

# EMD Local Currency: Not All Indices Are the Same

## SPDR EMEA ETF Strategy Team

Index rules vary from one provider to the other. In some cases this variance could lead to differences in the interpretation or definition of certain regions.

In the fixed income space, and emerging market debt in particular, there are different approaches to country inclusion rules. For investment vehicles like ETFs, understanding this difference can in turn present opportunities when using a fund that follows one index or another.

---

This paper compares and contrasts the index construction approach of Bloomberg and JP Morgan as it pertains to local currency emerging market debt (EMD) indices tracked by ETFs in Europe. The focus is on the two indices most representative of the assets invested in European-domiciled ETFs, as they comprise close to 95% of assets with c. \$9.2 billion.<sup>1</sup>

- Within EMD indices, there are various methodologies for determining country inclusions; JP Morgan, in particular, created a range of custom indices that introduce pre-determined 'floors' (i.e. a minimum weight within the index) and 'caps' (a maximum weight within the index) for their constituents. These differences can result in substantially different index performance.
- In terms of investment universe, the Bloomberg Emerging Markets Local Currency Liquid Government Bond Index has a greater number of constituent (609 bonds) than its JP Morgan counterpart, thus providing a broader pool of securities in which to invest.<sup>2</sup> This is an important consideration, especially for investors who may be concerned about fund sizes, market impact and liquidity constraints.

<sup>1</sup> Bloomberg Finance L.P., as of 31 August 2024.

<sup>2</sup> Source: Bloomberg Finance L.P., as of 31 August 2024.

## Inclusion Rules: Countries

Figure 1  
**Summary of Country Inclusion Rules**  
 Bloomberg vs. JP Morgan Index

	<b>Bloomberg Emerging Markets Local Currency Liquid Government Bond Index</b>	<b>JP Morgan GBI-EM Global Diversified 10% Cap &amp; 1% Floor</b>
Emerging Market Country Definition & Country Eligibility	Bloomberg uses a fixed list of emerging market countries that is reviewed annually to define country eligibility in dedicated EM hard currency, local currency and inflation-linked benchmarks. Criteria for inclusion in the EM country list are rules based and include: <ul style="list-style-type: none"> <li>Countries that meet one of the following two criteria: World Bank Income group classifications of low/middle income OR International Monetary Fund (IMF) classification as a non-advanced country.</li> </ul>	For a country to be eligible for inclusion in the JP Morgan GBI-EM indices, GNI per capita must be below the Index Income Ceiling (IIC) for three consecutive years. JP Morgan defines the IIC as the GNI per capita level that is adjusted every year by the growth rate of the World GNI per capita, Atlas method (current US\$), provided by the World Bank annually. An existing country may be considered for removal from the index if its GNI per capita is above the IIC for three consecutive years and its long-term local sovereign credit rating (the available rating agencies: S&P, Moody's & Fitch) is A-/A3/A- or above for three consecutive years.
Additional Criteria	In addition to being defined as an Emerging Market under Bloomberg EM country definition, inclusion in the EM Local Currency Liquid Government Bond Index is also based on market size and an evaluation of market investability. The maximum weight of a country is capped at 10% based on market cap.	The JP Morgan GBI EM Global Diversified 10% Cap & 1% Floor Index does NOT include markets with capital controls. The maximum weight of a country is capped at 10% based on market cap. The minimum weight of a country is 1% based on issue amount outstanding. New markets require a weight of at least 1% in the flagship GBI-EM Global Diversified.
EM Country List	EM country list is evaluated once a year by Bloomberg.	—
Recent Index Changes	Russia removed March 2022. China added (April 2019), Argentina removed (September 2019)	India added June 2024, Egypt removed January 2024, Russia removed March 2022. Egypt added (January 2022), China added (April 2020), Argentina removed (November 2019)

Source: State Street Global Advisors, Bloomberg Finance L.P., JP Morgan, as of 31 August 2024.

## Country Rules Impact on Index Composition

Figure 2  
**Summary of Key Index Characteristics**

The difference in emerging market definitions will lead to differences in countries between the Bloomberg and JP Morgan index families.

	<b>Bloomberg Emerging Markets Local Currency Liquid Government Bond Index</b>	<b>JP Morgan EM-GBI Global Diversified 10% Cap 1% Floor Index</b>
# Countries	18	16
# Constituents	609	367
Cpn	3.742	5.244
Yield to Worst	6.16	6.57
OAD	6.28	5.20
OAC	0.83	0.50
Mty (Yrs)	9.04	7.36
Index Rtg	A3/BAA1	BAA1/BAA2

Source: State Street Global Advisors, Bloomberg Finance L.P., JP Morgan, as of 31 August 2024. Data are as of the date indicated, subject to change, and should not be relied upon as current thereafter. The index rating is the middle rating of the three main rating agencies S&P, Moody's and Fitch.

## Country Distribution

Index rules will have an impact on country membership, bonds that are included in each country, and market valuations. Within countries, the difference will also come from the types of bonds included.

In the Philippines, the Bloomberg index includes both international and domestic bonds, while the JP Morgan no longer provides exposure to Philippines due its inclusion criteria.

Both indices removed Russia in March 2022. Egypt was removed from the JP Morgan index in January 2024, having been re-admitted only in January 2022. JP Morgan have started to include Indian bonds from June 2024, these will also be integrated into the Bloomberg index from January 2025.

Figure 3  
Country Distribution

	Bloomberg EM Local Currency Liquid Government Bond Index		JP Morgan EM-GBI Global Diversified 10% Cap 1% Floor Index	
	Market Value (%)	# Constituents	Market Value (%)	# Constituents
<b>Total</b>	<b>100.00</b>	<b>609</b>	<b>100.00</b>	<b>367</b>
Brazil	7.11	15	8.39	11
Chile	1.59	15	1.92	11
China	10.00	156	9.98	68
Colombia	3.02	14	4.40	12
Czech Republic	4.00	22	5.91	22
Hungary	2.00	18	3.04	18
India	—	—	1.95	29
Indonesia	10.00	57	10.34	40
Israel	3.15	13	—	—
Malaysia	10.00	57	10.53	42
Mexico	8.60	22	9.18	16
Peru	1.50	12	2.10	10
Philippines	4.26	33	—	—
Poland	5.67	16	7.98	15
Romania	2.78	24	4.05	24
S. Africa	6.09	12	8.93	12
S. Korea	10.00	66	—	—
Thailand	8.60	39	9.74	25
Turkey	1.63	18	1.55	12

Source: State Street Global Advisors, Bloomberg Finance L.P., JP Morgan, as of 31 August 2024. Data are as of the date indicated, subject to change, and should not be relied upon as current thereafter.

Figure 4  
**Country Weights  
 Drive Average  
 Quality Differences**

	Bloomberg EM Local Currency Liquid Government Bond Index			JP Morgan EM-GBI Global Diversified 10% Cap 1% Floor Index		
	Market Value (%)	Index Rating	Index Rating Number	Market Value (%)	Index Rating	Index Rating Number
<b>Total</b>	<b>100.00</b>	<b>A3/BAA1</b>	<b>8.74</b>	<b>99.99</b>	<b>BAA1/BAA2</b>	<b>9.4</b>
Brazil	7.11	BA2	13.00	8.39	BA2	13.00
Chile	1.59	A2	7.00	1.92	A2	7.00
China	10.00	A1	6.00	9.98	A1	6.00
Colombia	3.02	BAA3	11.00	4.40	BAA3	11.00
Czech Republic	4.00	AA3	5.00	5.91	AA3	5.00
Hungary	2.00	BAA2	10.00	3.04	BAA2	10.00
India	—	—	—	1.95	BAA3	11.00
Indonesia	10.00	BAA2	10.00	10.34	BAA2	10.00
Israel	3.15	A2	7.00	—	—	—
Malaysia	10.00	A3	8.00	10.53	A3	8.00
Mexico	8.60	BAA2	10.00	9.18	BAA2	10.00
Peru	1.50	BAA2	10.00	2.10	BAA2	10.00
Philippines	4.26	BAA2	10.00	—	—	—
Poland	5.67	A2	7.00	7.98	A2	7.00
Romania	2.78	BAA3	11.00	4.05	BAA3	11.00
S. Africa	6.09	BA2	13.00	8.93	BA2	13.00
S. Korea	10.00	AA2	4.00	—	—	—
Thailand	8.60	BAA1	9.00	9.74	BAA1	9.00
Turkey	1.63	B1	15.00	1.55	B1	15.00

Source: State Street Global Advisors, Bloomberg Finance L.P., JP Morgan, as of 31 August 2024. Data are as of the date indicated, subject to change, and should not be relied upon as current thereafter. The index rating is the middle rating of the three main rating agencies S&P, Moody's and Fitch.

As a consequence of the index inclusion rules, the number of bonds and the market value of the indices will vary. The difference between the two local currency EM debt indices will come from the countries included as well as the criteria for bond inclusion. Moreover, the JP Morgan GBI-EM Diversified Index methodology uses only a limited portion of a country's current face amount outstanding for calculating weights (see JP Morgan Index rules and methodology for further details).

A result of country and bond selection can be seen in the investment universes of the indices. The Bloomberg index has a greater number of constituents (around 609 bonds against 367 for the JP Morgan index), thus providing a broader pool of securities in which to invest. This is an important consideration, especially for investors who may be concerned about fund sizes, market impact and liquidity constraints.

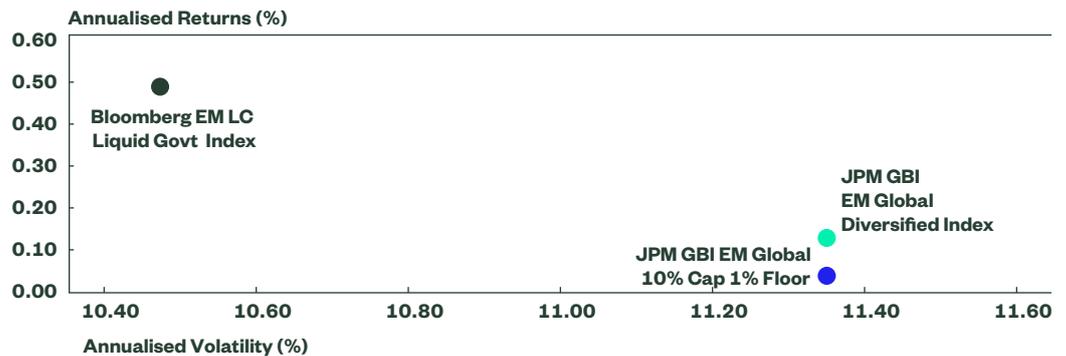
Both of these indices operate a 10% cap, meaning any country weights in excess of the cap are re-distributed to other, smaller countries. The JP Morgan index also operates a 1% minimum weight floor. This creates higher weights for smaller countries, a small cap bias, and could lead to questions concerning liquidity.

## Diversification and Risk-Adjusted Returns

The Bloomberg EM Local Currency Liquid Government Index has, over time, exhibited a better risk-adjusted profile than that of the JP Morgan GBI-EM Global Diversified 10% Cap 1% Floor index. This is in part due to the inclusion of South Korea and Israel in the Bloomberg universe, which, while having a longer duration than average, have typically behaved more like developed market bonds. Based on current yield levels, the addition of India to both the JP Morgan and Bloomberg indices is expected to have a similar effect of dampening volatility while enhancing returns.

In Figure 5, we plot the risk versus return of the Bloomberg EM Local Currency Liquid Government Index, the JP Morgan EM-GBI Global Diversified 10% Cap 1% Floor and the JP Morgan EM Global Diversified Index over the past 5 years.

Figure 5  
5-Year Annualised Risk Return in USD Unhedged



Source: Bloomberg Finance L.P., as of 31 August 2024. **Past performance is no guarantee of future results. It is not possible to invest directly in an index. Index performance does not reflect charges and expenses associated with the fund or brokerage commissions associated with buying and selling a fund. Index performance is not meant to represent that of any particular fund.**

Figure 6  
Annualised Performance & Volatility in USD Unhedged

	Annualised Return (%)			Annualised Volatility (%)			Sharpe Ratio		
	Bloomberg EM Local Currency Liquid Government Index	JPM EM GBI Global Diversified	JPM EM GBI Global Diversified 10% Cap 1% Floor	Bloomberg EM Local Currency Liquid Government Index	JPM EM GBI Global Diversified	JPM EM GBI Global Diversified 10% Cap 1% Floor	Bloomberg EM Local Currency Liquid Government Index	JPM EM GBI Global Diversified	JPM EM GBI Global Diversified 10% Cap 1% Floor
Last 1 year	6.61	6.00	5.68	9.75	8.87	8.87	0.10	0.04	0.00
Last 3 years	-1.24	-1.67	-1.60	10.71	10.79	10.69	-0.43	-0.47	-0.47
Last 5 years	0.50	0.11	0.04	10.48	11.36	11.36	-0.17	-0.19	-0.20
Last 10 years	0.33	-0.29	-0.31	10.08	11.24	11.22	-0.14	-0.18	-0.18

Source: State Street Global Advisors, Bloomberg Finance L.P., JP Morgan, as of 31 August 2024. Risk-free rate based on JP Morgan 1M USD Cash index. The JP Morgan EM-GBI Global Diversified 10% Cap 1% Floor index was inceptioned on 28 February 2017. Results prior to this date were calculated by using available data at the time in accordance with the Index's current methodology. **Past performance is no guarantee of future results. It is not possible to invest directly in an index. Index performance does not reflect charges and expenses associated with the fund or brokerage commissions associated with buying and selling a fund. Index performance is not meant to represent that of any particular fund.**

---

## Summary

Understanding the key differences between emerging market local currency indices is important as they drive the overall characteristics of the ETF benchmarked against them. For instance the longer duration of the Bloomberg index will be a drag on performance as central bank rates rise but may provide benefits in rate cutting cycles. The inclusion of Indian bonds should add to yield while dampening volatility in both indices.

In addition, there will always be idiosyncratic risk in Emerging Market debt which makes the understanding of index constituents equally important. For instance Russian bonds were a major drag on the performance of EM debt in 2022. These bonds were excluded from most indices at the March 2022 month-end rebalancing. This had a greater impact on the JPM GBI EM Global Diversified Index given the weight of Russia within the index was just over 6%, against just under 4% for the Bloomberg EM Local Currency Liquid Govt Index. The extreme volatility in returns for countries such as Egypt and Turkey can have meaningful impact on overall portfolio performance even though holdings may be relatively small. Investors should therefore consider both top line risk characteristics and the index constituents carefully when selecting the ETF most appropriate to their investment objectives.

State Street Global Advisors' size, scale and experience in the emerging market local currency debt space mean that we can accommodate the needs of clients whose specific objectives cannot be met by a general index; we would be happy to discuss your options as necessary.

---

## About State Street Global Advisors

Efficiently accessing the targeted levels of income generation, capital preservation and risk exposure offered by fixed income can be challenging for investors of all sizes. This is especially true in less liquid sectors and regions. State Street's SPDR® fixed income ETFs provide a cost-effective, liquid and transparent way to build your fixed income portfolio. Intelligent fixed income indexing is in our DNA. Our fixed income ETFs are built and powered by the same expertise and resources that have made us one of the world's leading fixed income institutional managers and a pioneer in ETF investing.

Across regions and sectors, we bring a unique combination of market knowledge, product expertise and scale to our SPDR ETF fixed income range. As the creator of the first US-listed ETF, we have more than 30 years of experience helping investors build strong, flexible portfolios.

---

## Key Risks

**Government default** There is still always the chance that governments can default on their debt. In that event, governments may not be able to meet their obligations and investors could lose the value of their investment.

**Geopolitical risk** Emerging market countries can at times be less stable than their developed market counterparts. Any disruption to the governments or financial markets in emerging markets can have an impact on how effectively governments can service their debt.

**Market uncertainty** Emerging market debt performance is driven by interest rates and credit spreads. Thus any significant moves in these factors can have an impact (positive or negative) on the value of this asset class.

---

## ssga.com

**Marketing Communication.  
For Professional Client Use Only.**

**Information Classification: General Access**

---

### Important Information

The information provided does not constitute investment advice and it should not be relied on as such. It should not be considered a solicitation to buy or an offer to sell a security. It does not take into account any investor's particular investment objectives, strategies, tax status or investment horizon. You should consult your tax and financial advisor. All information is from SSGA unless otherwise noted and has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy, reliability or completeness of, nor liability for, decisions based on such information and it should not be relied on as such.

**Australia:** State Street Global Advisors, Australia, Limited (ABN 42 003 914 225) is the holder of an Australian Financial Services Licence (AFSL Number 238276). Registered office: Level 14, 420 George Street, Sydney, NSW 2000, Australia T: +612 9240-7600. F: +612 9240-7611. **Belgium:** State Street Global Advisors Belgium, Chaussée de La Hulpe 185, 1170 Brussels, Belgium. T: +32 2 663 2036. State Street Global Advisors Belgium is a branch office of State Street Global Advisors Europe Limited, registered in Ireland with company number 49934, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. **France:** State Street Global Advisors Europe Limited, France Branch ("State Street Global Advisors France") is a branch of State Street Global Advisors Europe Limited, registered in Ireland with company number 49934, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. State Street Global Advisors France is registered in France with company number RCS Nanterre 899 183 289, and its office is located at Coeur Défense – Tour A – La Défense 4, 3<sup>ème</sup> étage, 100, Esplanade du Général de Gaulle, 92 931 Paris La Défense Cedex, France. T: +33 1 44 45

40 00. F: +33 1 44 45 41 92. **Germany:** State Street Global Advisors Europe Limited, Branch in Germany, Brienner Strasse 59, D-80333 Munich, Germany ("State Street Global Advisors Germany"). T +49 (0)89 55878 400. State Street Global Advisors Germany is a branch of State Street Global Advisors Europe Limited, registered in Ireland with company number 49934, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. **Hong Kong:** State Street Global Advisors Asia Limited, 68/F, Two International Finance Centre, 8 Finance Street, Central, Hong Kong. T: +852 2103-0288. F: +852 2103-0200. **Ireland:** State Street Global Advisors Europe Limited is regulated by the Central Bank of Ireland. Registered office address 78 Sir John Rogerson's Quay, Dublin 2. Registered Number: 49934. T: +353 (0)1 776 3000. F: +353 (0)1 776 3300. **Israel:** No action has been taken or will be taken in Israel that would permit a public offering of the Securities or distribution of this sales brochure to the public in Israel. This sales brochure has not been approved by the Israel Securities Authority (the 'ISA'). Accordingly, the Securities shall only be sold in Israel to an investor of the type listed in the First Schedule to the Israeli Securities Law, 1978, which has

confirmed in writing that it falls within one of the categories listed therein (accompanied by external confirmation where this is required under ISA guidelines), that it is aware of the implications of being considered such an investor and consents thereto, and further that the Securities are being purchased for its own account and not for the purpose of re-sale or distribution. This sales brochure may not be reproduced or used for any other purpose, nor be furnished to any other person other than those to whom copies have been sent. Nothing in this sales brochure should be considered investment advice or investment marketing as defined in the Regulation of Investment Advice, Investment Marketing and Portfolio Management Law, 1995 ("the Investment Advice Law"). Investors are encouraged to seek competent investment advice from a locally licensed investment advisor prior to making any investment. State Street is not licensed under the Investment Advice Law, nor does it carry the insurance as required of a licensee thereunder. This sales brochure does not constitute an offer to sell or solicitation of an offer to buy any securities other than the Securities offered hereby, nor does it constitute an offer to sell to or solicitation of an offer to buy from any person or persons in any state or other jurisdiction in

which such offer or solicitation would be unlawful, or in which the person making such offer or solicitation is not qualified to do so, or to a person or persons to whom it is unlawful to make such offer or solicitation. **Italy:** State Street Global Advisors Europe Limited, Italy Branch ("State Street Global Advisors Italy") is a branch of State Street Global Advisors Europe Limited, registered in Ireland with company number 49934, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. State Street Global Advisors Italy is registered in Italy with company number 11871450968 – REA: 2628603 and VAT number 11871450968, and its office is located at Via Ferrante Aporti, 10 - 20125 Milan, Italy. T: +39 02 32066 100. F: +39 02 32066 155. **Japan:** State Street Global Advisors (Japan) Co., Ltd., Toranomon Hills Mori Tower 25F 1-23-1 Toranomon, Minato-ku, Tokyo 105-6325 Japan. T: +81-3-4530-7380. Financial Instruments Business Operator, Kanto Local Financial Bureau (Kinsho #345), Membership: Japan Investment Advisers Association, The Investment Trust Association, Japan, Japan Securities Dealers' Association. **Netherlands:** State Street Global Advisors Netherlands, Apollo Building 7th floor, Herikerbergweg 29, 1101 CN Amsterdam, Netherlands. T: +31 20 7181 000. State Street Global Advisors Netherlands is a branch office of State Street Global Advisors Europe Limited, registered in Ireland with company number 49934, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. **Singapore:** State Street Global Advisors Singapore Limited, 168, Robinson Road, #33-01 Capital Tower, Singapore 068912 (Company Reg. No: 200002719D), regulated by the Monetary Authority of Singapore. T: +65 6826-7555. F: +65 6826-7501. **Switzerland:** State Street Global Advisors AG, Beethovenstr. 19, CH-8027 Zurich. Registered with the Register of Commerce Zurich CHE-105.078.458. T: +41 (0)44 245 70 00. F: +41 (0)44 245 70 16. **United Kingdom:** State Street Global Advisors Limited. Authorised and regulated by the Financial Conduct Authority. Registered in England. Registered No. 2509928. VAT No.

577659181. Registered office: 20 Churchill Place, Canary Wharf, London, E14 5HJ. T: 020 3395 6000. F: 020 3395 6350.

#### Important Information

This document has been issued by State Street Global Advisors Limited ("SSGA"). Authorised and regulated by the Financial Conduct Authority, Registered No.2509928. VAT No. 5776591 81. Registered office: 20 Churchill Place, Canary Wharf, London, E14 5HJ. T: 020 3395 6000. F: 020 3395 6350. ssga.com. Investing involves risk including the risk of loss of principal. The information contained in this communication is not a research recommendation or 'investment research' and is classified as a 'Marketing Communication' in accordance with the Markets in Financial Instruments Directive (2014/65/EU) or applicable Swiss regulation. This means that this marketing communication (a) has not been prepared in accordance with legal requirements designed to promote the independence of investment research (b) is not subject to any prohibition on dealing ahead of the dissemination of investment research. This communication is directed at professional clients (this includes eligible counterparties as defined by the appropriate EU regulator who are deemed both knowledgeable and experienced in matters relating to investments. The products and services to which this communication relates are only available to such persons and persons of any other description (including retail clients) should not rely on this communication. The whole or any part of this work may not be reproduced, copied or transmitted or its contents disclosed to third parties without SSGA's express written consent. All information is from SSGA unless otherwise noted and has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy, reliability or completeness of, nor liability for, decisions based on such information and it should not be relied on as such.

ETFs trade like stocks, are subject to investment risk and will fluctuate in market value. The investment return and principal value of an investment will fluctuate in value, so that when shares are sold or redeemed, they may be worth more or less than when they were purchased. Although shares may be bought or sold on an exchange through any brokerage account, shares are not individually redeemable from the fund. Investors may acquire shares and tender them for redemption through the fund in large aggregations known as "creation units." Please see the fund's prospectus for more details. The trademarks and service marks referenced herein are the property of their respective owners. Third party data providers make no warranties or representations of any kind relating to the accuracy, completeness or timeliness of the data and have no liability for damages of any kind relating to the use of such data. The views expressed in this material are the views of SPDR EMEA Strategy and Research through 12 September 2024 and are subject to change based on market and other conditions. This document contains certain statements that may be deemed forward-looking statements. Please note that any such statements are not guarantees of any future performance and actual results or developments may differ materially from those projected. BLOOMBERG®, a trademark and service mark of Bloomberg Finance L.P. and its affiliates, and BARCLAYS®, a trademark and service mark of Barclays Bank Plc, have each been licensed for use in connection with the listing and trading of the SPDR Bloomberg Barclays ETFs. Bonds generally present less short-term risk and volatility than stocks, but contain interest rate risk (as interest rates rise, bond prices usually fall); issuer default risk; issuer credit risk; liquidity risk; and inflation risk. These effects are usually pronounced for longer-term securities. Any fixed income security sold or redeemed prior to maturity may be subject to a substantial gain or loss. International Government bonds and corporate bonds generally have more moderate short-term price fluctuations

than stocks, but provide lower potential long-term returns. The returns on a portfolio of securities which exclude companies that do not meet the portfolio's specified ESG criteria may trail the returns on a portfolio of securities which include such companies. A portfolio's ESG criteria may result in the portfolio investing in industry sectors or securities which underperform the market as a whole. Investing in foreign domiciled securities may involve risk of capital loss from unfavourable fluctuation in currency values, withholding taxes, from differences in generally accepted accounting principles or from economic or political instability in other nations. Investments in emerging or developing markets may be more volatile and less liquid than investing in developed markets and may involve exposure to economic structures that are generally less diverse and mature and to political systems which have less stability than those of more developed countries. Standard & Poor's®, S&P® and SPDR® are registered trademarks of Standard & Poor's Financial Services LLC (S&P); Dow Jones is a registered trademark of Dow Jones Trademark Holdings LLC (Dow Jones); and these trademarks have been licensed for use by S&P Dow Jones Indices LLC (SPDJI) and sublicensed for certain purposes by State Street Corporation. State Street Corporation's financial products are not sponsored, endorsed, sold or promoted by SPDJI, Dow Jones, S&P, their respective affiliates and third party licensors and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability in relation thereto, including for any errors, omissions, or interruptions of any index. All the index performance results referred to are provided exclusively for comparison purposes only. It should not be assumed that they represent the performance of any particular investment.

© 2024 State Street Corporation. All Rights Reserved. ID235655-2004013.18.IGBL.INST 0924 Exp. Date: 31/03/2025