

San Bernardino County Employees' Retirement Association

Investment Committee



August 2019



PGIM FIXED INCOME

*The Global Fixed Income Business of Prudential Financial, Inc.
Prudential Financial, Inc. of the United States is not affiliated with
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Objective and Approach

Objective

- To outperform a 50% hard currency/50% local currency emerging markets debt benchmark, over a full market cycle

Approach

- Express best ideas from a broad range of emerging markets sovereign bonds, corporate bonds, local bonds, currencies and volatility through long and short exposures

Strategy to Achieve Objective

- Select hard currency sovereign, quasi-sovereign, and corporate bonds in countries where we believe they are attractively priced—sell (short) those bonds that we believe are unattractively priced
- Within countries we believe to be attractively valued, invest in the credit quality tier and positions on the yield curve that are most favorably priced
- Exploit pricing anomalies within countries by buying cheap bonds and selling (shorting) expensive bonds
- Invest in local currency bonds, futures, and swaps in an effort to take advantage of favorable local interest rates and movements
- Invest in currencies that have high yields (carry) and strong potential for appreciation—short overvalued currencies
- Invest in FX volatility across currencies where volatility risk premium is attractive
- Manage risk actively

There can be no guarantee that this objective will be achieved and an investment in the Strategy could lose value.



Pramerica Emerging Market Debt Opportunities Fund

Investment Performance

	YTD (%)	1 Year (%)	3 Year (%)	5 Year (%)	Since Inception (%)
Gross	14.52	13.79	8.53	5.88	5.66
Net	14.05	12.97	7.82	5.18	4.96
Benchmark	10.03	10.77	4.91	2.46	2.40
Increment (Gross)	+4.49	+3.02	+3.61	+3.42	+3.26
Increment (Net)	+4.01	+2.20	+2.90	+2.72	+2.56

Dollar Weighted Return (IRR)

	Since Inception (%)
IRR	6.45
Benchmark	3.26
Increment	3.19

QIFEMOPP

Benchmark: 50% JP Morgan EMBI Global Diversified/50% JP Morgan GBI-EM Global Diversified

The Since Inception performance is measured as of: 06/09/2014

Performance reported in USD

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Pramerica Emerging Market Debt Opportunities Fund

Annual Returns

	Portfolio Returns Gross (%)	Portfolio Returns Net (%)	Benchmark (%)	Gross Difference (bps)
2019 YTD	14.52	14.05	10.03	+449
2018	-7.18	-7.75	-5.15	-203
2017	18.75	18.02	12.74	+601
2016	16.75	16.00	10.16	+659
2015	-4.97	-5.61	-7.14	+217
2014 (Jul. 1–Dec. 31)	-5.65	-6.03	-6.33	+68

Source of portfolio returns: PGIM Fixed Income. Performance shown gross of fees. Performance reported in USD.

Past performance is not a reliable indicator of future performance. Performance over one-year is annualized.

Since Inception performance is measured as of 06/09/2014

Benchmark: 50% JP Morgan EMBI Global Diversified/50% JP Morgan GBI-EM Global Diversified. Source of Benchmark: JP Morgan.

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Pramerica Emerging Market Debt Opportunities Fund

Yield Summary

Summary	Long Notional MV (millions)	Short Notional MV (millions)	Net Notional MV (millions)	Nominal Yield Contribution (%)
Hard Currency Bonds	137,868.26	-32,329.11	105,539.16	6.67
Hard Currency Derivatives	83,407.72	-264,826.58	-181,418.87	-1.03
Swaps	2,195.52	-69,385.98	-67,190.46	0.17
CDS	16,547.90	-86,316.21	-69,768.30	-2.10
Futures	31,989.61	-109,070.17	-77,080.56	0.25
Option	117.33	-54.23	63.11	0.00
TR Swaps	32,557.35	0.00	32,557.35	0.64
Local Currency Bonds	44,852.26	0.00	44,852.26	2.96
Local Currency Derivatives	123,625.22	-47,733.63	75,891.59	-0.03
Swaps	123,625.22	-47,733.63	75,891.59	-0.03
CDS	0.00	0.00	0.00	0.00
Futures	0.00	0.00	0.00	0.00
Options	0.00	0.00	0.00	0.00
TR Swaps	0.00	0.00	0.00	0.00
FX	124,164.53	-120,446.68	3,717.85	1.65
FX Options	452,688.73	-448,747.63	3,941.10	0.00
Cash/Repo	41,035.85	-102,357.36	-61,321.50	-0.96
Other	1,057.86	-106.96	950.90	0.00
Total	1,008,700.44	-1,016,547.95	-7,847.51	9.24

QIFEMOPP

Benchmark: 50% JP Morgan EMBI Global Diversified/50% JP Morgan GBI-EM Global Diversified

^Performance as of Date: 06/30/2019

Currency: USD



Pramerica Emerging Market Debt Opportunities Fund

Current Yield Summary

Summary	Long Notional MV (millions)	Short Notional MV (millions)	Net Notional MV (millions)	Current Yield Contribution (%)
Hard Currency Bonds	137,868.26	-32,329.11	105,539.16	5.71
Hard Currency Derivatives	83,407.72	-264,826.58	-181,418.87	-1.06
Swaps	2,195.52	-69,385.98	-67,190.46	-0.12
CDS	16,547.90	-86,316.21	-69,768.30	-2.10
Futures	31,989.61	-109,070.17	-77,080.56	0.25
Option	117.33	-54.23	63.11	0.00
TR Swaps	32,557.353	0.00	32,557.35	0.91
Local Currency Bonds	44,852.26	0.00	44,852.26	3.02
Local Currency Derivatives	123,625.22	-47,733.63	75,891.59	0.00
Swaps	123,625.22	-47,733.63	75,891.59	0.00
CDS	0.00	0.00	0.00	0.00
Futures	0.00	0.00	0.00	0.00
Options	0.00	0.00	0.00	0.00
TR Swaps	0.00	0.00	0.00	0.00
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QIFEMOPP

Benchmark: 50% JP Morgan EMBI Global Diversified/50% JP Morgan GBI-EM Global Diversified

^Performance as of Date: 06/30/2019

Currency: USD



Experienced and Stable Team

- Investment team averages 13 years with the firm and 18 years investment experience
- Approach leverages full resources of the firm

Senior Portfolio Managers

Cathy Hepworth, CFA
Co-Head of Emerging Markets Debt
33 yrs Investment Experience

David Bessey¹
Co-Head of Emerging Markets Debt
30 yrs Investment Experience

Portfolio Management

Hard Currency and Blend

Cathy Hepworth, CFA
Senior Portfolio Manager
33 yrs Investment Experience

Matthew Duda, CFA²
Portfolio Manager,
LATAM
26 yrs inv exp.

Johnny Mak
Portfolio Manager,
Asia
19 yrs inv exp.

Todd Petersen
Portfolio Manager,
EMEA
14 yrs inv exp.

Aayush Sonthalia, CFA
Portfolio Manager,
EM Corporates
19 yrs inv exp.

Mark Thurgood³
Portfolio Manager,
EM Hard Currency
21 yrs inv exp.
London

Eric Giza
Portfolio Manager,
EMD
12 yrs inv exp.

Rodrigo Navarro, CFA
Portfolio Manager,
EMD
11 yrs inv exp.

Local Currency and Blend

Mariusz Banasiak, CFA
Senior Portfolio Manager
15 yrs inv exp.

Pradeep Kumar, PhD, CFA
Portfolio Manager,
Local Rates/FX
22 yrs inv exp.

David Dichiacchio
Portfolio Manager
and Trader,
Local Rates/ FX
6 yrs inv exp.

Zan Huang PhD, CFA
Quantitative Strategist,
Rates and FX
8 yrs inv exp.

Mani Sabapathi, CFA, FSA
Portfolio Manager,
Asset Selection
26 yrs inv exp.

Charles Wells³
Trader,
Local Rates / FX
6 yrs inv exp

Markus Zehnder
Trader,
Local Rates/ FX
19 yrs inv exp.

Monika Patel
Trader,
Local Rates/ FX
5 yrs inv exp

Global Macroeconomic Research & Investment Strategy

U.S.

Nathan Sheets, PhD
Chief Economist and
Head of Global
Macroeconomic
Research
26 yrs inv exp.

Robert Tipp, CFA
Chief Inv. Strategist, and
Head of Global Bonds
35 yrs inv exp.

Kishlaya Pathak, CFA
Investment Strategist
19 yrs inv exp.

Mehill Marku
Investment Strategist
20 yrs inv exp.

Jurgen Odenius, PhD
Economic Counselor
and Lead Economist,
Europe
26 yrs inv exp.

U.S.

Ellen Gaske, PhD, CFA
Lead Economist , G10
30 yrs inv exp.

Gerwin Bell, PhD
Lead Economist,
Asia
27 yrs inv exp.

Francisco Campos-Ortiz, PhD
Lead Economist,
LATAM
7 yrs inv exp

London

Giancarlo Perasso³
Lead Economist ,
CEEMEA
32 yrs inv exp.

Emerging Market Corporate Debt Research

U.S.

Nick Ivanov, CFA⁴
Head of Emerging
Markets Debt Corporate
Bond Research
25 yrs inv exp.

Elizabeth Gunning, CFA
Analyst
EMEA/LATAM Corporates
19 yrs inv exp.

Omari Douglas-Hall
Analyst
EMEA/LATAM Corporates
9 yrs inv exp.

Michael Pettit, CFA
Analyst
EMEA/LATAM Corporates
7 yrs inv exp.

Singapore

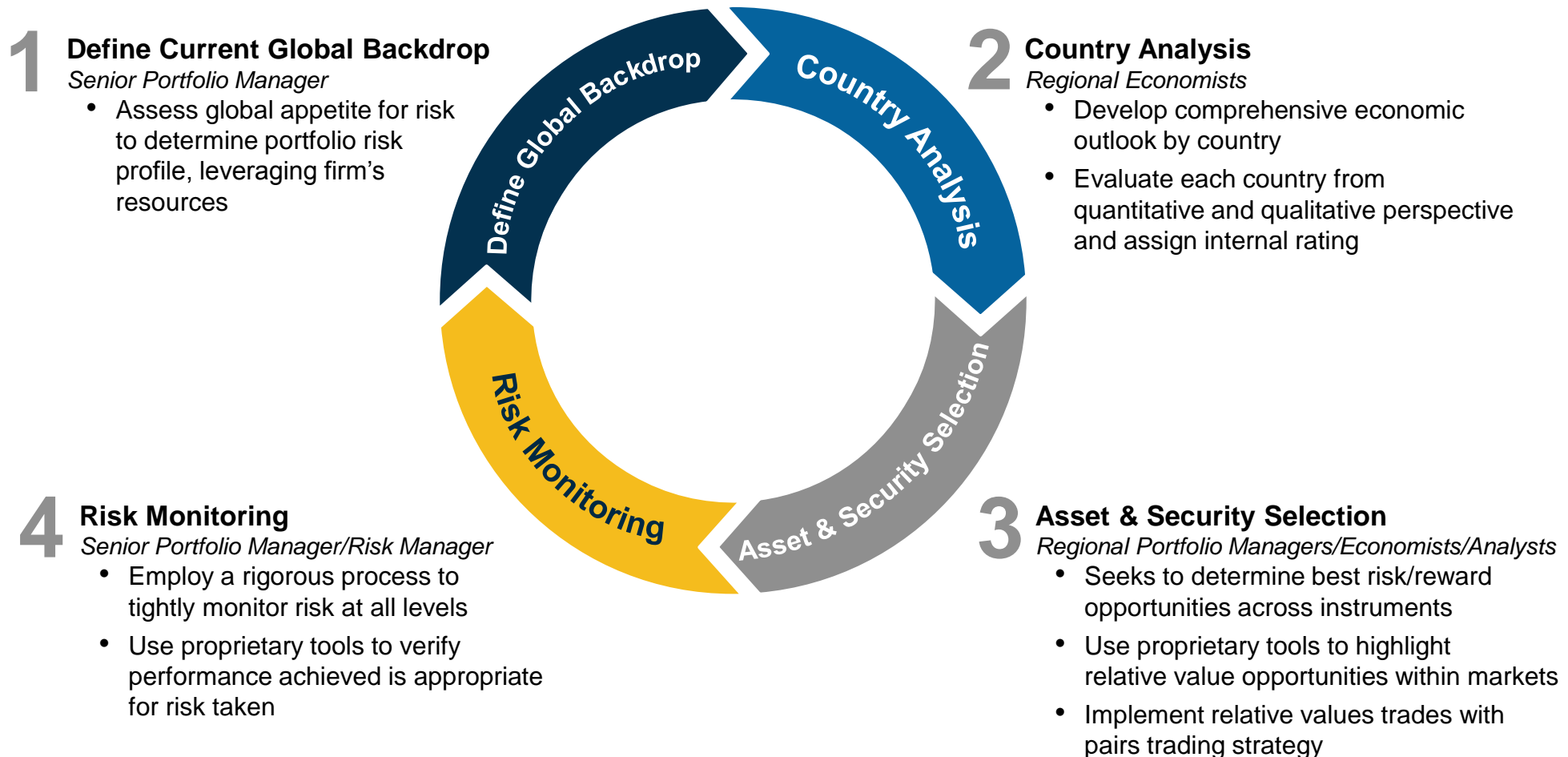
Juan Otero, CFA⁵
Portfolio Manager/Analyst
Asian Corporates
13 yrs inv exp.

Umar Manzoor⁵
Portfolio Manager/Analyst
Asian Corporates
18 yrs inv exp.

Yanru Chen⁵
Analyst
Asian Corporates
14 yrs inv exp.



A Disciplined Approach



Reference



Mariusz Banasiak, CFA, is a Principal and Head of Local currency bonds and FX for PGIM Fixed Income's Emerging Markets Debt Team. Mr. Banasiak is also a senior portfolio manager for the Emerging Markets hedge fund product as well as being responsible for developing currency strategy for Global and Core plus mandates. Prior to assuming this position, he was a Vice President for PGIM Fixed Income's Emerging Markets Debt Team, responsible for developing portfolio strategies on USD sovereign and local emerging market yield curves and currencies in the Europe, Middle East, and Africa (EMEA) region. Previously, Mr. Banasiak was an Analyst for emerging market debt portfolios in the Portfolio Analyst Group of PGIM Fixed Income. Earlier, he was responsible for risk analysis and performance attribution for the Firm's proprietary portfolios. Mr. Banasiak joined the Firm in 2004. He received a BS with Honors in Finance from Rutgers University and holds the Chartered Financial Analyst (CFA) designation.

Peter Taggart is Principal, Client Advisory for PGIM Fixed Income. Mr. Taggart works with our largest institutional investors in developing fixed income solutions to meet their needs. Mr. Taggart has more than 20 years of experience in the investment management business, structuring and managing portfolios for U.S. and international institutions. Prior to joining PGIM Fixed Income in 2002, Mr. Taggart was Executive Director of Marketing with WestAM. Previously, Mr. Taggart was Managing Director with Forstmann-Leff, where he was responsible for marketing equity, fixed income and private equity investment services to institutions. Prior to Forstmann-Leff, Mr. Taggart was with Salomon Brothers Asset Management for nine years, in both bond portfolio management and client relations positions and at First Boston Asset Management, where he was a bond Portfolio Manager. Mr. Taggart received a BA in Computer Science from Colgate University.

For purposes of the biographies, the "Firm" is defined as Prudential Financial, Inc. ("PFI"). All PGIM and Prudential named entities are subsidiaries or affiliates of Prudential Financial, Inc. Prudential Financial, Inc. of the United States is not affiliated with Prudential plc, headquartered in the United Kingdom.



Pramerica Emerging Market Debt Opportunities Fund

Positioning

	Notional Market Value		Tracking Error (Bps)
	Long (\$mm)	Short (\$mm)	
Strategy	1037.6	-982.1	987

Risk Component	Bps
Rates Risk	201
Currency Risk	322
Spread Risk	641
Volatility Risk	22
Non-Systematic Risk	307
Total	987

Portfolio Volatility

Currency	Vega Contribution*
RUB	-1
TRY	-1
MXN	4
JPY	4
BRL	7

Hard Currency Bonds (ex-Pairs) Overweights		Local Currency Bonds (ex-Pairs) Overweights	
Currency	Notional Market Value (%)	Currency	Duration Contribution
Ukraine	3.86	China	1.91
Argentina	3.82	Mexico	1.02
Greece	2.57	Indonesia	0.48
Romania	2.56	Russian Federation	0.36
Egypt	2.51	Malaysia	0.36
Hard Currency Bonds (ex-Pairs) Underweights		Local Currency Bonds (ex-Pairs) Underweights	
Currency	Spread Duration Contribution	Currency	Duration Contribution
China	-0.31	Korea	-0.19
Philippines	-0.28	Chile	-0.16
Mexico	-0.20	Colombia	-0.12
Malaysia	-0.15	Israel	-0.04
Korea	-0.14	Czech Republic	-0.02

Hard Currency Bonds (Pairs)		
Currency	Spread Duration Contribution (Longs)	Notional Market Value (%) Net
Romania	1.03	0.15
Argentina	0.84	1.28
Brazil	0.71	-1.58
Malaysia	0.19	-1.92
Turkey	0.06	0.87

Local Currency Bonds (Pairs)	
Currency	Duration Contribution (Longs)

Currency Exposure	
Longs	Market Value (%)
INR	11.41%
AUD	9.75%
NOK	8.33%
RUB	7.25%
MXN	5.76%
Shorts	Market Value (%)
CHF	-6.25%
BRL	-5.98%
CLP	-5.72%
TWD	-5.48%
TRY	-3.35%

Portfolio Characteristics	
Weighted Average Life (yrs)	12.79
Average Yield (%)	9.24

Quality Breakdown ¹	Port Weight (% NMV) ²
A and Above	12.25
BBB	7.26
BB	36.54
B	33.00
Below B & NR	-139.92

QIFEMOPP

Benchmark: 50% JP Morgan EMBI Global Diversified/50% JP Morgan GBI-EM Global Diversified

^Performance as of Date: 06/30/2019

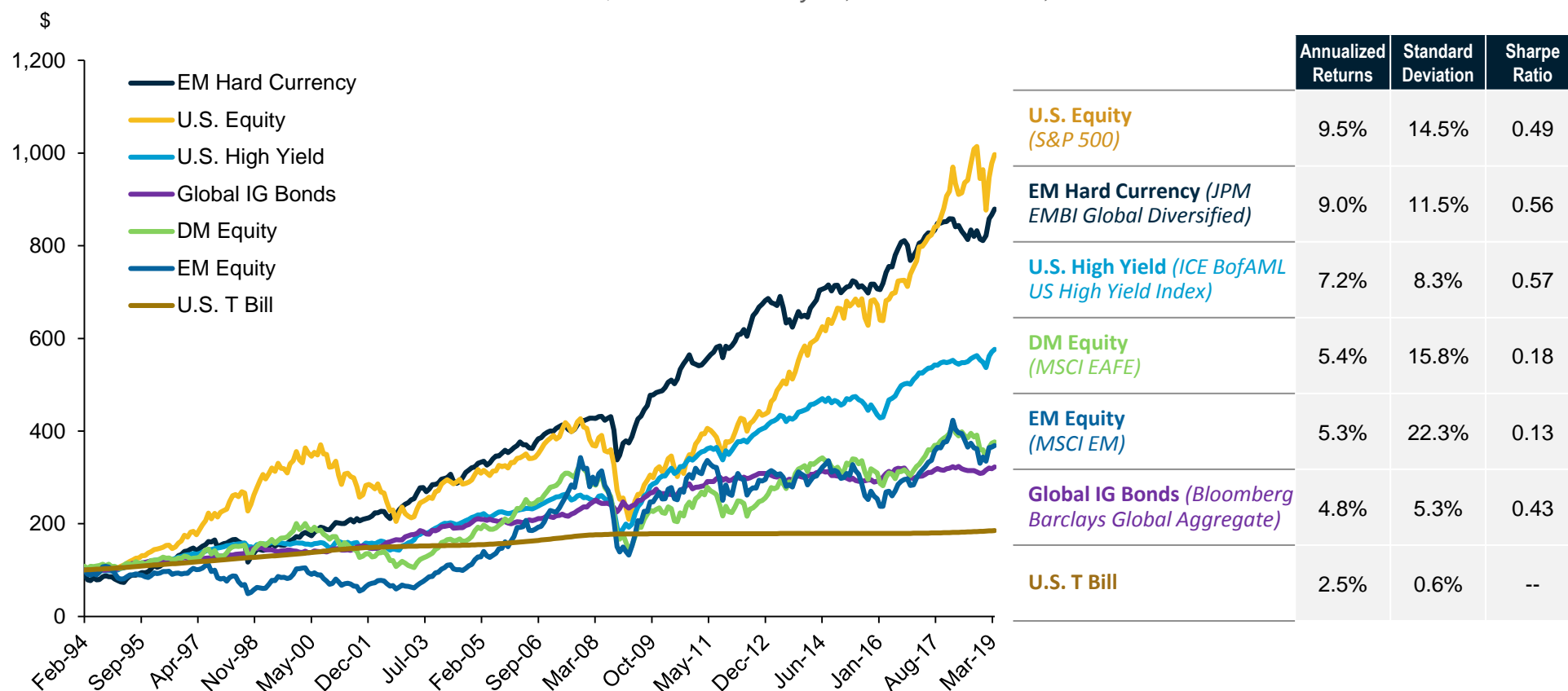
Currency: USD



Strong EM Performance over Long Term with Moderate Volatility

Asset Class Returns

Growth of \$100 from February 28, 1994 to March 31, 2019



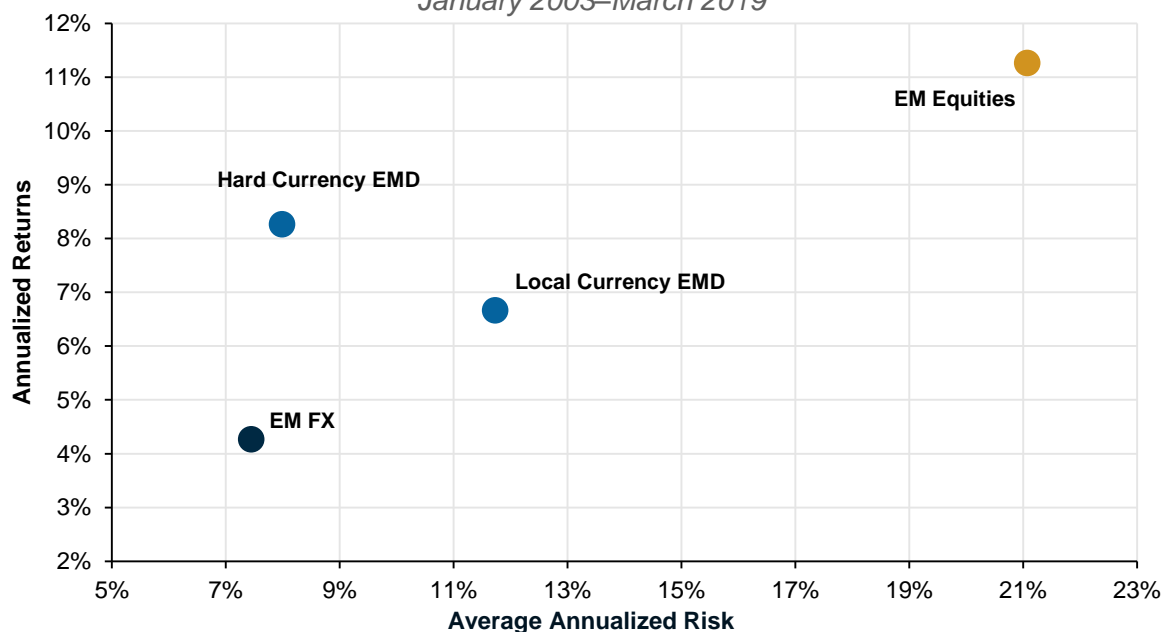
Past performance is not a guarantee or a reliable indicator of future results. Please see the Reference section for important disclosures, including risk, net returns, and benchmark descriptions. The value of investments can go down as well as up. Where overseas investments are held the rate of currency exchange may cause the value of investments to fluctuate. If applicable, investments in emerging markets are by their nature higher risk and potentially more volatile than those inherent in some established markets and non-USD securities are converted to USD using a spot rate conversion. All return periods longer than one year are annualized. Source of chart: PGIM Fixed Income. Source of indices: JPM EMBI Global Diversified, J.P. Morgan; S&P 500 and 3-Month LIBOR, Bloomberg; Bloomberg Barclays Global Aggregate, Bloomberg Barclays; ICE BofAML US High Yield Index, BofA Merrill Lynch; MSCI EAFE Equity and MSCI EM Equity, Morgan Stanley. 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 2019, J.P. Morgan Chase & Co. All rights reserved. An investment cannot be made directly in an index.



On a Risk Adjusted Basis, Emerging Markets Debt is More Attractive than Emerging Markets Equities

Risk and Return of Emerging Markets Investments Since the Inception of Emerging Markets Debt Local Currency Market

January 2003–March 2019



	Hard Currency EMD	Local Currency EMD	EM FX	EM Equities
Return ¹	8.26%	6.66%	4.26%	11.26%
Risk ¹	7.99%	11.73%	7.45%	21.08%
Sharpe Ratio ¹	0.88	0.46	0.40	0.47

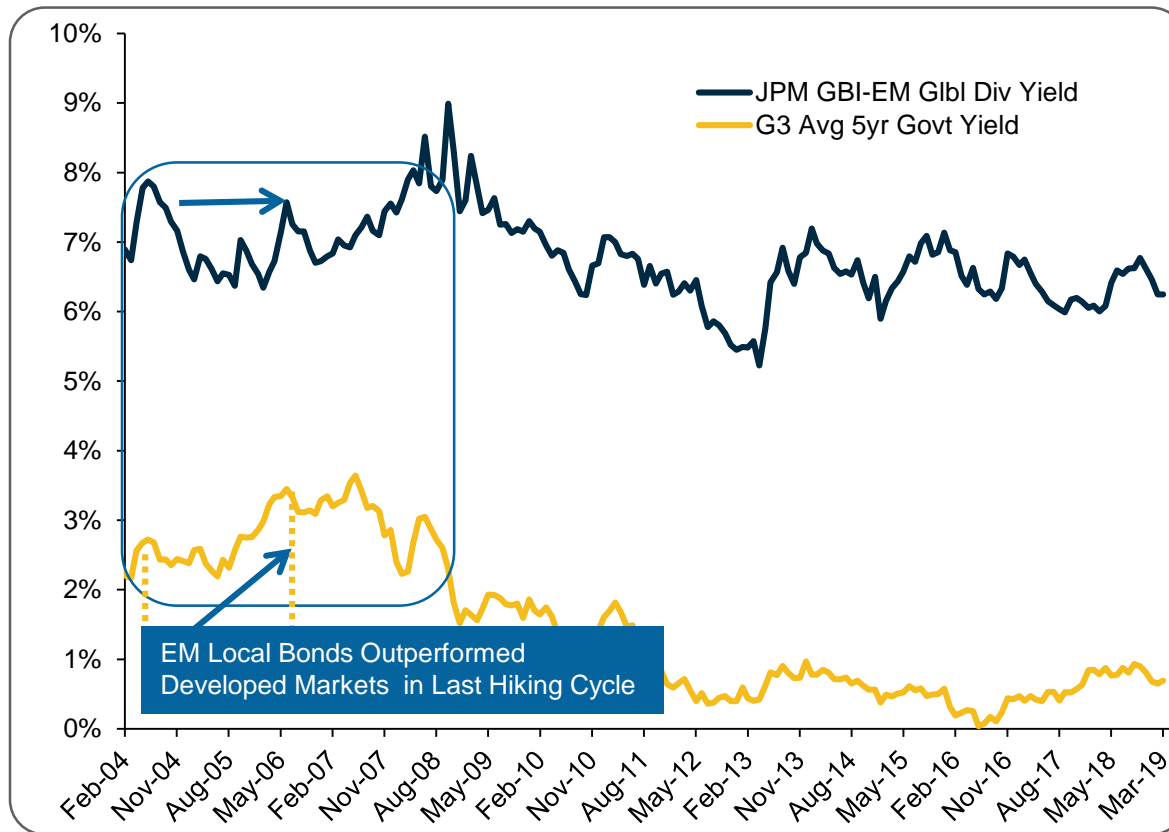
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Local Bond Yields Are Still Wide Compared to Developed Markets

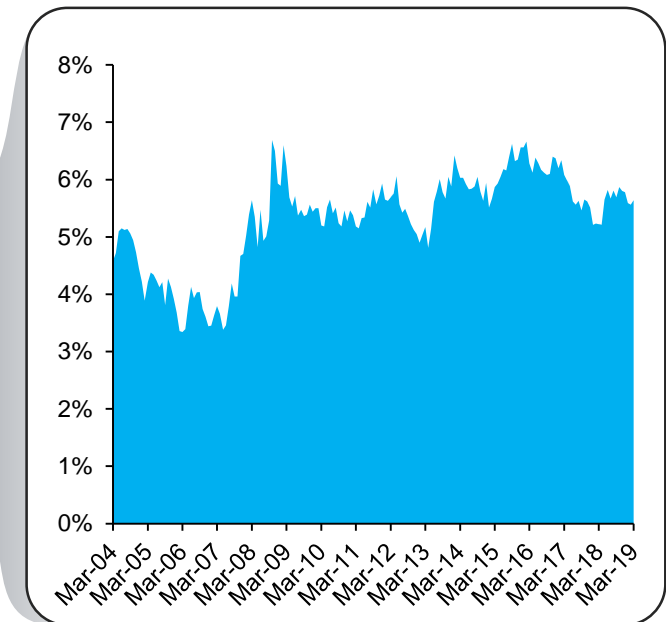
Emerging Markets Yields vs. 5-Year G3 Government Yield

As of March 31, 2019



Yield Differential

As of March 31, 2019



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NEXGEM and Other Idiosyncratic Countries Can Be Fertile Ground for Alpha

Country Index Returns EMBI Global Diversified Index

June YTD 2019

FY 2018

FY 2017

Top 15 Performers In The Index

Top 15	Index Total Return (%)	Alpha ¹
Ukraine	21.55	11
Ecuador	21.35	4
Kenya	20.25	2
Nigeria	18.46	0
Angola	18.11	0
Ghana	17.38	2
Costa Rica	17.03	2
Senegal	16.24	0
Egypt	15.19	4
Jordan	14.94	1
Cote D'Ivoire	14.40	2
Gabon	14.40	1
Kazakhstan	14.34	4
Paraguay	13.98	-1
Tunisia	13.93	1

Bottom 15 Performers In The Index

Bottom 15	Index Total Return (%)	Alpha ¹
Venezuela	-12.91	-3
Zambia	-4.98	-3
Suriname	1.75	0
Lithuania	3.47	6
Slovakia	4.04	2
Lebanon	4.24	-2
Serbia	4.93	3
Turkey	5.03	-8
Poland	5.75	11
Georgia	6.18	1
Croatia	6.45	6
China	6.71	16
Kuwait	7.67	0
Mozambique	7.69	0
Vietnam	7.74	0

Top 15—FY 2018	Index Total Return (%)	Alpha ¹
Mozambique	14.02	0
Belize	2.76	0
Azerbaijan	1.31	+1
Serbia	1.04	-3
Mongolia	0.86	+5
Croatia	0.82	-7
Brazil	0.79	-5
Lithuania	0.79	-5
China	0.76	-10
Poland	0.74	-14
Vietnam	0.27	-1
Slovakia	-0.12	-1
Honduras	-0.15	+1
Pakistan	-0.19	+4
Jamaica	-0.24	-3

Bottom 15—FY 2018	Index Total Return (%)	Alpha ¹
Egypt	-6.88	-4
Ukraine	-7.27	-4
Sri Lanka	-7.43	+2
Cameroon	-7.48	0
Oman	-7.95	+2
Cote D'Ivoire	-8.32	0
Costa Rica	-8.39	-2
Kenya	-8.51	+2
Ecuador	-9.20	+3
Tunisia	-10.00	-1
Senegal	-10.63	-1
Nigeria	-10.73	0
Venezuela	-20.29	+12
Argentina	-22.22	-38
Zambia	-24.79	0

Top 15—FY 2017	Index Total Return (%)	Alpha ¹
Belize	57.13%	+2
Angola	24.24	+7
Mongolia	23.69	+5
Iraq	23.53	+9
Ethiopia	21.61	+1
Mozambique	21.14	+1
Zambia	20.89	+3
Cameroon	20.69	+2
El Salvador	19.93	+3
Ecuador	19.21	+4
Uruguay	19.13	-4
Ghana	18.47	+3
Ukraine	17.91	+15
Dominican Republic	17.01	+2
Egypt	16.75	+13

Bottom 15—FY 2017	Index Total Return (%)	Alpha ¹
Venezuela	-34.43%	+17
Bolivia	0.47	+3
Latvia	2.16	+1
Slovakia	3.41	+2
Lithuania	4.42	+6
China	4.6	+16
India	4.93	+3
Poland	5.27	+13
Lebanon	5.34	-1
Philippines	5.91	+17
Russia	5.99	+17
Pakistan	6.36	0
South Africa	7.15	+4
Serbia	7.23	+3
Hungary	7.52	+14

June YTD Total Index
Return: 11.31%

2018 Total Index
Return: -4.26%

2017 Total Index
Return: 10.26%

■ = Countries we were Overweight

■ = Countries we were Underweight

■ = Neutral

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Uncertainty Creating Opportunities

Base Case

- Selective attractive valuations after rally
- Global growth converging as US slows more
- Trump/Xi trade tensions on “hold”
- Dovish momentum for Fed/ECB; inflation is low globally
- Cycle long, but next global recession not likely to be policy provoked
- Broad USD weakness may be reasserting itself

Risks to Base Case

- Trade tensions could re-escalate
- Geopolitics and sanctions policy (Iran, Russia)
- Falling commodities
- Additional unanticipated policy uncertainty (Argentina, Mexico/ Pemex, Turkey)

Strategy

Spread Risk—Mid/Late Cycle

- Emphasis on relative value, favoring barbell
- Single-B and BB sovereigns attractive vs US/global HY
- Focus on carry/ roll in higher risk issuers; in higher quality issuers focus on steep spread curves

EMFX—Mid Cycle

- EM currencies generally good fundamental value
- Focus on relative value and carry positions, with a small short dollar bias
- Looking for signs of growth pickup to increase exposure

Local Bonds—Mixed Cycle

- Favor markets where real yields are high
- Adding exposure where curves are steep and inflation is declining

What are Potential Drivers of the Next Major Selloff?

~~Systematic
Important
Hedge Funds~~

~~Banking Crisis~~

China
Slowdown

~~Inflation Spike
— FED/ECB, BOJ
perceived to be
behind the curve~~

Global
Recession

Trade
Wars

Adverse
Feedback
Loops

Unknown
Systemic
Risk

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