MSCI MarketAxess USD HY Tradable Corporate Bond Index Methodology

November 2022
## Contents

1. Introduction  
2. MarketAxess Data  
3. Index Construction Rules  
4. Index Maintenance  
   Appendix 1: Guidelines on bond selection algorithm

© 2022 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.
1 Introduction

The MSCI MarketAxess USD HY Tradable Corporate Bond Index ('the Index') is a market value-weighted Index designed to represent the performance of a selection of relatively liquid fixed income securities from the universe of bonds defined by the MSCI USD HY Corporate Bond Index.

The methodology uses the MarketAxess' Relative Liquidity Scores ("RLS") to identify and select liquid fixed income securities. In addition, the Index methodology incorporates appropriate buffers in Index construction and rebalancing to limit monthly turnover.
2 MarketAxess Data

The MSCI MarketAxess USD HY Tradable Corporate Bond Index uses the security-level Relative Liquidity Score product provided by MarketAxess Holdings Inc.

For details on MarketAxess’ full suite of products, please refer to:
https://www.marketaxess.com/.

2.1 Relative Liquidity Score

The MarketAxess Relative Liquidity Score provides a defined measurement of the current liquidity for individual bonds and highlights the potential ease that a trader can expect to transact in that instrument. The score ranges from 10, meaning the highest level of liquidity, down to 1.

MarketAxess combines data points from multiple sources – Inventory data, MarketAxess platform data, TRACE\(^1\) data, and Trax\(^2\) data, to calculate multiple bond-specific factors on a relative basis over a 30-day look back period. The proprietary model then aggregates the individual factors to derive the final relative liquidity score.

For more details on Relative Liquidity score, please refer to:

---

\(^1\) TRACE, Trade Reporting and Compliance Engine, is the Financial Industry Regulatory Authority’s (FINRA) fixed income market real-time price reporting and dissemination service.

\(^2\) Trax, a wholly owned subsidiary of MarketAxess Holdings, Inc., provides capital market data, trade matching and regulatory reporting services to the global securities market.
3 Index Construction Rules

3.1 Selection Universe

The Selection Universe for the MSCI MarketAxess USD HY Tradable Corporate Bond Index is defined by the constituents of the MSCI USD HY Corporate Bond Index.

3.2 Eligibility Criteria

3.2.1 Liquidity Score Eligibility

The Monthly Relative Liquidity Score ("MRLS") of a security is calculated as the simple average of MarketAxess Relative Liquidity Scores over a rolling 21-day window\(^3\). MRLS is calculated only if the security has at least 11 valid observations\(^4\) in the defined window.

If Index constituent is not in its "lock in" period, then each Index constituent must have a MRLS greater than or equal to 5. The "lock-in" period for an Index constituent is defined in Section 4.1.

New additions to the Index must have a MRLS greater than or equal to 6.

3.2.2 Size Eligibility

At a security level, size is defined by its notional amount outstanding, whereas at an issuer ticker level, it is defined by issuer ticker’s total amount outstanding\(^5\).

At rebalancing, each security included in the MSCI MarketAxess USD HY Tradable Corporate Bond Index will have security size greater than or equal to USD 500m and issuer size greater than or equal to USD 2bn.

---

\(^3\) 21-day window is defined by using weekdays.

\(^4\) The observation is considered valid if the bond is scored by MarketAxess and belongs to the USHY MarketAxess liquidity group (relative to which the RLS is computed).

\(^5\) Computed as sum of issuer amount outstanding of all the issuer ids mapped to a issuer ticker. Please refer to MSCI Fixed Income Data Methodology document (https://www.msci.com/index-methodology) for details on the calculation of Issuer amount outstanding.
3.2.3 Maturity Eligibility

Each Index constituent must have a remaining time to maturity greater than or equal to 3 years.

Each Index constituent at issuance must have had a time to maturity greater than or equal to 5 years.

3.3 Index Construction

3.3.1 Updating the Eligible Universe

The Eligible Universe for Index construction is derived from the pro-forma parent Index and is updated by applying the eligibility screens described in the Section 3.2.

3.3.2 Selection of Eligible Bonds

The two largest bonds by size are selected for each issuer ticker in the updated Eligible Universe. If there is only one bond for the issuer ticker in the universe, then only that one is included. Please refer to Appendix 1 for details on the selection rules.

3.4 Weighting Scheme

The Index constituents are weighted in proportion to their market values.

Additionally, constituent weights are capped at 3% at the issuer ticker level to mitigate concentration risk. The excess weight after capping is redistributed across the remaining Index constituent in proportion of their market value.

Note that the capping of the issuer ticker weight is calculated for the pro forma Index as of the effective date, based on the closing prices as of the Index review announcement date.

In cases where the pro-forma issuer ticker weight breaches the cap because of market price movements or corporate events between the announcement date and the effective date, the capping is not applied again. Similarly, even if any issuer ticker weight breaches the cap because of market price movements or corporate events between two monthly reviews, capping is not re-applied.
4  Index Maintenance

4.1  Monthly Index Review

The Index is reviewed monthly to coincide with the Monthly Index Review of the MSCI USD HY Corporate Bond Index.

In general, the pro forma Indexes are announced three business days before the effective date of rebalancing.

MSCI uses the latest available MarketAxess Relative Liquidity Score on the announcement date for the rebalancing of the MSCI MarketAxess USD HY Tradable Corporate Bond Index.

At each Monthly Index Review, the Eligible Universe is updated, and the composition of the Index is reassessed based on methodology described in Section 3. In addition to this for Index rebalancing a buffer rule is applied to control for rebalancing turnover.

Securities that are deleted from the Index are “locked out” and hence are not eligible to be re-added to the Index for a period of next 12 months. For example, if a bond is dropped from the Index as of rebalancing month T, it cannot re-enter the Index up until T+11 months and will be considered for inclusion for the T+12-month rebalancing.

Securities that enter the Index and continue to qualify on size and maturity eligibility criteria defined in Section 3.2.2 and 3.2.3 are “locked in” i.e., remain in the Index for at least a period of 6 months.

4.2  Pricing

The Index uses bid and offer prices from multiple data vendors with primary pricing source being Refinitiv. From February, 2023, onwards primary pricing source will transition from Refinitiv to MarketAxess Composite+™.
Appendix 1: Guidelines on bond selection algorithm

The Index selects up to two bonds for each issuer ticker in the Eligible Universe as defined by rules in Section 3.2. The underlying principle for the selection algorithm is to seek to select the most liquid subset, while aiming to mitigate high turnover.

The following rules are used in selecting at most two bonds for each issuer ticker. The preference order for selection is as follows:

1. Select bonds that entered the Index over the past 6 months and continue to qualify on size and maturity criteria as defined in Section 3.2.2 and Section 3.2.3.

2. In case we have less than two bonds for an issuer ticker, then select bonds with higher security size.

3. In case we have multiple bonds with same security size, then following parameters in the given order are used as tiebreakers for selection.
   - Higher Time to Maturity
   - Higher Coupon
   - Higher MRLS score
Notice and disclaimer

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the "Information") is the property of MSCI Inc. or its subsidiaries (collectively, "MSCI"), or MSCI's licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (collectively, with MSCI, the "Information Providers") and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or redistributed in whole or in part without prior written permission from MSCI. All rights in the Information are reserved by MSCI and/or its Information Providers.

The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other MSCI data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF NONINFRINGEMENT, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION.

Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall any Information Provider have any liability regarding any of the Information for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited, including without limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or willful default of itself, its servants, agents or sub-contractors.

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

The Information should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. All Information is impersonal and not tailored to the needs of any person, entity or group of persons.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

It is not possible to invest directly in an index. Exposure to an asset class or trading strategy or other category represented by an index is only available through third party investable products or services from MSCI ESG Research. MSCI ESG Research materials, including materials utilized in any MSCI ESG indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body.

MSCI receives compensation in connection with licensing its indexes to third parties. MSCI Inc.’s revenue includes fees based on assets in Index Linked Investments. Information can be found in the relevant index methodologies on www.msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Except with respect to any applicable products or services from MSCI ESG Research, neither MSCI nor any of its products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and MSCI's products or services are not intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Issuers mentioned or included in any MSCI ESG Research materials may include MSCI Inc., clients of MSCI or suppliers to MSCI, and may also purchase research or other products or services from MSCI ESG Research. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body.

Any use of or access to products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, IPD and other MSCI brands and product names are the trademarks, service marks, or registered trademarks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) is a service mark of MSCI and S&P Global Market Intelligence.

Privacy notice: For information about how MSCI collects and uses personal data, please refer to our Privacy Notice at https://www.msci.com/privacy-pledge.