

EMERGING MARKETS OUTLOOK

SAN BERNARDINO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION



San Bernardino County Employees'
Retirement Association

Allan Martin, Partner

Sam Austin, Partner

Michael Malchenko, Sr. Client Specialist



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DEFINING EMERGING MARKETS

DEFINING EMERGING MARKETS EQUITY

- Broadly defined as countries with low to middle levels of per capita GDP or GNI
- May have a few large, well developed industries and/ or companies but are characterized by less diversified broader economies with less evolved capital markets
- MSCI used as a standard. Emerging Markets defined by two main criteria:

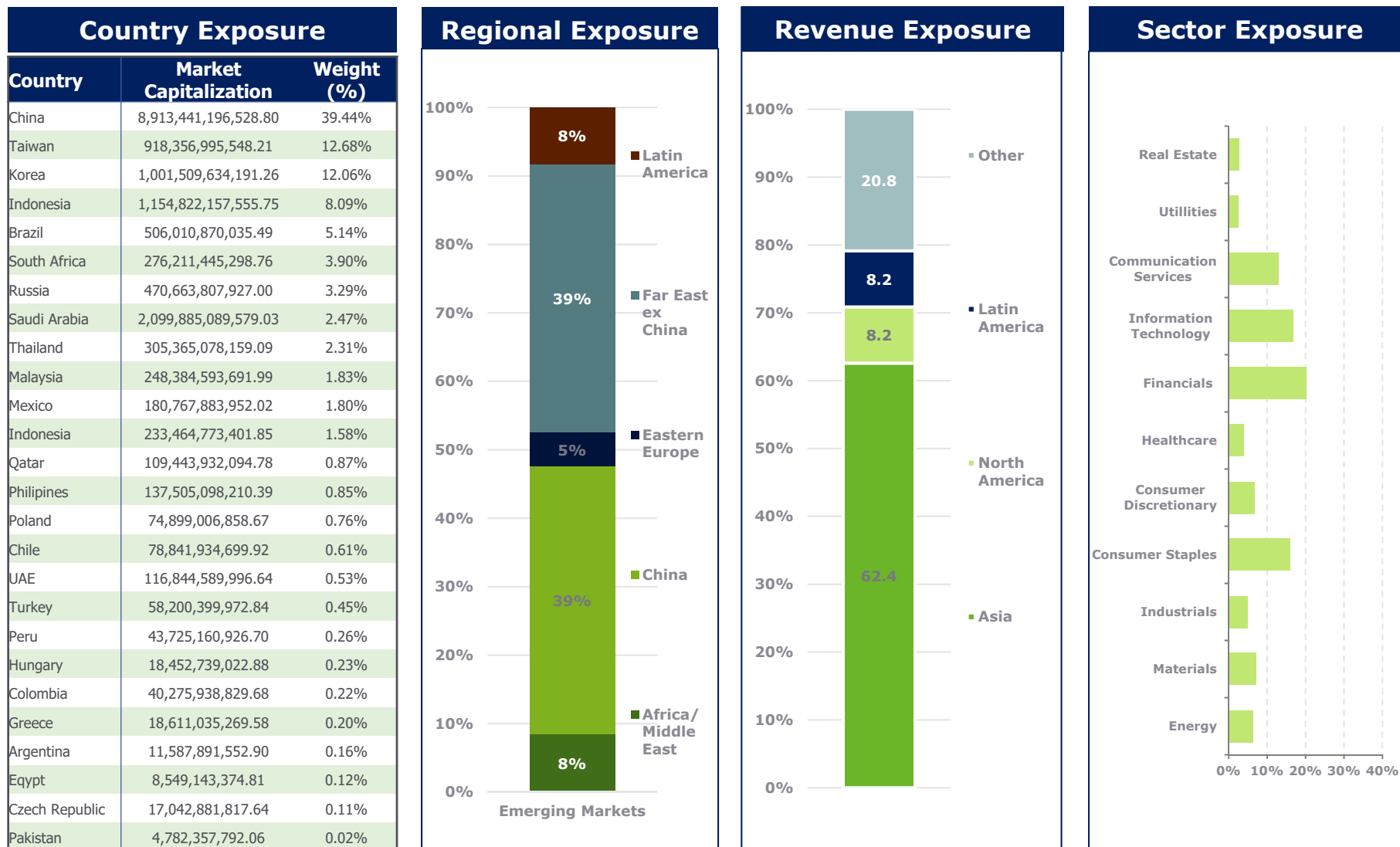
Criteria	Frontier	Emerging	Developed
A Economic Development			
A.1 Sustainability of economic development	No requirement	No requirement	Country GNI per capita 25% above the World Bank high income threshold* for 3 consecutive years
B Size and Liquidity Requirements			
B.1 Number of companies meeting the following Standard Index criteria Company size (full market cap) ** Security size (float market cap) ** Security liquidity	2 USD 700 mm USD 53 mm 2.5% ATVR	3 USD 1,400 mm USD 700 mm 15% ATVR	5 USD 2,801 mm USD 1,400 mm 20% ATVR
C Market Accessibility Criteria			
C.1 Openness to foreign ownership	At least some	Significant	Very high
C.2 Ease of capital inflows / outflows	At least partial	Significant	Very high
C.3 Efficiency of operational framework	Modest	Good and tested	Very high
C.4 Availability of Investment Instrument	High	High	Unrestricted
C.5 Stability of the institutional framework	Modest	Modest	Very high

* High income threshold for 2019: GNI per capita of USD 12,376 (World Bank, Atlas method)

** Minimum in use for the May 2020 Semi-Annual Index Review, updated on a semi-annual basis

ATVR, Annualized Traded Value Ratio (liquidity measurement)

DEFINING EMERGING MARKETS EQUITY



DEFINING EMERGING MARKET DEBT

- **What is an “emerging” country?**
 - Generally defined as countries with low to middle levels of per capita income
 - Emerging market debt universe has doubled over the last ten years, making up almost 25% of the current fixed income marketplace – and growing
- **Total emerging markets debt outstanding is estimated to be greater than \$16 trillion**
 - Approximately \$2 trillion of those are issued externally, generally in USD or Euro (Hard Currencies)
 - The rest of issuance is done locally by EM sovereign and corporate entities, the majority of which are not institutionally investable due to legal and trading restrictions
- **The investable universe for traditional EMD investors is estimated to be approximately \$1.9 trillion**
 - Broadly divided up in three segments: EM Sovereign Hard Currency, EM Sovereign Local Currency, and EM Corporate Hard Currency



SBCERA EMERGING MARKETS PROGRAM

SBCERA Policy Asset Class	Policy Target	Policy Range	Actual Allocation	Benchmark
Emerging Market Equities	6%	1% - 11%	8.3%	MSCI Emerging Markets Index
Emerging Market Debt	8%	1% - 12%	9.5%	50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified

	Manager	Investment Product	Investment Summary/ Strategy	NEPC Due Diligence Status
Emerging Markets Equity	Mondrian Investment Partners	Emerging Markets Equity	Value-oriented and defensive. Mondrian invests in stocks where rigorous dividend discount analysis isolates value in terms of the long-term flow of dividends. Dividend yield and future real growth play a central role in our decision making process and over time the dividend component is expected to be a meaningful portion of expected total return.	Watch, due to product merger
	Russell Investments	Indexed	Dynamic index exposure using primarily options and futures	No Action
	TOBAM	Anti-Benchmark EME	The Anti-Benchmark approach is designed to avoid explicit and implicit biases in terms of sector, style, market cap and other statistical measures. It applies as few constraints as possible and does not rely on a given view or forecast, in order to avoid unwanted systematic exposures. TOBAM seeks to maximize the number of risk drivers it is exposed to. Hence it does not limit the number of drivers in a portfolio, as opposed to what happens with a factor-driven approach, represented by the market cap-weighted index.	No Action
Emerging Markets Debt	Ashmore Group	MCA/ Multi-Strategy	The investment philosophy is primarily top-down with an analytically-driven, selection process used for instrument selection. The style is active, macro-based with a strong focus on liquidity management. Portfolio Managers have the technical skills and an understanding of the asset class gained over many years of experience which fits in well with our rigorous and proven investment approach.	No Action
	Gramercy Funds Management	MCA/ Multi-Strategy	Gramercy's approach to emerging markets debt securities is built upon both a qualitative and quantitative platform designed to identify opportunities which are mispriced versus their underlying fundamental value. For both sovereign and corporate investments, valuation tools are employed to provide a foundation for identifying those credits which are on an improving trend and more importantly, mispriced relative to their credit score. The quantitative tool is based upon rigorous back testing of historical drivers that have led to fundamental improvements in emerging economies. This process combines three primary sets of data to determine the sovereign credit worthiness of each country in the universe. The data indicators are broadly grouped into liquidity, solvency and fundamental data which have been the historical drivers of prior emerging crisis and the key ratios that lead to credit improvements. Based upon this data, a credit score and a rich/cheap valuation measure for each country is determined based upon yield spread to treasuries.	No Action
	PGIM	EMD Opportunities Fund	PGIM Fixed Income's investment approach seeks to add value primarily through research-based country allocation, security selection, FX, and, to a lesser extent, yield curve management. The Emerging Markets Team's duration management decisions are made on a country by country basis based on the outlook for central bank policy, inflation, and output gaps. It is also a function of the team's assessment of the global appetite for risk. Yield curve decisions are made with similar considerations. When they interpret the global appetite for risk as a positive factor (i.e. global investors appear willing to assume more risk), they will tend to express this through slightly more aggressive yield curve positioning.	Hold, due to personnel departures



Source: eVestment and NEPC

SBCERA EMERGING MARKETS EXPOSURE

Asset Class and Investment Management	Market Value	% of Asset Class	% of Total Fund
Total Emerging Markets Equity	822,089,784	100%	8.30%
Mondrian	125,271,247	15.20%	1.30%
Russell Overlay (MSCI EM Index*)	426,798,893	51.90%	4.30%
TOBAM	270,019,644	32.80%	2.70%
Total Emerging Markets Debt	942,145,413	100%	9.50%
Total Ashmore	238,715,594	25.30%	2.40%
Total Gramercy	620,742,139	65.90%	6.30%
Prudential	82,687,680	8.80%	0.80%

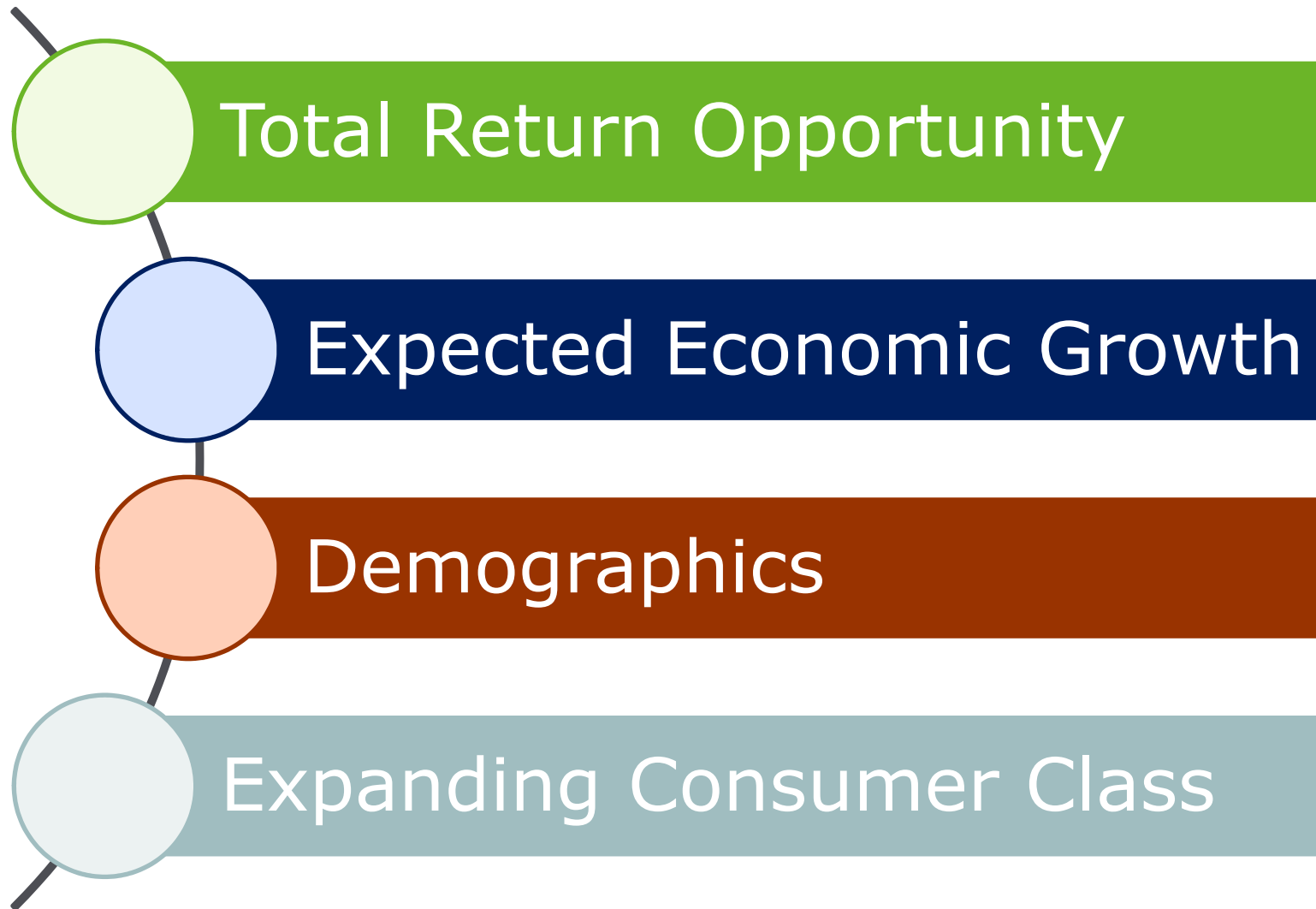
* Synthetic Exposure, primarily futures and options



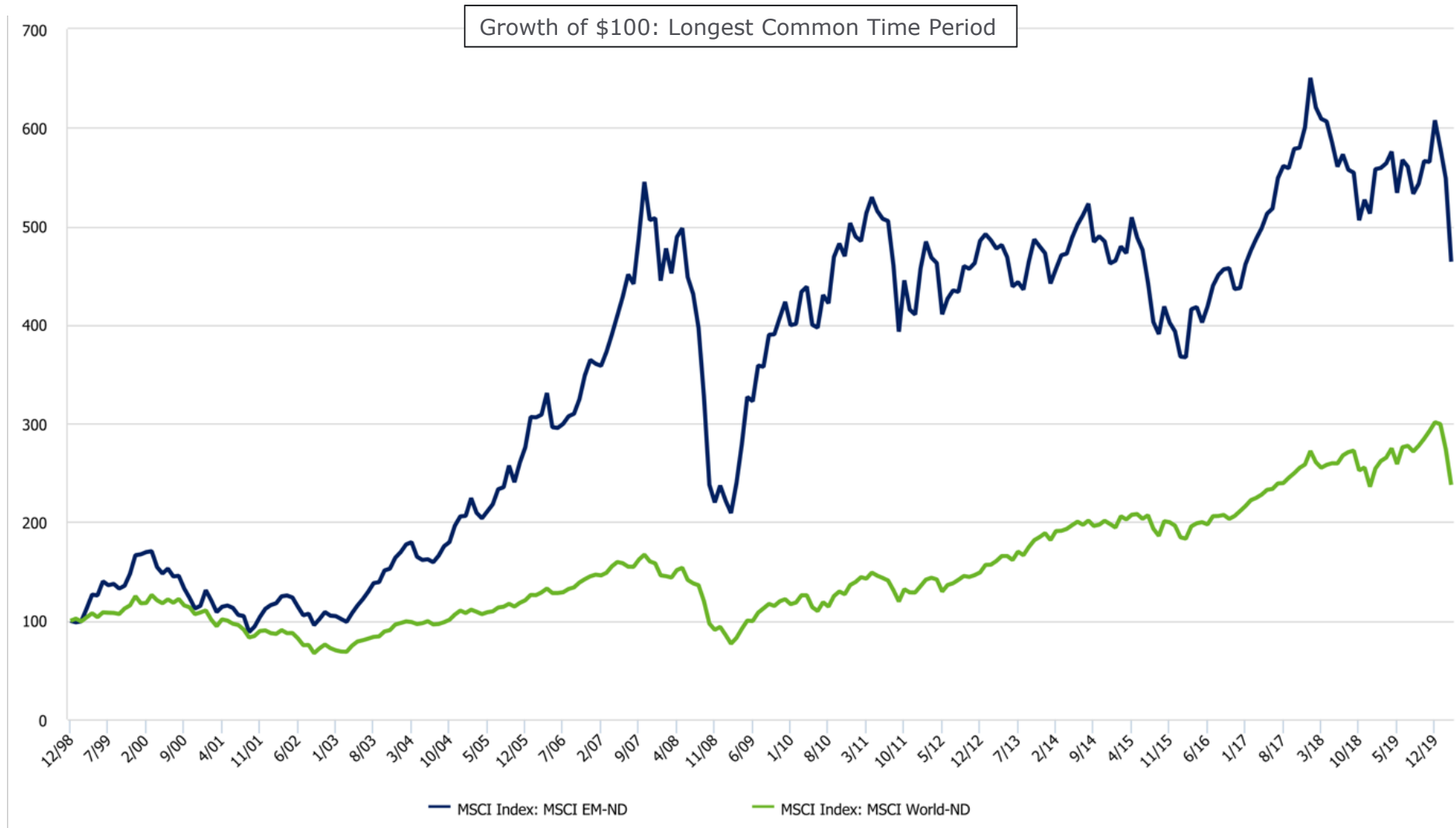
WHY WE INVEST IN EMERGING MARKETS

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WHY INVEST IN EMERGING MARKETS?



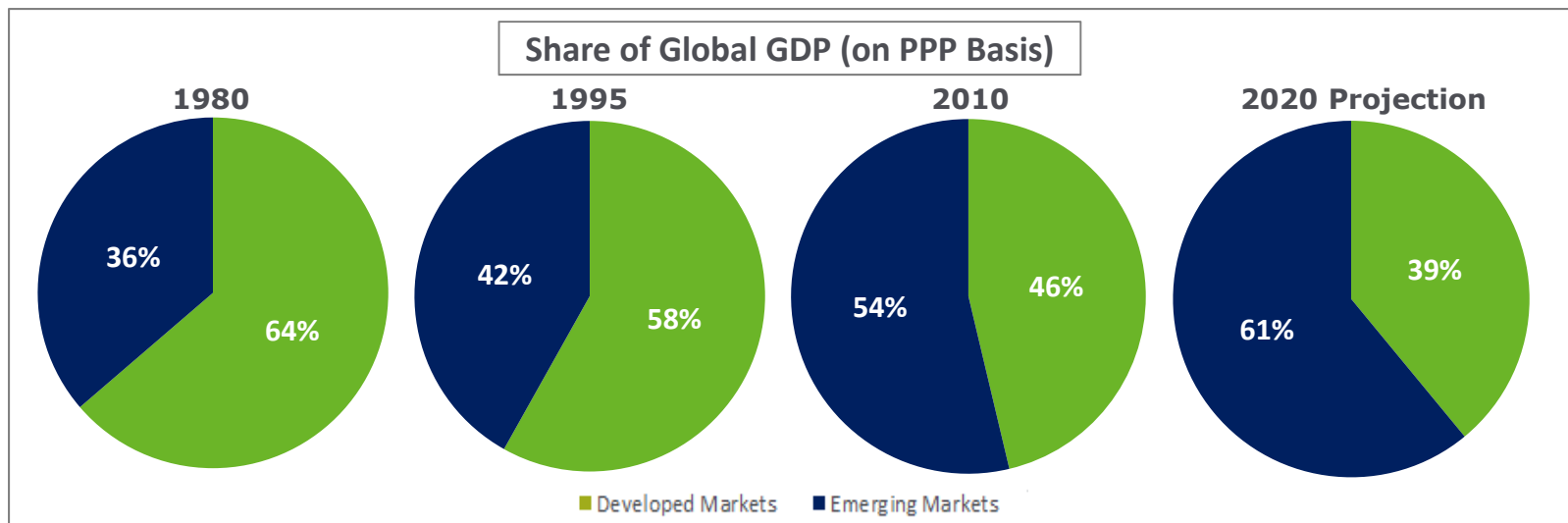
EM HAS OUTPERFORMED OVER THE LONG-TERM



Source: eVestment

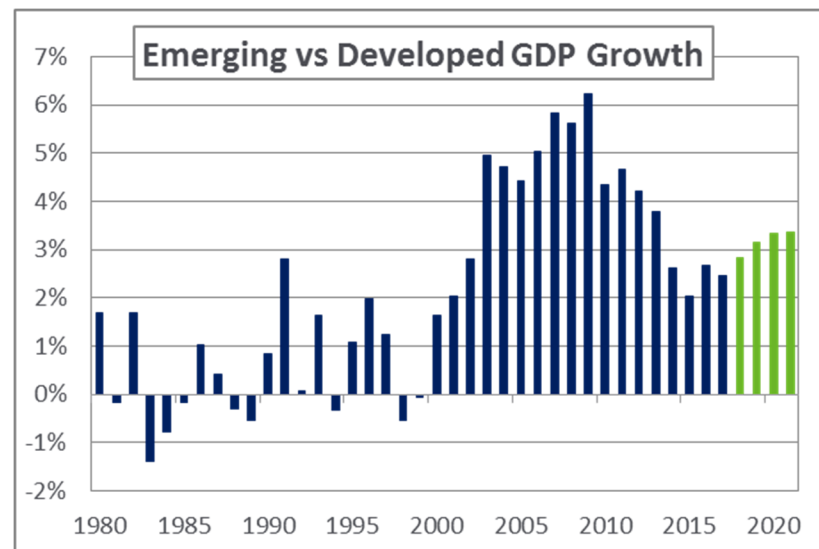


ECONOMIC GROWTH POTENTIAL



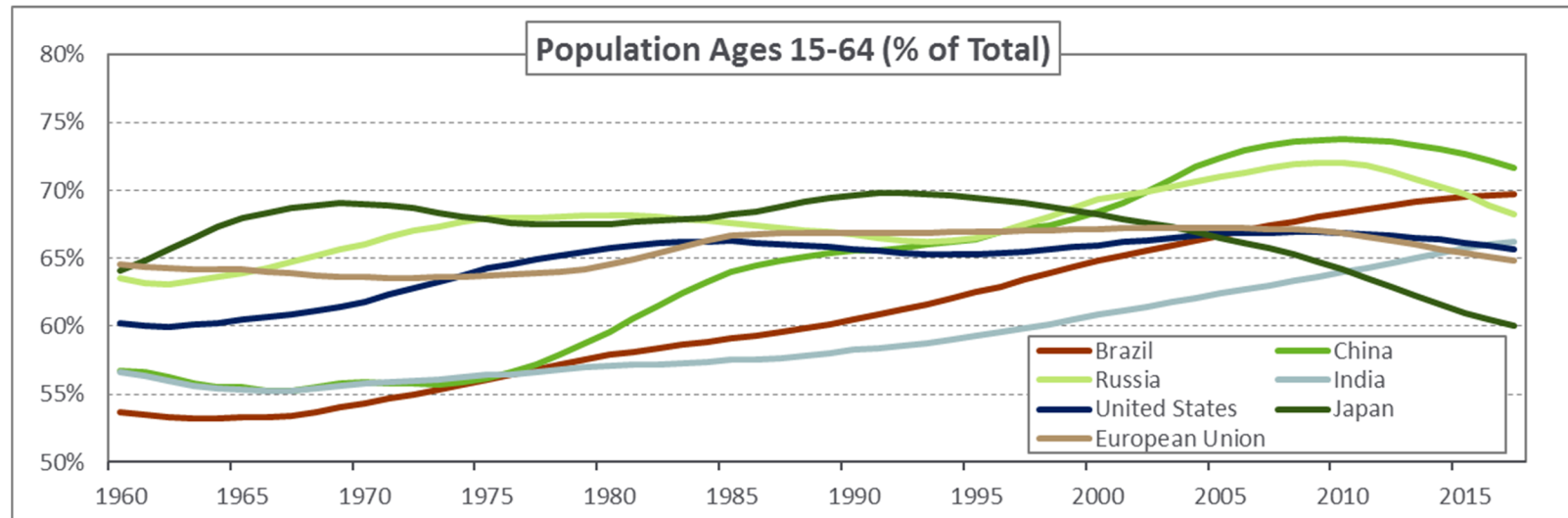
Source: IMF

- **The emerging versus developed market growth differential is expected to increase**
- **Despite China's slowing growth, the country's size is likely to support broad EM growth for years to come**
 - Even with headwinds from China, other Asian and Middle Eastern countries are expected to grow at a robust pace



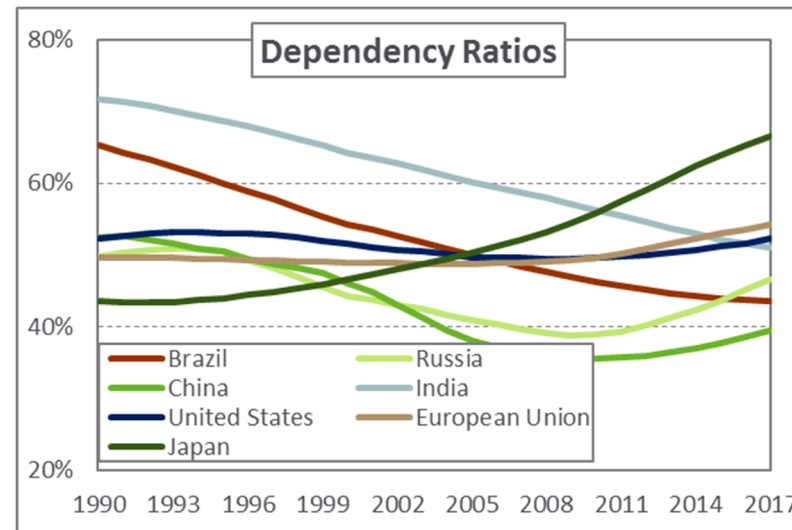
Source: IMF

YOUNGER DEMOGRAPHICS



Source: The World Bank

- **Many economies are facing the problem of a rapidly aging population**
 - Aging populations pose unique challenges including a shrinking labor force, increasing healthcare costs, rising pension costs, etc.
 - EM economies are better positioned for this shift as a growing working-age population can help support growth over the long-term



Source: World Bank

Dependency Ratio = (Population 0-14 + Population 65+) / Population 15-64

EMERGING CONSUMER CLASS

Key Drivers of Consumption Growth:

Labor Market

Urbanization

Income Growth

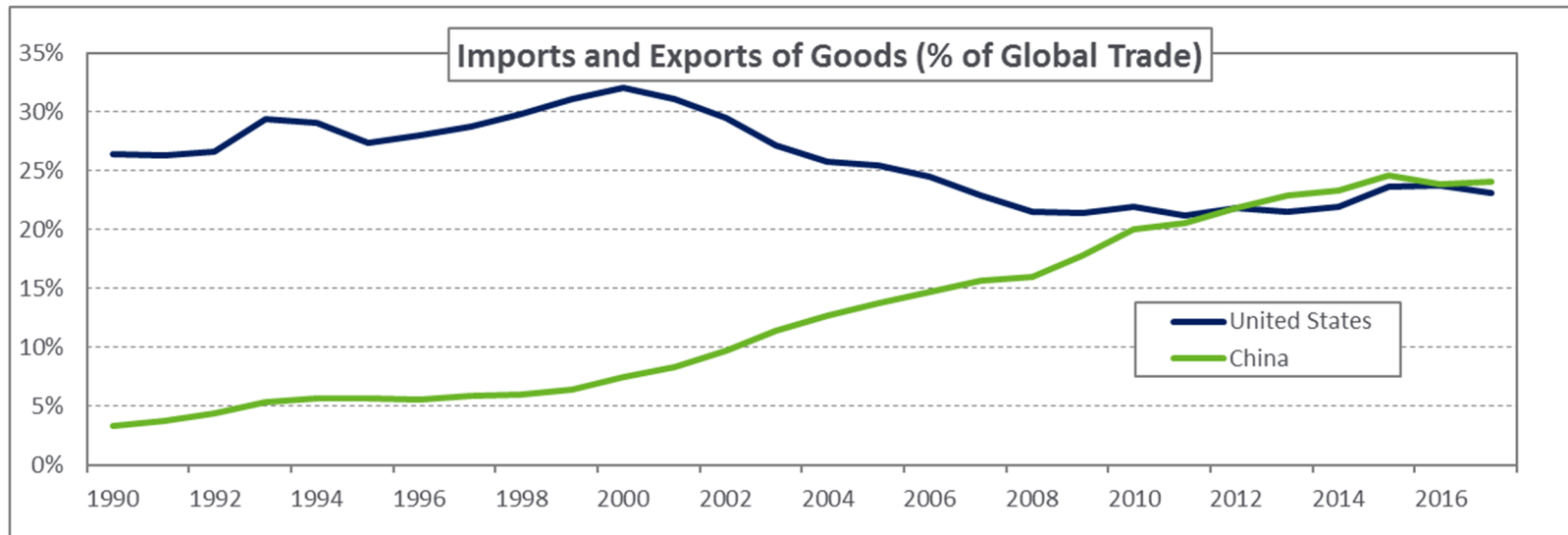
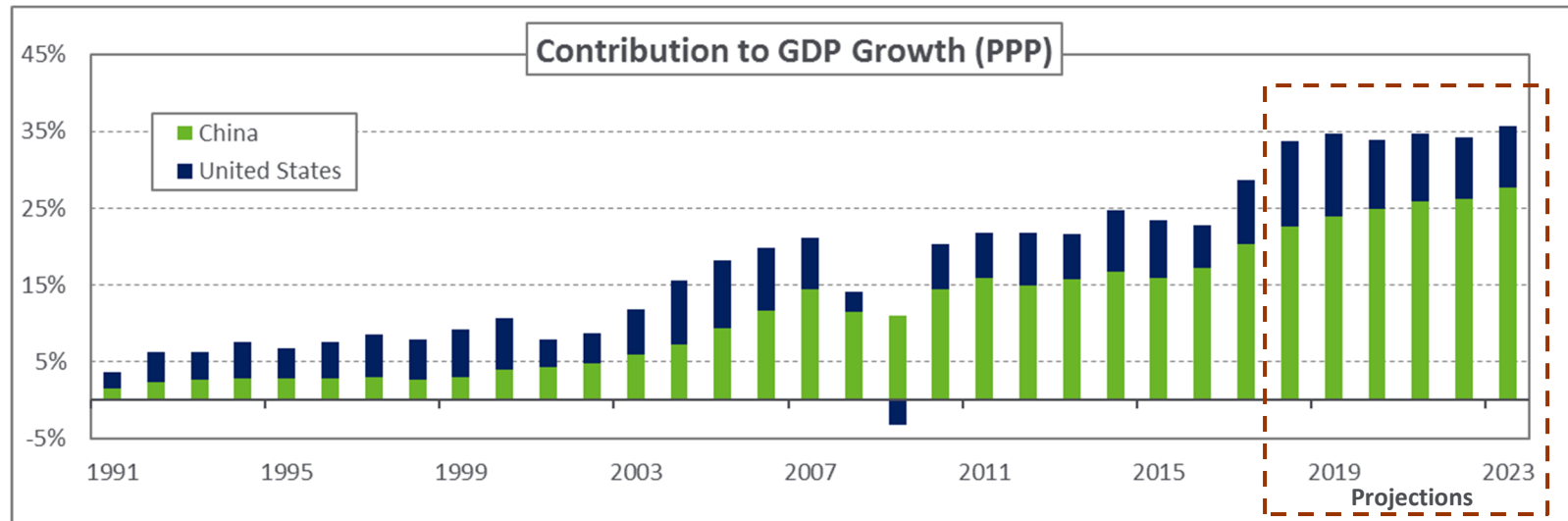
Credit Growth

- **Expanding consumer demand is a key component for developing economies to push through the “middle income trap”**
 - Stable growth in these four key drivers can create a self-reinforcing economic cycle to increase per-capita GDP and domestic demand over a long-term period
- **As discretionary income grows in lower-middle income countries, consumers will no longer spend most of their income on basic needs, resulting in a growing middle class and increased domestic consumption**
- **Many emerging market nations are benefiting from a wave of urbanization, large labor markets, and advancing financial infrastructure**
- **Urbanization generally drives an expansion in human capital, education opportunities, and job prospects leading to real wage growth and broad improvement in quality of life metrics**
 - The result is positive secular economic growth trends resulting in higher income and credit usage which sets the stage for a consumption boom in the emerging world

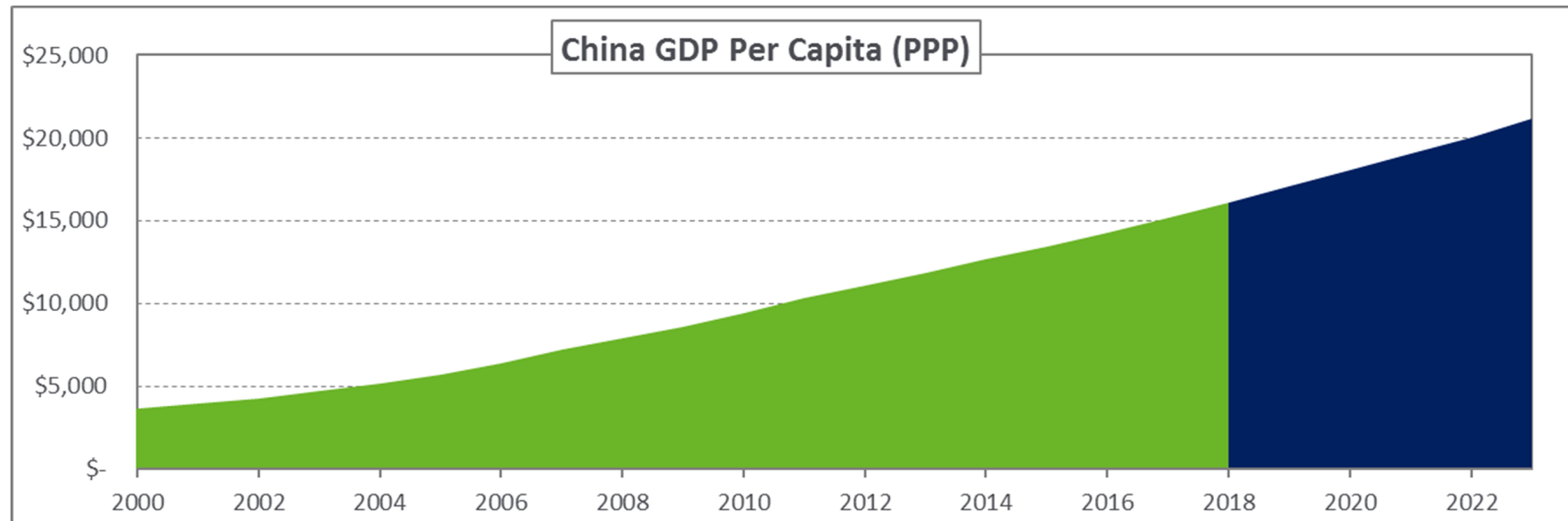
CHINA

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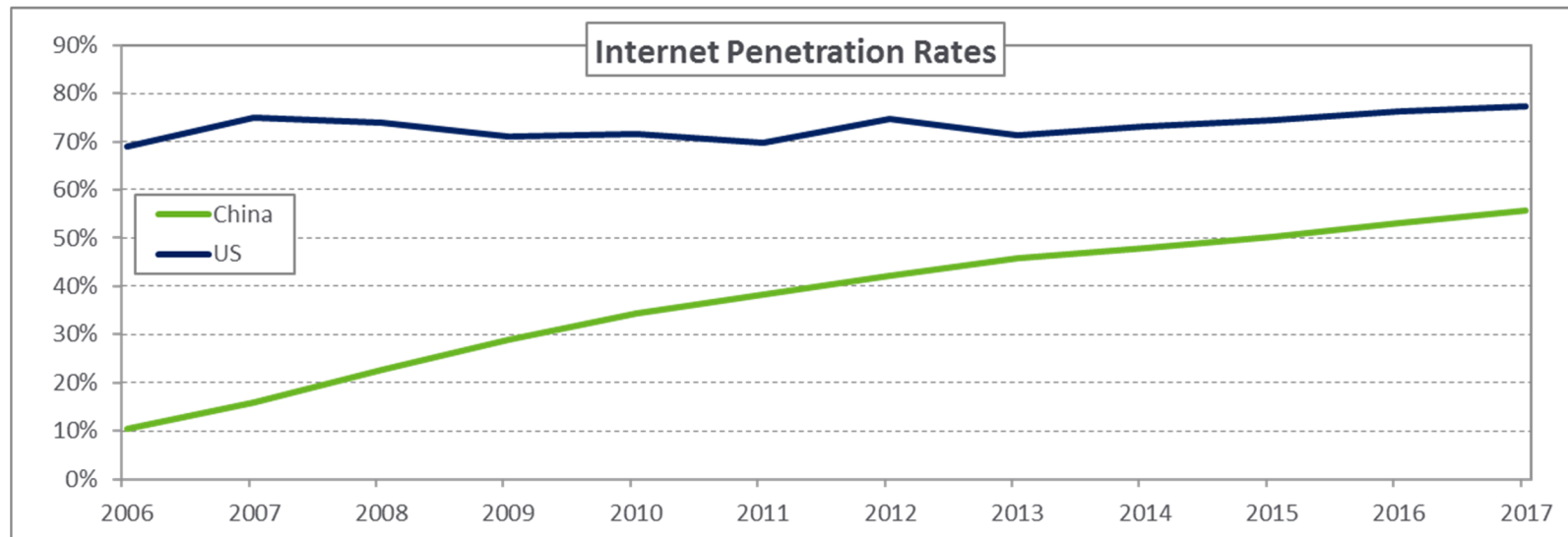
AN OPPORTUNITY TOO BIG TO IGNORE



INTERESTING DEMOGRAPHICS



Source: IMF, Bloomberg



Source: Bloomberg

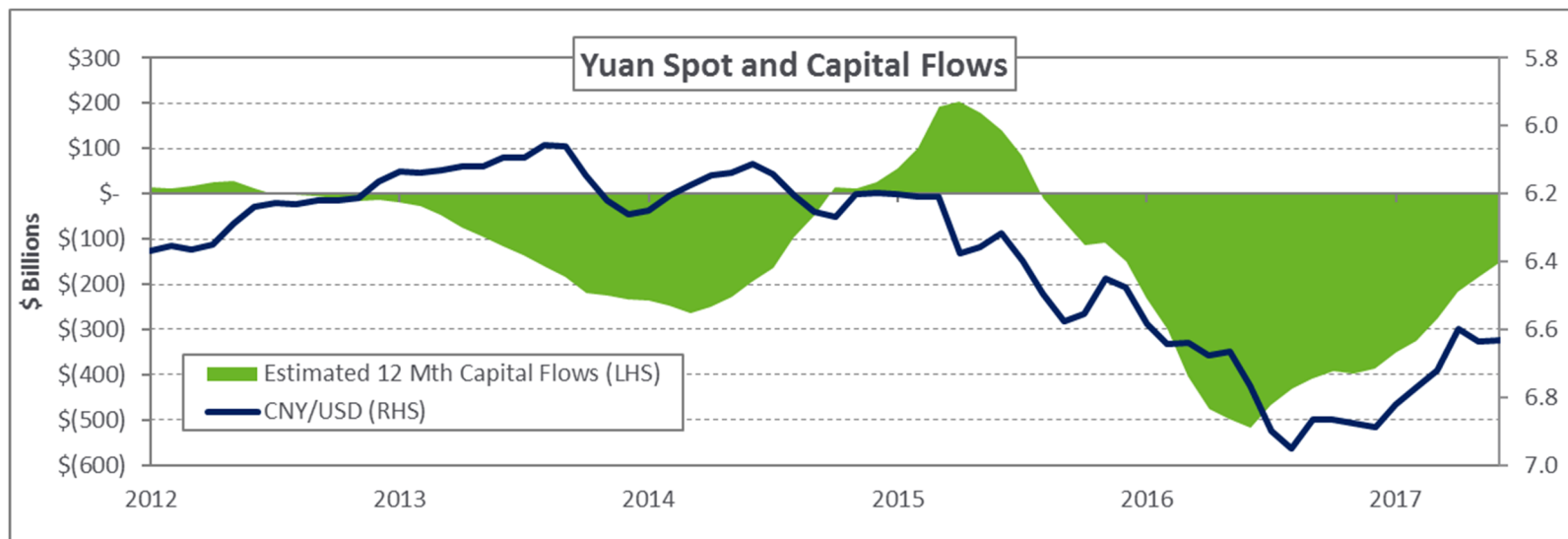
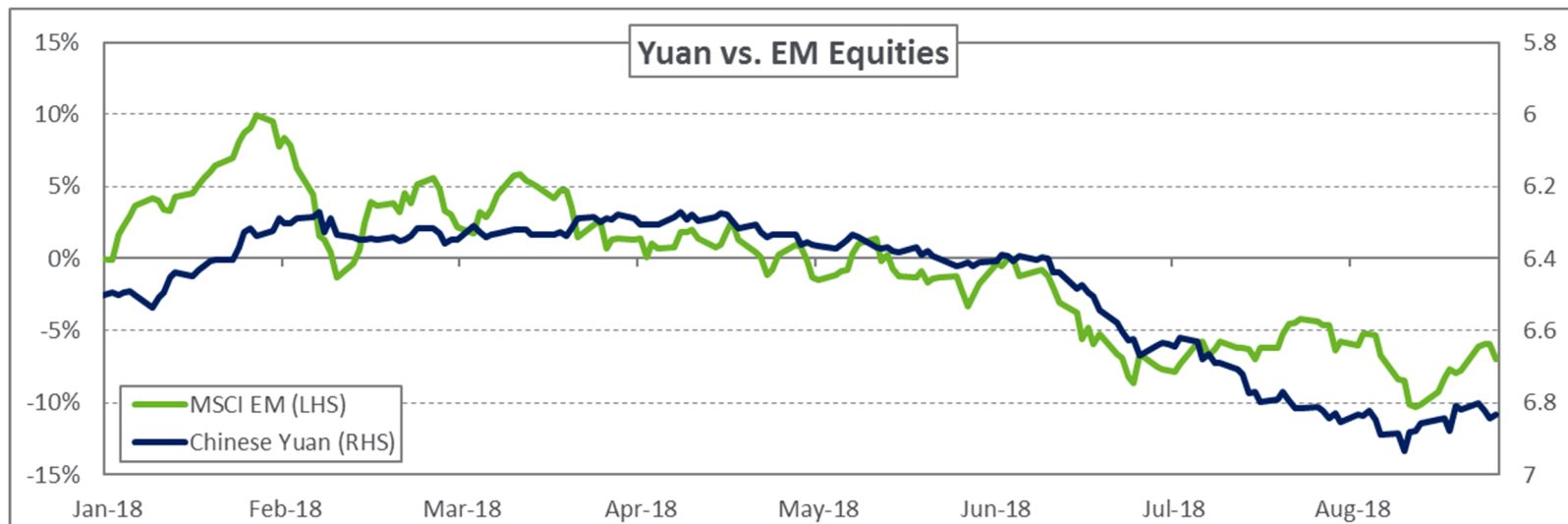
RECENT CREDIT GROWTH IS A CONCERN



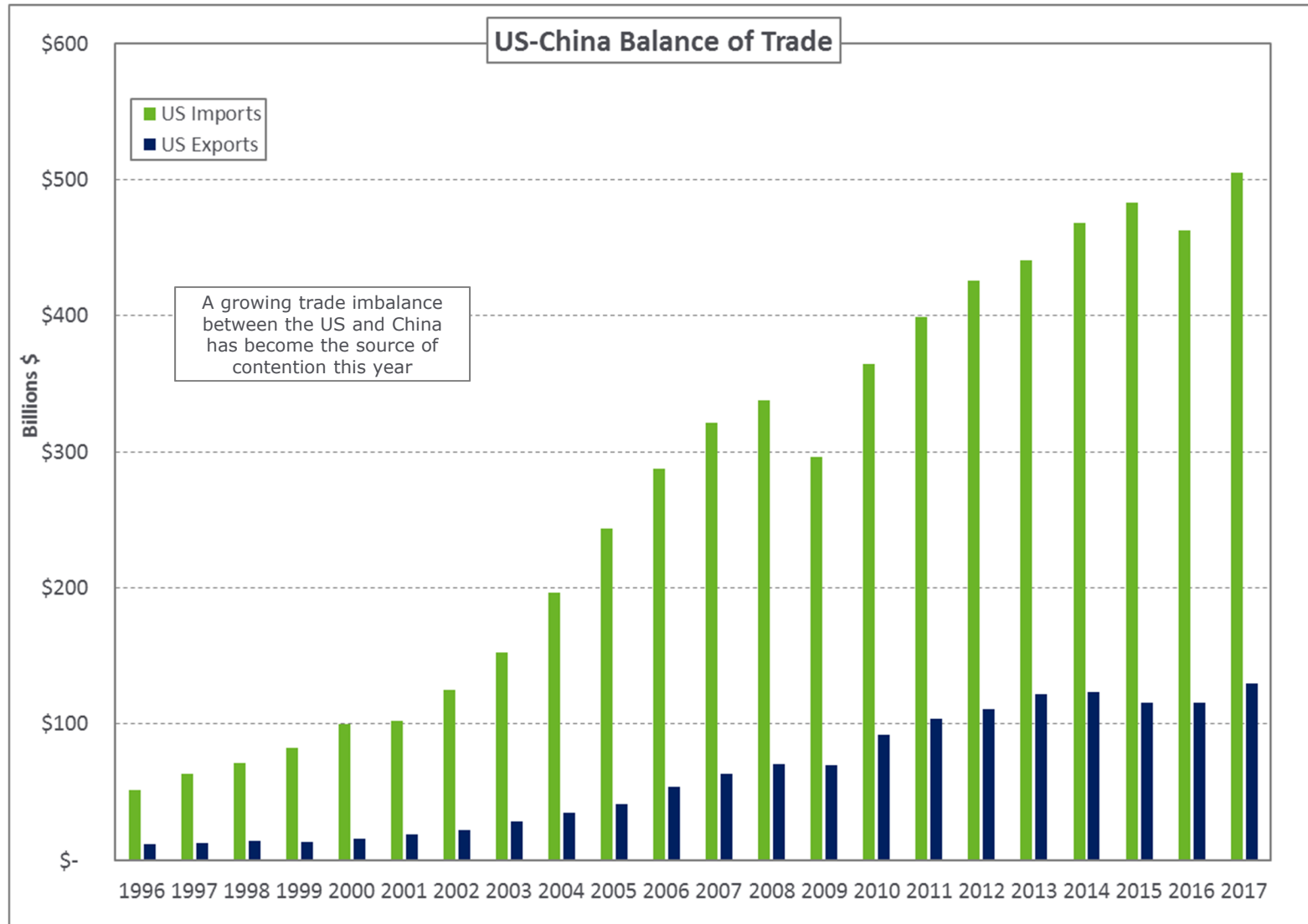
Source: Bank of International Settlements

- **Following the 2008 financial crisis, a rapid expansion in credit helped fuel China's subsequent economic growth**
- **History has shown that rapid credit expansion for a country's financial system often fuels instability and leads to economic disruption**
 - China's state-controlled economic model and the central government's healthy fiscal profile may help reduce the possibility and potential impact of a credit disruption

YUAN MOVEMENT IMPACTS BROAD EM SENTIMENT



US-CHINA TRADE RELATIONS



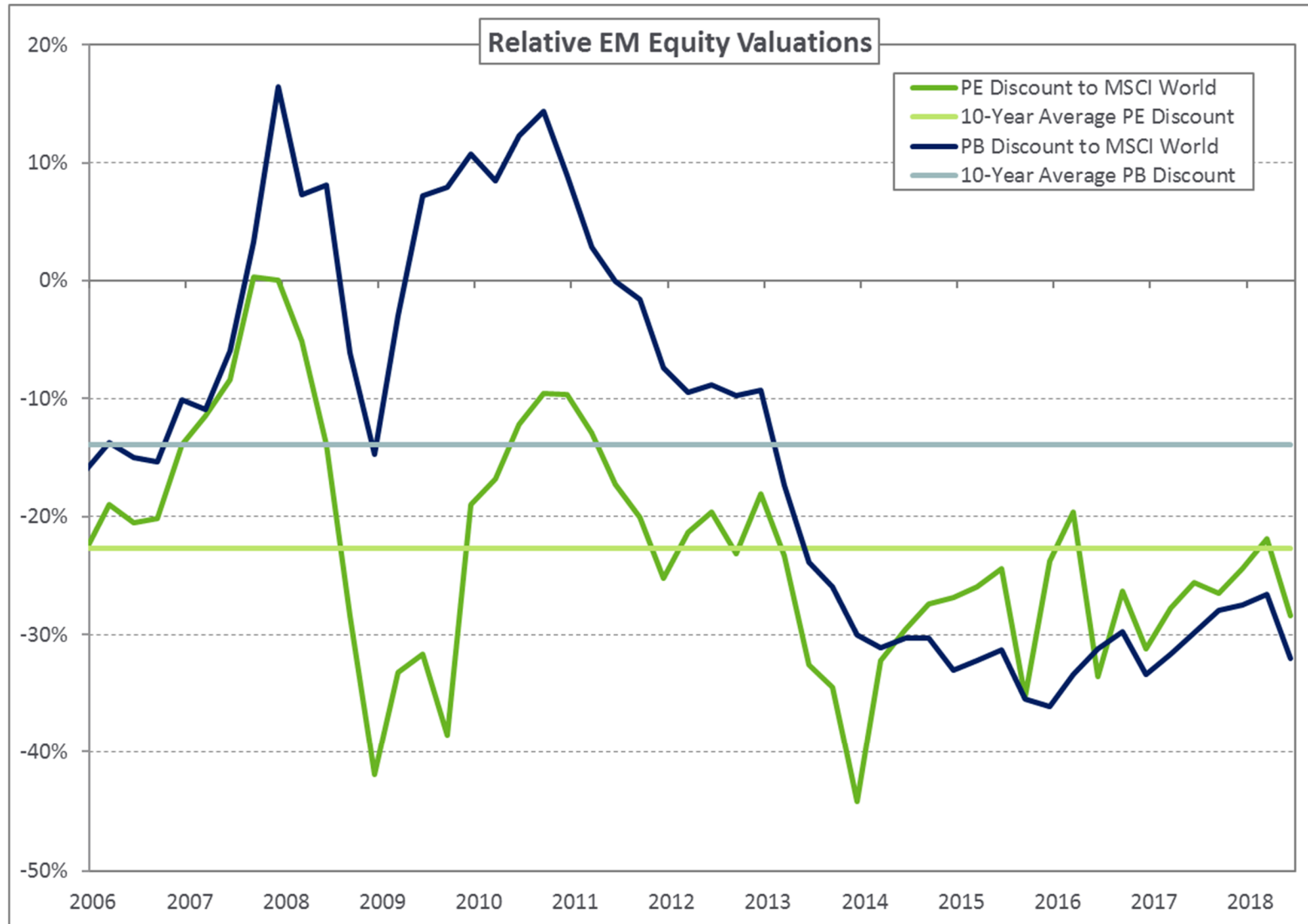
Source: US Census Bureau



THE CASE FOR EM STILL HOLDS

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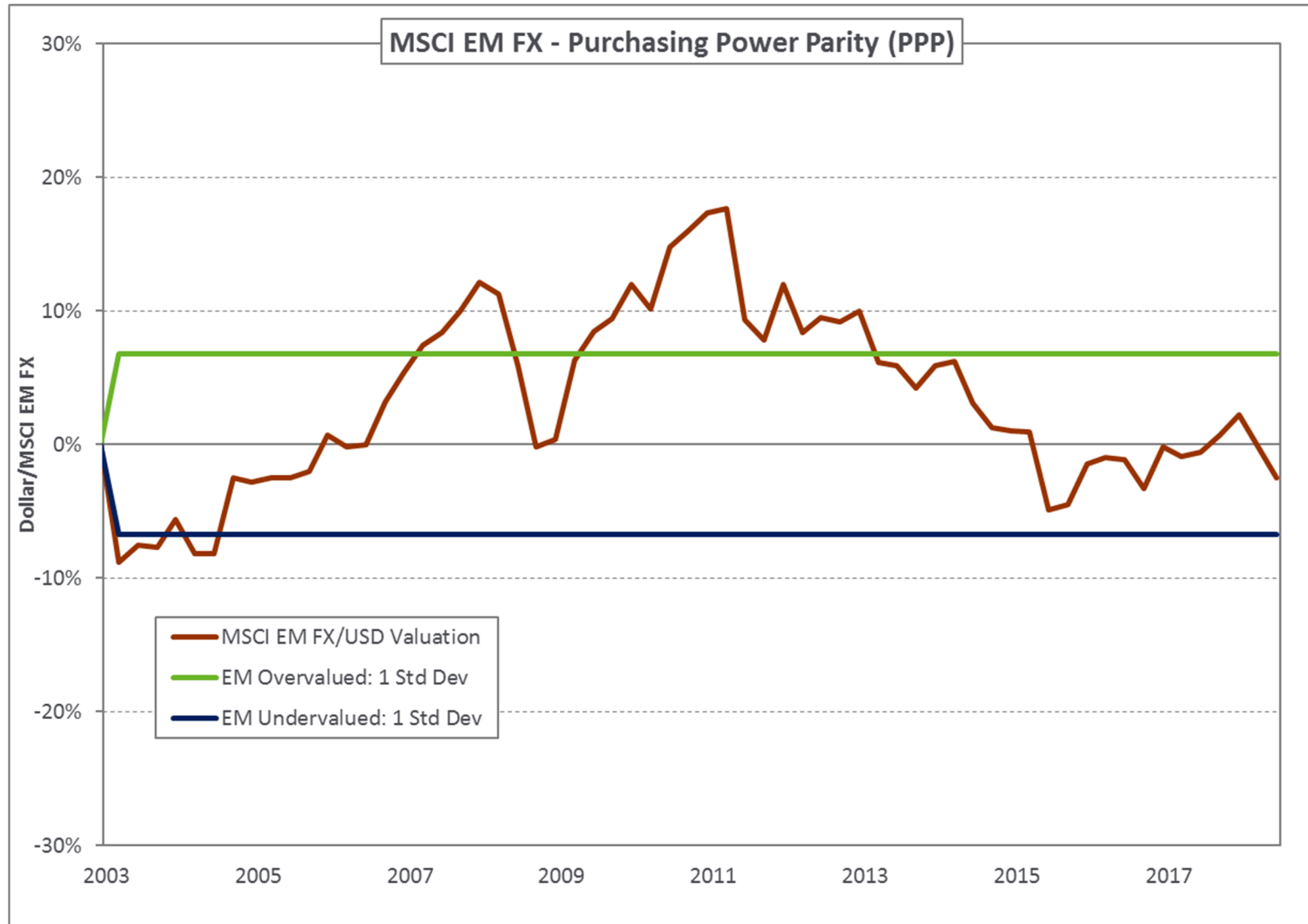
ATTRACTIVE VALUATIONS



Source: MSCI, Bloomberg



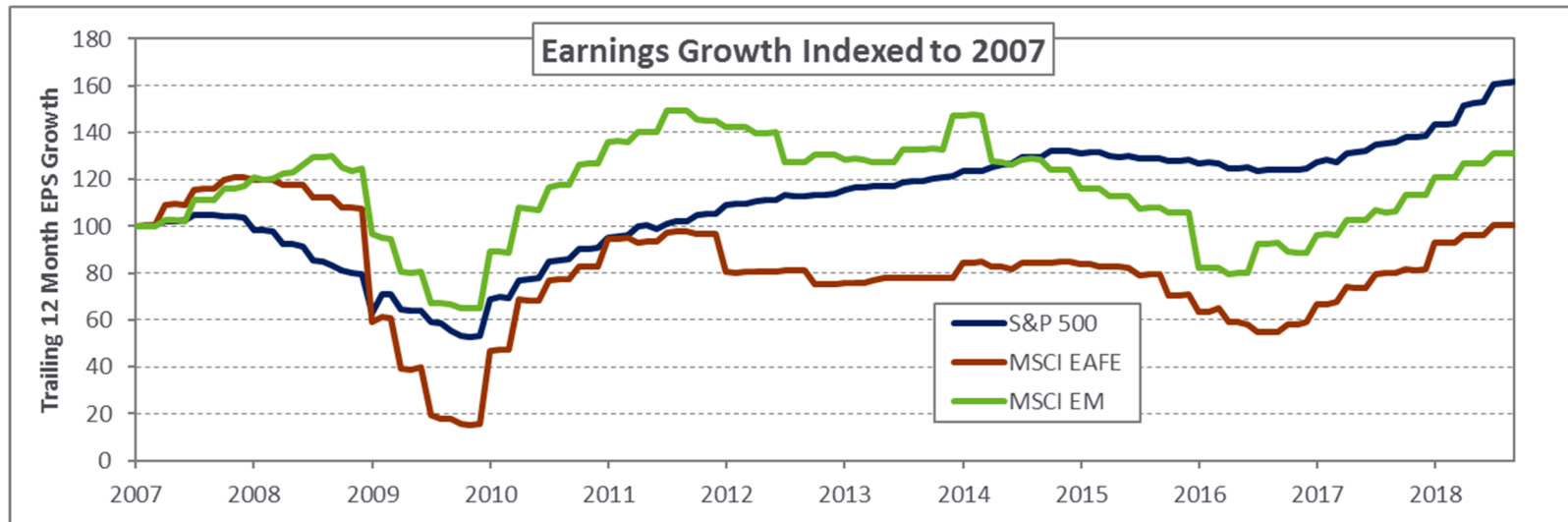
CURRENCIES ARE GENERALLY UNDERVALUED



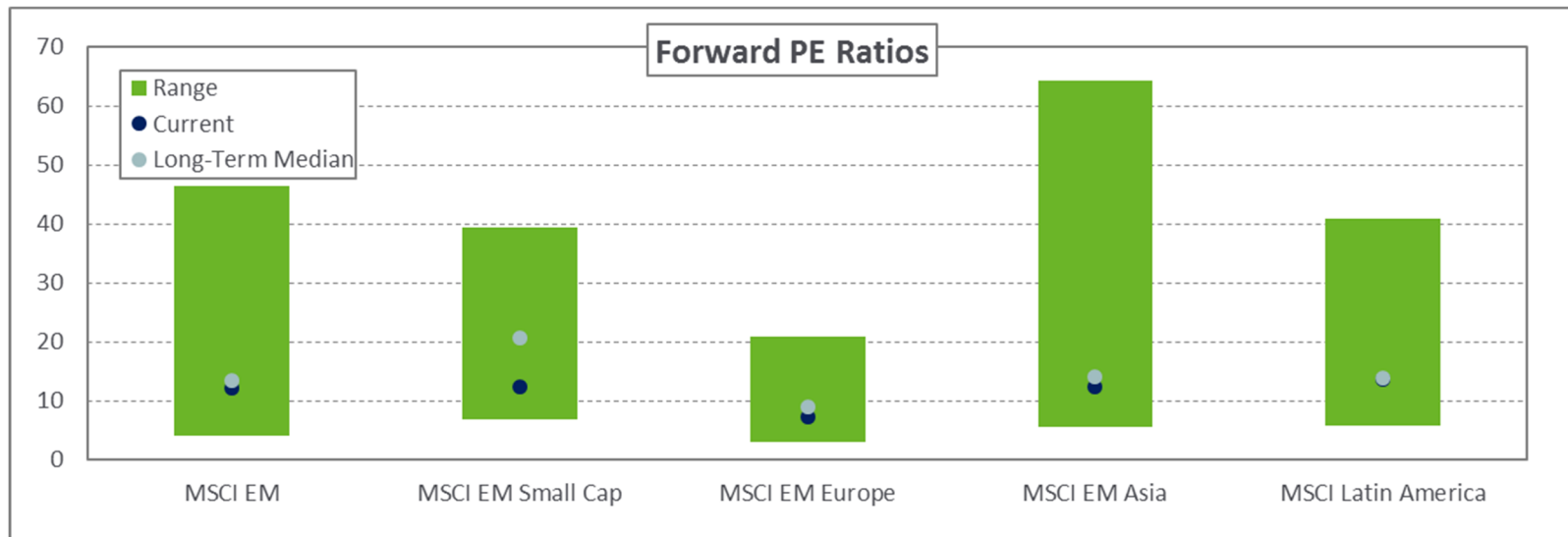
Source: MSCI, Bloomberg, NEPC



EARNINGS GROWTH REMAINS STRONG



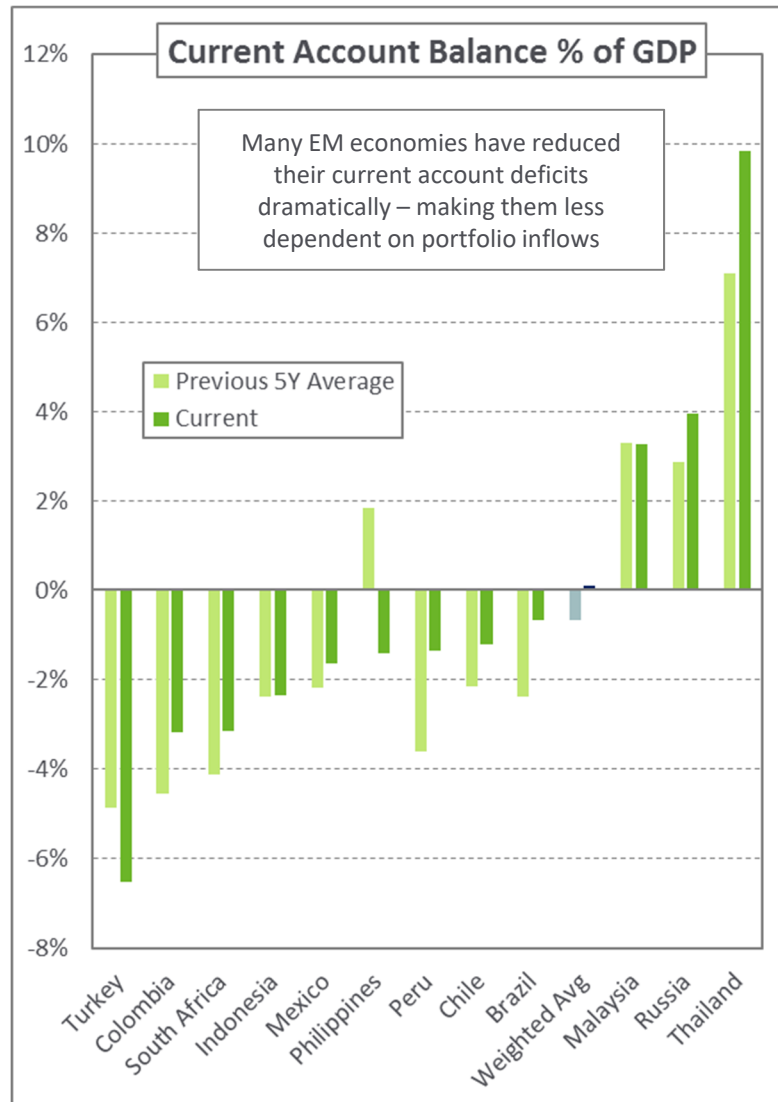
Source: Bloomberg, MSCI



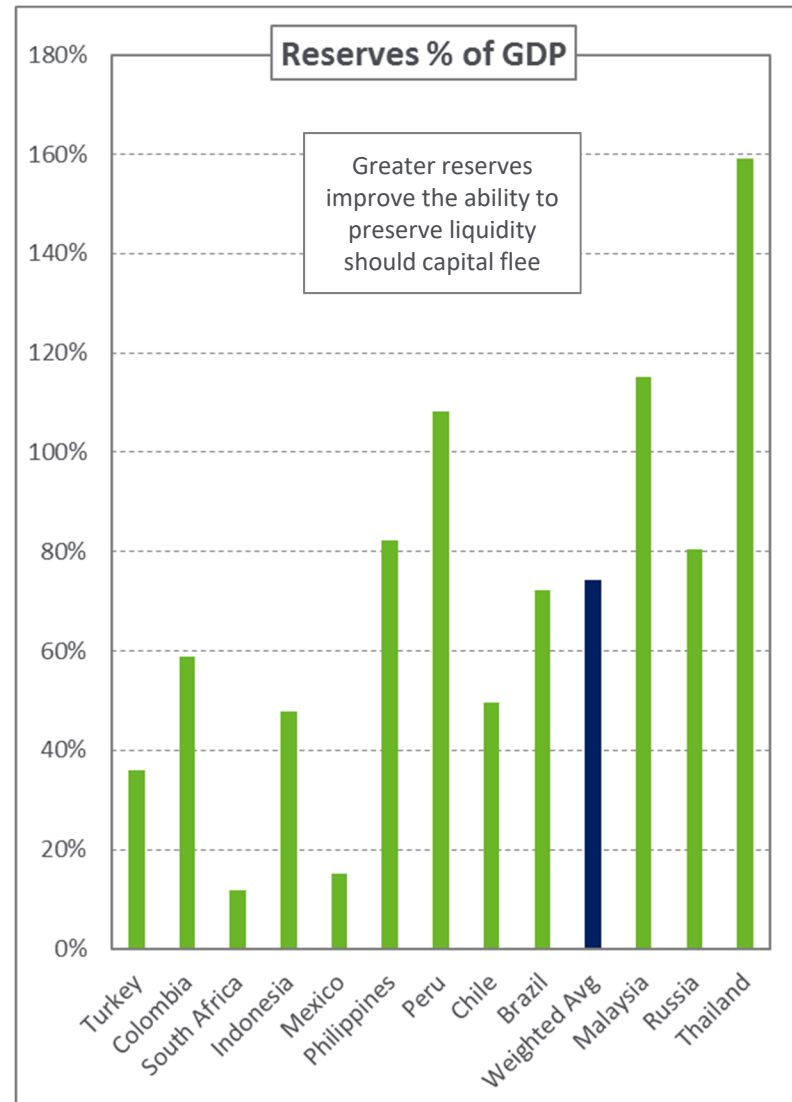
Source: Bloomberg, MSCI



FUNDAMENTALS HAVE BROADLY IMPROVED



Source: JPM, Bloomberg, NEPC



Source: JPM, Bloomberg, NEPC

EMERGING MARKET EQUITIES

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EMERGING MARKETS EQUITIES

General Market Thoughts

- **Implementation is manager dependent across large and small cap**
- **Consider small overweight to small cap due to alpha profile; Small Cap should not be only exposure**
- **China's startup ecosystem is drawing increased funding from investor community; in 2018 approximately 30% of global venture being directed into Chinese startups**
- **Domestic consumption and technology-enabled business themes dominate the private growth equity landscape in Asia-Pacific region, particularly in China and other developing countries**

Equity Implementation Views

Strategy		Outlook	Commentary
Public	Passive	Neutral	Lower fees and transaction costs make replication more attainable
	Large Cap	Positive	Should be the majority (80-85%) of your EM exposure
	Small Cap	Positive	Slight (5-10%) overweight to EM Small Cap vs. MSCI EM Small Cap for alpha opportunity (manager specific); Should not be your only Emerging Markets exposure
Private	Venture – Early Stage	Positive	Target managers with broad and relevant networks and expertise and appropriately sized funds (<\$500 million)
	Venture – Late Stage	Neutral	With Asian valuations high, target local managers that have a focused strategy whose value-add goes beyond that of a capital provider
	Growth/ Buyout	Positive	Invest with managers with strong sourcing channels and ability to drive value creation within their portfolios



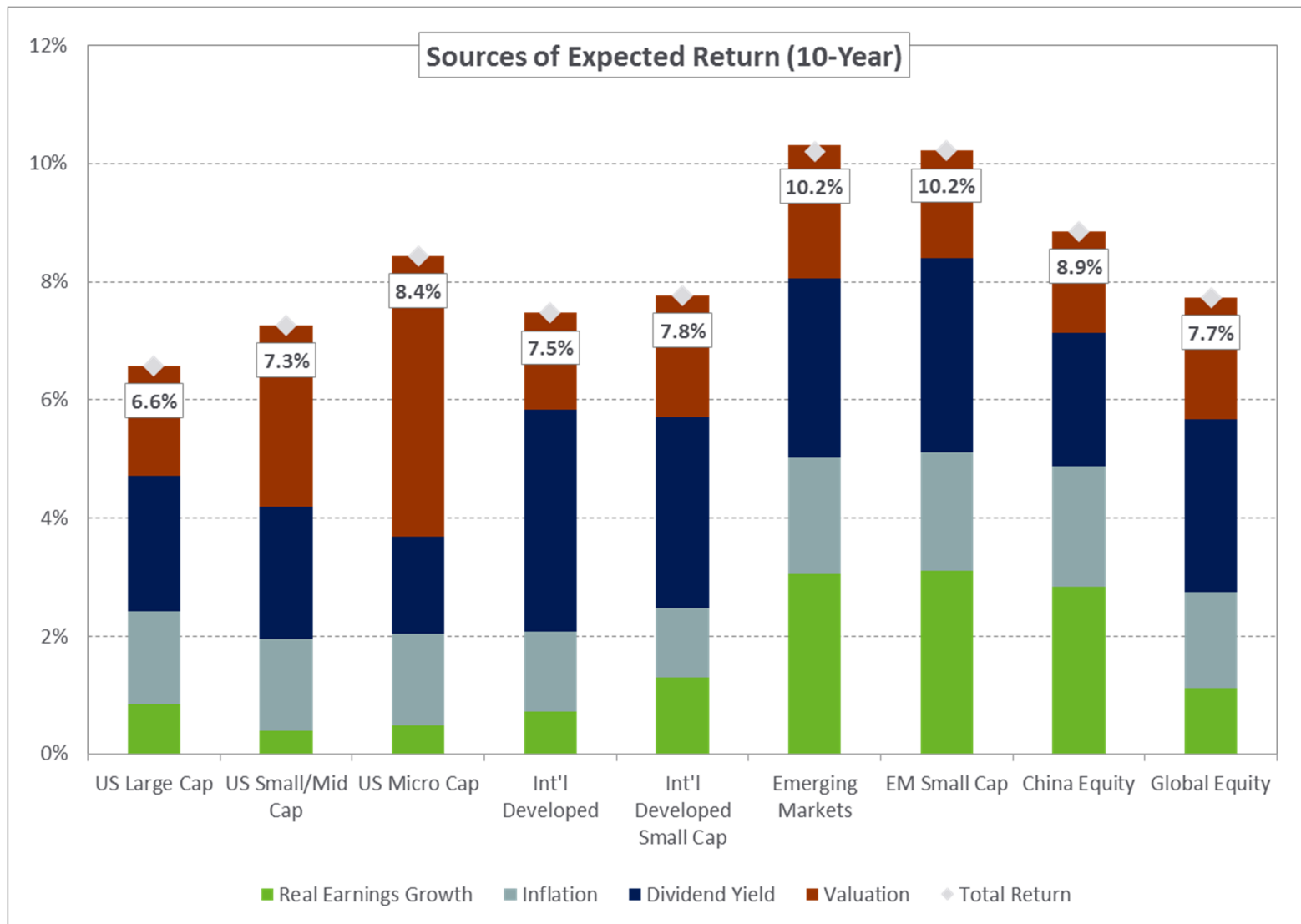
EQUITY: ASSUMPTIONS

Equity Building Blocks		Asset Class	2020 Q1 10-Year Return	Change from 11/30/19
Illiquidity Premium	The additional return expected for investments carrying liquidity risk	US Large Cap	6.6%	+1.6%
Valuation	An input representing P/E multiple contraction or expansion relative to long-term trend	US Small/Mid-Cap	7.3%	+1.8%
		US Micro Cap	8.4%	+1.4%
Inflation	Represents market-specific inflation derived from index country revenue contribution and region-specific forecasted inflation	International (Unhedged)	7.5%	+1.5%
		International Small Cap	7.8%	+1.4%
		Emerging Markets	10.2%	+1.2%
Real Earnings Growth	Reflects market-specific real growth for each equity asset class as a weighted-average derived from index country revenue contribution and forecasted GDP growth	Emerging Markets Small Cap	10.2%	+1.0%
		China Equity	8.9%	+0.1%
		Hedge Funds – Long/Short	4.8%	-
Dividend Yield	Informed by current income distributed to shareholders with adjustments made to reflect market conditions and trends	Global Equity	7.7%	+1.5%
		Private Equity	10.9%	+1.5%

Source: NEPC



EQUITY: BUILDING BLOCKS



Source: NEPC



EMERGING MARKET DEBT

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EMERGING MARKETS DEBT

General Market Thoughts

- **Increasing caution across the EMD universe**
 - Overall growth forecasts trend upwards, albeit expectations were revised down in late 2019
 - Volatility is amplified with trade tensions and increased level of geopolitical risks
 - EMD has had good performance across sectors in 2016, 2017 and 2019
- **EM hard currency at tight valuations, local currency remains attractive**
 - Inflows have been strong; hard currency sovereigns have been the major recipient
 - Favorable outlook for valuations, fundamentals, and technicals for local rates and FX
- **EMD Blended vs. EMD Local**
 - EMD blended approach moderates FX volatility and serves as a long-term strategic allocation.
 - EMD Local-only approach is a concentrated bet on local rates and currencies with a higher risk-return potential relative to blended

Implementation Views

Strategy	Outlook	Commentary
EMD Local	Positive	Attractive real rates differential remains vs. DM, EM FX still attractive; volatility heightened
EMD External Sovereign	Neutral	Valuations are tight, idiosyncratic risks, significant inflows in 2019, upside limited
EMD External Corporates	Neutral	Stable fundamentals, fair valuations



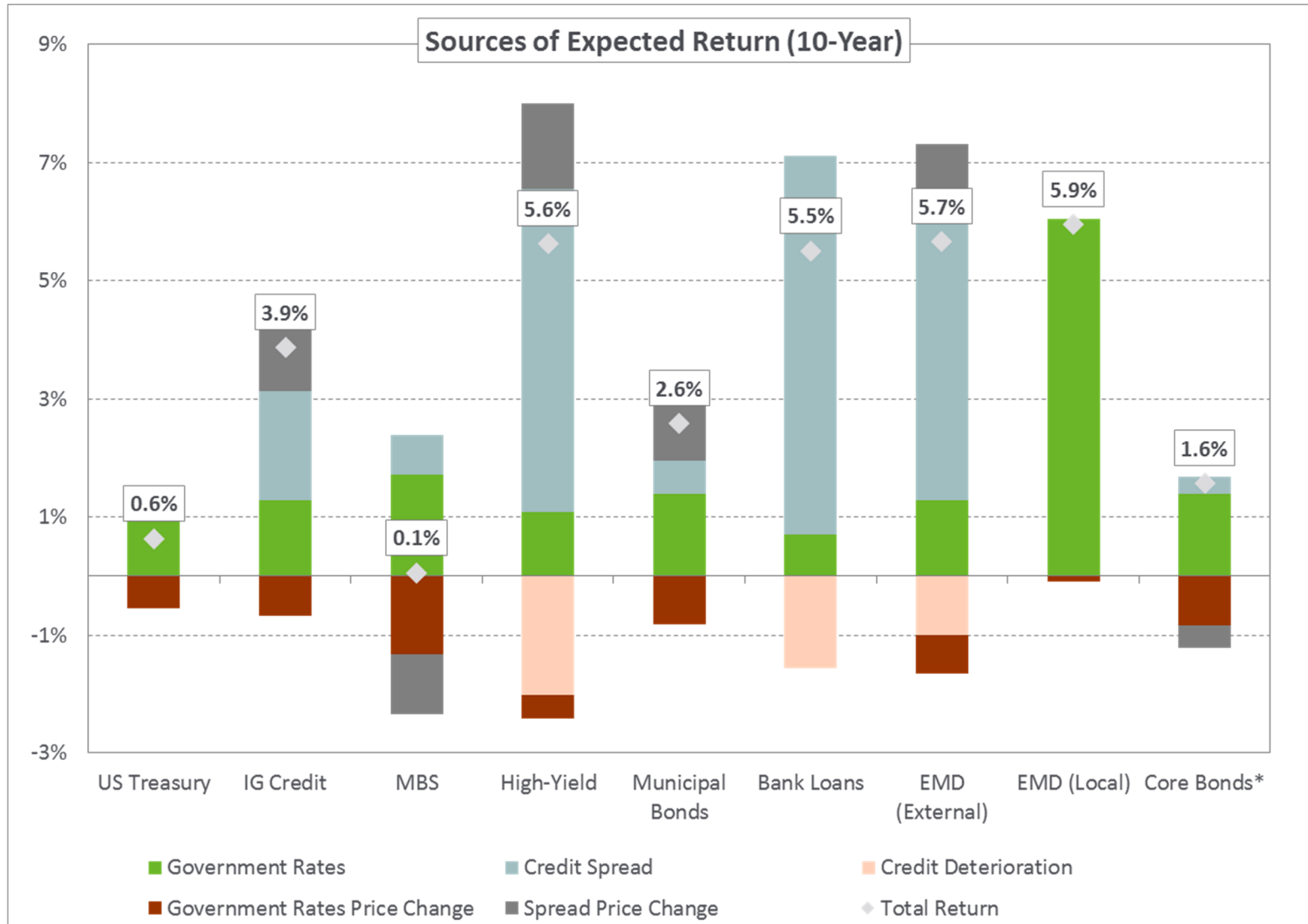
FIXED INCOME: ASSUMPTIONS

Fixed Income Building Blocks		Asset Class	2020 Q1 10-Year Return	Change from 11/30/19
Illiquidity Premium	The additional return expected for investments carrying liquidity risk	TIPS	1.2%	-1.0%
Government Rates Price Change	The valuation change resulting from a change in the current yield curve to forecasted rates	Treasuries	0.6%	-1.3%
Credit Deterioration	The average loss for credit securities associated with an expected default cycle and recovery rates	Investment-Grade Corporate Credit	3.9%	+0.5%
Spread Price Change	The valuation change resulting from a change in credit spreads over the duration of the investment and highly sensitive to economic cycles	MBS	0.9%	-1.6%
Credit Spread	Additional yield premium provided by securities with credit risk	High-Yield Bonds	5.6%	+1.5%
Government Rates	The yield attributed to sovereign bonds that do not have credit risk associated with their valuation	Bank Loans	5.5%	+0.7%
		EMD (External)	5.7%	+1.6%
		EMD (Local Currency)	5.9%	+0.5%
		Non-US Bonds (Unhedged)	0.7%	+0.5%
		Municipal Bonds (1-10 Year)	1.5%	-0.4%
		High-Yield Municipal Bonds	4.4%	+1.2%
		Hedge Funds – Credit	5.0%	+0.2%
		Core Bonds	1.6%	-0.9%
		Private Debt	8.0%	+1.3%

Source: NEPC



FIXED INCOME: BUILDING BLOCKS



Source: NEPC

*Calculated as a blend of other classes



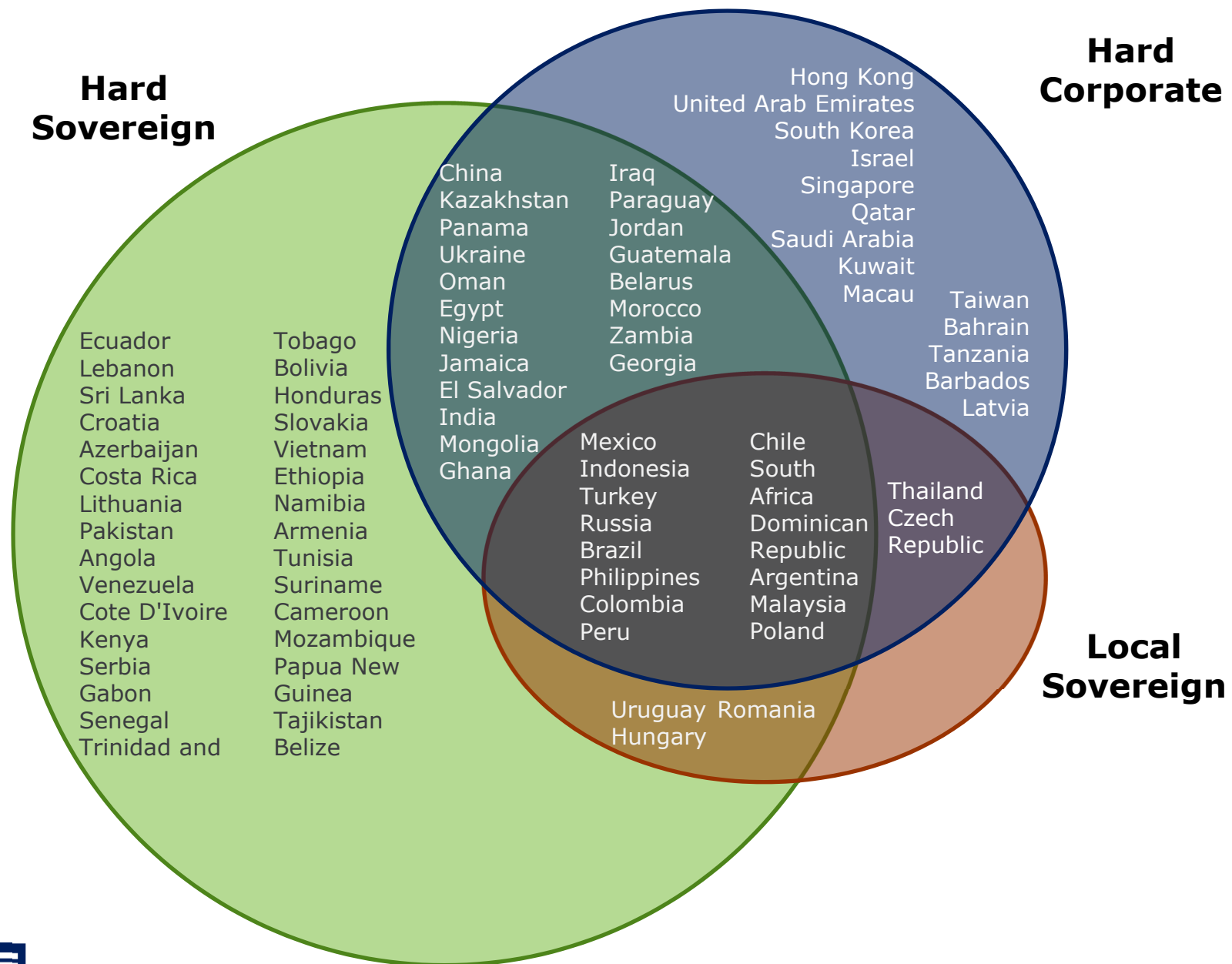
APPENDIX

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EMERGING MARKETS DEBT : 3 BROAD SEGMENTS

- **Hard Currency Sovereign Debt**
 - First major EMD market investable for institutional investors
 - Investment universe is over half a trillion dollars
 - Issued predominantly in USD
- **Local Currency Sovereign Debt**
 - Government debt issued in domestic currencies, offering additional sources of returns namely local rates and local FX
 - Largest of the three EMD categories, representing a growing opportunity set approaching a trillion dollars
- **Hard Currency Corporate Debt**
 - Investable universe is approaching half a trillion
 - Includes both investment grade and high yield EMD corporates, approximately 60-40% share respectively
 - Issued primarily in USD

EMERGING MARKETS DEBT – HARD VS. LOCAL



EMD INVESTMENT UNIVERSES

	<u>EM External Sovereign (Hard Currency)</u>	<u>EM Local (Local Currency Sovereign)</u>	<u>EM Corporates (Hard Currency)</u>
	JPM EMBI Global Diversified	JPM GBI-EM Global Diversified	JPM CEMBI Broad Diversified
Duration (years)	6.5	5.1	4.5
Market Value (US \$bn)	520	844	461
Yield (%)	7.1	6.5	6.2
High Yield (% of index)	46.1%	15.7%	38.1%
Investment Grade (% of Index)	53.9%	84.3%	61.9%
	■ Latin America ■ Asia ■ Europe ■ Africa/Middle East Total ex-Asia: 80%	■ Latin America ■ Asia ■ Europe ■ Africa/Middle East Total ex-Asia: 77%	■ Latin America ■ Asia ■ Europe ■ Africa/Middle East Total ex-Asia: 64%



Source: Ashmore Group, Bloomberg, J.P. Morgan

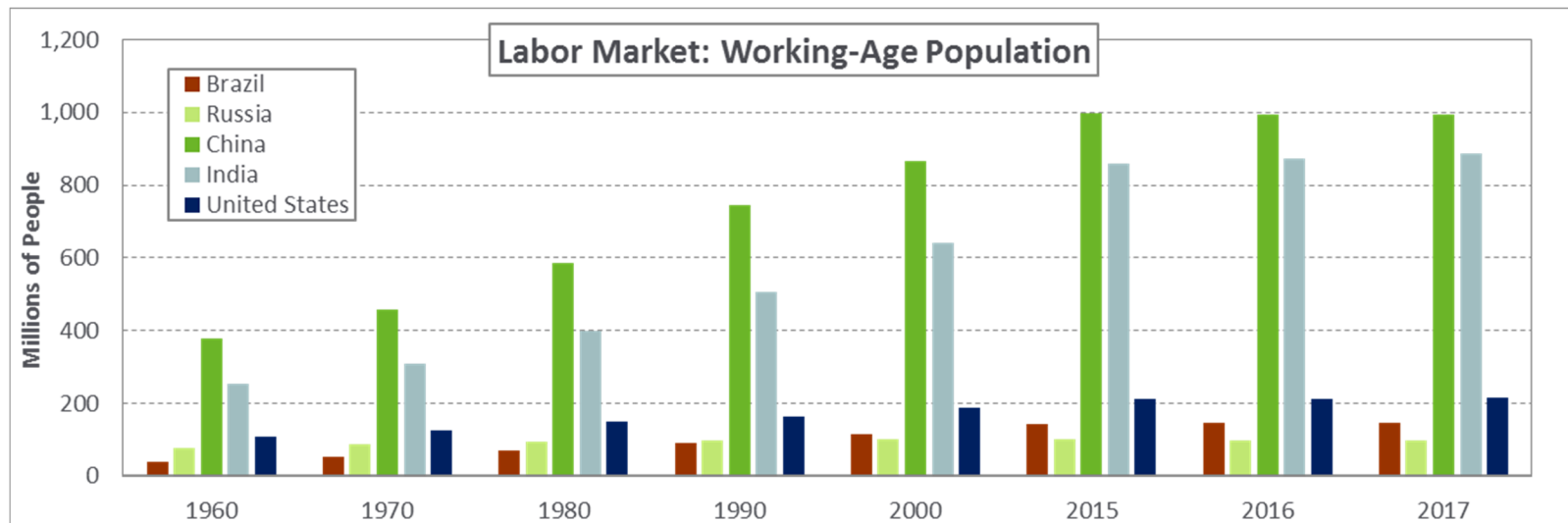
EMD INVESTMENT UNIVERSES

Index Country Exposure	EM External Sovereign (Hard Currency)				EM Local Sovereign (Local Currency)		EM Corporates (Hard Currency)			
	JPM EMBI GD (67 Countries)				JPM GBI-EM GD (19 Countries)		JPM CEMBI BD (50 Countries)			
	Country	Weight	Country	Weight	Country	Weight	Country	Weight	Country	Weight
	Mexico	5.10%	Pakistan	0.90%	Brazil	10.00%	China	8.30%	Nigeria	1.10%
	China	4.70%	Angola	0.90%	Mexico	10.00%	Brazil	6.20%	Ukraine	0.90%
	Indonesia	4.60%	India	0.90%	South Africa	8.50%	Hong Kong	5.20%	Panama	0.90%
	Turkey	3.70%	Venezuela	0.80%	Indonesia	9.40%	Russia	4.90%	Jamaica	0.80%
	Russia	3.60%	Cote D'Ivoire	0.80%	Poland	9.30%	Mexico	4.90%	Oman	0.80%
	Brazil	3.40%	Mongolia	0.80%	Russia	7.10%	United Arab Emirates	4.60%	Kazakhstan	0.60%
	Philippines	3.40%	Ghana	0.70%	Thailand	8.30%	India	4.50%	Morocco	0.60%
	Colombia	3.10%	Kenya	0.70%	Colombia	7.10%	South Korea	4.50%	Guatemala	0.50%
	Peru	2.90%	Serbia	0.70%	Hungary	4.80%	Chile	4.20%	Egypt	0.50%
	Chile	2.90%	Paraguay	0.70%	Turkey	5.00%	Colombia	4.10%	Taiwan	0.40%
	South Africa	2.80%	Iraq	0.70%	Chile	3.20%	Turkey	4.00%	Ghana	0.40%
	Kazakhstan	2.80%	Jordan	0.50%	Malaysia	5.70%	Israel	3.90%	Bahrain	0.30%
	Panama	2.80%	Guatemala	0.50%	Czech Republic	4.10%	Peru	3.50%	Iraq	0.20%
	Dominican Republic	2.70%	Belarus	0.40%	Romania	3.20%	Singapore	3.40%	Poland	0.20%
	Argentina	2.70%	Morocco	0.40%	Peru	3.20%	South Africa	3.20%	El Salvador	0.20%
	Malaysia	2.70%	Gabon	0.40%	Argentina	0.60%	Argentina	3.00%	Mongolia	0.10%
	Ecuador	2.60%	Zambia	0.40%	Philippines	0.30%	Qatar	2.90%	Belarus	0.10%
	Ukraine	2.60%	Senegal	0.40%	Uruguay	0.20%	Saudi Arabia	2.50%	Tanzania, Ur	0.10%
	Oman	2.60%	Trinidad and Tobago	0.40%	Dominican Republic	0.10%	Thailand	2.50%	Czech Repul	0.10%
	Egypt	2.50%	Bolivia	0.40%			Indonesia	2.30%	Georgia	0.10%
	Uruguay	2.50%	Honduras	0.30%			Philippines	2.00%	Jordan	0.10%
	Lebanon	2.30%	Slovakia	0.30%			Malaysia	1.60%	Barbados	0.10%
	Hungary	2.30%	Vietnam	0.20%			Kuwait	1.60%	Latvia	0.10%
	Poland	2.10%	Ethiopia	0.20%			Macau	1.50%	Dominican Ri	0.10%
	Nigeria	1.90%	Georgia	0.20%			Zambia	1.20%	Paraguay	0.10%
	Sri Lanka	1.90%	Namibia	0.20%						
	Croatia	1.40%	Armenia	0.20%						
	Romania	1.40%	Tunisia	0.20%						
	Azerbaijan	1.20%	Suriname	0.10%						
	Jamaica	1.10%	Cameroon	0.10%						
	El Salvador	1.00%	Mozambique	0.10%						
	Costa Rica	1.00%	Papua New Guinea	0.10%						
	Lithuania	1.00%	Tajikistan	0.10%						
			Belize	0.10%						

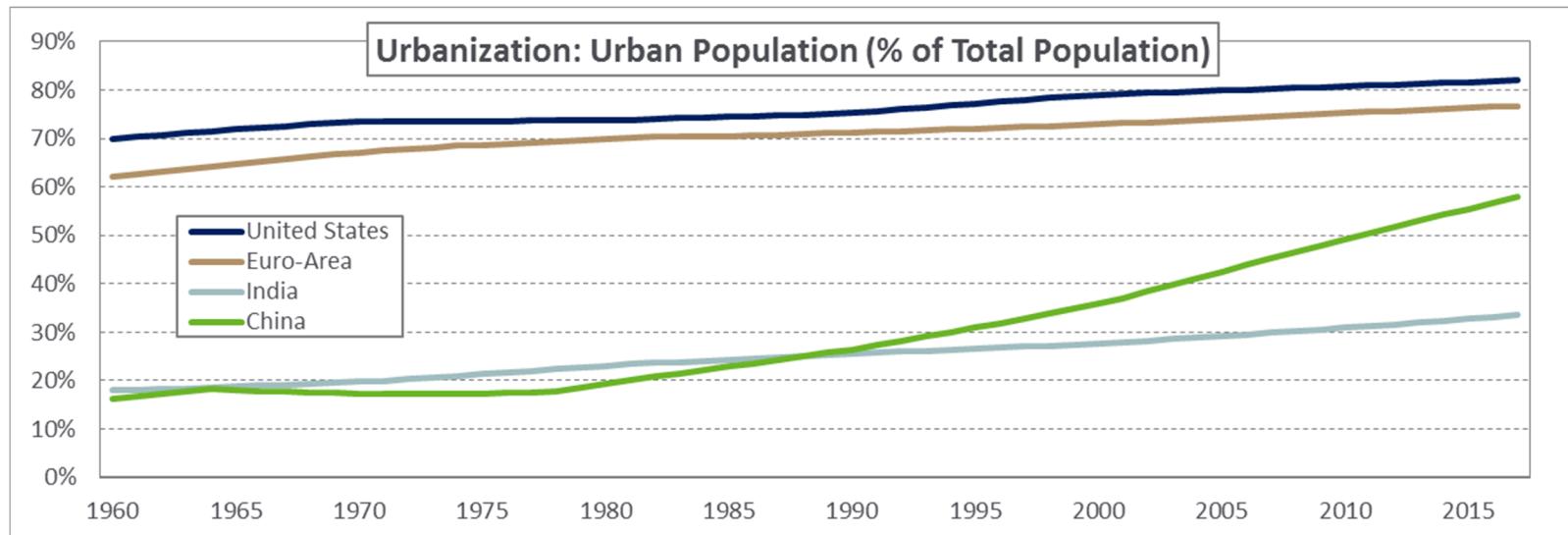


Source: Ashmore, J.P. Morgan

EMERGING CONSUMER CLASS



Source: IMF



Source: World Bank

EMERGING CONSUMER CLASS

