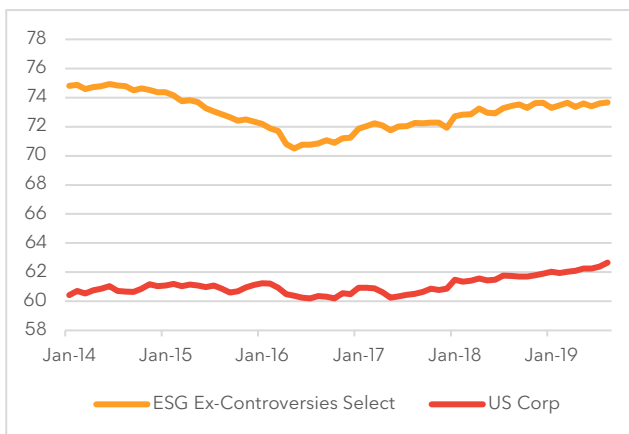
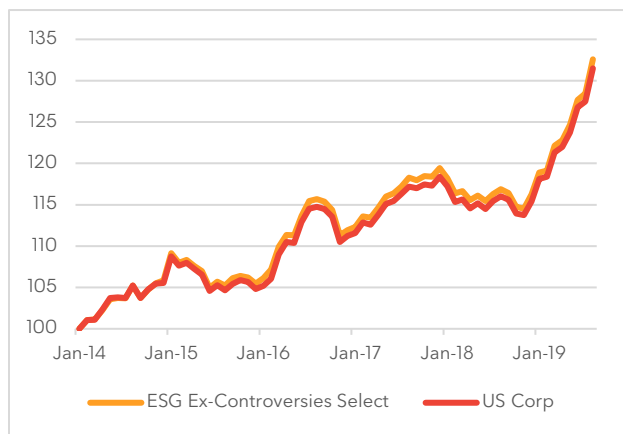


# Bloomberg SASB US Corporate ESG Ex-Controversies Select Index

The Bloomberg SASB US Corporate ESG Ex-Controversies Select Index is an investment grade, fixed-rate, U.S. dollar-denominated benchmark that optimizes its R-Factor™ score by State Street Global Advisors®. Based on the Bloomberg Barclays US Corporate Index, the ESG Ex-Controversies Select Index selects securities eligible for US Corporate Index and weights them using an optimization process, while controlling for active total risk. The index excludes issuers that are tagged with Extreme Event Controversies, Controversial Weapons, UNGC Violations, Civilian Firearms, Thermal Coal Extraction, and Tobacco Companies. The index was launched in September 2019, with history backfilled to February 2014.



Historical Index Values (rebased) - ESG Ex-Controversies Select vs US Corp Historical Average R-Factor Score - ESG Ex-Controversies Select vs US Corp

## Rules for 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 ratings from only two agencies are available, the lower is used; when only one agency rates a bond,

that rating is used. In cases where explicit bond-level ratings are not available, other sources may be used to classify securities by credit quality:

- 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** USD300mn minimum par amount outstanding.

- Coupon**
- Fixed-rate coupon.
  - Original zero coupon bonds are included.
  - 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.
  - Bonds that convert from fixed to floating rate, including fixed-to-float perpetual, will exit the index one year prior to conversion to floating-rate. Fixed-rate perpetual bonds are not included.

- Taxability**
- Only fully taxable issues are eligible.
  - Dividend Received Deduction (DRD) and Qualified Dividend Income (QDI) eligible securities are excluded.

- 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.

**Security Types**

Included

- Corporate bonds
- Fixed-rate bullet, puttable, sinkable/amortizing and callable bonds
- Original issue zero coupon bonds
- Underwritten MTN
- Enhanced equipment trust certificates (EETC)
- Certificates of deposit
- Fixed-rate and fixed-to-float (including fixed-to-variable) capital securities

Excluded

- 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, DRD/QDI-eligible issues)
- Inflation-linked bonds, floating-rate issues
- Fixed-rate perpetuals
- Taxable and tax-exempt municipal securities
- Private placements, retail bonds
- USD25/USD50 par bonds
- Structured notes, pass-through certificates
- Illiquid securities with no available internal or third-party pricing source

## Optimization Constraints and Calculations

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### Overview

- The Bloomberg PORT Optimizer is used to select and weight each security in the index.
  - All bonds are selected from the Bloomberg Barclays US Corporate Index, also known as the parent index.
  - The optimizer runs once per month, selecting securities and calculating notional positions.
  - This process will not impact bond prices and other security-level analytics.
- The optimizer has two main objectives:
  - Maximize the overall R-Factor Score.
  - Minimize Active Total Risk versus the Bloomberg Barclays US Corporate Index. This is the ex-ante (or predicted) tracking error based on the Bloomberg Fixed Income multi-factor risk model.
- Each of these objectives is assigned a weight (trade-off) in order to make these goals directly comparable: R-Factor is assigned the highest weight, followed by Active Total Risk.
- By default, only securities eligible for the Bloomberg Barclays US Corporate Index are included.
- Index turnover is calculated using two-way turnover (buys and sells) plus cash trades.

### Optimization Constraints

Each of these constraints, with the exception of the security and ticker level upper and lower bounds, are soft constraints. This means that the optimizer will consider solutions outside of these bounds, provided that the trade-off is sufficient.

- OAD (option-adjusted duration) must be within 0.15 years of each Class 2 sector of the parent index.
- DTS (duration times spread) must be within 0.2 years of each Class 2 sector of the parent index. DTS is calculated by multiplying spread duration by Libor option-adjusted spread. DTS measures sensitivity to relative spread change as opposed to absolute spread change like modified duration.
- Yield to worst must be no less than 10bps from the parent index.
- Bloomberg Barclays Class 2 sector weights must be within 200bps of the parent index.
- Bloomberg Barclays Index Rating weights (Aaa, Aa, A, Baa) must be within 300bps of the parent index.
- Individual security weights must be less than 15 times their weight in the parent index or 100bps, whichever is less.
- Issuer (ticker) weights must be less than 200bps plus their weight in the parent index.
- Securities with R-Factors greater than or equal to the parent index average R-Factor, and that also meet all controversial business screens, have a minimum market value weight equal to their parent index weight.
- Securities with R-Factors less than the parent index average R-Factor are eligible. These issuers are either excluded from the index or assigned a weight between one quarter their parent index weight and up to 15 times their parent index weight.
- Only long positions are allowed.
- All cash that enters the index midmonth is completely reinvested into next month's index at the next rebalancing date.
- On each rebalancing date, cash has a 0% weight.

### Controversial Business Exclusions

Issuers are excluded from the index for the following reasons:

- Extreme Event Controversies
- Controversial Weapons
- UNGC Violations
- Civilian Firearms
- Thermal Coal Extraction
- Tobacco Companies

### Unscored Issuers

Issuers without R-Factor scores are excluded from the index.

### Turnover

Unlike standard rules-based indices, past index holdings will directly impact which securities are chosen for index inclusion in the present and future. This is because one of the constraints and objectives of the optimization process is to limit monthly index turnover. The optimizer sets a 4% turnover soft constraint each month.

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## R-Factor (Responsibility Factor)

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State Street Global Advisors has built a new ESG platform (or data architecture) that systematically integrates best-in-class data from 4 global data providers. To help clients make better sense of this staggering amount of data and allow for decision-ready insights, they have created a scoring model that systematically harnesses hundreds of metrics and leverages the investment teams' expertise – including sustainable investing, data science, statistics, quantitative modeling, and asset stewardship. This new approach to ESG scoring captures the full spectrum of “financially material” metrics to isolate long-term sustainability drivers of value across environmental, human capital, social capital, business model, leadership and corporate governance dimensions. The scoring methodology systematically integrates best-in-class data, transparent sustainability framework, financial materiality across industries and corporate governance standards to define one “responsibility factor” (“R-Factor”) score for every company.

To learn more about the R-Factor:

- [www.ssga.com/global/en/our-insights/viewpoints/r-factor.html](http://www.ssga.com/global/en/our-insights/viewpoints/r-factor.html)
  - [www.ssga.com/investment-topics/environmental-social-governance/2019/04/inst-r-factor-reinventing-esg-through-scoring-system.pdf](http://www.ssga.com/investment-topics/environmental-social-governance/2019/04/inst-r-factor-reinventing-esg-through-scoring-system.pdf)
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## Sustainability Accounting Standards Board (SASB®)

At the core of R-Factor scores is a mapping algorithm that uses metrics that are “financially material” across 77 industries and 17 regulatory regimes. The methodology was designed around a transparent analytical framework and standards – the Sustainability Accounting Standards Board (SASB). The SASB framework is fully transparent and publicly available for all institutional and retail investors. SASB standards were developed to enable businesses around the world to identify, manage and communicate financially material sustainability information to their investors. It is the first ERSFG disclosure framework that focuses on financial materiality at the corporate level.

To learn more about SASB:

- [www.sasb.org](http://www.sasb.org)
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## Rebalancing Rules

<b>Frequency</b>	The composition of the index is rebalanced at each month-end and represents the fixed set of bonds on which index returns are calculated for the next month.
<b>Index Changes</b>	During the month, indicative changes to securities (credit rating change, sector reclassification, amount outstanding changes, corporate actions, and ticker changes) are reflected daily. These changes will affect the composition of the index at month-end only – when the index is next rebalanced.
<b>Reinvestment of Cash Flows</b>	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, thus index results over two or more months reflect monthly compounding.
<b>New Issues</b>	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.

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## Pricing and Related Issues

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<b>Sources &amp; Frequency</b>	All bonds in the index are priced daily using Bloomberg's evaluated pricing service, BVAL.
<b>Pricing Quotes</b>	Bonds can be quoted in a variety of ways, including nominal spreads over benchmark securities/treasuries, spreads over swap curves or direct price quotes as a percentage of par. For securities quoted on a spread basis, daily security price changes will result from movements in the underlying curve (swap or treasury) and/or changes in the quoted spread.
<b>Timing</b>	<ul style="list-style-type: none"><li>• 3pm (New York time).</li><li>• 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.</li></ul>
<b>Bid or Offer Side</b>	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.
<b>Settlement Assumptions</b>	T+1 calendar day settlement basis for all bonds. 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.
<b>Verification</b>	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 using input from various sources.
<b>Calendar</b>	The Bloomberg SASB US Corporate ESG Ex-Controversies Select Index follows the U.S. bond market holiday schedule.

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## Accessing Index Data

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Bloomberg Terminal	<p>Bloomberg benchmarks are the global standard for capital markets investors.</p> <ul style="list-style-type: none"><li>• IN &lt;GO&gt; - 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 in a hierarchical view, facilitating navigation and comparisons. The "My Indices" tab allows a user to focus on a set of favorite indices.</li><li>• PORT &lt;GO&gt; - Bloomberg's Portfolio &amp; Risk Analytics solution includes tools to analyze the risk, return and current structure of indices. PORT includes tools to analyze performance of a portfolio versus a benchmark as well as models for performance attribution, tracking error analysis, value-at-risk, scenario analysis and optimization.</li><li>• DES &lt;GO&gt; - The index description page provides transparency into the current and projected index universe, including membership information, aggregated characteristics and returns, and historical data.</li></ul>
Bloomberg Indices Website <a href="https://www.bloomberg.com/bloomberginindices">bloomberg.com/bloomberginindices</a>	<p>The index website makes available limited index information, including:</p> <ul style="list-style-type: none"><li>• Index methodology and factsheets</li><li>• Current performance numbers for select indices</li></ul>
Data Distribution	<p>Index subscribers may choose to receive index data in files. Files may include:</p> <ul style="list-style-type: none"><li>• Index-level and/or constituent-level returns and characteristics for any indices</li><li>• Automatic delivery of files via email or SFTP following the completion of the index production process after market close</li><li>• Index data is also available via authorized redistributors</li></ul>
Index Ticker	I35146US: Bloomberg SASB US Corporate ESG Ex-Controversies Select Index

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## Take the next step.

For additional information, press the <HELP> key twice on the Bloomberg Terminal®.

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