and small caps. It has 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, Refinitiv 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

The index is rebalanced biannually every April and October.

For a complete description of the index rules, please refer to the methodology for Refinitiv Global Equity indices, here

1.4 Exclusions

To select the universe for the Refinitiv Eurozone ESG Select Index, the following exclusions apply:

Only EUR countries are selected from Refinitiv Europe Index. This limits the potential countries to: Austria,
Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain.

While Refinitiv does not have a Luxembourg index, some companies domiciled in Luxembourg may have their primary exchange in one of the countries above and may therefore be included.

The composition obtained represents the Parent Index.

2. CONSTRUCTION METHODOLOGY

2.1 Universe

The Index Universe is made of companies from countries as described in section 1.1.4

The universe is as observed on the review effective date.

2.2 Data

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

- i) TRBC
- ii) ESG data (from Refinitiv product ADC/Eikon). Data values retrieved are those as of the rebalance date (i.e., current). Controversy data for "FY-1" are taken as of "rebalance date-365 days.
- iii) BankTotalRevenue (from Refinitiv product ADC/Eikon)
- iv) DPSActualValue (from Refinitiv product ADC/Eikon)
- v) DPSCommonStock (from Refinitiv product ADC/Eikon)
- vi) EPSFRActValue (from Refinitiv product ADC/Eikon)
- vii) NetIncome (from Refinitiv product ADC/Eikon)
- viii) TotalRevenue (from Refinitiv product ADC/Eikon)

2.3 Composition list

- i) Remove companies for which a market cap could not be established in the parent index as of the parent rebalance date.
- ii) Index-specific filter
 - Remove companies for which a market cap could not be established as of the index rebalance date.
 - Restrict candidates to the top ~200 by free float market cap.
 - Remove companies for which a TRBC classification (economic sector) could not be found.
 - Remove any candidates for which a price is not available on the rebalance date.
 - Remove any candidates without ESG coverage
 - In case of multiple share classes from same company candidate, only the issue with the highest market cap is retained.
 - Create intermediate tables for controversies, for both rebalance FY (see ii) under 2.2 above) and FY-1. If company data for desired FY is unavailable, the most recent available FY is used. Create controversy sums for each company.
 - Calculate a recent controversies sum and add it to the FY sheet.
 - Compute a controversies score as a weighted mean.
 - Calculate controversy score mean (average) and standard deviation on top n universe.
 - Compute a total revenue number.

- Perform the ESG scoring:
 - 1. For scoring of items indicated as "discrete variable," 5 points are allocated to a TRUE ("Yes") value, while 0 points are allocated to a non-"Yes" answer ("No" or NA).
 - o If multiple KPIs are to be combined for a single score, a logical AND of the indicated KPIs is performed to yield a single TRUE/FALSE value, which is then scored.
 - 2. For scoring of items indicated as "continuous variable," a helper function was created. This function, for each economic sector:
 - Takes the subset of rows for that sector;
 - Identifies the number of unique non-NA scores;
 - If more than 5 unique non- NA scores, calculate the quintile breaks. The resulting quantile estimates are approximately median-unbiased regardless of the distribution of x." In the case of non-unique breaks, an extremely small amount of "jiggle" is added out beyond the 13th significant digit, since assignment of scores based on quantile breaks depends on uniqueness. Finally, scores are assigned
 - If fewer than 5 unique non-NA scores, scores are assigned by rank (e.g., if an increasing function, all companies with highest score are assigned 10).
- Points are assigned for each KPI-level item (e.g., CO2 emissions/Turnover), the KPI-level items are summed to create a topic level score (e.g., Climate Change), and the topics summed to create a pillar score (e.g., Environment). The pillar scores (Environment, Social, Governance) are summed to create the ESG score.
- Intermediate files are generated to capture all scored candidates.
- Controversial companies are filtered out. The final configuration of the controversy filter is:
 - Exclude the instruments where the controversy score is equal to the 10th ranked controversy score. This may exclude more than 10 instruments. Note that only equities with positive (nonzero) controversy scores can be screened by this filter, i.e., if only nine instruments have nonzero controversy scores, only those nine would be screened.
 - Exclude instruments where the controversy score is higher than mean controversy score + 2
 standard deviations (where mean and standard deviation were computed earlier). Due to the
 earlier screen of the top 10 constituents by controversy score, this screen may exclude zero or
 more instruments.
- If the candidates remaining are above the maximum constituents threshold (currently set at 50), the top n constituents (by ESG score) are kept. Note that, in the current implementation, the threshold is soft: we sort by ESG score, take the ESG score of the nth ranked company, then keep all companies with that ESG score or higher. Consequently, the index may have more than 50 constituents in a given rebalance. This can obviously be changed to a hard maximum and use another column (e.g., market cap) as a tie-breaker if exactly 50 constituents are required.
- The index is equal weighted. Note that there is currently an individual weight cap of 10% on any individual constituent, although because of the equal weighting, the configured cap is not necessary.

2.4 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.

2.5 Base values and Inception date

100, on 31/3/2005

2.6 Index live date

12/23/2019

2.7 Special rebalance at index live date

A special rebalance was applied just before index went live to ensure that updated ESG scores i.e. no lag in ESG scores were used

2.8 Proforma Rebalance

Starting September 2020 rebalance, there will be a proforma rebalance implemented five business days before rebalance effective date. As on rebalance effective date (as of market open on the first trading day following the third Friday of the month), proforma will be converted into actual rebalance i.e. same constituents as proforma with weights as on third Friday of the month. A 10% constituent cap will be applied as on proforma rebalance effective date that may change by rebalance effective date due to change in prices of index constituents.

2.9 Index types, currencies, calculation frequency

Price return, Total return and Net Total return with synthetic dividend of 5%. Currency: EUR. Ticks real time, pricing every 15 seconds.

3. CALCULATION METHODOLOGY

The index follows the methodology of Refinitiv Global Equity Indices. For details on data requirement, construction and calculation methodology of Refinitiv Global Equity Indices, please refer Refinitiv Global Equity indices Methodology document here.

4. MAINTENANCE

4.1 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 Refinitiv 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 Refinitiv Corporate Action Methodology that is available here.

4.2 Index Rebalance

Rebalance frequency is quarterly (after close of business on third Friday of calendar quarter).

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.

5. Quality Control

5.1 Quality Control

Refinitiv has quality control procedures in place to monitor any prices, whether they are obtained from a regulated exchange or other market, prior to calculation of indices as well as prior to publication.

5.2 Re-Statement Policy

A retrospective recalculation will only be made when a manifest and material error has been identified. Any retrospective recalculation will be notified to users via the alert system on Refinitiv Eikon.

5.3 Insufficient Data and Market Disruptions

Refinitiv endeavors to develop and publish indices only where Refinitiv has a high level of confidence of longterm availability and access to the necessary data to administer the indices.

A "Market Emergency" is herein defined as any unscheduled and extraordinary condition in which liquidity in the markets used to source input data is interrupted (such as an event resulting in the unscheduled closing of futures exchanges). Should a Market Emergency occur, Refinitiv reserves the right to take such action with respect to the Index as it deems appropriate given the circumstances and after consulting with the Index Action Committee as appropriate.

Refinitiv will attempt to notify interested parties of any such actions as well in advance as is practicable. There is no assurance, however, that following a Market Emergency, the actions taken in response to such Market Emergency, or any other force majeure event, will not have an adverse effect on the value of the Index or the way it is calculated.

6. GOVERNANCE

There is a committee to oversee the Index at Refinitiv 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.

6.1 Index Action Committee

There is an internal index action committee (IAC) at Refinitiv Indices. The IAC reviews country and region indices and rebalances. It is composed of the Refinitiv Equity Indices Benchmarks Manager, Refinitiv Commodity Indices Benchmarks Manager, Hear of FX Benchmarks Research & Design, Development Manager and Head of Data Operations.

The main activity of this Index Action Committee is to insure that the attributes the index claims to possess – the necessary liquidity, capitalization assignment (large, mid or small-cap) or style considerations – are indeed present. These reviews take place at each rebalance and at each quarterly review. 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 monthly or more frequent basis. Finally, as each index needs a minimum number of constituents in order for its price to be computed, the Index Committee decides if an index should be discontinued or possibly resurrected. This decision will normally be made during the rebalance period but could happen more often.

6.2 Benchmark Manager

The Benchmark Manager is a subject matter expert and is responsible for the integrity and quality of the Index which includes the following specific responsibilities:

- Interpreting the Index Methodology and implement the change procedure (if any)
- Reviewing feedback received from the Index stakeholders.
- Developing and implementing changes to the Index Methodology pursuant to feedback from Index stakeholders or in response to market events, subject to Section 7.2, Cessation of an Index.
- Managing interaction with Index stakeholders

6.3 Index Stakeholder Feedback

The Benchmark Manager may seek the views of market participants and other Index stakeholders on a bilateral basis from time to time or through one or more Index Advisory Groups. Issues on which the Benchmark Manager may consult Index stakeholders include conditions in the underlying markets that the Index represents, the representativeness of the input data used in the determination of the Index, the performance of the index with respect to the underlying markets that it represents, potential changes to the index calculation methodology, the weight calculation algorithm and exceptional market events.

7. METHODOLOGY REVIEWS AND CHANGE PROCEDURES

7.1 Review of the Methodology

The Refinitiv Eurozone ESG Select Index Methodology is reviewed once a year and, if required by market events, more frequently. Any potential changes to the Methodology are reviewed by the Index Action Committee.

7.2 Cessation of An Index

Refinitiv aims not to stop the publication of any index that is used as a benchmark.

For those cases where Refinitiv does decide to stop the publication of an index, Refinitiv will look to find a suitable successor to its role as Administrator of the index. Should no successor be found, Refinitiv will conduct a consultation with any relevant stakeholders, the Index Action Committee and the Refinitiv Independent Oversight Committee. Refinitiv will publish a notice on its website about the possibility of stopping the publication of the Index and inviting anyone to provide feedback.

Such notice will be posted at least 6 months, where possible, prior to cessation of publication of the index, or on a best efforts basis for circumstances beyond the control of Refinitiv. After the consultation period, Refinitiv will publish externally the timeline for cessation. Internally, detailed operating procedures will be drafted to ensure a managed cessation.

CONTACT US:

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