Bloomberg MSCI Global High Yield Liquid Corporate ESG Weighted SRI Bond Index

The Bloomberg MSCI Global High Yield Liquid Corporate ESG Weighted SRI Bond Index tracks the high yield corporate debt of both developed and emerging market issuers. From June 2019, bonds must have an MSCI ESG Ratings of BB or higher to be eligible for the index. From June 2019, the index also negatively screens issuers that are involved in business activities that are restricted because they are inconsistent with certain values-based business involvement criteria. Additionally, the index applies a minimum amount outstanding threshold of USD500mn, EUR400mn on developed market bonds and EUR500mn on EM bonds, GBP300mn on developed market bonds and GBP500mn on EM bonds. The index was created in April 2022, with history backfilled to January 1, 2017.

Rules for Inclusion

Sector

Corporate (industrial, utility, and financial institutions) issuers only.

Eligible Currencies

Principal and interest must be denominated in USD, EUR, or GBP.

Quality

Securities must be rated high yield (Ba1/BB+/BB+ or below) using the middle rating of Moody's, S&P and Fitch; when a rating from only two agencies is available, the lower is used; when only one agency rates a bond, that rating is used.

- Expected ratings at issuance may be used to ensure timely index inclusion or to properly classify split-rated issuers.
- Unrated securities may use an issuer rating for index classification purposes if available. Unrated subordinated securities are included if a subordinated issuer rating is available.

Amount Outstanding

- For developed markets bonds: USD500mn, EUR400mn, GBP300mn
- For emerging markets bonds: USD500mn, EUR500mn, GBP500mn

Coupon

- Developed markets bonds: fixed-rate, pay-in-kind (PIK), and toggle notes are eligible.
- EM bonds: fixed-rate and floating-rate (USD-denominated only) securities are eligible.
- Callable fixed-to-floating rate bonds are eligible during their fixed-rate term only.
- Bonds with a step-up coupon that changes according to a predetermined schedule are eligible.

Maturity

At least one year until final maturity, regardless of optionality.

EM Country Definition

Bloomberg uses a fixed list of emerging market countries that is reviewed annually to define country eligibility in dedicated EM hard currency, local currency, and inflation-linked benchmarks. Criteria for inclusion in the EM country list are rules-based and include:

- Countries that meet one of the following two criteria: World Bank Income group classifications of low/middle income OR International Monetary Fund (IMF) classification as a *non-advanced* country.
- Additional countries that bond investors classify as EM due to factors such as investability concerns, the presence of capital controls, and/or geographic considerations may also be included on the list



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and are also reviewed on an annual basis. As of April 2014, 4 additional markets are included in the Bloomberg EM country list: Czech Republic, Israel, South Korea and Taiwan.

Countries not classified as Emerging Markets are deemed Developed Markets.

Taxability

Only fully taxable issues are eligible.

Market of Issue

- USD developed markets: securities must be SEC-registered, SEC Rule 144A with or without registration rights.
- EUR and GBP developed markets bonds, and all EM markets: securities must be publicly issued in the global and regional markets.

Seniority of Debt

Senior and subordinated issues are included.

Security Types

Included

- Bullet, putable, sinkable/amortizing and callable bonds
- Original issue zero coupon bonds
- Underwritten MTN
- Fixed-rate and fixed-to-float (including fixedto-variable) capital securities

Excluded

- Treasury, government-related and securitized and covered bonds
- Contingent capital securities, including traditional CoCos and contingent write-down securities, with explicit capital ratio or solvency/balance sheet-based triggers
- Bonds with equity type features (e.g., warrants, convertibles, preferreds)
- Inflation-linked bonds
- Private placements, retail bonds
- USD 25/ USD 50 par bonds
- Structured notes, pass-though certificates
- Illiquid securities where reliable pricing is unavailable

Environment, Social and Governance (ESG) Rules

MSCI ESG Rating

The following criteria apply starting June 2019:

- Securities must have an MSCI ESG Rating of BB or higher.
- Factor tilts are based on beginning of the month ratings.
- Prior to April 8, 2021, MSCI ESG Ratings, Controversy Scores and Business Involvement data were
 applied at the ticker level, where every bond within the same ticker would have the same MSCI ESG
 Rating, with MSCI mapping ESG data from the entity with the largest debt outstanding (by market
 value) to all companies with the same Bloomberg ticker.
- From April 9, 2021, MSCI ESG data is applied at the bond level which may result in bonds with the same Bloomberg ticker having different MSCI ESG Ratings.
- MSCI ESG Ratings are generally updated annually, but may be reviewed more frequently as needed.

Business Involvement Screens

Starting June 2019, the index excludes issuers involved in the following business lines/activities as per the standard Bloomberg MSCI SRI screen:

- Alcohol
- Tobacco
- Gambling
- Adult Entertainment
- Genetically Modified organisms (GMO)
- Nuclear Power
- Civilian Firearms
- Military Weapons
 - o Landmine Manufacturing
 - o Cluster Bomb Manufacturing
 - o Depleted Uranium Weapons
 - o Chemical and Biological Weapons Components

Involvement is defined for each restricted activity and may be based on % of revenue, total revenue, or any tie regardless of revenue (see page 14-16 for standard screen threshold in <u>ESG Methodology</u>).

From February 2020, the index additionally excludes issuers with greater than 5% revenue from the business activities related to:

- Thermal Coal
- Generation of Thermal Coal
- Oil Sands

MSCI ESG Controversy Score

Starting June 2019, excludes any issuer with a "Red" MSCI ESG Controversies score (equal to zero), which measures an issuer's involvement in major ESG controversies and how well they adhere to international norms and principles. Issuers with an ESG Controversies Score of NR are also excluded from June 2019.

Factor Tilts

From June 2019, the weight of each index eligible issuer (and security) is adjusted by a fixed multiplier (see table), which is determined by its MSCI ESG Rating (AAA, AA, A, BBB, BB).

ESG Rating	Tilt
AAA, AA, A	2.0x
BBB, BB	1.0x

Rebalancing Rules

Issuer Capping Methodology

Issuers that exceed 5% of the market value of the uncapped Bloomberg MSCI Global High Yield Liquid Corporate ESG Weighted SRI Bond Index are limited at 5%. The excess market value over the 5% cap will be redistributed on a pro rata basis to all other issuers' bonds in the index that are under the 5% cap. The process is repeated until no issuer exceeds the 5% limit. For example, an issuer that represents 6% of the uncapped index will have 1% of the index's market value redistributed to each bond from all issuers under the 5% cap on a pro rata basis. The 5% issuer cap is applied each month as the index is rebalanced.

Frequency

For each index, Bloomberg maintains two universes of securities: the Returns (Backward) and the Projected (Forward) Universes. The composition of the Returns Universe is rebalanced at each month-

end and represents the fixed set of bonds on which index returns are calculated for the next month. The Projected Universe is a forward-looking projection that changes daily to reflect issues dropping out of and entering the index but is not used for return calculations. On the last business day of the month (the rebalancing date), the composition of the latest Projected Universe becomes the Returns Universe for the following month.

Index Changes

During the month, indicative changes to securities (credit rating change, sector reclassification, amount outstanding changes, corporate actions, and ticker changes) are reflected daily in the Projected and Returns Universe of the index. These changes may cause bonds to enter or fall out of the Projected Universe of the index on a daily basis, but will affect the composition of the Returns Universe at month-end only, when the index is next rebalanced.

Reinvestment of Cash Flows

Intra-month cash flows from interest and principal payments contribute to monthly index returns but are not reinvested at a short-term reinvestment rate between rebalance dates. At each rebalancing, cash is effectively reinvested into the Returns Universe for the following month so that index results over two or more months reflect monthly compounding.

New Issues

Qualifying securities issued, but not necessarily settled on or before the month-end rebalancing date, qualify for inclusion in the following month's index if the required security reference information and pricing are readily available.

Pricing and Related Issues

Sources & Frequency

All index-eligible bonds are priced on a daily basis by Bloomberg's evaluated pricing service, BVAL.

Pricing Quotes

Bonds are quoted as a percentage of par.

Timing

Prices are snapped at the following times:

- USD bonds: 4pm (New York time). USD-denominated bonds prior to January 14, 2021 used 3pm New York time pricing snap.
- EUR and GBP bonds: 4:15pm (London time).

If the last business day of the month is a public holiday, prices from the previous business day are used.

Bid or Offer Side

Bonds in the index are priced on the bid side. The initial price for new corporate issues entering the index is the offer side; after the first month, the bid price is used.

Settlement Assumptions T+1 calendar day settlement basis. At month-end, settlement is assumed to be the first calendar day of the following month, even if the last business day is not the last day of the month, to allow for one full month of accrued interest to be calculated.

Verification

Daily price moves for each security are analyzed by the index pricing team to identify outliers. Index users may also challenge price levels, which are then reviewed and updated as needed.

Calendar

The Bloomberg MSCI Global High Yield Liquid Corporate ESG Weighted SRI Bond Index is a global, multi-currency index. The USD-denominated portion follows the US holiday calendar, and the EUR and GBP portion follows the UK holiday calendar. When local or regional currency markets are on holiday, the index is still generated using prices from the previous business day of the affected

market. FX rates are updated daily using WM Reuters 4pm (London) rates. FX forwards are also sourced from WM Company.

Accessing Index Data

Bloomberg Terminal®

Bloomberg benchmarks are the global standard for capital markets investors.

- INDE<GO> The Bloomberg Indices dashboard page, which contains daily, monthly, and year-to-date index returns for key indices from each index family as well as a link to index publications.
- IN<GO> The Bloomberg Index Browser displays the latest performance results and statistics for the indices as well as history. IN presents the indices that make up Bloomberg's global, multi-asset class index families into a hierarchical view, facilitating navigation and comparisons. The "My Indices" tab allows a user to focus on a set of favorite indices.
- DES<GO> The index description page provides transparency into an individual index including membership information, aggregated characteristics and returns, and historical performance.
- INP<GO> The Bloomberg Indices Publications page, which includes methodologies, factsheets, monthly reports, announcements and technical notes. A user may also subscribe to index publications via the "Actions" button.
- PORT<GO> Bloomberg's Portfolio & Risk Analytics solution includes tools to analyze the risk, return, and current structure of indices. Analyze the performance of a portfolio versus a benchmark or use models for performance attribution, tracking error analysis, value-at-risk, scenario analysis, and optimization.

Bloomberg Indices Website (www.bloomberg.com/ indices)

The index website makes available limited index information including:

- Index methodology and factsheets
- Current performance numbers for select indices

Data Distribution

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- Automatic delivery of files via email or SFTP following the completion of the index production process after market close
- Clients may receive standard files or may customize file contents
- Index data is also available via authorized redistributors

Index Ticker

137018US: Total Return USD Unhedged

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- OTC Derivative Products

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