

MSCI WORLD ESG YIELD SELECT VARIANCE INDEX METHODOLOGY

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1 INTRODUCTION

The MSCI World ESG Yield Select Variance Index is a custom index constructed by applying an optimization process with no constraints on number of constituents, active sector weight, active country weight, and active Barra risk factor exposure, designed to achieve total risk minimization for a set of companies with high Environmental, Social and Governance (ESG) performance, which also have relatively higher dividend yield and lower price variance within the Parent Index.

This methodology book provides a description of the rules and guidelines followed by MSCI for the construction and maintenance of the MSCI World ESG Yield Select Variance Index.

2 CONSTRUCTING THE MSCI WORLD ESG YIELD SELECT VARIANCE INDEX

The MSCI World ESG Yield Select Variance Index (the “Index”) is constructed from the MSCI World Index (the “Parent Index”). The following steps are applied at initial construction of the Index and subsequent Quarterly Index Reviews.

- Using the MSCI ESG Leaders Indexes methodology
- Applying Dividend Yield Screen and Variance Screen
- Applying the MSCI Global Minimum Volatility Indexes methodology

2.1 USING THE MSCI ESG LEADERS INDEXES METHODOLOGY

The MSCI ESG Leaders Indexes methodology¹ is applied on the Parent Index.

2.2 APPLYING DIVIDEND YIELD SCREEN AND VARIANCE SCREEN

The following dividend yield and variance screens are applied sequentially on the resulting set of constituents in the earlier step.

2.2.1 DIVIDEND YIELD SCREEN

In the dividend yield screen, all constituents selected after the application of step 2.1 are ranked in descending order of their dividend yield² and the top 20% by number of securities are selected.

2.2.2 VARIANCE SCREEN

The resulting set of constituents selected after the application of the dividend yield screen are reweighted by their security level risk weights calculated in accordance with the MSCI Risk Weighted Indexes methodology³.

The security level risk weight is computed as the ratio of the inverse of the security variance to the sum of the inverse of security variance of all constituent securities. A variant of the MSCI Risk Weighted Indexes methodology that uses security level variance data computed using weekly returns over one year period prior to the rebalancing date is utilized for calculation of the security level risk weights.

¹ MSCI ESG Leaders Indexes methodology book available at <https://www.msci.com/index-methodology>

² MSCI Fundamental Data Methodology book available at <https://www.msci.com/index-methodology>

³ MSCI Risk Weighted Indexes Methodology book available at: <https://www.msci.com/index-methodology>

In the application of the variance screen, all constituents are ranked in descending order of their security level risk weights and the top 50% by number of securities are included.

2.3 APPLYING THE MSCI GLOBAL MINIMUM VOLATILITY INDEXES METHODOLOGY

The final Index is constructed by using an optimization process to target the lowest total risk on the set of securities included from the previous step by applying an unconstrained variant of the MSCI Global Minimum Volatility Indexes Methodology⁴.

The following constraints are used as part of the optimization.

- The maximum weight of an index constituent is restricted to the lower of 5% or 20 times the weight of the security in the index after the application of “Variance Screen” step of the methodology
- The minimum weight of an index constituent is 0.25%
- No constraints on number of constituents are applied
- The optimization currency for the Index is the Euro
- No active sector weight constraints are applied
- No active country weight constraints are applied
- No active Barra risk index constraints are applied
- The one way turnover of the Index is not constrained at the Quarterly Index Review

Please refer to Appendix 1 for details relating to handling of infeasible optimizations during the Quarterly Index Reviews of the MSCI World ESG Yield Select Variance Index.

⁴ MSCI Global Minimum Volatility Indexes Methodology book available at: <https://www.msci.com/index-methodology>

3 MAINTAINING THE MSCI WORLD ESG YIELD SELECT VARIANCE INDEX

3.1 QUARTERLY INDEX REVIEWS

The Index is reviewed on a quarterly basis as described in section 2, coinciding with the May and November Semi-Annual Index Reviews and the February and August Quarterly Index Reviews of the Parent Index.

In general, MSCI uses MSCI ESG Research data (including MSCI ESG Ratings, MSCI ESG Controversies Scores and MSCI Business Involvement Screening Research) as of the end of the month preceding the Index Reviews for the rebalancing of the MSCI World ESG Yield Select Variance Index. For some securities, such data may not be published by MSCI ESG Research by the end of the month preceding the Index Review. For such securities, MSCI will use ESG data published after the end of month, when available, for the rebalancing of the MSCI World ESG Yield Select Variance Index.

The pro forma Index is typically announced nine business days before the effective date.

3.2 ONGOING EVENT RELATED CHANGES

In general, the Index follows the event maintenance of the Parent Index. In between Index Reviews, securities deleted from the Parent Index are simultaneously deleted from the Index. There will be no additions to the Index in between Index Reviews.

The details relating to the handling of specific corporate event types can be found in the MSCI Corporate Events Methodology book⁵.

⁵ MSCI Corporate Events Methodology book available at: <https://www.msci.com/index-methodology>

APPENDIX I: HANDLING INFEASIBLE OPTIMIZATIONS

During the Quarterly Index Review, in the event that there is no optimal solution that satisfies all the optimization constraints, the announcement of the pro forma index nine business days before the effective date of the Quarterly Index Review will be postponed. MSCI will announce the pro forma index at a later date which will be before the effective date of the Quarterly Index Review.

In order to achieve a feasible solution for the MSCI World ESG Yield Select Variance Index, the number of securities with the highest dividend yield selected during the application of the “Dividend Yield Screen” step will be increased from 20% in steps of 10%, until a percentage is reached which will result in at least 20 securities.

The MSCI Equity Index Policies⁶ describe processes that MSCI follows when faced with a situation that may result in a significant change to MSCI equity index methodology or its implementation.

⁶ MSCI Equity Index Policies available at <https://www.msci.com/index-methodology>

The following sections have been updated since March 2017:

Section 3: Maintaining the MSCI World ESG Yield Select Variance Index

- Clarification on use of ESG data for securities whose data would be available after the end of the month preceding Index Review.

The following sections have been updated since May 2017:

- Methodology book updated to reflect change in name of MSCI Global Sustainability Indexes to MSCI ESG Leaders Indexes.

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