Bloomberg MSCI EUR Corporate Interest Rate Hedged Sustainable SRI Index

The Bloomberg MSCI EUR Corporate Interest Rate Hedged Sustainable SRI Index measures the investment grade, eurodenominated, fixed-rate corporate bond market. Inclusion is based on currency denomination of a bond and not country of risk of the issuer. From December 1, 2021, the index includes issuers with MSCI ESG Ratings of BBB or higher, and negatively screens issuers that are involved in business activities that are restricted because they are inconsistent with certain values-based business involvement criteria, including controversial weapons, and those issuers with a "red" MSCI ESG Controversy Score. The index is also duration-hedged monthly. The Bloomberg MSCI EUR Corporate Interest Rate Hedged Sustainable SRI was created in March 2012, with history backfilled to January 1, 2009.

Rules for Inclusion

Eligible Currencies	Principal and interest must be denominated in EUR.				
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 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	EUR300mn minimum par amount outstanding.				
Coupon	 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	 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 perpetuals are not included. Sub-indices based on maturity are inclusive of lower bounds. Intermediate maturity bands include bonds with maturities of 1 to 9.9999 years. Long maturity bands include maturities of 10 years or greater. 				
Taxability	Only fully taxable issues are eligible.				
Market of Issue	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
- Underwritten MTN
- Fixed-rate and fixed-to-float (including fixedto-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 (eg, warrants, convertibles, preferreds)
- Inflation-linked bonds, floating-rate issues
- Private placements, retail bonds
- Structured notes, pass-through certificates
- Illiquid securities with no available pricing

Environment, Social and Governance (ESG) Rules

MSCI ESG Rating

Starting from December 1, 2021:

- Securities must have an MSCI ESG Rating of BBB or higher.
- Unrated issuers from sectors with ratings are excluded.
- 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 from December 1, 2021, 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
- Conventional Weapons
- Nuclear Weapons
- Controversial Weapons
 - o Landmine Manufacturing
 - o Cluster Bomb Manufacturing
 - o Depleted Uranium Weapons
 - o Chemical and Biological Weapons Components
- Thermal Coal
- Fossil Fuels

Involvement is defined for each restricted activity and may be based on % of revenue, total revenue, or any tie regardless of revenue (see Figure 7 on pages 14-15 for standard screen threshold in <u>ESG</u> <u>Methodology</u>).

Starting from December 1, 2021, the index also has additional Bloomberg MSCI screens, besides the standard ones outlined above:

- Exclude issuers with any ties to the following categories: Biochemical Systems, Biochemical System Components, Depleted Uranium, Cluster Bombs, Land Mines
- Exclude issuers that generate any revenue from Biochemical Weapons
- Exclude issuers with revenue from Thermal Coal greater than 5%
- Exclude issuers with revenue from Oil Sands greater than 5%
- Exclude issuers with revenue from Generation of Thermal Coal greater than 5%

MSCI ESG Controversies Starting from December 1, 2021, the index 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.

Rebalancing Rules

Minimum ESG Exclusions	From December 1, 2021, the following criteria will be applied. On the last business day before month end, using the Forward Universe of the previous day, after applying the Non-ESG criteria rules for inclusion, defined above, and additionally removing any non-ESG rated bonds, the number of issuers for the eligible universe are defined.
	If, after having additionally applied the ESG selection criteria above, less than 20% of the total number of issuers in the eligible universe are excluded, then the eligible issuers are ranked in the order below, according to the following criteria:
	• MSCI ESG Rating score (higher Ticker ESG Rating score preferred to remain in the index)
	• MSCI ESG Controversies score (higher Ticker Controversies score preferred to remain in the index)
	Then based on this ranking, issuers will be excluded from the index, until the number of excluded issuers is higher than 20% of the eligible universe total number of issuers. If, more than one issuer has the same ESG Rating and Controversy score and is required to be removed to reach the 20% threshold, then all issuers with the same ESG Rating and Controversy score are removed.
Duration Hedging	The index is duration hedged monthly, based on a basket of Treasury futures contracts weighted to match the Treasury OAD exposure of the index (see further detail in <u>Mirror Futures and Duration</u> <u>Hedged Indices Primer</u>).
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	Index-eligible bonds are priced on a daily basis by Bloomberg's evaluated pricing service, BVAL.			
Timing	• 4:15 p.m. (London time) each day.			
	• On early market closes, prices are taken as of 12:15 p.m. (London time) unless otherwise noted.			
	• If the last business day of the month is a UK holiday and European markets remain open, European securities will use month-end prices.			
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 on 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 EUR Corporate Interest Rate Hedged Sustainable SRI Index follows the UK bond market holiday schedule. For month-end dates, the European calendar may also be employed in the event a UK holiday falls on a month-end date but European markets remain open.			

Accessing Index Data

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- INDE<GO> The Bloomberg Indices dashboard page, which contains daily, monthly, and year-todate 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.
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Index Ticker	I27821EU: Total Return EUR Unhedged

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