

## **METHODOLOGY BOOK FOR:**

- MSCI World Listed Private Equity Tilted Select Index**
- MSCI World Listed Private Equity Tilted PAB Select Index**

**November 2024**

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## 1. Introduction

The MSCI World Listed Private Equity Tilted Select Index (the “Parent Index”) is constructed by combining the MSCI World Index and the MSCI World Listed Private Equity Fixed Basket Index in fixed proportion of 80% and 20% respectively.

The MSCI World Listed Private Equity Tilted PAB Select Index (the “Index”) is designed to meet the minimum standards of the EU Paris-Aligned Benchmark (PAB)<sup>1</sup>. The Index is constructed by applying the MSCI PAB Overlay Indexes Methodology<sup>2</sup> to the Parent Index.

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<sup>1</sup> December 3, 2020, the European Commission has published the delegated acts in the Official Journal (<https://eurlex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R1818&from=EN>) which contain the minimum technical requirements for the EU Climate Transition Benchmarks and EU Paris-Aligned Benchmarks. In case there are changes in the EU delegated acts and an update to the Index methodology is required, MSCI will issue an announcement prior to implementing the changes in the methodology. MSCI will not conduct a formal consultation for such an update.

<sup>2</sup> Please refer to the <https://www.msci.com/index/methodology/latest/MSCIEUCTBPABOverlay> for details.

## 2. Constructing the Index

The Parent Index is constructed by combining the following two components in fixed proportion:

- MSCI World Index
- MSCI World Listed Private Equity Fixed Basket Index

The MSCI World Listed Private Equity Fixed Basket Index is constructed by applying the MSCI Fixed Basket Indexes Methodology<sup>3</sup>. The MSCI World Listed Private Equity Fixed Basket Index aims to represent the performance of a fixed set of securities from the MSCI World Index that are involved in business activities related to Private Equity. The MSCI PAB Overlay Indexes Methodology<sup>4</sup> is applied to the Parent Index to construct the Index.

### 2.1 Constructing the Parent Index

At each Index Review, the Parent Index is rebalanced by weighting the MSCI World Index and the MSCI World Listed Private Equity Fixed Basket Index as follows:

Component Index	Weight
MSCI World	80%
MSCI World Listed Private Equity Fixed Basket Index	20%

### 2.2 Eligible Universe

The Eligible Universe is constructed from the constituents of the Parent Index by excluding securities based on the exclusion criteria list, given in the section 2.3 of the MSCI EU CTB/PAB Overlay Indexes Methodology<sup>5</sup>.

### 2.3 Reference Index

The Reference Index is the MSCI World Index ("Reference Index"). The Reference Index aims to represent the Investment Universe for the Parent Index. This index is the free float-adjusted market capitalization weighted index corresponding to the Parent Index as per the MSCI Global Investible Markets Index (GIMI) methodology<sup>6</sup>.

<sup>3</sup> Please refer to [Index methodology - MSCI](#) for the MSCI Fixed Basket Indexes Methodology and Appendix 2 of this document for the details on MSCI World Listed Private Equity Fixed Basket Index.

<sup>4</sup> Please refer to the <https://www.msci.com/index/methodology/latest/MSCIEUCTBPABOverlay> for details.

<sup>5</sup> Please refer to the <https://www.msci.com/index/methodology/latest/MSCIEUCTBPABOverlay> for detailed exclusions criteria.

<sup>6</sup> For further details regarding the MSCI Global Investible Markets Index Methodology, please refer to <https://www.msci.com/index/methodology/latest/GIMI>.

## 2.4 Optimization Constraints

At each Semi-Annual Index Review, the indexes are constructed using an optimization process that aims to achieve replicability and investability as well as minimize ex-ante tracking error relative to the Parent Index subject to the following constraints:

1. Climate objectives – constraints detailed in Table 1
2. Diversification objectives – constraints detailed in Table 2

The definitions of the target metrics for the optimization are detailed in MSCI EU CTB/PAB Overlay Indexes Methodology<sup>7</sup>.

*Table 1: Constraints imposed to meet climate objectives*

No.	Climate Objectives	Target Value
1	Minimum reduction in Greenhouse Gas (GHG) Intensity relative to EVIC (Scope 1+2+310) relative to the Reference Index	50%
2	Minimum average reduction (per annum) in GHG Intensity (relative to EVIC) relative to GHG Intensity of the index at the Base Date <sup>8</sup>	7%
3	Minimum active weight in High Climate Impact Sector relative to Reference Index as defined in Appendix I in the MSCI EU CTB/PAB Overlay Indexes Methodology	0%

*Table 2: Constraints imposed to meet diversification objectives*

No.	Diversification Objective	Target Value
4	Constituent Active Weight relative to the Parent Index	+/-2%
5	Security Weight as a multiple of its weight in the Parent Index	20x
6	Active Sector Weights (the Energy GICS Sector is not constrained) relative to the Parent Index	+/-5%
7	Active Country Weights relative to the Parent Index	+/-5%
8	One Way Turnover	20%

<sup>7</sup> Please refer to the <https://www.msci.com/index/methodology/latest/MSCI EU CTB/PAB Overlay> for details.

<sup>8</sup> The Base Date is 30-Nov-2021

No.	Diversification Objective	Target Value
9	Common Factor Risk Aversion	0.0075
10	Specific Risk Aversion	0.075

During the Semi-Annual Index Review, in the event that there is no optimal solution that satisfies all the optimization constraints, the following constraints will be relaxed, until an optimal solution is found:

- Relax the one-way index turnover constraint in steps of 1% up to 30%
- Relax the active sector weight constraint in steps of 1% up/down to +/-20%
- The one-way index turnover constraint and the active sector weight constraint are alternately relaxed until a feasible solution is achieved.

In the event that no optimal solution is found after the above constraint relaxations are exhausted, the relevant Index will not be rebalanced for that Semi-Annual Index Review.

## 2.5 Determining the Optimized Index

The Index is constructed using the Barra Open Optimizer<sup>9</sup> in combination with the relevant Barra Equity Model. The optimization uses universe of eligible securities and the specified optimization objectives and constraints to determine the constituents of the Index.

## 2.6 Treatment of Unrated Companies<sup>10</sup>

Companies not assessed by MSCI ESG Research on data for any of the following MSCI ESG Research products are not eligible for inclusion in the Index:

- MSCI ESG Controversies

<sup>9</sup> Please refer to Appendix 3 and 4

<sup>10</sup> For the treatment of unrated companies in the calculation of target metrics for the optimization process, please refer to <https://www.msci.com/index/methodology/latest/MSCIEUCTBPABOverlay>

## 3. Maintaining the Index

### 3.1 Semi Annual Index Reviews

The indexes are rebalanced on a semi-annual basis, as of the close of the last business day of May and November, coinciding with the May and November Index Review of the MSCI Global Investable Market Indexes. The pro forma indexes are in general announced nine business days before the effective date.

In general, MSCI uses MSCI ESG Research data (including MSCI Climate Change Metrics, MSCI Climate Value-at-Risk, MSCI ESG Sustainable Impact Metrics, MSCI ESG Controversies and MSCI Business Involvement Screening Research) as of the end of the month preceding the Index Reviews for the rebalancing of the indexes.

### 3.2 Ongoing Event-Related Changes

The general treatment of corporate events in the indexes aims to minimize turnover outside of Index Reviews. The methodology aims to appropriately represent an investor's participation in an event based on relevant deal terms and pre-event weighting of the index constituents that are involved.

Further, changes in index market capitalization that occur as a result of corporate event implementation will be offset by a corresponding change in the Variable Weighting Factor (VWF) of the constituent.

Additionally, if the frequency of Index Reviews in the Parent Index is greater than the frequency of Index Reviews in the Index, the changes made to the Parent Index during intermediate Index Reviews will be neutralized in the Index.

The following section briefly describes the treatment of common corporate events within the Index.

No new securities will be added (except where noted below) to the Index between Index Reviews. Parent Index deletions will be reflected simultaneously.

EVENT TYPE	EVENT DETAILS
<b>New additions to the Parent Index</b>	A new security added to the Parent Index (such as IPO and other early inclusions) will not be added to the index.
<b>Spin-Offs</b>	All securities created as a result of the spin-off of an existing Index constituent will be added to the Index at the time of event implementation. Reevaluation for continued inclusion in the Index will occur at the subsequent Index Review.
<b>Merger/Acquisition</b>	For Mergers and Acquisitions, the acquirer's post event weight will account for the proportionate amount of shares involved in

EVENT TYPE	EVENT DETAILS
	<p>deal consideration, while cash proceeds will be invested across the Index.</p> <p>If an existing Index constituent is acquired by a non- Index constituent, the existing constituent will be deleted from the Index and the acquiring non- constituent will not be added to the Index.</p>
<b>Changes in Security Characteristics</b>	<p>A security will continue to be an Index constituent if there are changes in characteristics (country, sector, size segment, etc.) Reevaluation for continued inclusion in the Index will occur at the subsequent Index Review.</p>

Further detail and illustration regarding specific treatment of corporate events relevant to this Index can be found in the MSCI Corporate Events Methodology book under the sections detailing the treatment of events in Capped Weighted and Non-Market Capitalization Weighted indexes.

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



## 4. MSCI ESG Research

The Indexes are products of MSCI Inc. that utilize information such as company ratings and research produced and provided by MSCI ESG Research LLC (MSCI ESG Research), a subsidiary of MSCI Inc. In particular, the Indexes use the following MSCI ESG Research products: MSCI ESG Ratings, MSCI ESG Controversies, MSCI ESG Business Involvement Screening Research and MSCI Climate Change Metrics. MSCI Indexes are administered by MSCI Limited.

### 4.1 MSCI Climate Change Metrics

MSCI Climate Change Metrics provides climate data & tools to support institutional investors seeking to integrate climate risk & opportunities into their investment strategy and processes. This includes investors seeking to achieve a range of objectives, including measuring and reporting on climate risk exposure, implementing low carbon and fossil fuel-free strategies, alignment with temperature pathways and factoring climate change research into their risk management processes, in particular through climate scenario analysis for both transition and physical risks.

The dataset spans across the four dimensions of a climate strategy: transition risks, green opportunities, physical risks and 1.5° alignment.

For more details on MSCI Climate Change Metrics, please refer to <https://www.msci.com/climatechange-solutions>.

### 4.2 MSCI ESG Controversies

MSCI ESG Controversies provide assessments of controversies concerning the potential negative environmental, social, and/or governance impact of company operations, products and services. The evaluation framework used in MSCI ESG Controversies is designed to be consistent with international norms represented by the UN Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, and the UN Global Compact. MSCI ESG Controversies Score falls on a 0-10 scale, with “0” being the most severe controversy.

The MSCI ESG Controversies methodology can be found at: <https://www.msci.com/legal/disclosures/esg-disclosures>.

### 4.3 MSCI ESG Business Involvement Screening Research

MSCI ESG Business Involvement Screening Research (BISR) aims to enable institutional investors to manage environmental, social and governance (ESG) standards and restrictions reliably and efficiently. For more details on MSCI ESG Business Involvement Screening Research, please refer to <https://www.msci.com/legal/disclosures/esg-disclosures>.

## Appendix 1: Methodology Set

The Indexes are governed by a set of methodology and policy documents (“Methodology Set”), including the present index methodology document as mentioned below:

- Description of methodology set –  
<https://www.msci.com/index/methodology/latest/ReadMe>
- MSCI Corporate Events Methodology –  
<https://www.msci.com/index/methodology/latest/CE>
- MSCI Fundamental Data Methodology –  
<https://www.msci.com/index/methodology/latest/FundData>
- MSCI Index Calculation Methodology –  
<https://www.msci.com/index/methodology/latest/IndexCalc>
- MSCI Index Glossary of Terms –  
<https://www.msci.com/index/methodology/latest/IndexGlossary>
- MSCI Index Policies –  
<https://www.msci.com/index/methodology/latest/IndexPolicy>
- MSCI Global Industry Classification Standard (GICS) Methodology –  
<https://www.msci.com/index/methodology/latest/GICS>
- MSCI Global Investable Market Indexes Methodology –  
<https://www.msci.com/index/methodology/latest/GIMI>
- MSCI Global ex Controversial Weapons Indexes Methodology –  
<https://www.msci.com/index/methodology/latest/XCW>
- MSCI Global ex Tobacco Involvement Index –  
<https://www.msci.com/index/methodology/latest/ExTobacco>
- MSCI EU CTB/PAB Overlay Indexes Methodology –  
<https://www.msci.com/index/methodology/latest/MSCIEUCTBPABOverlay>
- MSCI Fixed Basket Indexes Methodology -  
[MSCI Fixed Basket Index Methodology](#)
- ESG Factors in Methodology\*

The Methodology Set for the Indexes can also be accessed from MSCI’s webpage <https://www.msci.com/index-methodology> in the section ‘Search Methodology by Index Name or Index Code’.

\* ‘ESG Factors in Methodology’ contains the list of environmental, social, and governance factors considered, and how they are applied in the methodology (e.g., selection, weighting or exclusion). It can be accessed in the Methodology Set as described above.

## Appendix 2: MSCI World Listed Private Equity Fixed Basket Index

<b>Fixed Set of Securities</b>	<b>MSCI Security Code</b>	<b>Security Short Name</b>	<b>Isin Code</b>
	17178.01	3I GROUP	GB00B1YW4409
	68977.01	APOLLO GLOBAL MGMT A	US03769M1062
	96929.01	ARES MANAGEMENT CORP	US03990B1017
	99148.01	BLACKSTONE GROUP	US09260D1072
	29316.01	BRIDGEPOINT GROUP	GB00BND88V85
	54476.01	BROOKFIELD ASSET MAN LTD	CA1130041058
	22490.01	BROOKFIELD CORP A	CA11271J1075
	14278.01	CARLYLE GROUP	US14316J1088
	35437.01	COMPASS DIVERSIFIED HLDG	US20451Q1040
	99068.01	EQT AB	SE0012853455
	11001.01	EURAZEO	FR0000121121
	10952.01	GROUPE BRUXELLES LAMBERT	BE0003797140
	92917.01	HAMILTON LANE A	US4074971064
	27621.01	INTERMEDIATE CAPITAL GRP	GB00BYT1DJ19
	11524.03	INVESTOR B	SE0015811963
	96928.01	KKR & CO A	US48251W1045
	22041.01	ONEX CORP	CA68272K1030
	12257.01	ORIX CORP	JP3200450009
	48528.01	P10 A	US69376K1060
	35127.01	PARTNERS GROUP HOLDING	CH0024608827
	98644.01	PROSUS N	NL0013654783
	12762.01	SOFINA	BE0003717312
	16530.01	STEPSTONE GROUP A	US85914M1071
	53372.01	TPG A	US8726571016
	25196.01	WENDEL	FR0000121204
<b>Parent index</b>	MSCI World Index		
<b>Security Weighting</b>	Free Float Market Capitalization		
<b>Security Selection Date</b>	18-Oct-24		



## Appendix 3: Barra Equity Model Used in the Optimization

The Index currently use an optimization setup using the MSCI Barra Global Equity Model for Long-Term Investors (GEMTLTL).



## Appendix 4: New Release of Barra® Equity Model or Barra® Optimizer

A major new release of the relevant Barra Equity Model or Barra Optimizer may replace the former version within a suitable timeframe.

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