

J.P. Morgan Green Bond Index (GENIE)

Methodology and Factsheet

Highlights

The flagship J.P. Morgan Green Bond Index (GENIE) provides investors with access to a comprehensive global green bond universe. The Green Bond Index family uses the widely known Climate Bond Initiative to identify green bonds and will be available in two variants: a market value weighted baseline version (GENIE) and a flagship version that incorporates the J.P. Morgan ESG methodology for fixed income indices (JESG GENIE).

1. The Green Bond Index, the all-encompassing composite benchmark (GENIE)
2. The JESG Green Bond Index, an ESG aligned variant of the flagship benchmark (JESG GENIE)

Index Criteria

	Hard Currency Bonds	Local Currency Government Bonds
Eligible currencies	USD, EUR & GBP	Currencies where local government bonds are liquid, investible and accessible by international investors.
Minimum Amount Outstanding	USD: \$300MM; EUR: €300MM; GBP: £150MM	Local currency bonds: USD \$1 billion Dual-currency Global bonds: USD \$500 million
Minimum Maturity	For inclusion: Bonds should have minimum 2 years remaining to maturity Remain in the index: A bond remains eligible for the index as long as it has 6 months remaining to maturity	
Issuer	Sovereign, Quasi-sovereign (100% government owned or guaranteed), Corporate or Supranational	Sovereign only
Country	All countries are eligible	Countries where local government bonds are liquid, investible and accessible by international investors.
Instrument Type	Self-labeled green bonds, screened and verified by Climate Bonds Initiative, are eligible	
	<p><u>Include</u>: fixed rate, floating rate, hybrid, step-up, PIK, amortizers, perpetuals, Sukuk bonds, etc.</p> <p><u>Exclude</u>: securitized bonds, municipal bonds, structured bonds, collateral trust and equipment trust bonds, bonds with non-transparent cash flows or atypical indices used to reset coupons, etc.</p>	Bullet, fixed-rate or zero coupon bonds
Collateral	<u>Exclude</u> : covered, mortgage backed, asset backed, bank guaranteed	-
Registration Type (for Corporates)	<ul style="list-style-type: none"> • SEC-registered Global, Domestic, MTN, and 144A with or without registration rights, Eurobonds, and EMTNs that trade in accordance with ISMA principals. • Reg-S format for Euro-denominated, Sterling-denominated, and US Dollar-denominated EM bonds. • 144A format for US Dollar-denominated DM bonds. • Reg-S bonds and Private Placements are eligible after 40-day seasoning period, provided liquidity requirements are met. 	-

Source: J.P. Morgan

JESG Overlay Criteria

The J.P. Morgan ESG Green Bond Index (JESG GENIE) applies the J.P. Morgan JESG methodology as an overlay to the baseline J.P. Morgan Green Bond Index (GENIE).

For details on the ESG providers, scoring methodology and exclusions, please refer to the sovereign, quasi-sovereign and corporate methodologies detailed within the [J.P. Morgan ESG Index Suite \(JESG\) Rules and Methodology](#).

JESG Overlay	JESG Green Bond Index																								
Labeling Scheme for Green Bonds	Self-labeled green bonds, screened and verified by Climate Bonds Initiative are eligible.																								
ESG Data Provider	Sustainalytics RepRisk Verisk Maplecroft Climate Bonds Initiative																								
JESG Scoring methodology	Sovereign Issuers: a simple average of each country's Verisk Maplecroft and Sustainalytics score is taken to produce the final JESG index score Corporates and Quasi-Sovereign Issuers: a simple average of each issuer's normalized RepRisk and Sustainalytics score is taken to produce the daily JESG index rank. The final JESG index score incorporates a 3-month rolling average of daily rank in order to smooth any noise in the input data.																								
JESG Integration methodology	<p>The JESG scores are divided into five bands that are used to scale each issue's baseline index market value.</p> <table border="1"> <thead> <tr> <th>Issuer Band</th> <th>JESG Score Bands (Corporate and quasi-Sovereign)</th> <th>JESG Score Bands (Sovereign)</th> <th>Scalar</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>>= 80</td> <td>>= 80</td> <td>1.00</td> </tr> <tr> <td>2</td> <td>60 <= Score < 80</td> <td>60 <= Score < 80</td> <td>0.80</td> </tr> <tr> <td>3</td> <td>40 <= Score < 60</td> <td>40 <= Score < 60</td> <td>0.60</td> </tr> <tr> <td>4</td> <td>20 <= Score < 40</td> <td>30 <= Score < 40</td> <td>0.40</td> </tr> <tr> <td>5</td> <td>Score < 20</td> <td>Score < 30</td> <td>0.20</td> </tr> </tbody> </table> <p>Please note that band scalars outlined above are custom variation of those captured in the flagship JESG rules and methodology</p>	Issuer Band	JESG Score Bands (Corporate and quasi-Sovereign)	JESG Score Bands (Sovereign)	Scalar	1	>= 80	>= 80	1.00	2	60 <= Score < 80	60 <= Score < 80	0.80	3	40 <= Score < 60	40 <= Score < 60	0.60	4	20 <= Score < 40	30 <= Score < 40	0.40	5	Score < 20	Score < 30	0.20
Issuer Band	JESG Score Bands (Corporate and quasi-Sovereign)	JESG Score Bands (Sovereign)	Scalar																						
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4	20 <= Score < 40	30 <= Score < 40	0.40																						
5	Score < 20	Score < 30	0.20																						
Treatment for Certified Climate Bonds	Certified green bonds will receive one band upgrade (unless they are already in Band 1). Please note that the upgrade for Certified Climate bonds is a custom variation of the labelled bond treatment captured in the JESG rules and methodology																								
Ethical screening	Green bonds issued by non-sovereign issuers earning revenue from tobacco, weapons, or in violation of the UNGC Principles will not be eligible. Green bonds from issuers involved in thermal coal or oil sands remain eligible for JESG inclusion to incentivize transition to less pollutive revenue streams.																								

Source: J.P. Morgan.

Index Characteristics and Methodology

Characteristics	J.P. Morgan Green Bond Index
Inception Date	December 31 st , 2014
Prices	Mid prices from Pricing Direct
Weighting Scheme	Baseline: Market Cap Weighted JESG: JESG overlay with 5 bands and a one band upgrade for Certified Climate Bonds
FX Rates	All FX rates used, including for hedged/unhedged returns, are as of 4pm London time provided by WM/Reuters
Rebalance	Rebalanced on last weekday of every month
Holiday Calendar	Index levels will be available on all weekdays Bond analytics (e.g. accruals) will follow the respective currency holiday calendar (USD: SIFMA & EMTA, EUR/GBP: SIFMA)
Treatment for Defaulted/Called Securities	Defaulted: securities will be removed at the subsequent rebalance Called: securities will be removed at a month end before the called date if the call is announced before the month end & if not, will be removed at the subsequent rebalance
Credit Rating	Instrument rating will be assigned using middle rating of S&P, Moody's and Fitch. If only two ratings are available the lower rating will be used. The index does not have a minimum rating threshold
Coupon Treatment	All coupons received are immediately reinvested into the index
Hedging Strategy	Assumes a 1-month currency forward position that begins on rebalance day and ends on next rebalance day

Source: J.P. Morgan

Local Currency Government Bonds - Eligible countries/currencies

Country	Currency	Country	Currency	Country	Currency	Country	Currency
Australia	AUD	Egypt	EGP	Malaysia	MYR	South Africa	ZAR
Austria	EUR	Finland	EUR	Mexico	MXN	Spain	EUR
Belgium	EUR	France	EUR	Netherlands	EUR	Sweden	SEK
Brazil	BRL	Germany	EUR	New Zealand	NZD	Thailand	THB
Canada	CAD	Hungary	HUF	Peru	PEN	Turkey	TRY
Chile	CLP	Indonesia	IDR	Philippines (Global)	PHP	United Kingdom	GBP
China	CNY	Ireland	EUR	Poland	PLN	United States	USD
Colombia	COP	Israel	ILS	Portugal	EUR	Uruguay (Global)	UYU
Czech Republic	CZK	Italy	EUR	Romania	RON		
Denmark	DKK	Japan	JPY	Serbia	RSD		
Dominican Republic (Global)	DOP	Korea	KRW	Singapore	SGD		

Source: J.P. Morgan

Defining the Index Universe

Eligibility for the index will be determined on a continuous basis by monitoring the index criteria. Any changes to the composition or eligibility will be notified prior to rebalance with an estimated schedule. Only those green bonds that meet the criteria for Climate Bonds Initiative's (CBI) green labelled database will be eligible for inclusion into the index.

Countries of risk for the instruments in the index will be determined based upon the below considerations:

1. The country with the largest source of revenue. Guarantees by other entities including subsidiaries or holding companies in other countries will also be considered.
2. The headquarters or the location of the issuer's majority assets will also be considered.

New Issue Timing

A new issue that meets the index criteria is added at the month-end rebalancing provided it is present in CBI's green labelled database by the 15th of the month. Bonds entering the database after the 15th of the month will enter the index during the subsequent month-end rebalance.

Instruments issued purely in reliance on Regulation S or "Reg-S" (without an accompanying 144A or registered tranche) or private placements (not registered instruments) are eligible for inclusion after a 40 calendar day seasoning period provided they meet other index criteria. The date at which the seasoning restriction is lifted will effectively be the new "settlement" date. This applies to USD-denominated bonds only.

Global Index Research

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