Bloomberg MSCI US Corporate Paris-Aligned Index

Bloomberg MSCI US Corporate PAB Index is designed to meet the standards of the EU Paris Aligned Benchmark (PAB) Label. The index sets an initial 50% reduction of absolute GHG emissions relative to the standard Bloomberg US Aggregate Corporate Index¹, followed by an annual 7.5% decarbonisation relative to the baseline emissions. The index uses an exclusions based approach to achieve the decarbonisation trajectory. To be included, securities must be investment grade, fixed-rate, corporate bonds. The index was created on April 8, 2022 with history backfilled to January 1, 2021.

Rules of Inclusion

Sector

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

Eligible Currencies

• Principal and interest must be denominated in USD.

Quality

- Securities must be rated investment grade (Baa3/BBB-/BBB- or higher) 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. In cases where explicit bond level ratings may not be available, other sources may be used to classify securities by credit quality:
- Expected ratings at issuance may be used to promote 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

USD 300mn minimum par amount outstanding.

Coupon

- Fixed-rate coupon.
- Callable fixed-to-floating rate bonds are eligible during their fixed-rate term only.
- Bonds with step-up coupons and those that change according to a predetermined schedule are also eligible.

Maturity

- At least one year until final maturity, regardless of optionality.
- Bonds that convert from fixed to floating rate, including fixed-to-float perpetuals, will exit the index one year prior to conversion to floating-rate. Fixed-rate perpetual bonds are not included.

¹ On December 31st 2020, the baseline target emissions were set as the lower of 50% of the Parent Total Emissions or the Emissions Total of the Screened Index generated after the PAB exclusions were applied.

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Market of Issue

- SEC-registered securities, bonds exempt from registration at the time of issuance and SEC Rule 144A securities with registration rights are eligible. A security with both SEC Regulation-S (Reg-S) and SEC Rule 144A tranches is treated as one security for index purposes. The 144A tranche is used to prevent double-counting and represents the combined amount outstanding of the 144A and Reg-S tranches.
- Global bonds are included.
- Bonds that were previously SEC-registered or 144A with registration rights but later deregistered by the issuer remain index eligible.

Taxability

Only fully taxable issues are eligible.

Seniority of Debt

Senior and subordinated issues are included.

Security Types

Included

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

Excluded

- Treasuries, government-related, securitized, and covered bonds
- Contingent capital securities, including traditional CoCos and contingent write-down securities
- Bonds with equity type features (e.g. warrants, convertibles, preferreds)
- Inflation-linked bonds, floating-rate issues
- USD25/USD50 par bonds
- Fixed-rate perpetuals
- Private placements, retail bonds
- Illiquid securities with no available pricing

Environment, Social and Governance (ESG) Rules

MSCI Absolute GHG Emissions

The index excludes bonds where MSCI does not have reported or estimated Scope 1, 2 and 3 absolute GHG emissions data.

MSCI Business Involvement Screen

The following business lines and activities are excluded from the index:

- Controversial Weapons
 - Cluster Munitions
 - o Landmines
 - o Depleted Uranium
 - o Biological/Chemical Weapons
 - o Blinding Lasers
 - Non-Detectable Fragments

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- Incendiary
- Tobacco Producers
- UNGC Violations
- Environment Controversy Score of 0 or 1
- Thermal Coal revenue >= 1%
- Oil & Gas revenue >= 10%
- Power Generation revenue >= 50%

Monthly Emissions Exclusions Process

The Monthly Exclusions process is run 5 business days before month end. The process will establish the Emissions Threshold (the emissions level at which bonds with emissions above that level will be excluded from the index) required to maintain compliance with the PAB Label Decarbonisation Trajectory² for the following month.

Overview

- Total emissions are calculated for every bond by adding the Scope 1&2 and Scope 3 emissions, if one of Scope 1 & 2 or Scope 3 emissions are missing the total is set to zero
- The sum of weighted total emissions is calculated for the parent index (bonds with no emissions have zero weight)
- The emissions target is calculated as the lower of the decarbonisation trajectory or 50% of parent emissions
- If exclusions are required, the bonds that are above the emissions threshold are excluded until the PAB index is below the emissions target for the month

Rebalancing Rules

Frequency

The Emissions Threshold level for the index is established on the fifth to last business day of each month. Bonds with emissions above this level will be excluded from the Returns Universe of the following month. On the last business day of the month (the rebalancing date), the composition of the latest Projected Universe taking into account the new Emissions Threshold 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, ticker changes, etc.) are reflected daily. These changes will affect the composition of the index 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.

² Decarbonisation is calculated on a monthly basis to achieve a yearly 7.5% decarbonisation level against the date of the baseline emissions.

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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

- Prior to January 14, 2021, bonds are priced at 3pm (New York time). On early market closes, prices are taken as of 1pm (New York time), unless otherwise noted.
- From January 14, 2021 and onwards, bonds are priced at 4pm (New York time). On early market closes, prices are taken as of 1pm (New York time), unless otherwise noted.
- 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 mid 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. Index users may also challenge price levels, which are then reviewed and updated as needed.

Calendar

The Bloomberg MSCI US Aggregate Corporate PAB Index follows the US bond market holiday schedule. FX rates are updated daily using WM Reuters 4pm (London) rates. FX forwards are also sourced from WM Company.

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- 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.
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- 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)

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

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- Index level and/or constituent level returns and characteristics for any indices
- Automatic delivery of files via email or SFTP following the completion of the index production process after market close
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- Index data is also available via authorized redistributors

Index Ticker

137024: Bloomberg MSCI US Agg Corporate Paris Aligned Index

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