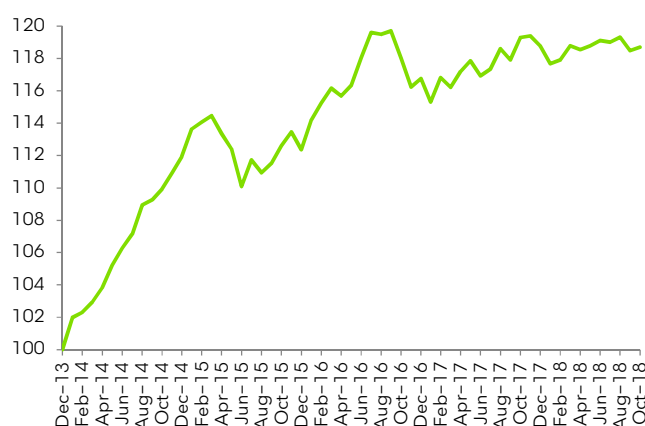


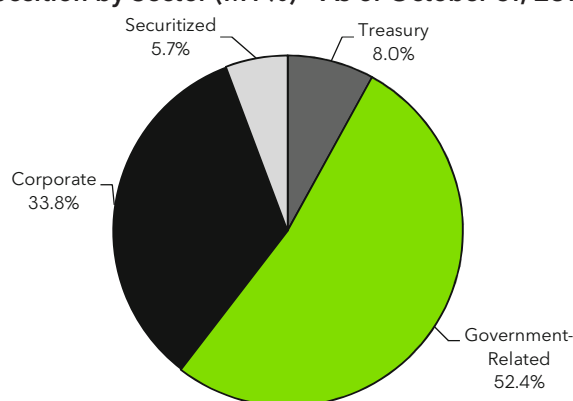
Bloomberg Barclays MSCI European Green Bond Issuer Capped EUR Index

The Bloomberg Barclays MSCI European Green Bond Issuer Capped EUR Index offers investors an objective and robust measure of the European market for fixed income securities issued to fund projects with direct environmental benefits. An independent research-driven methodology is used to evaluate index-eligible green bonds to ensure they adhere to established Green Bond Principles and to classify bonds by their environmental use of proceeds. The index also limits the exposure of each issuer to 8% of the total market value and redistributes any excess market value index-wide on a pro rata basis. The Bloomberg Barclays MSCI European Green Bond Issuer Capped EUR Index is a subset of the Global Green Bond Index and was created in August 2018, with index history backfilled to January 1, 2014.

Historical Index Values - EUR Unhedged



Composition by Sector (MV%) - As of October 31, 2018



Rules for Inclusion: Fixed Income Criteria

Sector	Treasury, corporate, government-related, and securitized bonds are included.
Eligible Currencies	Principal and interest must be denominated in EUR.
Country	<p>Issuer country of risk must be one of the following:</p> <ul style="list-style-type: none"> Austria, Denmark, Finland, France, Germany, Italy, Lithuania, Netherlands, Norway, Poland, Spain, Sweden, or Great Britain. <p>Bonds issued from the following three supranational organizations are also included:</p> <ul style="list-style-type: none"> European Bank for Reconstruction and Development European Investment Bank Nordic Investment Bank
Quality	<p>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:</p> <ul style="list-style-type: none"> Local currency treasury and hard currency sovereign issues are classified using the middle issuer-level local currency and hard currency debt ratings from each agency for all outstanding bonds, even if bond-level ratings are available. 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

Rules for Inclusion: Fixed Income Criteria

Quality	<p>securities are included if a subordinated issuer rating is available.</p> <ul style="list-style-type: none"> German Pfandbriefe are assigned ratings that are one full rating category above the issuer's unsecured debt. 	
Amount Outstanding	EUR 300mn minimum par amount outstanding.	
Coupon	<ul style="list-style-type: none"> Fixed-rate coupon. 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	<ul style="list-style-type: none"> Unlike other Bloomberg Barclays Aggregate Bond Indices, the European Green Bond Issuer Capped EUR Index does not have a 1-year minimum time to maturity and will hold bonds until final maturity. The inclusion of Green Bonds to maturity within the indices is designed to accommodate this market practice by not forcing unwanted turnover. Bonds that convert from fixed to floating rate, including fixed-to-float perpetuals, will exit the index before converting to floating-rate. Fixed-rate perpetual bonds are not included. Sub-indices based on maturity are inclusive of lower bounds. Intermediate maturity bands include bonds with maturities of 1 to 9.999 years. Long maturity bands include maturities of 10 years or greater. 	
Taxability	<ul style="list-style-type: none"> Only fully taxable issues are eligible. Dividend Received Deduction (DRD) and Qualified Dividend Income (QDI) eligible securities are excluded. 	
Market of Issue	Publicly issued in the global and regional markets.	
Seniority of Debt	Senior and subordinated issues are included.	
Security Types	<p>Included</p> <ul style="list-style-type: none"> Bullet, puttable, sinkable/amortizing and callable bonds Senior and subordinated issues Original issue zero coupon and underwritten MTN Enhanced equipment trust certificates (EETC) Certificates of deposit Fixed-rate and fixed-to-float (including fixed-to-variable) capital securities Covered bonds (as of January 1, 2011) Loan participation notes (as of April 1, 2013) 	<p>Excluded</p> <ul style="list-style-type: none"> Contingent capital securities, including traditional CoCos and contingent write-down securities Bonds with equity type features (e.g., warrants, convertibles, preferreds, DRD/QDI-eligible issues) Tax-exempt municipal securities Inflation-linked bonds, floating-rate issues Private placements, retail bonds USD25/USD50 par bonds Structured notes, pass-through certificates Illiquid securities with no available internal or third-party pricing source

Rules for Inclusion: Green Bond Eligibility and Classification

Overview

- Green bonds are fixed income securities in which the proceeds will be exclusively and formally applied to projects or activities that promote climate or other environmental sustainability purposes through their use of proceeds.
- For the Bloomberg Barclays MSCI European Green Bond Issuer Capped EUR Index, securities are independently evaluated by MSCI ESG Research along four dimensions to determine whether they should be classified as a green bond. These eligibility criteria reflect themes articulated in the Green Bond Principles and require commitments about a bond's:
 - Stated use of proceeds;
 - Process for green project evaluation and selection;
 - Process for management of proceeds; and
 - Commitment to ongoing reporting of the environmental performance of the use of proceeds.
- Both self-labeled green bonds and unlabeled bonds will be evaluated using these criteria for potential index inclusion. So long as projects fall within an eligible MSCI ESG Research green bond category and there is sufficient transparency on the use of proceeds, a bond will be considered for the index even if it is not explicitly marketed as green.
- Meeting all four criteria is required for bonds issued after the publication of the Green Bond Principles in 2014. Green bonds issued prior to 2014 that are widely accepted by investors as green bonds may still qualify for the index, even if all four principles are not satisfied, since no formal guidelines were available to issuers at the time of issuance.

Stated Use of Proceeds

- Use of proceeds and project bonds are considered eligible if the use of proceeds falls within at least one of six eligible environmental categories defined by MSCI ESG Research (alternative energy, energy efficiency, pollution prevention and control, sustainable water, green building, and climate adaption). In cases where project categories do not overlap entirely, MSCI ESG Research will consider bonds eligible if at least 90% of the projected use of proceeds falls within eligible categories.
- General purpose bonds are considered eligible if the issuer is considered pure-play, defined as a legal entity with greater than 90% of activities (as measured by revenues) within one or more of the eligible environmental categories, except where proceeds are explicitly used to finance another company's operations (e.g., through payment of a dividend to a non-pure-play parent company).
- The six eligible environmental categories defined by MSCI ESG Research are listed below.
 - Alternative Energy
 - Energy Efficiency
 - Pollution Prevention and Control
 - Sustainable Water
 - Green Building
 - Climate Adaptation
- These categories are not mutually exclusive - a bond may fall into one or more of the categories.
- Other environmental activities that do not fit into these categories, including sustainable forestry/afforestation may also be candidates for inclusion based on evaluations by MSCI ESG Research.

Process for Green Project Selection

- Bonds are considered eligible if the issuer clearly delineates the specific criteria and process for determining eligible projects or investments in the bond prospectus or supporting documentation (e.g., green bond supplement, website, investor presentation).
- Project criteria must outline either specific projects or the specific categories of activities to be financed. Examples of eligible criteria include "Alta Wind acquisition" or "installation of wind turbines, production of photovoltaic cells, and rehabilitation of municipal water infrastructure to reduce waste water discharge." Examples of non-eligible criteria include "green initiatives and other projects that contribute to environmental sustainability" without further definition.
- A second-party opinion is not sufficient in the absence of clearly defined processes and criteria for project selection.

Management of Proceeds

- A formal process to ring-fence net proceeds to the eligible use of proceeds must be disclosed in the bond prospectus or supporting documentation (as defined above). Eligible mechanisms to ring-fence net proceeds include:
 - Direct recourse to eligible revenues or assets (e.g., a green securitized bond, green project bond, or

Rules for Inclusion: Green Bond Eligibility and Classification

- green revenue bond);
- Creation of a separate legal entity;
- Creation of a sub-portfolio linked to the issuer's investment operations for eligible projects;
- Other auditable mechanism whereby the balance of tracked proceeds is reduced periodically by amounts matching investments made in eligible projects during that period.
- Third-party verification by an external auditor is preferred but not required.

Ongoing Reporting

- At issuance, issuers of index eligible green bonds must either report on projects financed by the bonds' proceeds, or commit to doing so within one year. This reporting obligation will continue until bond proceeds have been fully dispersed or for the life of the bond, as circumstances necessitate. For reporting to be considered eligible, it must include one or more of the following:
 - A list of specific projects/investments, including amount disbursed to each individual project;
 - Aggregate project/investment categories, including amount disbursed to each project type;
 - Quantitative or qualitative reporting on the environmental impact of the project pool (e.g., greenhouse gas emissions savings, reduction in water consumption, increased energy efficiency per unit of output, etc.).
- MSCI ESG Research reserves an additional three months beyond the 12-month deadline to review an issuer's green bond report. This allows time for the green bond report to be located and contact to be made with the issuer in case any questions or issues are raised.
- If an issuer has not published a report within 15 months of issuance, or 15 months of the prior use of proceeds report, it will be flagged as "On Watch" in the next monthly green bond technical note, with details provided in the note regarding the timing and process for removal of the bond from the index.
- If the issuer has not published a report within 18 months from issuance or the last annual report, its bond(s) will be removed from the index upon the next index rebalance. Furthermore, the bond(s) will be considered permanently ineligible for the index.

Rebalancing Rules

Issuer Capping Methodology

Issuers that exceed 8% of the market value of the uncapped European Green Bond Issuer Capped EUR Index are limited at 8%. The excess market value over the 8% cap is redistributed on a pro rata basis to all other issuers' bonds in the index that are under the 8% cap. The process is repeated until no issuer exceeds the 8% limit. For example, an issuer that represents 10% of the uncapped index will have 2% of the index's market value redistributed to each bond from all issuers under the 8% cap on a pro rata basis. The 8% 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.

- The formal list of green bonds evaluated and identified by MSCI ESG Research is updated on the 25th calendar day of each month. MSCI evaluations must be completed by the evaluation date to qualify for inclusion at the next index rebalancing.
- The Bloomberg Barclays MSCI Green Bond Index is rebalanced on the last business day of each month. New issues will not be added to the statistics universe until after the Green Bond Evaluation Date.

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.

Rebalancing Rules

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.
Timing	<ul style="list-style-type: none"> • 4:15pm (London time) each day. • If the last business day of the month is a public holiday in a major regional market, prices from the previous business day are used to price bonds in that particular market.
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. Euro treasury bonds use mid prices.
Settlement Assumptions	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.
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 using input from various sources.
Currency Hedging	Returns hedged to various currencies are published for multi-currency indices. The indices' FX hedging methodology takes rolling one-month forward contracts that are reset at the end of each month and hedges each non-reporting currency-denominated bond in the index into the reporting currency terms. No adjustment is made to the hedge during the month to account for price movements of constituent securities in the returns universe of the index.
Calendar	The European Green Bond Issuer Capped EUR Index is generated every business day of the year except for January 1, the only holiday common to all regional calendars. During holidays observed by local markets, the index will still be generated using prices from the previous business day. FX rates are updated daily using WM Reuters 4pm (London) rates. FX forwards are also sourced from WM Company.

Monthly Returns in EUR, 2014-2018(%)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2014	1.98	0.33	0.61	0.86	1.33	1.02	0.82	1.67	0.30	0.60	0.92	0.90	11.93
2015	1.53	0.37	0.35	-0.98	-0.84	-2.05	1.48	-0.70	0.53	0.97	0.77	-0.97	0.39
2016	1.62	0.94	0.78	-0.42	0.57	1.48	1.32	-0.10	0.17	-1.41	-1.50	0.44	3.91
2017	-1.24	1.31	-0.51	0.84	0.56	-0.78	0.35	1.06	-0.59	1.19	0.08	-0.52	1.74
2018	-0.93	0.20	0.74	-0.21	0.20	0.28	-0.07	0.26	-0.70	0.18	-	-	-0.06

Accessing Index Data

Bloomberg Professional® service	<p>Bloomberg benchmarks are the global standard for capital markets investors.</p> <ul style="list-style-type: none"> INDEX<Go> – The Bloomberg Indices landing page is a dashboard for index-related information on the terminal. Find daily and monthly index returns for key indices from each index family as well as index publications including methodologies, factsheets, monthly reports, updates and alerts. 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. 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. DES<Go> – The index description page provides transparency into an individual index including membership information, aggregated characteristics and returns, and historical performance.
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Data Distribution	<p>Index subscribers may choose to receive index data in files. Files may include:</p> <ul style="list-style-type: none"> 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 Clients may receive standard files or may customize file contents Index data is also available via authorized redistributors

Bloomberg Total Return Index Value Tickers: European Green Bond Issuer Capped EUR Index and Related Indices

Ticker (EUR Unhedged)	Index	Ticker (USD Hedged)	Index
I33869EU	European Green Bond Issuer Capped EUR Index	GBGLTRUH	Global Green Bond Index
GBGLTREU	Global Green Bond Index	GBUSTRUH	US Green Bond Index
GBEUTREU	Euro Green Bond Index	GBEUTRUH	Euro Green Bond Index

Total Return Index Values are available in other currencies and on a hedged basis. Attributes such as yield and duration, are also available. Please refer to Accessing Bloomberg Barclays Index Data Using Bloomberg Tickers for a full list of tickers and attributes that are available.

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Bloomberg Barclays Indices

New York

+1-212-318-1000

London

+44-20-7330-7500

Singapore

+65-6212-1000

Hong Kong

+852-2277-6000

Tokyo

+81-3-3201-8900

Sydney

+61-2-9777-8600

indexhelp@bloomberg.net

MSCI ESG Client Service

Asia Pacific

+612 9033 9339

Americas

+1 212 804 5299

Europe, Middle East and Africa

+44 207 618 2510

For further information on MSCI ESG Research:

esgclientservice@msci.com

www.msci.com/esg

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