Think Sustainable World Index

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# Think Sustainable World Index

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1 Scope

The Think Sustainable World Index tracks the performance of a selection of the top 250 shares from global developed markets. The selection model ranks the shares according to liquidity and free-float adjusted market capitalization.

The underlying asset composition is equally weighted. A divisor methodology is implemented. As the index calculation agent, Markit is responsible for the selection of the constituents in the index and the implementation of the annual rebalances and daily calculation. Prior to selecting index constituents the underlying liquidity universe is scanned according to sustainability criteria’s set by EIRIS, stocks deemed as not sustainable by EIRIS are dropped from the selection universe.

After the close of the market, the index calculation is reconciled and corporate events are incorporated for the open of the next business day. Output files may be delivered via XML or FTP if required.

2 Universe Selection

2.1 Eligible Universe

The eligible stocks to be considered are from the Markit developed equity universe in the table below:

<table>
<thead>
<tr>
<th>Markit Equity Universe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
</tr>
<tr>
<td>Austria</td>
</tr>
<tr>
<td>Belgium</td>
</tr>
<tr>
<td>Canada</td>
</tr>
<tr>
<td>Denmark</td>
</tr>
<tr>
<td>Finland</td>
</tr>
<tr>
<td>France</td>
</tr>
<tr>
<td>Germany</td>
</tr>
</tbody>
</table>

Only securities listed in the primary stock exchanges by country are considered eligible.1

2.2 Liquidity Criteria

The first criterion is liquidity. The 1000 most liquid stocks from the eligible universe are selected into the Liquidity Universe.

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1 Only the most liquid share line of each stock will be eligible for consideration in the equity universe
2 Companies exposed to the production, sale or distribution of cluster ammunition will not be eligible (1st January 2013: new Dutch legislation prohibits certain Dutch financial institutions from investing in such entities) – screening is conducted by EIRIS
3 EIRIS continually screens companies based on Global Compact criteria. For each of the categories (Human Rights, Labour, Environment and Anti-Corruption) the 5 worst performing companies in their universe will not be eligible. Stocks of violators will be screened out during the annual rebalancing.
Liquidity is measured by the Daily Volume Average over the 6 months period prior to the selection day including the selection day. The Daily Volume Average is the arithmetic average value of the daily trading volumes over the 6 month period excluding the three highest values and the three lowest values.

2.3 Sustainability Criteria

The universe of 1000 liquid stocks is sent by the calculation agent to a third party EIRIS who screens the underlying universe of 1000 stocks. They return the screened universe to Markit having identified stocks as acceptable for index selection and unacceptable. Stocks identified as sustainable will qualify as acceptable. Only stocks that are deemed acceptable will be taken into account for steps 2.4 and 2.5.

2.4 Free Float adjusted Capitalization Criteria

The stocks in the Liquidity universe that have been classified as acceptable by EIRIS are ranked by the free-float adjusted market capitalization in a descending order. The 250 stocks with the highest ranking are further selected into the Preliminary Index Universe.

2.5 Determining the Index Universe with Regional Capping

A capping procedure is implemented to avoid excessive concentration on some specific stock exchanges and ensure a diversified allocation. Eligible stocks are grouped by region into North America, Europe and Asia Pacific. There is a cap applied to the maximum number of stocks allowed from each region to be included into the index universe. A buffer rule is then applied in order to minimize turnover by giving preference to current constituents.

For the Think Sustainable World Index the cap is 40% of the total number of stocks included in the index universe, i.e. 100 stocks per region. Once the cap for any region in the preliminary index universe is breached, the stocks from such region with the lowest free-float adjusted market capitalization rank are removed to satisfy the capping requirement.

Correspondingly, the stocks from other regions with the highest ranking in the Liquidity Universe but not included in the Preliminary Index Universe are selected and added to the Preliminary Index Universe to replace the removed stocks. After the removal and adding procedures to the Preliminary Index Universe, 250 stocks are determined as the preliminary index constituents for the final Index Universe.

A 20% buffer rule is then applied either at an index level (across all regions), or separately for regions which have breached the capping procedure stipulated above:

- Non-constituents will be eligible if ranked within the top 80% by component count in descending order of free-float market capitalization
- Current constituents will remain eligible if ranked within the top 120%.

New constituents will then be eligible based on ranking until the required count is reached, whilst respecting capping restrictions.

The index universe can be expanded in order to meet the required component count, should there not be enough eligible stocks due to regional capping restrictions. Such stocks will be taken from the liquidity universe in descending order of free-float market capitalization.

Final composition will be provided by Market, one week prior to implementation date.
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3 Index Rebalance

3.1 Rebalance Frequency

The index is launched on 22nd April 2013 at a base index value of 2500.
The index constituents are refreshed annually to establish the membership list for the index universe.
The Selection Day is the first Tuesday of March. After the close of Selection Day the underlying universe is screened and the new index universe is determined.
The new constituents are implemented after the close of the fourth Tuesday of each March provided that all relevant stock exchanges are trading for two consecutive days. If all relevant stock exchanges are not trading for two consecutive days on the fourth Tuesday of each March the implementation date will fall on the next business day that all the relevant stock exchanges are trading for two consecutive days.

The rebalancing schedule is given below to demonstrate the rebalance frequency:

<table>
<thead>
<tr>
<th>Annual Rebalance</th>
<th>Selection Date</th>
<th>Implementation Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>12/03/2013</td>
<td>26/03/2013</td>
</tr>
<tr>
<td>2014</td>
<td>11/03/2014</td>
<td>25/03/2014</td>
</tr>
<tr>
<td>2015</td>
<td>10/03/2015</td>
<td>24/03/2015</td>
</tr>
<tr>
<td>2016</td>
<td>01/03/2016</td>
<td>22/03/2016</td>
</tr>
<tr>
<td>2017</td>
<td>07/03/2017</td>
<td>28/03/2017</td>
</tr>
<tr>
<td>2018</td>
<td>06/03/2018</td>
<td>27/03/2018</td>
</tr>
</tbody>
</table>

3.2 Quarterly Index Review

<table>
<thead>
<tr>
<th>Index Review Dates</th>
<th>Review Date</th>
<th>Implementation Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>11/06/2015</td>
<td>18/06/2015</td>
</tr>
<tr>
<td>2015</td>
<td>10/09/2015</td>
<td>17/09/2015</td>
</tr>
<tr>
<td>2015</td>
<td>01/12/2015</td>
<td>15/12/2015</td>
</tr>
<tr>
<td>2016</td>
<td>07/06/2016</td>
<td>21/06/2016</td>
</tr>
<tr>
<td>2016</td>
<td>06/09/2016</td>
<td>20/09/2016</td>
</tr>
<tr>
<td>2016</td>
<td>06/12/2016</td>
<td>20/12/2016</td>
</tr>
<tr>
<td>2017</td>
<td>06/06/2017</td>
<td>20/06/2017</td>
</tr>
<tr>
<td>2017</td>
<td>05/09/2017</td>
<td>19/09/2017</td>
</tr>
<tr>
<td>2017</td>
<td>05/12/2017</td>
<td>19/12/2017</td>
</tr>
<tr>
<td>2018</td>
<td>05/06/2018</td>
<td>19/06/2018</td>
</tr>
<tr>
<td>2018</td>
<td>04/09/2018</td>
<td>18/09/2018</td>
</tr>
<tr>
<td>2018</td>
<td>04/12/2018</td>
<td>18/12/2018</td>
</tr>
</tbody>
</table>

To guarantee that index constituent’s meet the sustainability criteria set out by EIRIS 4 quarterly reviews are implemented the first quarterly review every March is replaced by the annual index rebalance which integrates the review process.
The review date is the first Tuesday of June, September, and December. After the close of the review date, the current index composition is sent to EIRIS for screening together with the Liquid Universe from which the index composition was selected.
The implementation date is the third Tuesday of June, September, and December. If any of the stocks in the currently active index composition are deemed no longer acceptable, new constituents must be selected to replace them after the close of the relevant implementation date.
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Replacement stocks are selected from the newly screened Liquid Universe. The stock with the largest free-float market capitalisation within the Liquid Universe which is not currently present in the index composition and deemed acceptable by EIRIS is chosen as a replacement stock. If multiple stocks within the index need replacing the stock with the largest free-float market capitalisation within the index composition at the index rebalance implementation date is replaced first.

The replacement process is repeated until all stocks that are no longer acceptable within the active index have been replaced.

Every stock entering the index as a replacement stock must not lead to a breach of the region capping in the event that a breach occurs the next eligible stock from the Liquidity Universe that does not lead to a breach in the capping is selected.

The replacement stocks are brought into the index after the close of the implementation date taking on the current weight of the stock that they are replacing.

3.3 Index Weights

The constituents of the index are set as equally weighted at each rebalancing.

4 Index Calculation

4.1 Index Currency

The index currency is EUR.

4.2 Calculation Methodology

There are two steps to calculate the index values.

— Market Capitalization

The market capitalization of each index constituent is crucial to an equity index. The first step is then to define how to calculate the market capitalization for an equity index constituent.

— Index Value Calculation

The second step is to define the standard methodologies to calculate an equity index, which is based on market capitalizations of the index constituents. The index captures the performance of the index constituents. If the prices go up, then the market capitalizations go up and the index value has to go up to mirror the positive performance of its constituents. Alternatively, if the prices go down, the market cap goes down and the index value has to go down to reflect the negative performance of its constituents.

4.2.1 Market Capitalization

The closing market capitalization of a stock is defined in the following way:

\[ MktCap_i = P_i \times NOSH_i \times FXRate_{it} \]

Where:

\( i = 1, 2, 3, \ldots, n \) refers to the stock “i”

\( n \) = the number of stocks in the index

\( P_i \) = the closing price of the stock “i”

\( FXRate_{it} \) = The official quote from WM Reuters at 4:00 pm CET time for converting the 1 unit of the stock “i” currency into the index currency
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\[ \text{NOSH}_{it} = \text{Number of Shares for stock } \text{”}i\text{” as at the close} \]

\[ \text{MktCap After CA}_{<t+1>0} = P_{it} \times P_{-AF_{it}} \times \text{NOSH}_{it} \times \text{NOSH - AF}_{it} \times \text{FXRate}_{it} \]

where

\[ P_{-AF_{it}} = \text{The price adjustment factor to the stock } \text{”}i\text{” due to corporate actions on day } t \]

\[ \text{NOSH - AF}_{it} = \text{The NOSH adjustment factor to the stock } \text{”}i\text{” due to corporate actions on day } t \]

4.2.2 Index Value Calculation

The index values are calculated using Divisor methodology. A Divisor is an intermediate calculation factor to distribute within the index the corporate action adjustment. Specifically, the divisor is the underlying mathematical object which is responsible for the similarity between the numerator and the denominator:

The divisor captures the adjustments in order to maintain the continuity of the index value across changes due to corporate actions.

General Divisor Procedure:

- The divisor is a numerical value provided at the start of the index set-up.
- The divisor remains constant up to when there is a corporate event to be taken into account.

\[ \text{Divisor}_{t+1} = \text{Divisor}_{t} \times \frac{\text{MktCap After CA}_{<t+1>0}}{\text{MktCap}_{t}} \]

- The Market Capitalization after the corporate actions (\(CA\)) includes the adjustments done via the Price and Number of Shares Adjustment Factors (see formula (1)).
- The index value is then calculated as the current market capitalization divided by the Divisor used as denominator.
- The index is therefore explained as:

\[ \text{IndexValue}_{t} = \frac{\sum_{i=1}^{n} P_{it} \times \text{NOSH}_{it} \times \text{FXRate}_{it}}{\text{Divisor}_{t}} \]

4.3 Corporate Action Treatment

Corporate actions are treated in line with standard market practice and are implemented according to Markit Standard Index Treatment (MIST).

4.4 Tax Table

Tax rates applied are in line with the tax table according to Markit Standard Index Treatment (MIST).
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5 Publication

Index values are published both to Bloomberg and Reuters as per the codes in the table below. Index values are calculated for every business day from Monday to Friday. The primary stock exchanges are used to source official data for each index constituent.

The release of the equity index values and the relevant equity index composition is through XML if required. An FTP and a standard csv composition file can also be sent out to an e-mail distribution list or FTP defined upon request.

The three indices and their corresponding Bloomberg Ticker and Reuters RIC codes are the following:

<table>
<thead>
<tr>
<th>Name</th>
<th>BBG TK</th>
<th>Reuters RIC</th>
<th>CCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Think Sustainable World Price Index</td>
<td>TWSE</td>
<td></td>
<td>EUR</td>
</tr>
<tr>
<td>Think Sustainable World Total Return Index</td>
<td>TTMTTSWE</td>
<td>.TSWE</td>
<td>EUR</td>
</tr>
<tr>
<td>Think Sustainable World Net Total Return Index</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6 Recalculation

When the index values are deemed to be inaccurate, the difference between the previously calculated index value and the obtained new index value is calculated

The following actions are taken:

— If the difference is equal or smaller than 0.05%, then the index value is assumed to be correct. No restatement is made and no further action is required.

— If the difference is greater than 0.05%, then the index value is assumed to be incorrect. Therefore, the index values are recalculated from the initial error date and republished. Please note that any restating is limited to the last three months of the index values.

7 Contact Details

For any query regarding the indices, please contact Index Research & Design (MK-IndicesResearch@markit.com) Production Team MK-IndicesProductionBespokes@markit.com.