

MSCI World Ricardo Comparative Advantage Select GDP Tilted Index Methodology

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1. Introduction

The MSCI World Ricardo Comparative Advantage GDP Tilted Select Index (the 'Index') aims to represent the performance of the securities from a set of countries which have the highest active weight in each of the GICS®¹ Industry Groups as measured against the MSCI World Index (the 'Parent Index')². The constituent weights of the Index are adjusted according to their corresponding country's gross domestic product ('GDP').

¹ GICS, the Global Industry Classification Standard jointly developed by MSCI and S&P Global Market Intelligence.

² The Indexes are governed by a set of methodology and policy documents ("Methodology Set"), including the present index methodology document. Please refer to Appendix II for more details.



2. Index Construction

The Index is constructed from the Parent Index. The following steps are applied at initial construction and at each Index Review of the Index:

- Eligible Universe Screening
- Security Weighting

2.1 Eligible Universe Screening

2.1.1 Country-Industry Selection

At each Index Review, securities of the country with the highest active country weight in each GICS^{®3} Industry Group in turn of the Parent Index are eligible for inclusion in the Index.

The Active Country Weight for a given $GICS^{\otimes}$ Industry Group (*j*) for a given country (*i*) in the Parent Index is calculated as:

Active Country Weight(i, j) = Country Weight Industry Group(i, j) - Country Weight Parent(i),

where

- *Country Weight Industry Group*(*i*, *j*) is the weight of country (*i*) in a subset of the GICS® Industry Group (*j*) taken from the Parent Index, where the weights in the subset GICS® Industry Group (*j*) are normalized to 100%.
- *Country Weight Parent(i)* is the weight of country (*i*) in the Parent Index.

2.1.2 Liquidity Criteria

Securities selected in 2.1.1 with a 3-month ADTV (Average Daily Traded Value) greater than or equal to USD 5 Million are eligible for inclusion in the Index.

ADTV is calculated as:

$$ADTV_{3M} = \frac{ATV_{3M}^4}{252},$$

where ATV_{3M} is annualized 3-month Average Traded Value of the security.

2.2 Security Weighting

At each Index Review and at Initial Construction, the securities in the eligible universe that meet the above screening criteria are grouped by country, and each group is weighted in proportion of the product of their aggregated free-float adjusted market capitalization and the corresponding country's GDP:

³ GICS, the Global Industry Classification Standard jointly developed by MSCI and S&P Global Market Intelligence

⁴ Please refer to MSCI Index Calculation Methodology at <u>https://www.msci.com/index-methodology</u> for more details on ATV calculation

MSCI Global Investable Market Indexes Methodology at https://www.msci.com/index-methodology



GDP Tilted Weight = GDP for Country⁵ i * Market Capitalization for securities within Country i

The weights are then normalized to sum to 100%. Additionally, the constituent security weights are then capped to mitigate concentration risk in the Index. The individual security weights in the Index are capped at 5%. In case it is not feasible to cap the security weights at 5%, the capping will be relaxed to 10% in steps of 1%.

⁵ The primary sources for GDP data are the Organization for Economic Cooperation and Development (OECD), Economist Intelligence Unit (EIU), and the International Monetary Fund (IMF). In some cases, GDP estimates from the aforementioned sources may be used if final figures are not available at the time of the rebalancing.



3. Maintenance of the Index

3.1 Quarterly Index Reviews

The Index is reviewed on a quarterly basis, coinciding with the February, May, August, and November Index Reviews of the Parent Index. The pro forma Index is typically announced nine business days before the effective date.

In the event that the number of securities remaining in the Eligible Universe is less than 10, index rebalancing will be deemed infeasible and the Index will not be rebalanced in that Index Review.

3.2 Ongoing Event Related Changes

The following section briefly describes the treatment of common corporate events within the Index. Changes in index market capitalization that occur because of corporate event implementation will be offset by a corresponding change in the Variable Weighting Factor (VWF) of the constituent.

No new securities will be added (except where noted below) to the Index between Index Reviews. For cases where additions are noted below, securities will be added to the Index only if added to the Parent Index. Parent Index deletions will be reflected simultaneously.

EVENT TYPE	EVENT DETAILS
New additions to the Parent Index	A new security added to the Parent Index (such as IPO and other early inclusions) will not be added to the Index.
Spin-Offs	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.
Merger/Acquisition	For Mergers and Acquisitions, the acquirer's post event weight will account for the proportionate amount of shares involved in deal consideration, while cash proceeds will be invested across the Index.
	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.
Changes in Security Characteristics	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.



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: <u>https://www.msci.com/index-methodology.</u>

Appendix I - Methodology Set

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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 <u>https://www.msci.com/index/methodology/latest/ReadMe</u>
- MSCI Corporate Events Methodology <u>https://www.msci.com/index/methodology/latest/CE</u>
- MSCI Fundamental Data Methodology <u>https://www.msci.com/index/methodology/latest/FundData</u>
- MSCI Index Calculation Methodology <u>https://www.msci.com/index/methodology/latest/IndexCalc</u>
- MSCI Index Glossary of Terms <u>https://www.msci.com/index/methodology/latest/IndexGlossary</u>
- MSCI Index Policies https://www.msci.com/index/methodology/latest/IndexPolicy
- MSCI Global Industry Classification Standard (GICS) Methodology <u>https://www.msci.com/index/methodology/latest/GICS</u>
- MSCI Global Investable Market Indexes Methodology <u>https://www.msci.com/index/methodology/latest/GIMI</u>

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



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