

# SELECTIVELY EMBRACING RISK IN EMERGING MARKETS DEBT

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May 11, 2023

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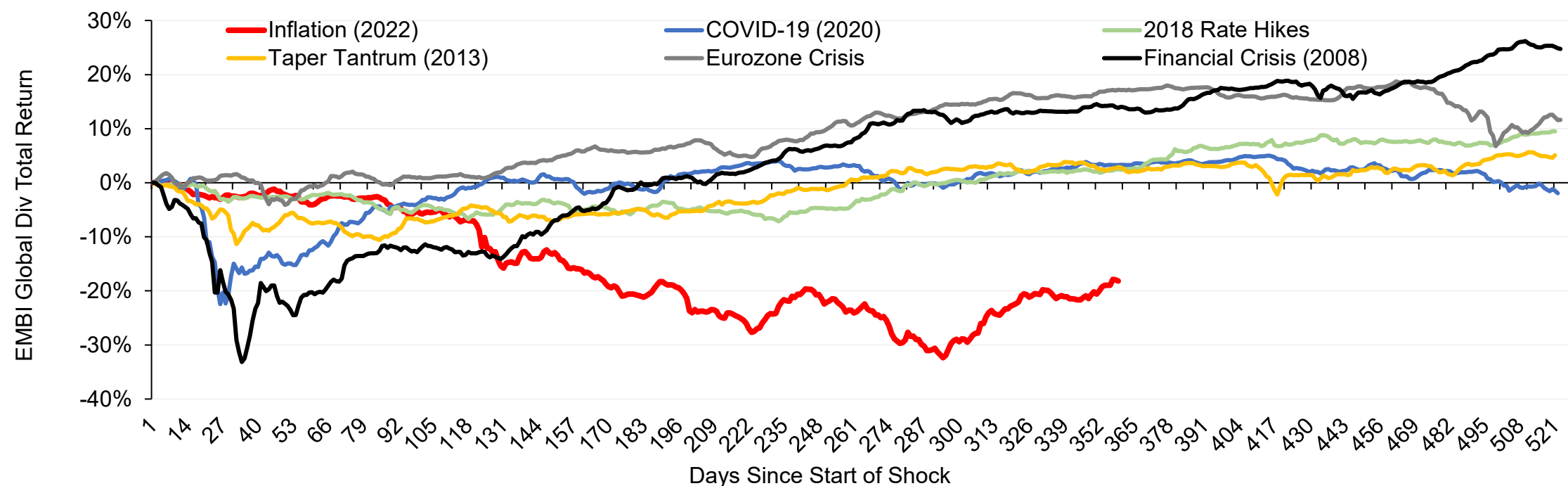
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## Summary

**Emerging markets (EM) trades at a relative discount to developed markets (DM) and investors remain under allocated to EM**

- **Yield advantage:** Developed markets burdened with high debt and tight valuations. EM offers higher yields
- **Return potential:** Historical evidence shows the potential for outperformance after a sizeable correction



- **Exposure to the fastest growing countries:** Growth differential between EM and DM is set to widen again
- **Lower correlations to fixed income asset classes**
- **Demographics:** Developed markets appear to be set to suffer from decline in working age populations, that will have a lesser impact on EMs

Source: JPMorgan, Bloomberg as of December 31, 2022. Past performance is not a guarantee or a reliable indicator of future results.

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## A Diversified Opportunity Set

**Emerging Markets Debt includes many asset types:**

- Hard Currency Denominated Sovereigns, Quasi-Sovereigns (A spread product and included in the EMBI indices)
- Hard Currency Denominated Corporate Debt (A spread product and included in the CEMBI indices)
- Local Currency Sovereign Debt (Interest rate product, currency risk can be hedged or not and included in the GBI-EM indices)
- EM FX (Currencies of emerging market countries, included in the EMLI+ index)

	Hard Currency Sovereign Debt	Hard Currency Corporate Debt	Local Currency Sovereign Debt
Index Name	EMBI Global Diversified	CEMBI Broad Diversified	GBI-EM Global Diversified
Yield to Worst	8.5%	7.2%	6.6%
Spread to Worst (bps)	484	347	-
Duration (yrs)	6.81	4.30	4.94
Credit Quality	BB+	BBB-	BBB
Index Market Cap (\$bn)	\$1,120	\$1,104	\$3,191
AUM Benchmarked (\$bn)	\$371	\$131	\$236
Countries	70	62	20
Issuers	156	764	20
Instruments	943	1,901	321

Source: JPMorgan. As of March 31, 2023

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An investment cannot be made directly in an index.

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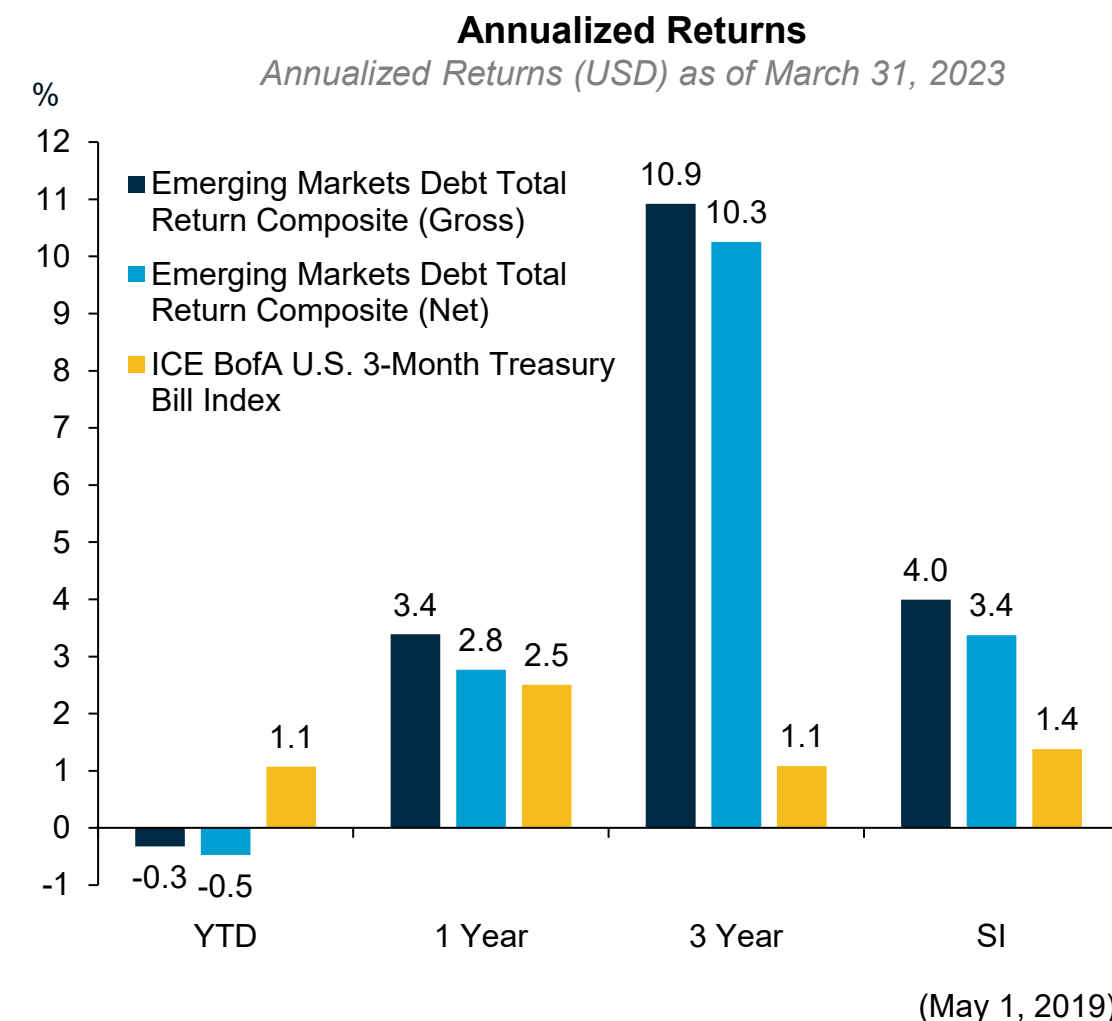
## Top-Down Observations Highlight Performance Trends by Asset Type

Asset Type	Top-Down Performance Observations
<b>Hard Currency Sovereigns/ Quasi-Sovereigns</b>	<ul style="list-style-type: none"><li>• Tends to mean revert—one of the highest Sharpe ratios of all EMD</li><li>• Does well in “risk on” markets and stable to higher rate environments</li><li>• Well enough diversified to allow select outperformance in more volatile markets</li></ul>
<b>Hard Currency Corporate</b>	<ul style="list-style-type: none"><li>• Typically shorter duration so can outperform in more volatile/risk-off markets</li><li>• Can offer idiosyncratic opportunities with attractive relative value in high growth economies</li><li>• Recovery value much lower than sovereigns/quasi sovereigns</li></ul>
<b>Local Rates</b>	<ul style="list-style-type: none"><li>• Hedged rates perform well in slowing global growth markets</li><li>• Offers attractive real yields with steep curves</li><li>• Over medium term, carry and rolldown offset negative impact from EMFX</li></ul>
<b>EM FX</b>	<ul style="list-style-type: none"><li>• EM-DM growth differential has a strong influence on EMFX</li><li>• Uneven economic cycles and monetary dynamics present relative value opportunities</li><li>• In periods of strong USD /weak commodity prices, good cross-hedge to credit and rates</li></ul>



## What Makes Us Different

- 1 Strong Track Record since 1996 from Diversified Sources of Alpha**
  - Dedicated emerging markets strategies in hard and local currency sovereign, blend, and corporates
  - Investing in local markets since 2003
- 2 A Well-Resourced Investment Management Team with Extensive Experience and Tenure**
  - 38 specialists in portfolio management, economics/sovereign analysts, and corporate credit provide ability to nimbly extract alpha from numerous sources
  - Senior members started PGIM's emerging markets effort in 1995
  - Proprietary sovereign analysis incorporates ESG assessments
- 3 A Deep Culture of Risk Management, Quantitative Research, and Bottom-Up Credit Research**
  - Independent risk management/quantitative research team of 83
  - Extensive credit research team of 106

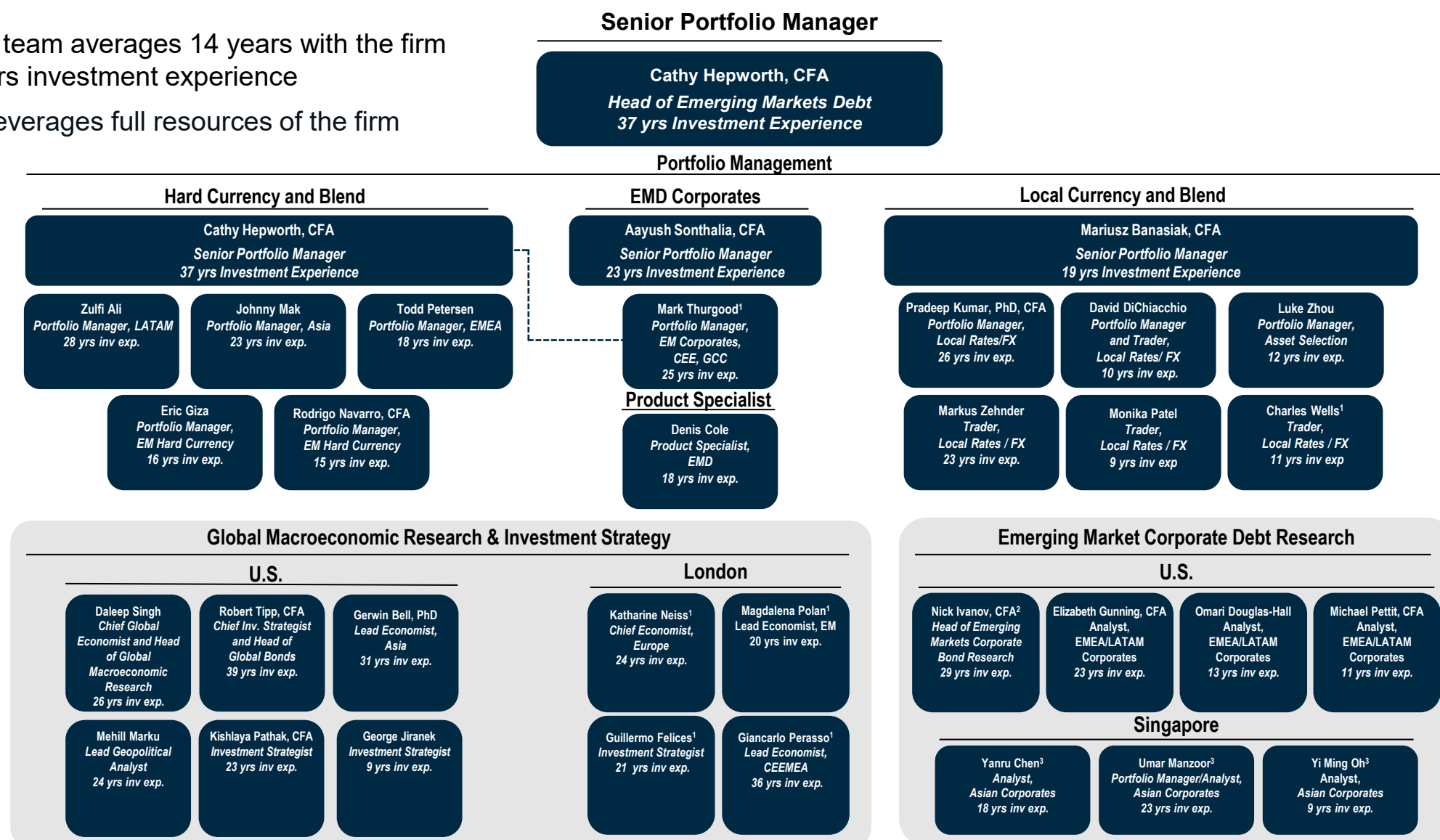


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## Experienced and Stable Team

- Investment team averages 14 years with the firm and 20 years investment experience
- Approach leverages full resources of the firm



Staff as of April 2023. Years of experience as of March 31, 2023. <sup>1</sup>European Team members are employees of a PGIM affiliate who have been providing services to PGIM Limited, a UK subsidiary that is authorized and regulated by the Financial Conduct Authority. <sup>2</sup>Member of PGIM Fixed Income's credit research group.

<sup>3</sup>Employee of a wholly-owned subsidiary of PGIM, Inc., PGIM (Singapore) Pte. Ltd.





## Range of Emerging Markets Strategies

	Single Asset Class Benchmark Strategies					Blended Benchmark Strategies			Cash Based Strategies	
	Hard Currency	Hard Currency ESG	Local Currency	EM Corporate	EM Corporate ESG	Hard/Corporate Blend	Hard/Local Currency Blend	Hard/Local Blend Plus	Total Return*	Long/Short
<b>Benchmark</b>	JPM EMBI Global Diversified Index	JPM EMBI Global Diversified Index	JPM GBI-EM Global Diversified Index	JPM CEMBI Broad Diversified Index	JPM CEMBI Broad Diversified Index	Blend JPMorgan EM Global Diversified & CEMBI Broad Diversified	Blend of JPM EMBI Global Diversified & GBI-EM Global Diversified Indices		ICE BofA U.S. 3-Month Treasury Bill Index	
<b>Strategy Inception</b>	July 1, 1996	December 15, 2021	January 1, 2011	March 1, 2013	October 1, 2021	December 1, 2018	December 1, 2007	August 1, 2014	May 1, 2019	November 1, 2007
<b>Strategy AUM (\$Bil)<sup>1</sup></b>	\$17.6	<\$0.1	\$2.0	\$0.3	<\$0.1	\$0.8	\$13.3	\$0.4	<\$0.1	\$0.3
<b>Target Excess Return<sup>2</sup></b>	+200 bps (gross); +145 bps (net)	+185 bps (gross); +145 bps (net)	+150 bps (gross); +95 bps (net)	+150 bps (gross); +95 bps (net)	+125 bps (gross); +70 bps (net)	+200 bps (gross); +150 bps (net)	+200 bps (gross); +145 bps (net)	+500 bps (gross); +340 bps (net)**	+450 bps (gross); +390 bps (net)	Absolute Return
<b>Tracking Error vs. Benchmark</b>	300 bps	300 bps	250 bps	300 bps	300 bps	300 bps	300 bps	1000 bps	800 bps	900 bps
<b>Target Sources of Excess Return</b>										
<b>Average Quality<sup>3</sup></b>	Ba2	Ba1	Baa1	Baa3	Ba1	Ba1	Baa3	Ba2 (long) / Baa3 (short)	Baa3	Baa2 (long) / Baa2 (short)
<b>Duration Range</b>	5.5-7.5 years	5.5-7.5 years	4.5-8.5 years	4.0-5.0 years	4.0-5.0 years	4.0-7.5 years	5.5-7.5 years	0-15 years	0-5 years	-10.0 – 10.0 years
<b>Sector Allocation Ranges (MV%)</b>										
<b>Hard Currency<sup>4</sup></b>	85-100%	85-100%	0 -20%	100%	100%	90-100%	40-70%	0-100%	0-100%	--
<b>HC Corporates<sup>5</sup></b>	0-15%	0-15%	0-10%	80-100%	80-100%	30-60%	0-15%	-50%-50%	0-25%	--
<b>Local Currency</b>	0-15%	0-15%	80-100%	--	--	0-10%	30-60%	0-100%	0-75%	--
<b>Number of Countries<sup>6</sup></b>	69	53	27	59	43	60	67	74	58	64
<b>Number of Issuers<sup>6</sup></b>	183	121	61	246	131	197	173	258	140	150 <sup>7</sup>
<b>Leverage allowed</b>	No	No	No	No	No	No	No	Yes	No	Yes

*Past performance is not a guarantee or a reliable indicator of future results. Please see Reference section for important additional disclosures. The value of investments can go down as well as up. As of March 31, 2023. For illustrative purposes only. Source of benchmarks: JPMorgan, Bloomberg, Bank of America. <sup>1</sup>Strategy AUM includes cash and cash equivalents, as of March 31, 2023. <sup>2</sup>There is no guarantee that these objectives will be met. <sup>3</sup>Moody's. <sup>4</sup>Includes Quasi-Sovereigns and Corporates. <sup>5</sup>Excludes quasi-sovereigns. <sup>6</sup>Based on the representative portfolio within each respective composite. For the Emerging Markets Debt ESG Strategy, the number of countries and issuers will vary based on ESG Issues. <sup>7</sup>Excludes cash, collateral, FX and currency options. The data shown is subject to change and may not be indicative of future portfolio characteristics. Actual results may vary for each client due to specific guidelines and other factors. Does not constitute investment advice and should not be used as the basis for any investment decision. This information is delivered solely as reference material with respect to an investment product that PGIM Fixed Income may offer in the future. \*Effective March 1, 2022 the Benchmark changed to the ICE BofA U.S. 3-Month Treasury Bill Index, prior to that the Benchmark was ICE BofA 3-Month Deposit Offered Rate Constant Maturity Index. \*\*Net target was calculated by deducting the management and incentive fees, assuming that the portfolio beats the benchmark at all times.*





## Objective and Approach

**Strategy:** “Go anywhere” strategy designed to capture best ideas from a broad range of emerging markets hard currency sovereign/quasi sovereign bonds, corporate bonds, local bonds, currencies and volatility

**Investment Objective<sup>1</sup>:** ICE BofA U.S. 3-Month Treasury Bill Index 450 bps (gross); 390 bps (net) over the long term

**Approach:** **Flexibility to express views across emerging markets based on top down and bottom up themes**

- Approach allows freedom to capture alpha from “best ideas” while avoiding less desirable sectors and issuers
- Focus on the 5-7 maturity range to decrease volatility
- Ability to focus positions across curves based on identified (relative) value
- Well defined risk parameters help to manage downside risk

**Features:**

- Can be long or short via derivatives for hard and local currency bonds
- Can be long or short currencies via FX forwards
- Expect reduced volatility and improved Sharpe ratio vs. pure hard currency and local currency strategies
- No leverage (borrowing)
- No shorting of bonds

**Sources of Return:**

Country Selection	Security Selection	FX <sup>2</sup>
50%	25%	25%

Please see the Reference section for additional important disclosures. For illustrative purposes only. The value of investments can go down as well as up. <sup>1</sup>Gross target excess returns do not reflect the deduction of investment advisory fees and other expenses, which will reduce returns and may be substantial. Net target excess returns reflect the deduction of a model fee equal to the highest fee borne by a portfolio utilizing the strategy. Targets are shown for illustrative purposes only, are subject to change and are current as of the date of this presentation only. Targets are objectives and should not be construed as providing any assurance or guarantee as to the results that may be realized in the future from investments in any asset or asset class described herein. If any of the assumptions used do not prove to be true, results may vary substantially. <sup>2</sup>Also includes FX volatility and quantitative strategies. Source of benchmark: ICE Data Indices, LLC, used with permission.







## Diversified Sources of Alpha

### Sources of Alpha

For the Representative Emerging Markets Debt Total Return Portfolio vs. Benchmark<sup>1</sup>

As of March 31, 2023

Contribution (bps)	YTD 2023	2022	2021	2020	2019 <sup>3</sup>
<b>Spreads</b>	<b>-94</b>	<b>207</b>	<b>319</b>	<b>-643</b>	<b>281</b>
Sovereigns	-14	531	203	-724	
Quasi-Sovereigns	15	-127	76	-48	
Corporates	-95	-197	40	129	
<b>Duration</b>	<b>75</b>	<b>-175</b>	<b>-54</b>	<b>526</b>	<b>325</b>
Local	29	-47	-12	247	107
Developed Markets	46	-128	-42	279	218
<b>Currency Selection</b>	<b>-60</b>	<b>47</b>	<b>214</b>	<b>134</b>	<b>94</b>
<b>Other<sup>4</sup></b>	<b>-62</b>	<b>13</b>	<b>-74</b>	<b>0</b>	<b>0</b>
<b>Total Gross Alpha<sup>2</sup></b>	<b>-139</b>	<b>92</b>	<b>406</b>	<b>17</b>	<b>700</b>
<b>Total Net Alpha</b>	<b>-154</b>	<b>31</b>	<b>343</b>	<b>-43</b>	<b>651</b>
<b>Benchmark Return (%)</b>	<b>1.07</b>	<b>1.43</b>	<b>0.17</b>	<b>1.08</b>	<b>1.87</b>

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## Why Invest in an Emerging Markets Debt “Go-Anywhere” Strategy?

- Flexible investment strategy unconstrained by benchmark
- Captures best ideas from a broad range of emerging markets hard currency sovereigns, quasi-sovereigns and corporates as well as local bonds and currencies
- Flexibility to express views across emerging markets based on top down and bottom up themes
- Approach allows freedom to capture alpha from best ideas while avoiding less desirable sectors/issuers

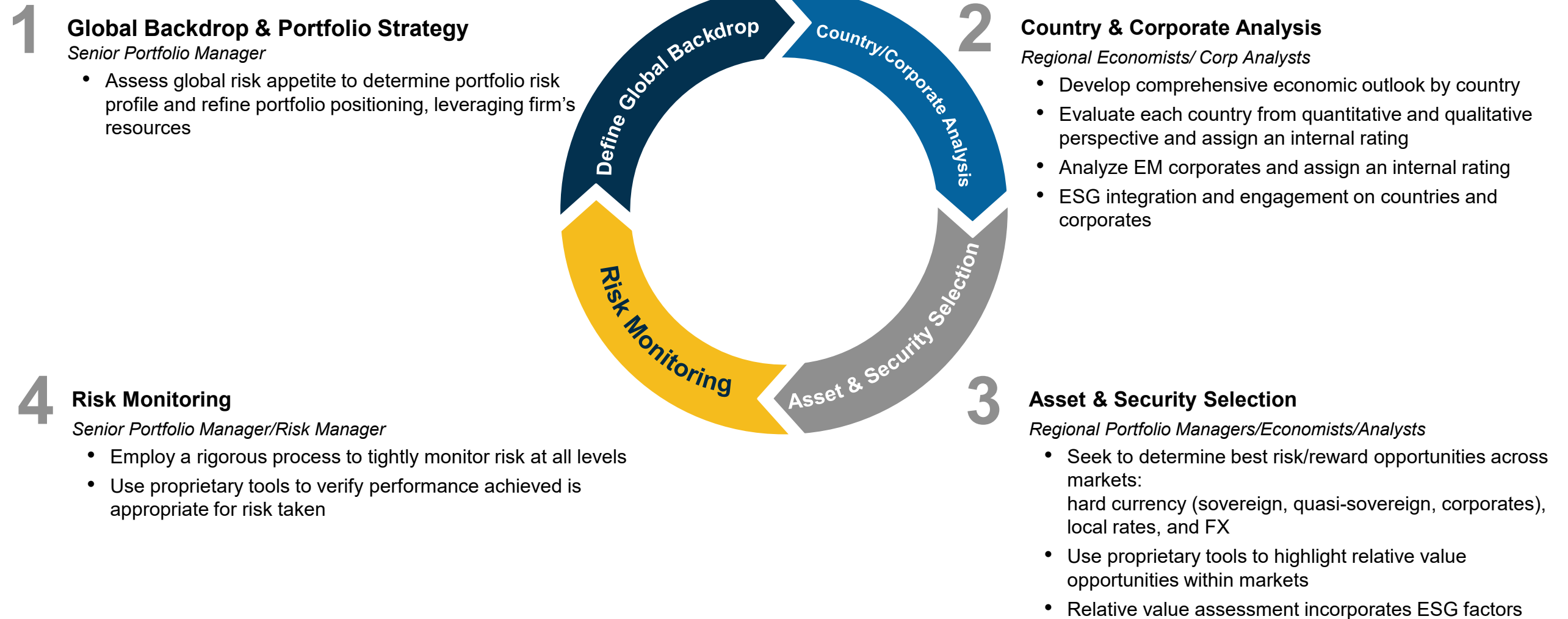
### Potential Benefits and Drawbacks vs. Other EMD Strategies

Benefits	Drawbacks
<ul style="list-style-type: none"><li>• Allows for exposure to market for alpha opportunities while limiting emerging market beta</li></ul>	<ul style="list-style-type: none"><li>• May have downside risk—can have negative returns</li></ul>
<ul style="list-style-type: none"><li>• Ability to tactically avoid undesirable/ less desirable sectors/issuers</li></ul>	<ul style="list-style-type: none"><li>• In strong, risk on markets, may not capture as much upside</li></ul>
<ul style="list-style-type: none"><li>• Expect reduced volatility and improved Sharpe ratio vs. pure hard currency and local strategies</li></ul>	<ul style="list-style-type: none"><li>• In risk off markets, all the EM sectors can have higher correlations</li></ul>

# Emerging Markets Total Return Investment Process



## A Disciplined Approach







# Determining Portfolio Risk Profile And Positioning

## Define Current Global Backdrop

- Economic Indicators**
  - Global Macro Outlook/Commodity Price Trends/Global Liquidity Outlook
- Valuations In Other Markets**
  - Emerging Market Equities/High Yield and BBB Spreads/Currencies
- Technical Factors**
  - Cash Levels, Positioning, Flows/Seasonal Trends/Local Market Color

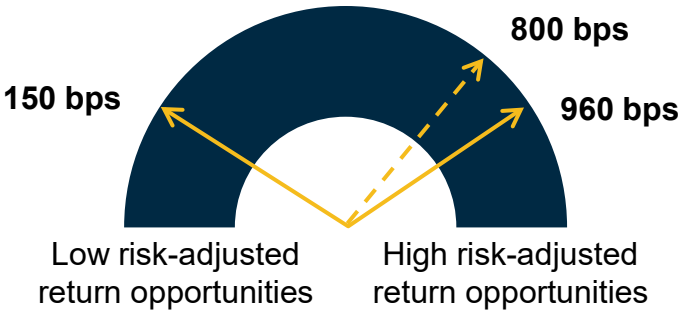


## Evaluate Risk Positions Weekly in Context of Global View and Refine Tracking Error

Strategy	Rate Risk	Currency Risk	Spread Risk	Total Risk
EMD Total Return	251 bps	236 bps	350 bps	456 bps

- Detailed summary of changes to portfolio
- Client-specific risk allocation

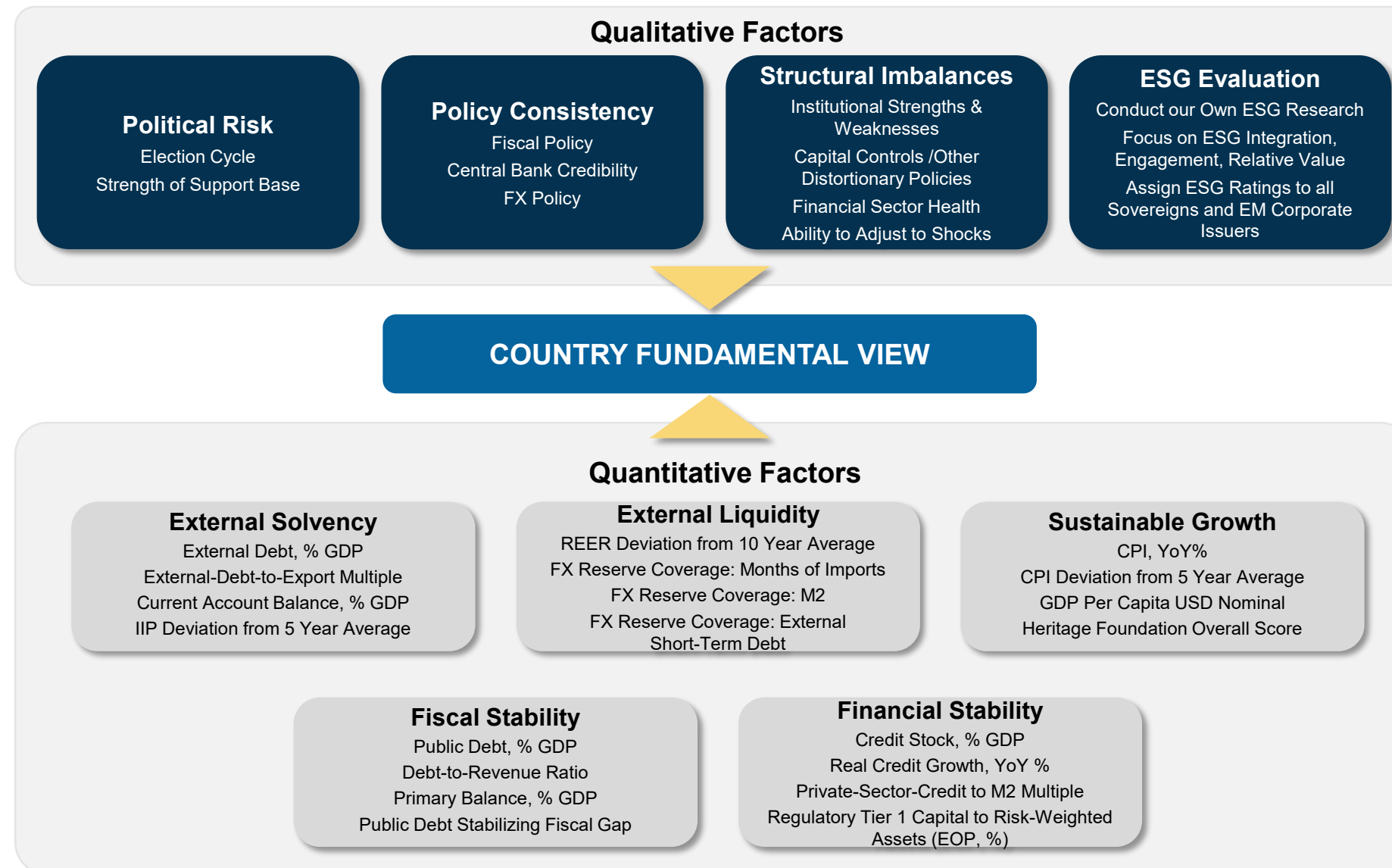
### Typical Tracking Error Range



As of March 31, 2023. For illustrative purposes only. There can be no guarantee that this target will be met.



## Develop Comprehensive Fundamental View of Each Country





## Internal Country Rating Assigned

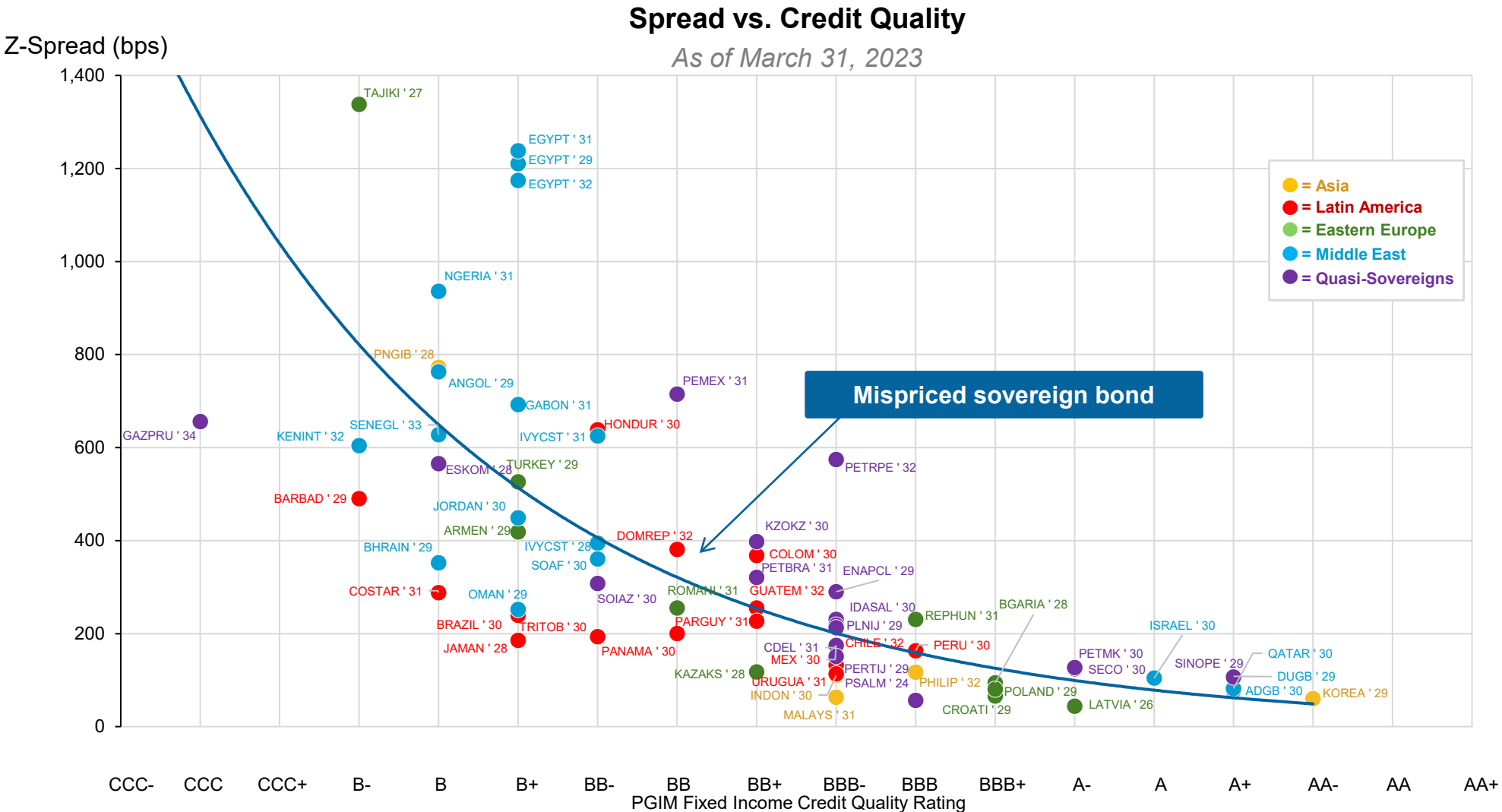
	Internal Rating	Average Agency Rating	Difference in Notches Between Internal and Average Agency Rating	ESG Rating	
Czech Republic	AA	AA-	1	65	= Example of Internal Rating <u>Higher</u> than Average
South Korea	AA-	AA	-1	70	
Israel	A	A+	-1	60	= Example of Internal Rating <u>Lower</u> than Average
Poland	BBB+	A-	-1	55	
Hungary	BBB	BBB	0	50	
Chile	BBB-	A	-4	55	
Malaysia	BBB-	A-	-3	45	
Mexico	BBB-	BBB	-1	35	
China	BBB-	A+	-5	25	
Peru	BBB	BBB	0	40	
Romania	BB	BBB-	-2	50	
Thailand	BBB	BBB+	-1	35	
Philippines	BBB	BBB	-3	30	
Russia	D	C	0	0	
Colombia	BB+	BBB-	-1	45	
Indonesia	BBB-	BBB	-1	30	
India	BB	BBB-	-2	25	
Brazil	B+	BB-	-1	45	
South Africa	BB-	BB-	0	35	
Turkey	B+	B	1	35	
Argentina	B-	CCC-	3	45	
Venezuela	SD	C	0	15	

Internal rating used to determine value and capture conviction of country view

As of June 2022 for Internal and ESG PGIM Fixed Income Ratings and October 2022 for Bloomberg Average Agency Ratings. Please see the Reference section for important disclosures, including risks and ESG. For illustrative purposes. Provided for discussion purposes solely as an illustration of our country evaluation process. Does not constitute a recommendation regarding the merits of investing in securities of any of the issuers referenced therein or a complete listing of issuers analysed. Does not constitute a recommendation regarding the merits of any investments. Does not constitute investment advice and should not be used as the basis of any investment decision. Does not constitute a representation that PGIM Fixed Income would purchase any securities of the countries referenced or that an investment in any securities of such countries would be profitable. There can be no assurance that the matrix will be effective in evaluating countries or that opportunities identified within the matrix can be effectively implemented.



# Select Sovereigns that Reflect Country Views and Offer Best Relative Value







## Assess Corporates vs. Sovereign Securities

### Emerging Markets Fundamental Bottom-up Corporate Analysis



### Corporate Credits Can Offer Attractive Yields Compared to Similar Maturity Sovereigns

Country	Sample Corporate Issuer	Corporate Rating	Corp. YTW (%)	Sovereign Rating	Sov. YTW (%)
Costa Rica	Costa Rica Transportation	NR / NR	10.36	NR / NR	6.56
Mexico	Mexico Cement	BB+ / NR	6.51	BBB / Baa2	4.71
South Africa	South Africa Financing	BB+ / Ba2	8.15	BB / Ba2	10.51
India	India Airport	BB- / NR	7.64	BBB- / Baa3	4.98

Source: Bloomberg as of March 31, 2023. Sample Issuers are shown for illustrative purposes only. Does not constitute a recommendation regarding the merits of investing in securities of any of the issuers referenced therein or a complete listing of issuers analyzed. The samples provided above may not be representative of PGIM Fixed Income's current views regarding the countries discussed, shall not constitute investment advice, and should not be used as the basis of any investment decision. Does not constitute a representation that PGIM Fixed Income would purchase any securities of the countries referenced or that an investment in any securities of such countries would be profitable.



## Local Rates Positioning Driven by Inflation, Central Bank Policy, and Market Technicals

### Emerging Market Rates Relative Value

As of March 31, 2023

		PGIM Economist Forecasts												
		Inflation			Central Bank Policy				Market Rates					
		CB INFL Target	INFL Current	INFL T+1 Y	CB Credibility (Ahead/ Behind?)	Policy Rate	Next Move	Est. Policy T+1 Y	3M FWD Implied FX	2 YR Rate	5 YR Rate	10 YR Rate	Longest Rate	Longest Maturity
	Sample LATAM Relative Value													
Hiking cycle over, rate cuts delayed.	Brazil	4%+/-1.5%	5.60	5.70	Neutral	13.75	unchg.	12.75	7.01	12.01	12.50	12.72	12.72	2033
Rate cycle in sync with the FED, front end pricing aggressive cuts	Mexico	3% +/-1%	6.85	4.80	Neutral	11.25	25 bps	11.00	7.56	10.43	N/A	8.91	9.02	2053
	Sample Asia Relative Value													
Easy liquidity conditions to continue till hard data improve	China	3%	1.00	1.00	Ahead	2.75	75 bps	3.50	-2.87	2.37	2.67	2.85	3.28	2066
Cycle is about to end in light of inflation coming down	Indonesia	3.5-5.5%	4.97	3.00	Neutral	5.75	unchg.	5.00	1.14	6.23	6.35	6.66	7.01	2051
Central Bank is closer to the end of the cycle	Thailand	1.5-4.5%	2.83	0.90	Neutral	1.75	unchg.	1.75	-1.09	1.87	2.09	2.46	3.05	2052
	Sample EMEA Relative Value													
Central Bank is on an extended hold	Czech Republic	2%	16.70	4.00	Neutral	7.00	unchg.	6.50	1.84	5.31	N/A	4.48	4.76	2057
Long Hold	Poland	1.5-3.5%	16.20	6.00	Neutral	6.75	unchg.	6.75	2.21	6.03	6.01	6.05	5.54	2047
South African Reserve Bank turned hawkish and accelerated its hiking cycle.	South Africa	3-6%	7.00	4.54	Neutral	7.75	Unchg	7.00	3.35	7.89	8.11	11.15	11.69	2048

Source: PGIM Fixed Income. Provided for discussion purposes solely as an illustration of our security selection process and the output in our proprietary matrix. Does not constitute a recommendation regarding the merits of investing in securities of any of the issuers referenced therein or a complete listing of issuers analyzed. The samples provided above may not be representative of PGIM Fixed Income's current views regarding the countries discussed, shall not constitute investment advice, and should not be used as the basis of any investment decision. Does not constitute a representation that PGIM Fixed Income would purchase any securities of the countries referenced or that an investment in any securities of such countries would be profitable. An investment cannot be made in a matrix. There can be no assurance that the matrix will be effective in evaluating securities or that opportunities identified by the matrix can be effectively implemented.





# Actively Managed FX Process Involving Portfolio Managers and Economists

Factors Impacting FX Views Differ by Time Horizon

Short Term (Portfolio Managers)	Medium Term (Portfolio Managers & Economists)	Long Term (Economists)
<b>Focus on speculative flows</b> <ul style="list-style-type: none"> <li>• Proprietary quantitative tools</li> <li>• Investor positioning</li> <li>• Investor sentiment</li> <li>• Global risk appetite</li> <li>• FX options market positioning</li> </ul>	<b>Focus on capital flows</b> <ul style="list-style-type: none"> <li>• Proprietary quantitative tools</li> <li>• Monetary policy</li> <li>• Fiscal policy</li> <li>• Political economy</li> <li>• Interest rate differentials</li> <li>• Balance of payment trends</li> </ul>	<b>Focus on FDI/Capital Account</b> <ul style="list-style-type: none"> <li>• Proprietary quantitative tools</li> <li>• Purchasing power parity</li> <li>• Net foreign assets</li> <li>• Productivity trends</li> <li>• Savings/Investment balance</li> <li>• Terms of trade</li> </ul>
<b>Positioning Driven Primarily by Liquidity</b>	<b>Positioning Driven Primarily by Level of Conviction</b>	

Sample Nominal Exchange Rate Views and Positioning by Country

As of March 31, 2023

	Short-Term Views	Medium and Long-Term Views	Position
Brazil	Negative	Neutral	Underweight
Mexico	Negative	Neutral	Underweight
Singapore	Negative	Positive	Underweight

Source: PGIM Fixed Income. For illustrative purposes only.

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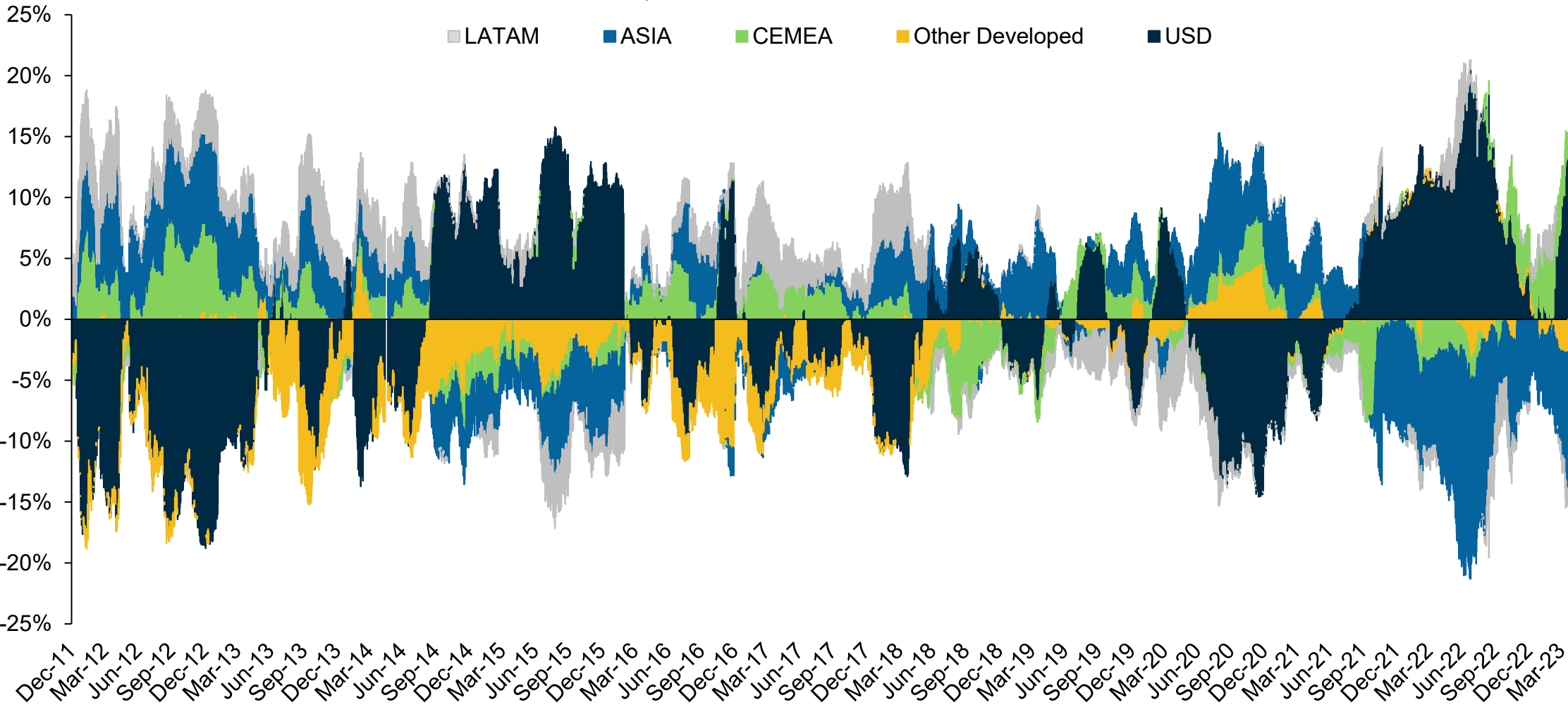
PGIM FIXED INCOME



# Fundamentals & Technicals Drive FX Positions

## FX Liquidity Allows Active Positioning Within Portfolio

*Representative Portfolio as of March 31, 2023*



*Please see the Reference section for important disclosures. Source: PGIM Fixed Income. Supplemental information. The chart compares characteristics of the representative portfolio within the Emerging Markets Debt Composite relative its benchmark. Representative portfolio foreign exchange exposure is subject to change and may not represent current or future portfolio composition. Actual results may vary for each client due to specific client guidelines and other factors. Shown for illustrative purposes only. Does not constitute a recommendation regarding the merits of any investments. Does not constitute investment advice and should not be used as the basis of any investment decision. Does not constitute a representation that PGIM Fixed Income has purchased or would purchase any of the investments referenced or that any such investments would be profitable.*







## Risk Framework Designed to Focus Risk in Areas of Potential Reward and Manage Downside Risks

- Helps establish a diversified set of strategies
- Seeks to limit “tail” risk from idiosyncratic positions
- Thresholds designed to prompt discussion between risk and portfolio managers—they are not intended to be absolute limits
- Updates to risk components are typically infrequent—however, they are subject to change to adapt to long-term market and investment trends

Emerging Market Total Return Risk Budget			
Tracking Error Threshold: 800 bps <sup>1</sup>			
Curve/Currency/Spread 720 bps		Country/Industry/Issuer 350 bps	
Systematic Risk Tracking Error Thresholds <sup>2</sup>		“Tail” Risk Thresholds <sup>3</sup>	
Rate Risk	250 bps	Country Stress Exposure:	350 bps
Currency Risk	350 bps	Industry Stress Exposure:	260 bps
Spread Risk	600 bps	Corporate Issuer Exposure: <sup>4</sup>	
Systematic “Tail” Risk Threshold <sup>2</sup>		BBB (%MV)	6.0%
Liquidity Stress Exposure	360 bps	BB (%MV)	5.0%
		B (%MV)	4.0%

Please see the Reference section for important disclosures regarding the information contained herein. For illustrative purposes only. Note that the risk thresholds shown here are intended as a basis for discussion between the risk management and portfolio management teams. They are not intended to be absolute limits in a portfolio. All risk thresholds are subject to change. There can be no guarantee that this objective will be achieved.

1. Total tracking error is less than the sum of the systematic and non-systematic tracking error because these two major sources of tracking error tend to diversify with each other, thus lowering total tracking error:  $\sqrt{720^2 + 350^2} = 800$

2. Under most market conditions, returns associated with these market risk factors tend to undergo small and independent day-to-day fluctuations, implying that mean and variance measures explain most of the distribution of returns therefore we manage these risks via tracking error measures.

3. These risk factors generally carry substantial skew or tail risk. Because returns from these items are not adequately described by mean and variance, we supplement tracking error measures with country and industry stress tests and issuer risk thresholds to monitor and manage the tail risk.

4. Issuer exposure is based on market implied ratings.

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## Representative Portfolio Positioning

As of March 31, 2023

Characteristics	Portfolio	Benchmark
Effective Duration (yrs)	1.13	0.24
Effective Yield (%)	9.87	4.59
Option Adjusted Spread (bps)	302	(23)
Average Quality	Ba1	Aaa

Quality Breakdown <sup>1</sup>	Portfolio (% MV)	Active (% MV)
AAA	12.33	-87.67
AA	1.78	0.00
A	4.47	0.00
BBB	28.87	0.00
BB	28.93	0.00
B	14.50	0.00
Below B and NR	9.12	0.00

Sector Breakdown	Portfolio (% MV)	Active (% MV)	Portfolio DC (yrs)	Active DC (yrs)	Portfolio SDC (yrs)	Active SDC (yrs)
<b>FX</b>	<b>-1.4</b>	<b>-1.4</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Hard Currency</b>	<b>99.3</b>	<b>-0.7</b>	<b>0.43</b>	<b>0.19</b>	<b>1.67</b>	<b>1.67</b>
Sovereign	50.4	50.4	2.36	2.36	1.15	1.15
Quasi-Sovereign	13.0	13.0	0.62	0.62	0.60	0.60
Corporates	29.2	29.2	1.25	1.25	1.35	1.35
Swaps	2.0	2.0	0.02	0.02	-1.44	-1.44
Futures	-	0.0	-3.82	-3.82	0.00	0.00
Cash	4.6	-95.4	0.00	-0.24	-	-
<b>Local Currency</b>	<b>2.1</b>	<b>2.1</b>	<b>0.70</b>	<b>0.70</b>	<b>-</b>	<b>-</b>
Sovereign	2.1	2.1	0.10	0.10	-	-
Swaps	-0.2	-0.2	0.60	0.60	-	-
Currency Options	0.5	0.5	0.00	0.00	-	-
Cash	-0.3	-0.3	-	0.00	-	-

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## Representative Portfolio Positioning

### Top Country and Issuer Exposure (Hard Currency)

As of March 31, 2023

Top 10 Country Overweights				
Country	Portfolio (% MV)	Active (% MV)	Portfolio DC (yrs)	Active DC (yrs)
Mexico	7.0	7.0	0.32	0.32
Saudi Arabia	4.1	4.1	0.28	0.28
Indonesia	6.5	6.5	0.26	0.26
United Arab Emirates	4.1	4.1	0.25	0.25
Colombia	2.7	2.7	0.18	0.18
The Republic of Serbia	3.9	3.9	0.18	0.18
Qatar	1.3	1.3	0.17	0.17
Romania	3.2	3.2	0.17	0.17
India	3.6	3.6	0.15	0.15
Philippines	3.0	3.0	0.14	0.14

Top 10 Issuer Overweights				
Issuer	Portfolio (% MV)	Active (% MV)	Portfolio DC (yrs)	Active DC (yrs)
SERBIA (REPUBLIC OF)	3.9	3.9	0.19	0.19
ROMANIA (REPUBLIC OF)	3.2	3.2	0.17	0.17
INDONESIA (REPUBLIC OF)	4.0	4.0	0.12	0.12
SAUDI ARABIA (KINGDOM OF)	1.5	1.5	0.12	0.12
COLOMBIA (REPUBLIC OF)	1.5	1.5	0.11	0.11
DOMINICAN REPUBLIC	2.7	2.7	0.11	0.11
QATAR ENERGY	0.8	0.8	0.10	0.10
DP WORLD LTD (UAE)	1.1	1.1	0.10	0.10
MEXICO CITY AIRPORT TRUST	2.1	2.1	0.10	0.10
MOROCCO (KINGDOM OF)	1.4	1.4	0.09	0.09

Bottom 5 Issuer Overweights				
Issuer	Portfolio (%MV)	Active (%MV)	Portfolio DC (yrs)	Active DC (yrs)
CDX.EM.39.V1	1.0	1.0	(0.73)	(0.73)
TURKEY (REPUBLIC OF)	0.8	0.8	(0.17)	(0.17)
JPMORGAN CHASE BANK NA	0.0	0.0	(0.14)	(0.14)
PERU (REPUBLIC OF)	0.0	0.0	(0.13)	(0.13)

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## Representative Portfolio Positioning

### Sovereign, Quasi-Sovereign, and Corporate Allocations (Hard Currency)

As of March 31, 2023

Top 10 Active Country Allocations in Spread Duration Contribution (yrs)				
Country	Sovereign	Quasi-Sov	Corporate	Total
Saudi Arabia	0.12	0.04	0.12	0.29
United Arab Emirates	0.04	0.10	0.13	0.28
Colombia	0.11	0.04	0.03	0.19
Serbia, Republic of	0.19	0.00	0.00	0.19
Indonesia	0.20	0.06	0.00	0.18
Qatar	0.07	0.10	0.00	0.18
Romania	0.17	0.00	0.00	0.17
India	0.00	0.05	0.10	0.14
Israel	0.00	0.00	0.13	0.13
Mexico	0.13	0.10	0.09	0.13

Top 10 Corporate and Non EMBI Quasi-Sovereign Overweights (%)			
Issuer	Portfolio	Benchmark	Active
MEXICO CITY AIRPORT TRUST	2.1	0.0	2.1
DP WORLD CRESCENT LTD	1.1	0.0	1.1
TMS ISSUER SARL	1.0	0.0	1.0
TRANSNET SOC LTD	1.0	0.0	1.0
FREEPORT INDONESIA PT	1.0	0.0	1.0
BANK LEUMI LE ISRAEL BM	1.0	0.0	1.0
COUNTRY GARDEN HOLDINGS CO	1.0	0.0	1.0
CORPORACION FINANCIERA DE DESARROLLO	1.0	0.0	1.0
SAKA ENERGI INDONESIA PT	1.0	0.0	1.0
GOHL CAPITAL LTD	0.9	0.0	0.9

Top 5 Active Corporate Exposure by Country in Spread Duration Contribution (yrs)	
Country	Active
United Arab Emirates	0.13
Israel	0.13
Saudi Arabia	0.12
Thailand	0.11
China	0.10

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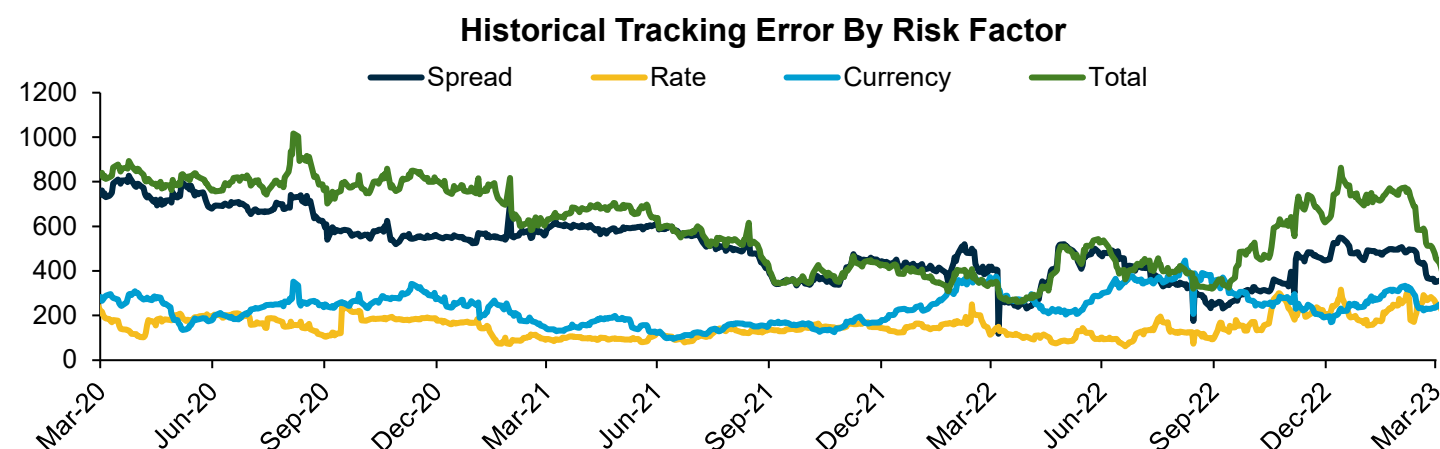






## Representative Portfolio Positioning

Changes from December 31, 2022 to March 31, 2023



Hard Currency—Active Market Value			
Increases (%)		Decreases (%)	
Romania	2.39	Malaysia	-2.80
Morocco	1.18	Egypt	-1.44
South Africa	1.17	Iraq	-0.93
Republic of Serbia	0.95	Hong Kong	-0.62
Saudi Arabia	0.91	Ghana	-0.58

Hard Currency—Active Spread Duration			
Increases (%)		Decreases (%)	
Romania	0.13	South Africa	-0.14
Colombia	0.10	Turkey	-0.11
Morocco	0.07	Indonesia	-0.09
Poland	0.06	Israel	-0.08
Republic of Serbia	0.05	Mexico	-0.08

FX—Active Market Value			
Increases (%)		Decreases (%)	
TWD	12.83	CNY	-13.10
USD	11.89	ZAR	-8.44
ILS	8.09	KRW	-6.58
PHP	7.12	AUD	-4.30
MXN	5.25	EUR	-4.13

Local Currency—Active Duration Contribution			
Increases (%)		Decreases (%)	
KRW	1.02	MYR	-0.50
CLP	0.48	COP	-0.37
PLN	0.27	ZAR	-0.29
CZK	0.07	MXN	-0.28
INR	0.05	CNY	-0.13

Tracking Error			
	03 / 31	12 / 31	Difference
Rate	251	204	48
Spread	350	447	-97
Currency	236	193	43

Characteristic Changes		
	Portfolio	Change
Effective Duration (years)	1.13	0.09
Effective Yield (%)	9.87	-1.27
Average Maturity	5.98	-0.59
Average Quality	Ba1	Ba1

Characteristic Changes—Currency		
	Active (%)	Change (%)
Net EM FX	-24.17	-3.78
US Dollar	32.34	11.89
G10 Ex Dollar <sup>1</sup>	-8.17	-8.11

Quality Changes <sup>2</sup>		
	Portfolio (%)	Change (%)
AAA	12.33	-0.64
AA	1.78	-0.17
A	4.47	0.22
BBB	28.87	2.03
BB	28.93	1.74
B	14.50	-2.75
Below B and NR	9.12	-0.43

Sector Changes		
	Portfolio (%)	Change (%)
Sovereign	52.51	2.13
Quasi-Sovereign	13.04	-2.21
Corporates	29.16	-3.13
Options	0.00	-0.03

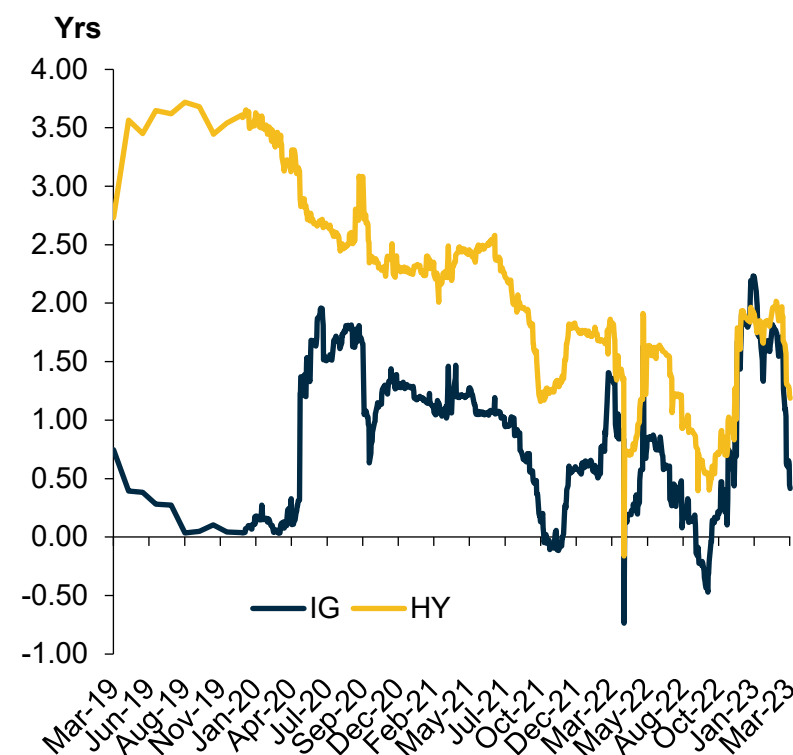
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## Representative Portfolio Positioning

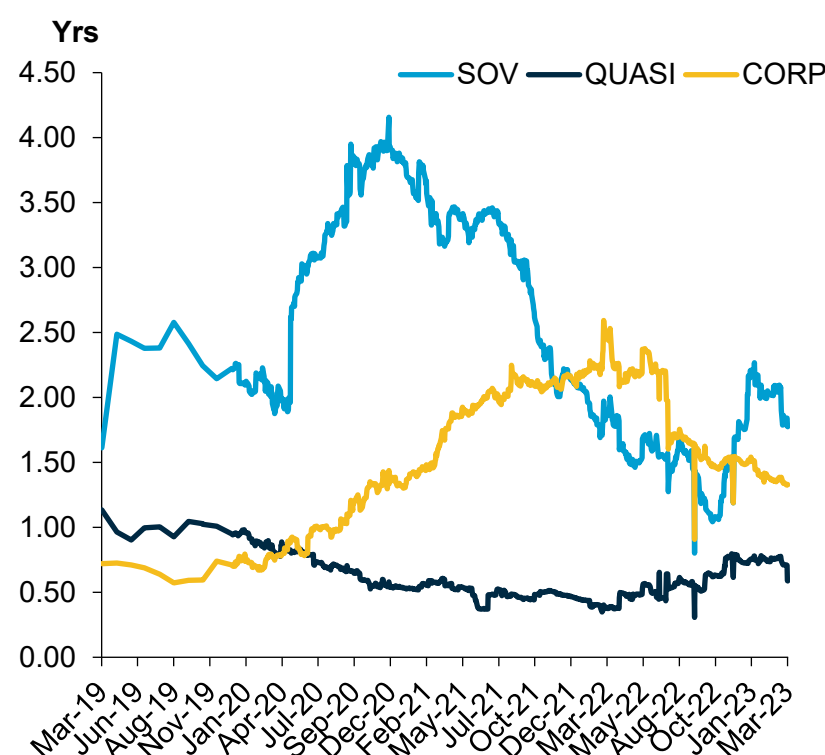
**Active SPDC by Investment Grade & High Yield**

As of March 31, 2023



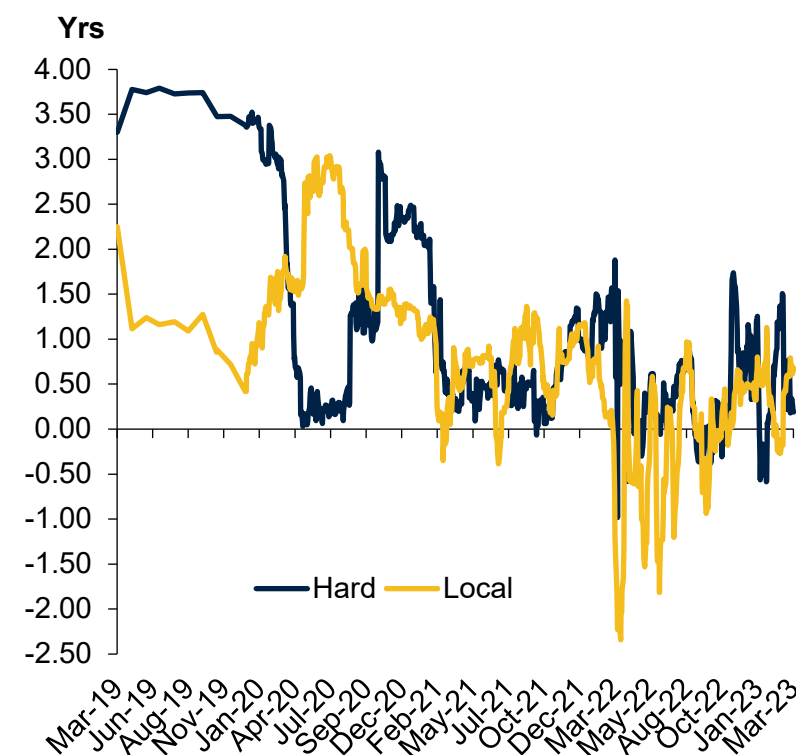
**Active SPDC by Sov/Quasi/Corp**

As of March 31, 2023



**Hard & Local Currency Active Duration Contribution**

As of March 31, 2023



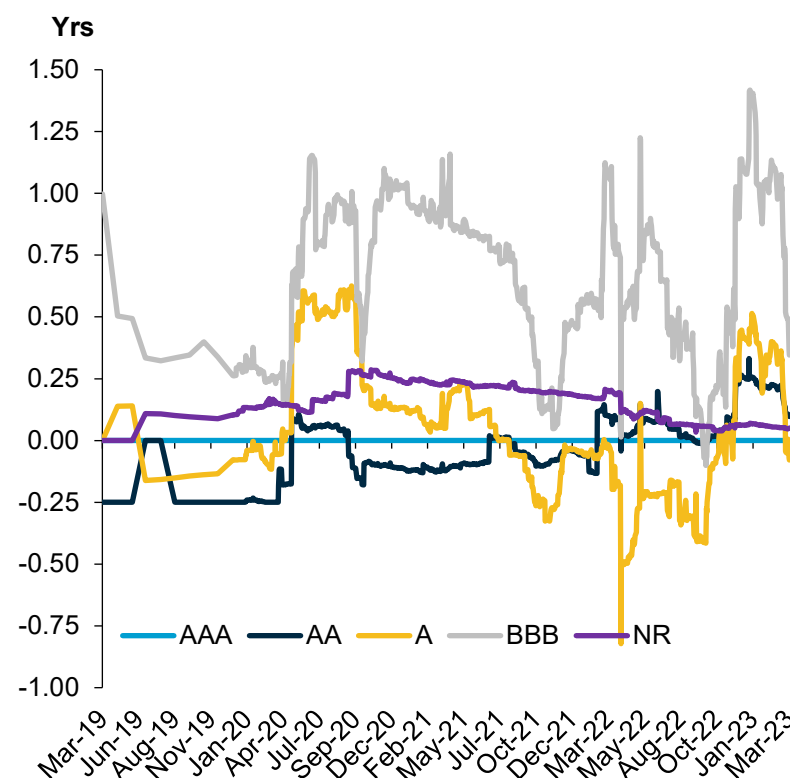
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## Representative Portfolio Positioning

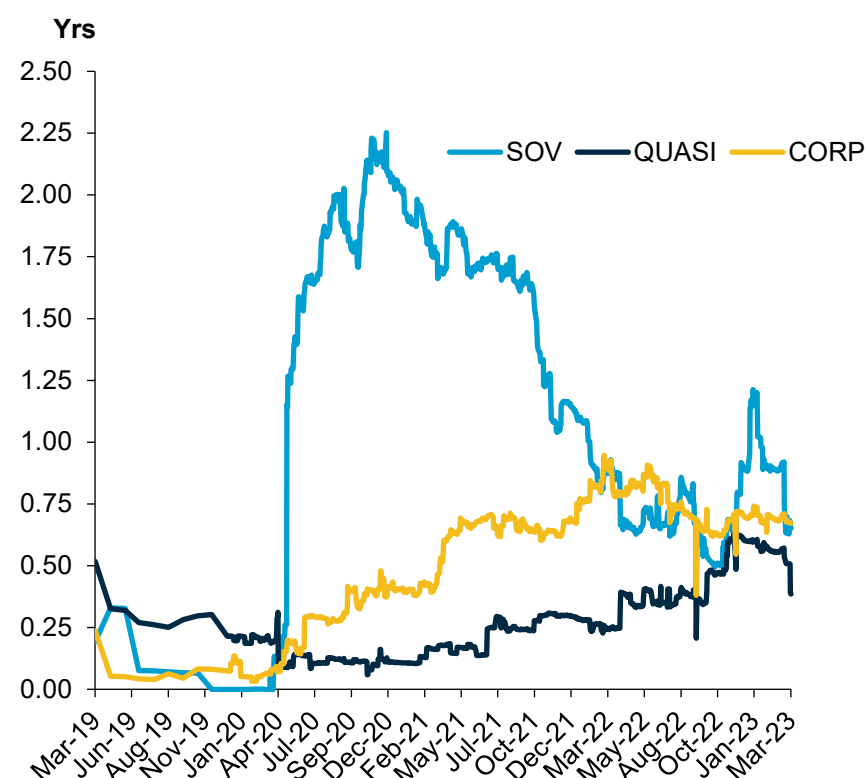
**Investment Grade Active SPDC**

As of March 31, 2023



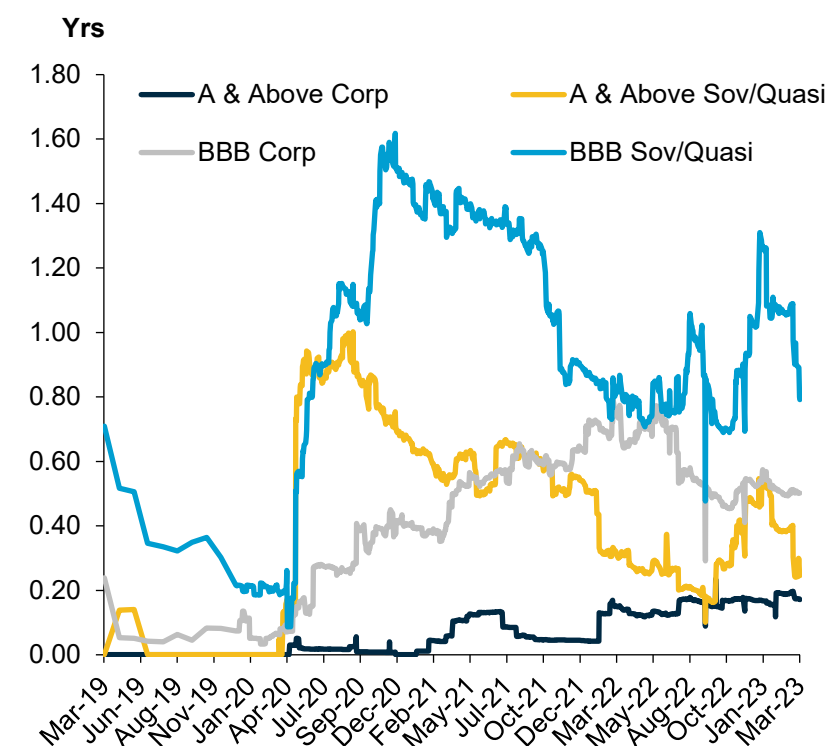
**Active SPDC by IG Sov/Quasi/Corp**

As of March 31, 2023



**Active SPDC by Investment Grade Rating Buckets**

As of March 31, 2023



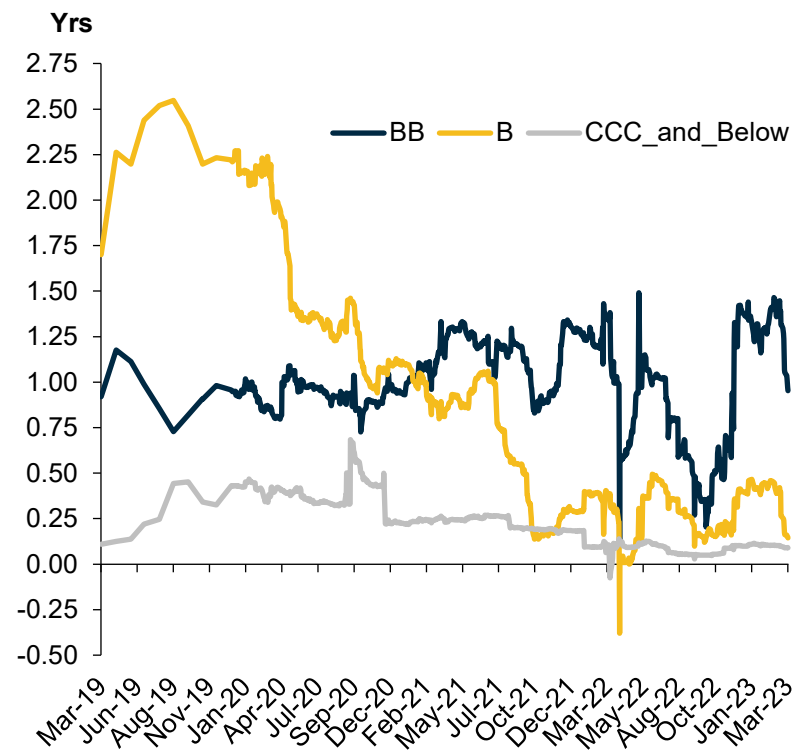
Please see the Reference section for important disclosures, including benchmark descriptions. Source: PGIM Fixed Income. The above table and graph compare characteristics of the representative portfolio within the Emerging Markets Total Return strategy relative to its benchmark. Benchmark: ICE BofAML US 3-Month Treasury Bill Index. Source of Benchmark: ICE Data Indices, LLC. The data shown is subject to change and may not be indicative of future portfolio characteristics. Actual results may vary for each client due to specific client guidelines and other factors and should not be construed as investment advice. There is no assurance that investments in the issuers referenced will be profitable. The representative characteristics are not, and should not be construed as, the past or projected performance of the Strategy or any investment, which will be impacted by a number of factors not reflected herein. Quality ratings are reported as the median of Moody's, S&P and Fitch and AAA Category includes cash and cash equivalents.



## Representative Portfolio Positioning

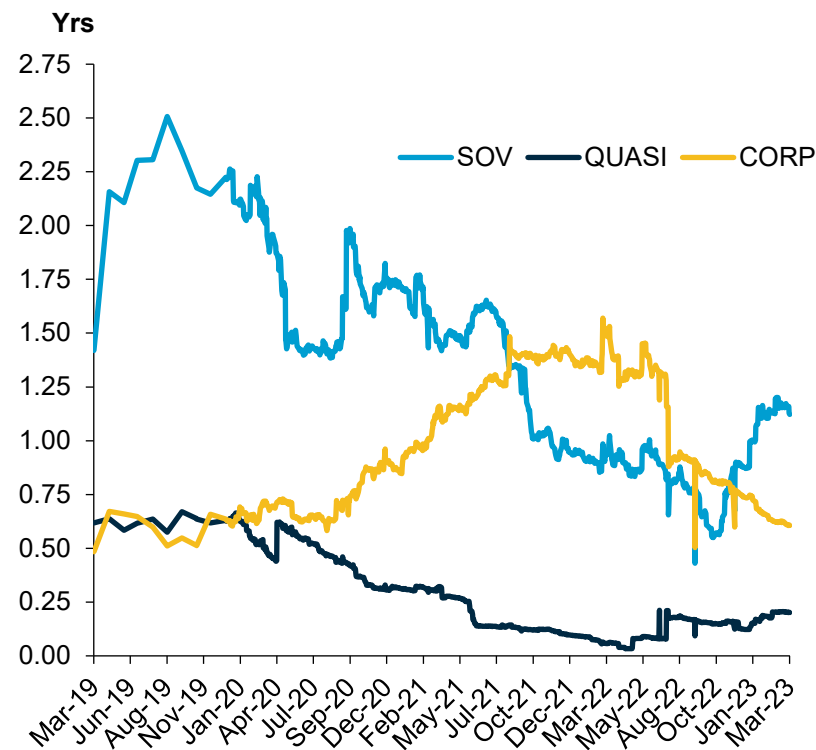
**High Yield Active SPDC**

As of March 31, 2023



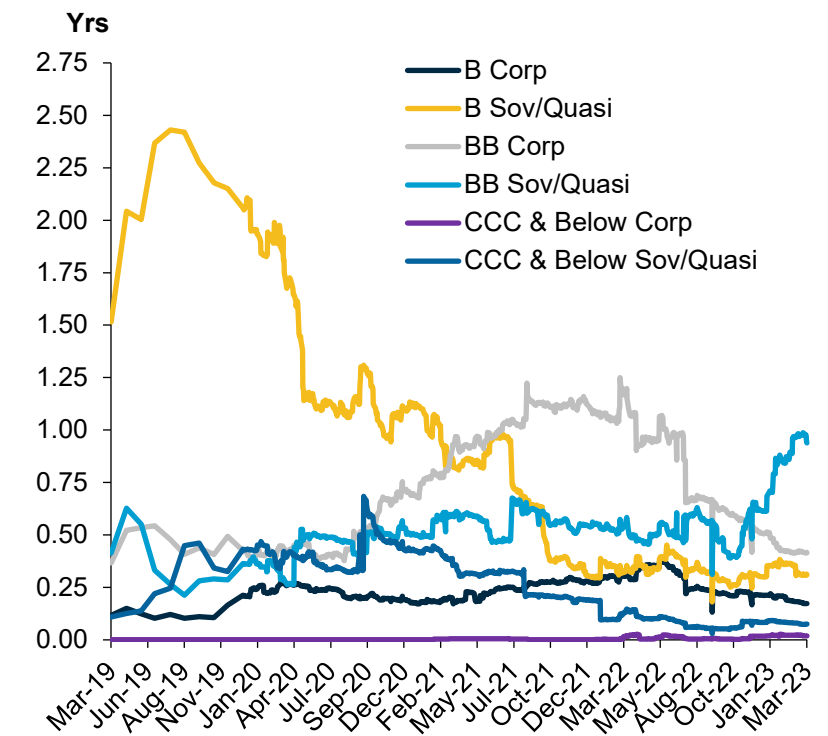
**Active SPDC by HY Sov/Quasi/Corp**

As of March 31, 2023



**Active SPDC by High Yield Rating Buckets**

As of March 31, 2023

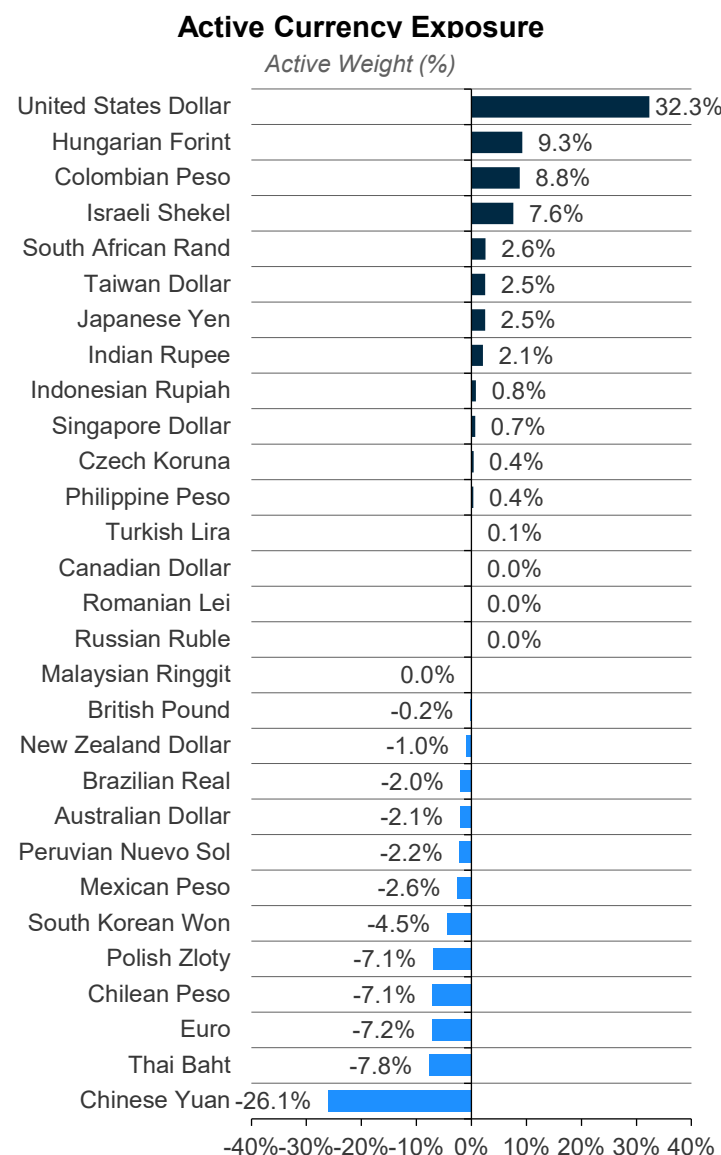


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## Representative Portfolio Positioning

**As of March 31, 2023**  
(Sorted by Active Weight)



### Top 10 Local Country Overweights—Duration Contribution

Country	Portfolio	Benchmark	Active
Korea (South), Republic of	0.91	0.00	0.91
Brazil	0.37	0.00	0.37
Mexico	0.15	0.00	0.15
Poland	0.12	0.00	0.12
Czech Republic	0.09	0.00	0.09

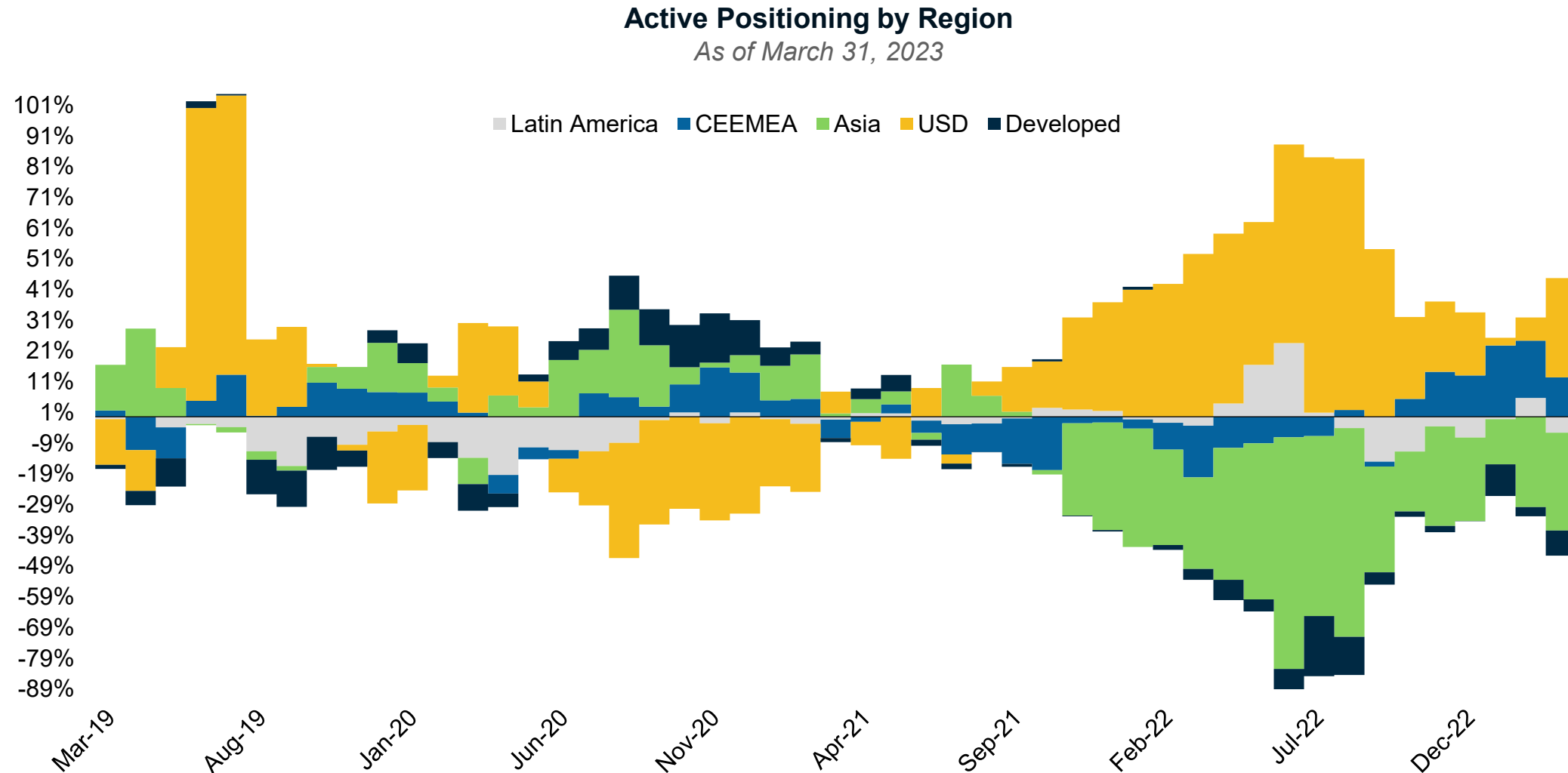
### Bottom 5 Local Country Underweights—Duration Contribution

Country	Portfolio	Benchmark	Active
Colombia	-0.39	0.00	-0.39
India	-0.28	0.00	-0.28
Malaysia	-0.12	0.00	-0.12
South Africa	-0.09	0.00	-0.09
Chile	-0.05	0.00	-0.05

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## Representative Active Currency Positioning

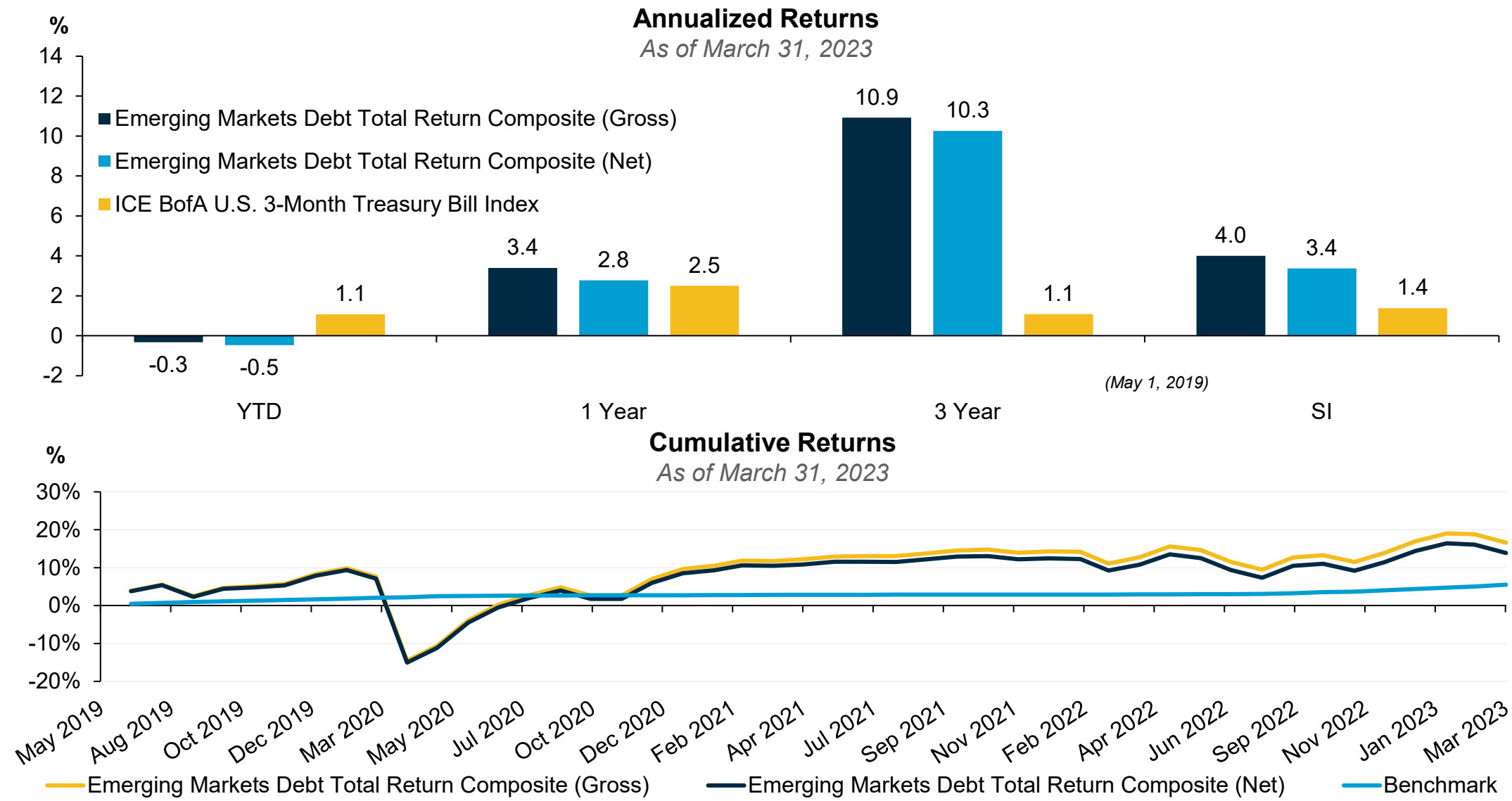


*Please see the Reference section for important disclosures, including benchmark descriptions. Source: PGIM Fixed Income. The above graph compares characteristics of the representative portfolio within the Emerging Markets Total Return strategy relative to its benchmark. Benchmark: ICE BofAML US 3-Month Treasury Bill Index. Source of Benchmark: ICE Data Indices, LLC. The data shown is subject to change and may not be indicative of future portfolio characteristics. Actual results may vary for each client due to specific client guidelines and other factors and should not be construed as investment advice. There is no assurance that investments in the issuers referenced will be profitable. The representative characteristics are not, and should not be construed as, the past or projected performance of the Strategy or any investment, which will be impacted by a number of factors not reflected herein. Quality ratings are reported as the median of Moody's, S&P and Fitch and AAA Category includes cash and cash equivalents.*





Investment Performance



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# Reference



**Cathy L. Hepworth, CFA**, is a Managing Director and Head of PGIM Fixed Income's Emerging Markets Debt Team. Ms. Hepworth co-founded the Firm's emerging markets debt management effort in 1995. Previously, Ms. Hepworth was an analyst in the credit unit group of the Firm's Capital Management Group, focusing on various sovereign, financial and corporate sectors. Prior to joining the Firm in 1989, she held analyst positions at Bankers Trust, Merrill Lynch, and Golembe Associates. Ms. Hepworth received a BSFS from Georgetown University, School of Foreign Service. She holds the Chartered Financial Analyst (CFA) designation.



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# Benchmark Descriptions



## **Bloomberg U.S. Aggregate Bond Index (Bloomberg U.S. Aggregate Index)**

(Core Fixed Income: Inception Date: January 1, 1991, Core Plus: Inception Date: January 1, 1996, Core Conservative: Inception Date: January 1, 1989)

The Bloomberg U.S. Aggregate Index covers the USD-denominated, investment-grade, fixed-rate or step up, taxable bond market of SEC-registered securities and includes bonds from the Treasury, Government-Related, Corporate, MBS (agency fixed-rate and hybrid ARM passthroughs), ABS, and CMBS sectors. Securities included in the index must have at least 1 year until final maturity and be rated investment-grade (Baa3/ BBB-/BBB-) or better using the middle rating of Moody's, S&P, and Fitch.

## **Nomura-BPI Overall (Nomura-BPI Overall Index)**

(Japan Core Bond: Inception Date: January 1, 2003)

The Nomura-BPI Overall index tracks total returns of all fixed income securities in the Japanese bond market that meet certain criteria. Nomura Fiduciary Research & Consulting Co., Ltd. Nomura Fiduciary Research & Consulting Co., Ltd. does not guarantee accuracy, completeness, reliability, usefulness, marketability, merchantability and fitness of the Index, and does not account for performance of the fund with the use of the Index. This disclaimer is applicable to Nomura-BPI Overall Index referenced herein.

## **Bloomberg Global Aggregate Bond Index USD Unhedged (Bloomberg Global Aggregate Index)**

(Global Core: Inception Date: September 1, 2008, Global Total Return: Inception Date: November 1, 2002)

The Bloomberg Global Aggregate Index provides a broad-based measure of the global investment-grade fixed income markets. The three major components of this index are the U.S. Aggregate, the Pan-European Aggregate, and the Asian-Pacific Aggregate Indices. The index also includes Eurodollar and Euro-Yen corporate bonds, Canadian government, agency and corporate securities, and USD investment-grade 144A securities. Securities included in the index must have at least 1 year until final maturity and be rated investment-grade (Baa3/ BBB-/BBB-) or better using the middle rating of Moody's, S&P, and Fitch.

## **FTSE World Government Bond Index**

(Former benchmark for Global Total Return: Inception Date: November 1, 2002)

FTSE World Government Bond Index is a market-capitalization-weighted benchmark that tracks the performance of the government bond markets. The composition of the index consists of sovereign debt denominated in the domestic currency. Securities must be rated BBB-/Baa3 by S&P or Moody's.

## **ICE BofA US 3-Month Treasury Bill Index**

(Absolute Return: Inception Date: May 1, 2011, Multi-Asset Credit: Inception Date: November 1, 2016, Global Dynamic Bond: Inception Date: January 1, 2016, Securitized Product (Unconstrained: Inception Date: January 1, 2016))

ICE BofA US 3-Month Treasury Bill Index is comprised of a single issue purchased at the beginning of the month and held for a full month. At the end of the month that issue is sold and rolled into a newly selected issue. The issue selected at each month-end rebalancing is the outstanding Treasury Bill that matures closest to, but not beyond, three months from the rebalancing date. To qualify for selection, an issue must have settled on or before the month-end rebalancing date.

## **ICE BofA 3-Month Deposit Offered Rate Constant Maturity Index**

(Former Benchmark for Absolute Return: Inception Date: May 1, 2011, Multi-Asset Credit: Inception Date: November 1, 2016, Global Dynamic Bond: Inception Date: January 1, 2016, Securitized Product (Unconstrained: Inception Date: January 1, 2016))

The ICE BofA 3-Month Deposit Offered Rate Constant Maturity Index tracks the performance of a synthetic asset paying Libor to a stated maturity. The index is based on the assumed purchase at par of a synthetic instrument having exactly its stated maturity and with a coupon equal to that day's fixing rate. That issue is assumed to be sold the following business day (priced at a yield equal to the current day fixing rate) and rolled into a new instrument.

## **ICE LIBOR 3-Month Average (ICE LIBOR 3-Month Average Index)**

(Former benchmark for Absolute Return: Inception Date: May 1, 2011, Multi-Asset Credit: Inception Date: November 1, 2016, Global Dynamic Bond: Inception Date: January 1, 2016)

The 3 Month LIBOR (London Interbank Offered Rate) is the stated rate of interest at which banks in the London wholesale money markets may borrow funds from one another for three months. The 90-day average of the daily rates set by the Intercontinental Exchange Benchmark Administration Ltd ("IBA") is used to derive the return for the month. ICE Data Indices, LLC, used with permission. ICE Data Indices, LLC is licensing the ICE Data Indices and related data "as is," makes no warranties regarding same, does not guarantee the suitability, quality, accuracy, timeliness, and/or completeness of the ICE Data Indices or any data included in, related to, or derived therefrom, assumes no liability in connection with their use, and does not sponsor, endorse, or recommend PGIM Fixed Income, or any of its products or services. Effective March 1, 2019, the Unconstrained Bond Composite was renamed the Strategic Bond Composite. The strategy benchmark also changed from the ICE LIBOR 3-Month Average to the Bloomberg Intermediate U.S. Aggregate Bond Index.

## **Bloomberg Intermediate U.S. Aggregate Bond Index (Bloomberg Intermediate U.S. Aggregate Bond Index)**

(Strategic Bond: Inception Date: September 1, 2015)

The Bloomberg Intermediate U.S. Aggregate Bond Index covers the USD-denominated, investment-grade, fixed-rate or step up, taxable bond market of SEC-registered securities with maturities of 1-10 years. The index includes bonds from the Treasury, Government-Related, Corporate, MBS (agency fixed-rate and hybrid ARM passthroughs), ABS and CMBS sectors. Securities must be rated investment-grade (Baa3/BBB-/BBB- or above) using the middle rating of Moody's, S&P, and Fitch and have at least 1 year until final maturity.

## **Bloomberg U.S. 1-3 Year Government/Credit Bond Index (Bloomberg U.S. 1-3 Year Government/Credit Index)**

(Short Duration Core Plus: Inception Date: February 1, 2014)

Bloomberg U.S. 1-3 Year Government/Credit Bond Index covers USD-denominated and nonconvertible, publicly issued U.S. Government or investment-grade securities that are fixed-rate or step ups. Bonds must have a maturity from 1 up to (but not including) 3 years and be rated investment-grade (Baa3/ BBB-/BBB-) or better using the middle rating of Moody's, S&P, and Fitch.



# Benchmark Descriptions (cont'd)



## **Bloomberg U.S. 1-5 Year Credit Bond Index (Bloomberg U.S. 1-5 Year Credit Index)**

*(Short Term Corporate: Inception Date: January 1, 1994)*

*Bloomberg U.S. 1-5 Year Credit Bond Index is a subset of the Bloomberg Credit Index with maturities of 1-5 years. The U.S. Credit Index is comprised of the U.S. Corporate Index and the non-native currency subcomponent of the U.S. Government-Related Index. The U.S. Credit Index includes publicly issued U.S. corporates, specified foreign debentures and secured notes denominated in USD. Securities must be rated investment-grade (Baa3/BBB-/BBB- or above) using the middle rating of Moody's, S&P, and Fitch, respectively.*

## **Bloomberg U.S. High Yield 1-5 Year Ba/B 1% Issuer Constrained Index (Bloomberg U.S. HY 1-5 Year Ba/B 1% Issuer Capped Index)**

*(U.S. Short Duration Higher Quality High Yield: Inception Date: December 1, 2012)*

*The Bloomberg U.S. 1-5 Yr High Yield Ba-B 1% Issuer Constrained Index is an issuer-constrained version of the U.S. Corporate High-Yield Index that covers the 1-5 year maturing USD-denominated, non-investment-grade, fixed-rate, taxable corporate bond market. The U.S. HY 1% Issuer Capped Index limits issuer exposures to a maximum 1% and redistributes the excess market value index-wide on a pro-rata basis. Securities must be rated Ba/B using the middle rating of Moody's, S&P, and Fitch, and have at least 1 year until final maturity.*

## **Bloomberg U.S. Long Duration Government/Credit Index (Bloomberg U.S. Long Govt/Credit Index)**

*(Long Duration Government/Credit: Inception Date: December 1, 2009)*

*The Bloomberg U.S. Long Government/Credit Index covers USD-denominated and non-convertible, publicly issued U.S. Government or investment-grade securities that are fixed rate or step ups. Securities must have a maturity of 10 years or greater and be rated investment-grade (Baa3/ BBB-/BBB-) or better using the middle rating of Moody's, S&P, and Fitch.*

## **Bloomberg U.S. Long Corporate Bond Index (Bloomberg U.S. Long Corporate Index)**

*(Long Duration Corporate: Inception Date: July 1, 2008)*

*The Bloomberg U.S. Long Corporate Bond Index covers USD-denominated and non-convertible, publicly issued securities that are fixed-rate or step ups. Securities must have a maturity of 10 years and be rated investment-grade (Baa3/ BBB-/BBB-) or better using the middle rating of Moody's, S&P, and Fitch.*

## **Client-Directed Liability Based Benchmark**

*(Long Duration LDI: Inception Date: July 1, 1998)*

*The customized benchmark for the Long Duration Custom Composite is the weighted average of each composite member's benchmark return rebalanced monthly. The benchmarks are market-based indices/sub-indices constructed to reflect the liabilities of the portfolios. The benchmarks consists of various weights of the sub indices of the Bloomberg Intermediate (maturities from 1 up to but not including 10 years), and Long (maturities of 10+ years) Government/Credit and US Corporate Indices. All securities must be rated investment-grade (Baa3/ BBB-/BBB-) or above using the middle rating of Moody's, S&P, and Fitch.*

## **Bloomberg U.S. Credit Bond Index (Bloomberg U.S. Credit Index)**

*(Investment Grade Corporates: Inception Date: July 1, 1991)*

*The Bloomberg U.S. Credit Index is comprised of the U.S. Corporate Index and the non-native currency subcomponent of the U.S. Government-Related Index. The U.S. Credit Index includes publicly issued U.S. corporate, specified foreign debentures and secured notes denominated in USD. Securities included in the index must have at least 1 year until final maturity and be rated investment-grade (Baa3/ BBB-/BBB-) or better using the middle rating of Moody's, S&P, and Fitch.*

## **Bloomberg Euro Aggregate Corporate Index USD Hedged (Bloomberg Euro Aggregate Corporate Index USD Hedged)**

*(European Corporate Fixed Income (USD Hedged): Inception Date: February 1, 2008)*

*The Bloomberg Euro Aggregate Corporate Index USD Hedged Index is a benchmark that measures the corporate component of the Bloomberg Euro Aggregate Bond Index, a broad-based flagship benchmark that measures the investment grade, euro-denominated, fixed-rate bond market, including treasuries, government-related, corporate and securitized issues. Inclusion is based on currency denomination of a bond and not country of risk of the issuer. The index is hedged to USD. As of January 1, 2020 composite benchmark was changed to the Bloomberg Euro Aggregate Corporate USD Hedged Index from the iBoxx Euro Corporate (USD Hedged) Index.*

## **iBoxx Euro Corporate Index 100% USD Hedged (iBoxx Euro Corporate Index (USD Hedged))**

*(Former benchmark for European Corporate Fixed Income (USD Hedged): Inception Date: February 1, 2008)*

*The iBoxx EUR benchmark is made up of only fixed-rate bonds or step ups whose cash flow can be determined in advance. The indices are comprised solely of bonds. Treasury Bills and other money market instruments are not eligible. The iBoxx EUR indices include only Euro and legacy currency denominated bonds. Securities must be rated investment-grade (Baa3/ BBB-/BBB-) or above by at least one of the following rating agencies: Standard & Poor's, Moody's or Fitch and have at least 1 year until final maturity at the rebalancing date.*

## **Bloomberg Global Aggregate Corporate Index Unhedged (Bloomberg Global Corporate Index (Unhedged))**

*(Global Corporate (Unhedged): Inception Date: May 1, 2010)*

*The Bloomberg Global Corporate Aggregate Index is a component of the Global Aggregate Index that includes the global investment-grade, fixed-rate or step up, taxable securities sold by industrial, utility and financial issuers. The three major components of this index are the U.S. Aggregate Corporate, the Pan-European Aggregate Corporate, and the Asian-Pacific Aggregate Corporate indices. The index also includes Eurodollar and Euro-Yen corporate bonds, Canadian corporate securities, and USD investment-grade 144A securities. Securities included in the index must have at least 1 year until final maturity and be rated investment-grade (Baa3/ BBB-/BBB-) or better using the middle rating of Moody's, S&P, and Fitch.*

## **Bloomberg Global Aggregate Corporate Bond Index (USD Hedged) (Bloomberg Global Corporate Index (USD Hedged))**

*(Global Corporate (USD Hedged): Inception Date: October 1, 2011)*

*The Bloomberg Global Aggregate Corporate Bond Index (USD Hedged) is a component of the Global Aggregate Index that includes the global investment-grade, fixed-rate or step up, taxable securities sold by industrial, utility and financial issuers. The three major components of this index are the U.S. Aggregate Corporate, the Pan-European Aggregate Corporate, and the Asian-Pacific Aggregate Corporate indices. The index also includes Eurodollar and Euro-Yen corporate bonds, Canadian corporate securities, and USD investment-grade 144A securities. Securities included in the index must have at least 1 year until final maturity and be rated investment-grade (Baa3/ BBB-/BBB-) or better using the middle rating of Moody's, S&P, and Fitch. The index is hedged to USD.*



# Benchmark Descriptions (cont'd)



## **Bloomberg U.S. Corporate High Yield Ba/B 1% Issuer Capped Bond Index (Bloomberg U.S. High Yield Ba/B 1% Issuer Capped Index)**

*(Higher Quality High Yield: Inception Date: July 1, 1998)*

The Bloomberg U.S. High Yield Ba/B 1% Issuer Capped Index is an issuer-constrained version of the Bloomberg U.S. High Yield Index that covers the USD-denominated, non-investment-grade, fixed-rate, taxable corporate bond market. The Bloomberg U.S. High Yield 1% Ba/B Issuer Capped Index limits issuer exposures to a maximum 1% and redistributes the excess market value index-wide on a pro-rata basis. Securities must be rated below investment-grade (Ba1/BB+/BB+ or below) using the middle rating of Moody's, S&P, and Fitch, and have at least a one year until final maturity.

## **Bloomberg US High-Yield 1% Issuer Capped Index (Bloomberg US High-Yield 1% Issuer Capped Index )**

*(Broad Market High Yield: Inception Date: March 1, 2002)*

The Bloomberg US High-Yield 1% Issuer Capped Index is an issuer-constrained version of the US High-Yield Index that covers the USD-denominated, non-investment-grade, fixed-rate, taxable corporate bond market. The US HY 1% Issuer Capped Index limits issuer exposures to a maximum 1% and redistributes the excess market value index-wide on a pro-rata basis. Securities must be rated below investment-grade (Ba1/BB+/BB+ or below) using the middle rating of Moody's, S&P, and Fitch, and have at least 1 year until final maturity. Effective October 1, 2020 the Benchmark changed to the Bloomberg US High-Yield 1% Issuer Capped Index, prior to that the Benchmark was the Bloomberg US Corporate High Yield Bond Index.

## **Bloomberg U.S. Corporate High Yield Bond Index (Bloomberg U.S. High Yield Index)**

*(Former benchmark for Broad Market High Yield: Inception Date: March 1, 2002)*

Bloomberg U.S. Corporate High Yield Bond Index covers the USD-denominated, non-investment grade, fixed-rate or step ups, taxable corporate bond market. The index excludes Emerging Markets debt. Securities must be rated below investment-grade (Ba1/BB+/BB+ or below) using the middle rating of Moody's, S&P, and Fitch, respectively and have at least 1 year until final maturity.

## **Credit Suisse Leveraged Loan Index (CS Leveraged Loan Index)**

*(U.S. Senior Secured Loans: Inception Date: May 1, 2007)*

The Credit Suisse Leveraged Loan Index is a representative, unmanaged index of tradable, U.S. dollar denominated floating rate senior secured loans and is designed to mirror the investable universe of the U.S. dollar denominated leveraged loan market. The Index return does not reflect the impact of principal repayments in the current month.

## **ICE BofAML European Currency High Yield ex Finance 2% Constrained Index (ML Euro HY ex Finance 2% Constrained Index)**

*(European High Yield (Euro Hedged): Inception Date: November 1, 2010)*

The ICE BofAML European High Yield ex Finance 2% Constrained Index tracks the performance of EUR and GBP denominated below investment grade corporate debt publicly issued in the eurobond, sterling domestic or euro domestic markets. Qualifying securities must have a below investment grade rating and an investment grade country of risk. The index contains all non-Financial securities but caps issuer exposure at 2%. Source: ICE Data Indices, LLC, used with permission. ICE Data Indices, LLC is licensing the ICE Data Indices and related data "as is," makes no warranties regarding same, does not guarantee the suitability, quality, accuracy, timeliness, and/or completeness of the ICE Data Indices or any data included in, related to, or derived therefrom, assumes no liability in connection with their use, and does not sponsor, endorse, or recommend PGIM Fixed Income, or any of its products or services.

## **Credit Suisse Western European Leveraged Loan Index (EUR Hedged) (CS Western European Leveraged Loan Index (EUR Hedged)**

*(European Senior Secured Debt: Inception Date: July 1, 2006)*

Credit Suisse Western European Leveraged Loan Index: All Denominations Euro Hedged. The Index is a representative, unmanaged index of tradable, floating rate senior secured loans designed to mirror the investable universe of the European leveraged loan market. The index is hedged to EUR. The Index return does not reflect the impact of principal repayments in the current month.

## **Bloomberg Global High Yield Index (Euro Hedged)**

*(Global High Yield (Euro Hedged): Inception Date: May 1, 2002)*

The Bloomberg Global High Yield Index provides a broad-based measure of the global high yield fixed income markets. It includes U.S. high yield, Pan-European high yield, U.S. emerging markets high yield, and Pan-European emerging markets high yield indices. Securities included in the index must be fully taxable, have at least on year until final maturity, and be rated high yield (Ba/BB+/BB+ or below) using the middle rating of Moody's S&P and Fitch.

## **CS Blend Lev. Loan & West European Lev. Loan: Euro Denominated (USD Hedged)**

*(Global Senior Secured Loans: Inception Date: December 1, 2011)*

The custom benchmark for this composite is comprised of the Credit Suisse Leveraged Loan Index and the Credit Suisse Western European Leveraged Loan Index Euro Denominated (hedged to USD) and is rebalanced monthly. As of December 31, 2021, the weights are 75% and 25%, respectively. The Credit Suisse indices are representative unmanaged indices of tradeable, floating rate senior secured loans designed to mirror the investable universe of the U.S. and European Leveraged Loan markets.

## **JP Morgan Emerging Markets Bond Index Global Diversified (JPM EMBI Global Diversified Index)**

*(Emerging Markets Debt: Inception Date: July 1, 1996)*

The Emerging Markets Bond Index Global Diversified (EMBI Global) tracks total returns for USD-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, and Eurobonds. It limits the weights of those index countries with larger debt stocks by only including specified portions of these countries' eligible current face amounts of debt outstanding. To be deemed an emerging market by the EMBI Global Diversified Index, a country must be rated Baa1/BBB+ or below by Moody's/S&P rating agencies. Information has been obtained from sources believed to be reliable, but J.P. Morgan does not warrant its completeness or accuracy. The Index is used with permission. The Index may not be copied, used, or distributed without J.P. Morgan's prior written approval. Copyright 2022, JPMorgan Chase & Co. All rights reserved.



# Benchmark Descriptions (cont'd)



## **Blend: JPM EMBI Global Diversified & GBI-EM Global Diversified**

*(Emerging Markets Blend: Inception Date: December 1, 2007, Emerging Markets Blend Plus: Inception Date: August 1, 2014)*

The customized benchmark for this composite is an even blend of the JPMorgan Government Bond Index-Emerging Markets Global Diversified Index and the JPMorgan Emerging Markets Bond Index Global Diversified Index. The Government Bond Index-Emerging Markets Global Diversified Index (GBI-EM Global) tracks total returns for local currency bonds issued by emerging market governments while the Emerging Markets Bond Index Global Diversified (EMBI Global) tracks total returns for USD-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, and Eurobonds. It limits the weights of those index countries with larger debt stocks by only including specified portions of these countries' eligible current face amounts of debt outstanding. Copyright 2022, JPMorgan Chase & Co. All rights reserved.

## **JPMorgan Government Bond Index-Emerging Markets Global Diversified Index (JPM GBI-EM Global Diversified Index)**

*(Emerging Markets Debt (Local Currency): Inception Date: January 1, 2011)*

The Government Bond Index-Emerging Markets Global Diversified Index (GBI-EM Global) tracks total returns for local currency bonds issued by emerging market governments. Copyright 2022, JPMorgan Chase & Co. All rights reserved.

## **JPMorgan Corporate Emerging Markets Bond Index Broad Diversified (JPM CEMBI Broad Diversified)**

*(Emerging Markets Corporate Debt: Inception Date: March 1, 2013)*

The CEMBI tracks total returns of US dollar-denominated debt instruments issued by corporate entities in Emerging Markets countries. The CEMBI Broad is the most comprehensive corporate benchmark followed by the CEMBI, which consists of an investable universe of corporate bonds. Copyright 2022, JPMorgan Chase & Co. All rights reserved.

## **Bloomberg US 1-15 Year Municipal Index**

*(National Municipal Bond: Inception Date: January 1, 1994)*

The Bloomberg US 1-15 Year Municipal Index covers the USD-denominated long-term tax-exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds. The bonds must be fixed-rate or step ups, have a dated date after Dec. 13, 1990, and must have a maturity from 1 up to (but not including) 15 years. Non-credit enhanced bonds (municipal debt without a guarantee) must be rated investment-grade (Baa3/ BBB-/BBB-) or better by the middle rating of Moody's, S&P, and Fitch. Effective April 1, 2020 the Benchmark changed to the Bloomberg 1-15 Yr. Muni Unhedged Index, prior to that the Benchmark was the Bloomberg Municipal Bond index

## **Bloomberg Municipal Bond Index**

*(Former benchmark for National Municipal Bond: Inception Date: January 1, 1994)*

The index covers the USD-denominated long-term tax-exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds. The bonds must be fixed-rate or step ups, have a dated date after Dec. 13, 1990, and must be at least 1 year from their maturity date. Non-credit enhanced bonds (municipal debt without a guarantee) must be rated investment grade (Baa3/BBB-/BBB- or better) by the middle rating of Moody's, S&P, and Fitch.

## **Blend: Bloomberg Muni High Income/Muni Index**

*(High Income Municipal Bond: Inception Date: January 1, 1994)*

The customized benchmark for this composite is an even blend of the Bloomberg Municipal High Yield Bond Index and Bloomberg Municipal Bond Index. The Bloomberg Municipal Bond Index covers the USD-denominated long-term tax-exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds. The bonds must be fixed-rate or step ups, have a dated date after Dec. 13, 1990, and must be at least 1 year from their maturity date. Non-credit enhanced bonds (municipal debt without a guarantee) must be rated investment-grade (Baa3/ BBB-/BBB- or better) by the middle rating of Moody's, S&P, and Fitch. The Bloomberg Municipal High Yield Bond Index is the high yield component of the Bloomberg Municipal Bond Index.

## **ICE BofA US 3-Month Treasury Bill Index**

*(U.S. Liquidity Relative Value: Inception Date: July 1, 2002, Emerging Markets Long/Short: Inception Date: November 1, 2007, Global Liquidity Relative Value: Inception Date: July 1, 2014)*

ICE BofA US 3-Month Treasury Bill Index is comprised of a single issue purchased at the beginning of the month and held for a full month. At the end of the month that issue is sold and rolled into a newly selected issue. The issue selected at each month-end rebalancing is the outstanding Treasury Bill that matures closest to, but not beyond, three months from the rebalancing date. To qualify for selection, an issue must have settled on or before the month-end rebalancing date. Effective April 1, 2020 the Benchmark changed to the ICE BofA U.S. 3-Month Treasury Bill Index, prior to that the Benchmark was 3-Month U.S. Dollar LIBOR.

## **3 Month U.S. Dollar ICE LIBOR Reset Weekly**

*(Former benchmark for U.S. Liquidity Relative Value: Inception Date: July 1, 2002)*

The 3 Month U.S. Dollar ICE LIBOR Reset Weekly, ICE LIBOR (formerly known as BBA LIBOR), is a widely used benchmark for short-term interest rates, providing an indication of the average rates at which LIBOR panel banks could obtain wholesale, unsecured funding for set periods in particular currencies. It is produced for five currencies (CHF, EUR, GBP, JPY and USD) and seven tenors (Overnight/Spot Next, 1 Week, 1 Month, 2 Months, 3 Months, 6 Months and 12 Months) based on submissions from a reference panel of between 11 and 16 banks for each currency, resulting in the publication of 35 rates every applicable London business day. The benchmark for the Composite uses the 3 Month USD rate on the 8th, 15th, 23rd and month end to derive the return for the subsequent period. If a reset day is a weekend or holiday, then the rate of the preceding business day is used.

## **3-Month U.S. Dollar ICE LIBOR Reset Monthly**

*(Former benchmark for Emerging Markets Long/Short: Inception Date: November 1, 2007, Global Liquidity Relative Value: Inception Date: July 1, 2014)*

The 3-Month U.S. Dollar ICE LIBOR Reset Monthly, ICE LIBOR (formerly known as BBA LIBOR), is a widely used benchmark for short-term interest rates, providing an indication of the average rates at which LIBOR panel banks could obtain wholesale, unsecured funding for set periods in particular currencies. It is produced for five currencies (CHF, EUR, GBP, JPY and USD) and seven tenors (Overnight/Spot Next, 1 Week, 1 Month, 2 Months, 3 Months, 6 Months and 12 Months) based on submissions from a reference panel of between 11 and 16 banks for each currency, resulting in the publication of 35 rates every applicable London business day. The benchmark for the Composite uses the 3 Month USD rate of the prior month end to derive the return for the current month.

## **S&P 500 Total Return Index (S&P 500 Index)**

*(U.S. Liquidity Relative Value (S&P 500 Overlay): Inception Date: April 1, 2014)*

S&P 500 Total Return Index is a commonly recognized, market capitalization weighted index of 500 widely held equity securities, designed to measure broad U.S. equity performance.



# Emerging Markets Debt Composite



As of December 31, 2021

Year	Composite (Gross %)	Composite (Net %)	Benchmark (%)	Composite 3 Year St Dev (%)	Benchmark 3 Year St Dev (%)	# of Portfolios	Internal Dispersion	Composite Market Value \$(000s)	Firm Assets Under Mgmt \$(in billions)
2021	-1.08	-1.62	-1.80	14.41	10.67	11	0.11	6,207,549	957.44
2020	4.92	4.34	5.26	14.59	10.73	12	0.42	6,652,820	968.18
2019	16.46	15.82	15.04	5.94	4.85	12	0.25	4,793,704	850.54
2018	-5.57	-6.09	-4.26	6.47	5.46	11	0.22	4,426,961	743.47
2017	14.48	13.85	10.26	5.90	5.04	10	0.13	4,060,787	708.58
2016	12.77	12.15	10.15	6.82	5.78	8	NM	2,470,942	637.2
2015	2.16	1.60	1.18	7.46	6.51	10	0.54	3,965,915	574.77
2014	7.50	6.91	7.43	8.30	7.03	10	0.95	3,697,001	543.29
2013	-4.73	-5.25	-5.25	9.13	7.39	9	0.51	3,503,117	405.16
2012	23.69	22.83	17.44	8.24	6.27	8	0.54	3,091,779	394.75

Period Ending 12/31/2021	Composite (Gross %)	Composite (Net %)	Benchmark (%)
1 Year	-1.08	-1.62	-1.80
3 Year	6.52	5.94	5.94
5 Year	5.50	4.92	4.65
10 Year	6.67	6.07	5.28
Since July 1, 1996	10.85	10.15	8.69

The inception date of the composite is July 1, 1996.

PGIM Fixed Income claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PGIM Fixed Income has been independently verified for the periods January 1, 1993 through December 31, 2021. A firm that claims compliance with the GIPS standards must establish policies and procedure for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis.

The Emerging Markets Debt Composite has had a performance examination for the periods July 1, 1996 through December 31, 2021. The verification and performance examination reports are available upon request.





As of December 31, 2021

## Notes

1. PGIM Fixed Income (the "Firm") is a global asset manager primarily focused on public fixed income investments whose U.S. business operates as a unit of PGIM, Inc. PGIM, Inc. is an investment adviser registered with the United States Securities and Exchange Commission. The Firm is headquartered in Newark, New Jersey and also includes the following businesses: (i) the public fixed income unit within PGIM Limited, located in London; (ii) locally managed assets of PGIM Japan Co., Ltd ("PGIM Japan"), located in Tokyo; and (iii) the public fixed income unit within PGIM (Singapore) Pte. Ltd., located in Singapore. PGIM Japan has been included within the Firm as of June 30, 2014, resulting in an increase in assets under management (AUM) of approximately \$105 billion. The Firm's list of composite descriptions, limited distribution pooled fund descriptions, and broad distribution pooled funds are available upon request.
2. The Emerging Markets Debt Composite includes all discretionary portfolios whose investment objective is to achieve high risk-adjusted returns and outperform a diversified emerging markets debt index comprised of sovereign and quasi-sovereign issues. Portfolios in this composite will seek to achieve this objective by investing in the full range of sovereign, quasi-sovereign, and corporate emerging markets debt securities denominated in both hard and local currencies, and are managed against standard US\$-denominated emerging markets benchmarks. As of April 1, 2016, the Emerging Markets Debt Composite was redefined to exclude portfolios that do not have the ability to take net short positions in emerging market currencies. This change was made to better reflect the strategy of the composite. Composite returns may include securities lending income. This composite was created on September 1, 2006.
3. Performance results are stated gross and net of model fees. Gross returns do not reflect the deduction of investment advisory fees or any other expenses that may be incurred in the management of the account. Model net returns are calculated monthly by geometrically linking 1/12th of the highest standard advisory fee in effect for the respective period to the gross composite return. The model management fee is the higher of the standard advisory fee or the highest fee paid by any account in the composite. The standard advisory fee schedule currently in effect is as follows: 0.50% on the first \$100 million, 0.45% on the next \$100 million and 0.40% thereafter. Actual client fees may vary depending on, among other things, the applicable fee schedule and portfolio size. Returns for each client will be reduced by such fees and expenses as described in their individual contract. The Firm's advisory fees (other than fees related to PGIM Japan) are disclosed in PGIM Fixed Income's SEC Form ADV Part 2A, which is available upon request. Fees related to PGIM Japan are also available upon request. Fees may be higher for commingled accounts, insurance company separate accounts, and trust, corporate, or bank-owned life insurance products. The composite shown may include accounts that are group annuity or life insurance products issued by The Prudential Insurance Company of America and/or its affiliated insurance subsidiaries. Performance has been calculated in US dollars and reflects the deduction of transaction costs and withholding taxes, if any, and the reinvestment of income. Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. Past performance is not a guarantee or a reliable indicator of future results.
4. The internal dispersion of annual returns is measured by the standard deviation across the asset-weighted gross returns of portfolios represented in the composite for a full year. For periods where 5 or fewer accounts were included in the composite for the full year, internal dispersion is not disclosed, as it is not considered meaningful (NM). The three-year annualized standard deviation is calculated using monthly returns and measures the variability of the gross composite and benchmark returns over the preceding 36-month period. The three-year annualized ex-post standard deviation of the composite and benchmark are not presented for periods where 36 monthly returns are not available.
5. As of March 1, 2006 the benchmark for this composite is the JP Morgan EMBI Global Diversified. The Emerging Markets Bond Index Global Diversified (EMBI Global) tracks total returns for USD-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, and Eurobonds. It limits the weights of those index countries with larger debt stocks by only including specified portions of these countries' eligible current face amounts of debt outstanding. Source of the benchmark: JP Morgan. Prior to March 1, 2006 the benchmark for this composite was the JP Morgan Emerging Markets Bond Index Plus. This index is a liquid US-dollar emerging markets debt benchmark that tracks total returns for actively traded external debt instruments issued by emerging market sovereign entities: US-dollar denominated Brady bonds, Eurobonds, and loans. Countries included in the index must be rated Baa1/BBB+ or below by Moody's/S&P rating agencies. Source of the benchmark: JP Morgan. The change in benchmark was made to reflect the strategy of the composite more accurately. The financial indices referenced herein are provided for informational purposes only. The manager's holdings and portfolio characteristics may differ from those of the benchmark(s). Additional factors impacting the performance displayed herein may include portfolio-rebalancing, the timing of cash flows, and differences in volatility, none of which impact the performance of the financial indices. Financial indices reflect the reinvestment of income, if any, but do not reflect the impact of fees, applicable taxes or trading costs which may reduce the returns shown. You cannot invest directly in an index. The statistical data regarding such indices has been obtained from sources believed to be reliable. Benchmark returns are not covered by the report of independent verifiers.





As of December 31, 2021

6. Investing in foreign securities presents certain unique risks not associated with domestic investments such as currency fluctuation and political and economic changes. This may result in greater price volatility. Investing in emerging markets is generally riskier than investing in developed markets. Emerging market countries may have unstable governments and/or economies that are subject to sudden change. These changes may be magnified by the countries' emergent financial markets resulting in significant volatility to investments in these countries. These countries also may lack the legal, business, and social framework to support securities markets.
7. Currency and fixed income derivatives may be used in managing the portfolios. These may include forward currency contracts, currency and bond futures, swaps, and options. These investments are both exchange-traded and traded over the counter with approved counter parties, which minimizes liquidity risk. These instruments are used in the portfolios for three purposes: timing to catch immediate market moves, providing the cheapest means of gaining or reducing interest rate and currency exposure, and creating an asymmetrical risk/return profile during times of heightened volatility. Derivatives are not used for purposes of leverage.
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# Emerging Markets Debt Total Return Composite



As of December 31, 2022

Year	Composite (Gross %)	Composite (Net %)	Benchmark (%)	Composite 3 Year St Dev (%)	Benchmark 3 Year St Dev (%)	# of Portfolios	Internal Dispersion	Composite Market Value \$(000s)	Firm Assets Under Mgmt \$(in billions)
2022	2.35	1.74	1.43	14.36	0.35	fewer than 5	NM	36,220	770.23
2021	4.23	3.60	0.17			fewer than 5	NM	117,446	957.44
2020	1.26	0.65	1.08			fewer than 5	NM	129,117	968.18
2019-05 - 2019-12	8.29	7.86	1.64			fewer than 5	NM	56,327	850.54

Period Ending 12/31/2022	Composite (Gross %)	Composite (Net %)	Benchmark (%)
1 Year	2.35	1.74	1.43
3 Year	2.60	1.99	0.89
Since May 1, 2019	4.36	3.74	1.18

The inception date of the composite is May 1, 2019.

PGIM Fixed Income claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PGIM Fixed Income has been independently verified for the periods January 1, 1993 through December 31, 2021. A firm that claims compliance with the GIPS standards must establish policies and procedure for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis.

The Emerging Markets Debt Total Return composite has had a performance examination for the periods May 1, 2019 through December 31, 2021. The verification and performance examination reports are available upon request.

## Notes

1. PGIM Fixed Income (the "Firm") is a global asset manager primarily focused on public fixed income investments whose U.S. business operates as a unit of PGIM, Inc. PGIM, Inc. is an investment adviser registered with the United States Securities and Exchange Commission. The Firm is headquartered in Newark, New Jersey and also includes the following businesses: (i) the public fixed income unit within PGIM Limited, located in London; (ii) locally managed assets of PGIM Japan Co., Ltd ("PGIM Japan"), located in Tokyo; and (iii) the public fixed income unit within PGIM (Singapore) Pte. Ltd., located in Singapore. PGIM Japan has been included within the Firm as of June 30, 2014, resulting in an increase in assets under management (AUM) of approximately \$105 billion. The Firm's list of composite descriptions, limited distribution pooled fund descriptions, and broad distribution pooled funds are available upon request.
2. The Emerging Markets Debt Total Return Composite includes all discretionary portfolios whose investment objective is to maximize total return on a risk-adjusted basis by investing in sovereign, quasi-sovereign, and corporate emerging markets debt securities and their derivatives, denominated in both hard and local currencies. Portfolios in this composite cannot short-sell but can employ the use of leverage with derivatives. Composite returns may include securities lending income. This composite was created on May 1, 2019.
3. Performance results are stated gross and net of model fees. Gross returns do not reflect the deduction of investment advisory fees or any other expenses that may be incurred in the management of the



# Emerging Markets Debt Total Return Composite



As of December 31, 2022

account. Model net returns are calculated monthly by geometrically linking 1/12th of the highest standard advisory fee in effect for the respective period to the gross composite return. The model management fee is the higher of the standard advisory fee or the highest fee paid by any account in the composite. The standard advisory fee schedule currently in effect is as follows: 0.50% on the first \$100 million, 0.45% on the next \$100 million and 0.40% thereafter. Actual client fees may vary depending on, among other things, the applicable fee schedule and portfolio size. Returns for each client will be reduced by such fees and expenses as described in their individual contract. The Firm's advisory fees (other than fees related to PGIM Japan) are disclosed in PGIM Fixed Income's SEC Form ADV Part 2A, which is available upon request. Fees related to PGIM Japan are also available upon request. Fees may be higher for commingled accounts, insurance company separate accounts, and trust, corporate, or bank-owned life insurance products. The composite shown may include accounts that are group annuity or life insurance products issued by The Prudential Insurance Company of America and/or its affiliated insurance subsidiaries. Performance has been calculated in US dollars and reflects the deduction of transaction costs and withholding taxes, if any, and the reinvestment of income. Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. Past performance is not a guarantee or a reliable indicator of future results.

4. The internal dispersion of annual returns is measured by the standard deviation across the asset-weighted gross returns of portfolios represented in the composite for a full year. For periods where 5 or fewer accounts were included in the composite for the full year, internal dispersion is not disclosed, as it is not considered meaningful (NM). The three-year annualized standard deviation is calculated using monthly returns and measures the variability of the gross composite and benchmark returns over the preceding 36-month period. The three-year annualized ex-post standard deviation of the composite and benchmark are not presented for periods where 36 monthly returns are not available.
5. As of 7/1/2022, the benchmark for this composite is ICE BofA US 3-Month Treasury Bill Index (net of transaction costs). ICE BofA US 3-Month Treasury Bill Index is comprised of a single issue purchased at the beginning of the month and held for a full month. At the end of the month that issue is sold and rolled into a newly selected issue. The issue selected at each month-end rebalancing is the outstanding Treasury Bill that matures closest to, but not beyond, three months from the rebalancing date. To qualify for selection, an issue must have settled on or before the month-end rebalancing date. Source of the ICE BofA US 3-Month Treasury Bill Index: Bloomberg. Effective July 2022, benchmark returns reflect the deduction of transaction costs that are calculated using the bid-offer spread for all new additions to the index, as well as any security whose weight increases in the index at each monthly rebalancing, beginning with the 30 June 2022 rebalancing. The beginning-of-month calculated transaction cost adjustment is applied to index returns daily for the following calendar month. Benchmark returns prior to July 2022 do not reflect the deduction of transaction costs. Prior to 3/1/2022, the benchmark for this composite is the ICE BofA 3-Month Deposit Offered Rate Constant Maturity Index. The ICE BofA 3-Month Deposit Offered Rate Constant Maturity Index tracks the performance of a synthetic asset paying Libor to a stated maturity. The index is based on the assumed purchase at par of a synthetic instrument having exactly its stated maturity and with a coupon equal to that day's fixing rate. That issue is assumed to be sold the following business day (priced at a yield equal to the current day fixing rate) and rolled into a new instrument. Source of the benchmark: Merrill Lynch. The financial indices referenced herein are provided for informational purposes only. The manager's holdings and portfolio characteristics may differ from those of the benchmark(s). Additional factors impacting the performance displayed herein may include portfolio-rebalancing, the timing of cash flows, and differences in volatility, none of which impact the performance of the financial indices. Financial indices reflect the reinvestment of income, if any, but do not reflect the impact of fees, applicable taxes or trading costs which may reduce the returns shown. You cannot invest directly in an index. The statistical data regarding such indices has been obtained from sources believed to be reliable. Benchmark returns are not covered by the report of independent verifiers.
6. Investing in foreign securities presents certain unique risks not associated with domestic investments such as currency fluctuation and political and economic changes. This may result in greater price volatility. Investing in emerging markets is generally riskier than investing in developed markets. Emerging market countries may have unstable governments and/or economies that are subject to sudden change. These changes may be magnified by the countries' emergent financial markets resulting in significant volatility to investments in these countries. These countries also may lack the legal, business, and social framework to support securities markets.
7. Currency and fixed income derivatives may be used in managing the portfolios. These may include forward currency contracts, currency and bond futures, swaps and options. These investments are both exchange-traded and traded over-the-counter with approved counter parties, which minimizes liquidity risk. These instruments are used in the portfolios for three purposes: timing to catch immediate market moves, providing the cheapest means of gaining or reducing interest rate and currency exposure, and creating an asymmetrical risk/return profile during times of heightened volatility.
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