BELMONT CONTRIBUTORY RETIREMENT SYSTEM JANUARY 2019 BOARD MEETING

January 24, 2019

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AGENDA

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NEPC 2019 Investment Outlook	1
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NEPC 2019 INVESTMENT OUTLOOK

THEMES AND OPPORTUNITIES

December 31, 2018

NEPC Research

THEMES AND OPPORTUNITIES

Key Market Themes

Key Market Themes are factors that define global markets and can be expected to both evolve and remain relevant without a clear timeline of conclusion. At times, themes may be challenged or disrupted and generate market volatility. The conclusion of a theme likely alters both market dynamics and our market outlook. Our intent is for clients to be aware of these themes and understand their implications for asset allocation and portfolio implementation.

Current Opportunities

Current Opportunities are investment ideas that represent an action with the goal of improving investment outcomes relative to an investor's strategic asset allocation. It is not our intent that the full list of opportunities be implemented. Rather, we encourage a focus on the actions that offer a material benefit to each client's strategic allocation relative to their unique objectives and constraints. These investment ideas are likely to change more frequently as market dynamics and valuations shift over time.

2019 SUMMARY OUTLOOK

Market dynamics shifted significantly in 2018, with Fed policy and US-China trade tensions disrupting many of our key market themes

As a result we have removed Federal Reserve Gradualism, Extended US Economic Cycle, and Global Synchronized Growth as key themes

We believe we have entered a late-cycle market environment and the dynamics of such an environment will be a focal point for investors

However, late-cycle does not mean end of cycle and equities can still offer lucrative returns, though are likely to be accompanied by additional volatility

We encourage investors to rebalance developed market equity exposure

We have downgraded our outlook for non-US developed equities and removed the overweight recommendation from our current opportunities list

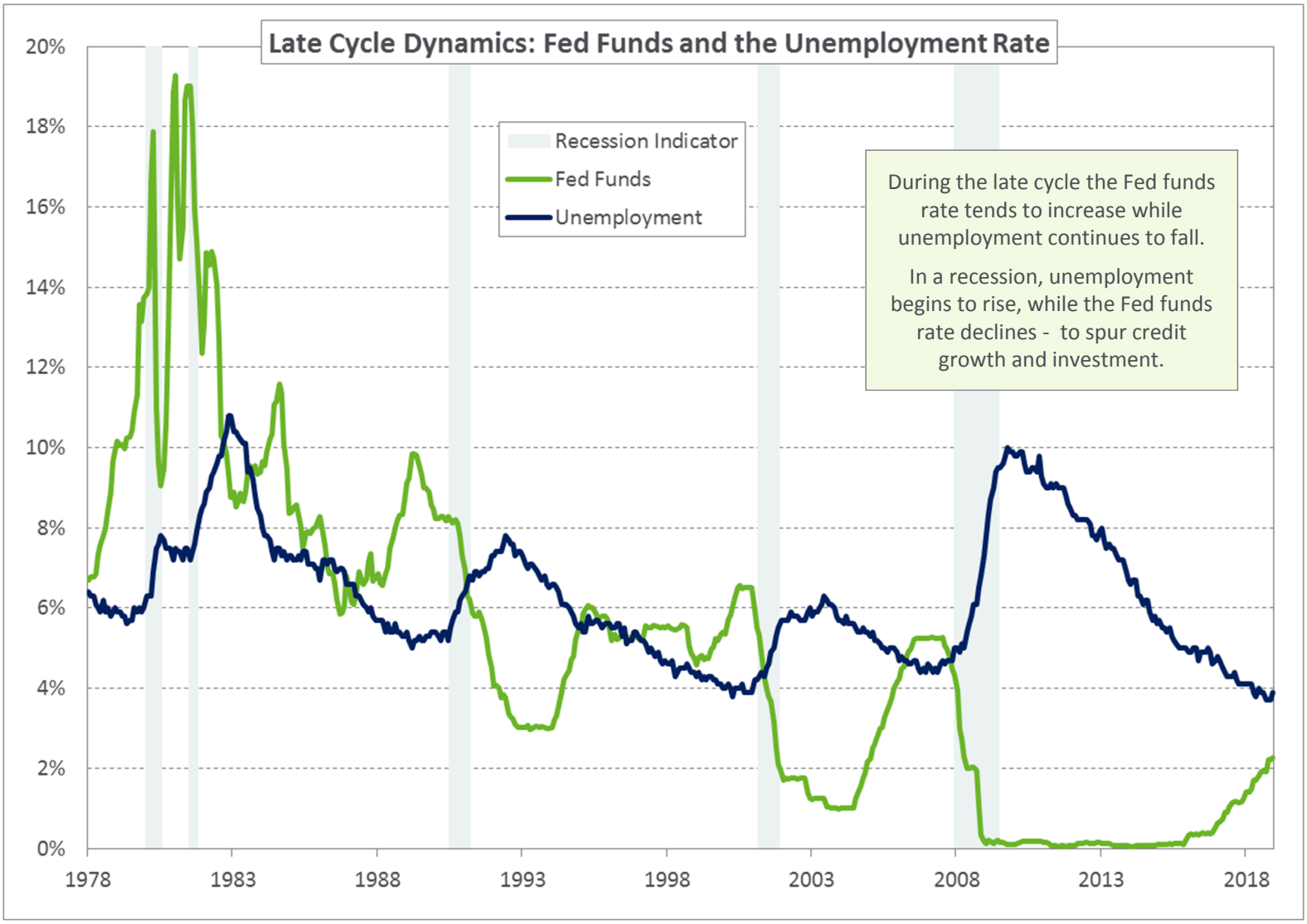
The main driver of the change is negative sentiment surrounding economic and political conditions of Europe, concerns related to the earnings growth outlook, and central banks paring back their support of easy financial conditions

The transition to a late-cycle is accompanied with a more risk-averse investment outlook as economic risks become more pronounced

After years of low volatility and outsized equity returns, the market is likely to transition to a higher volatility regime, which offers more risk but also tactical opportunities

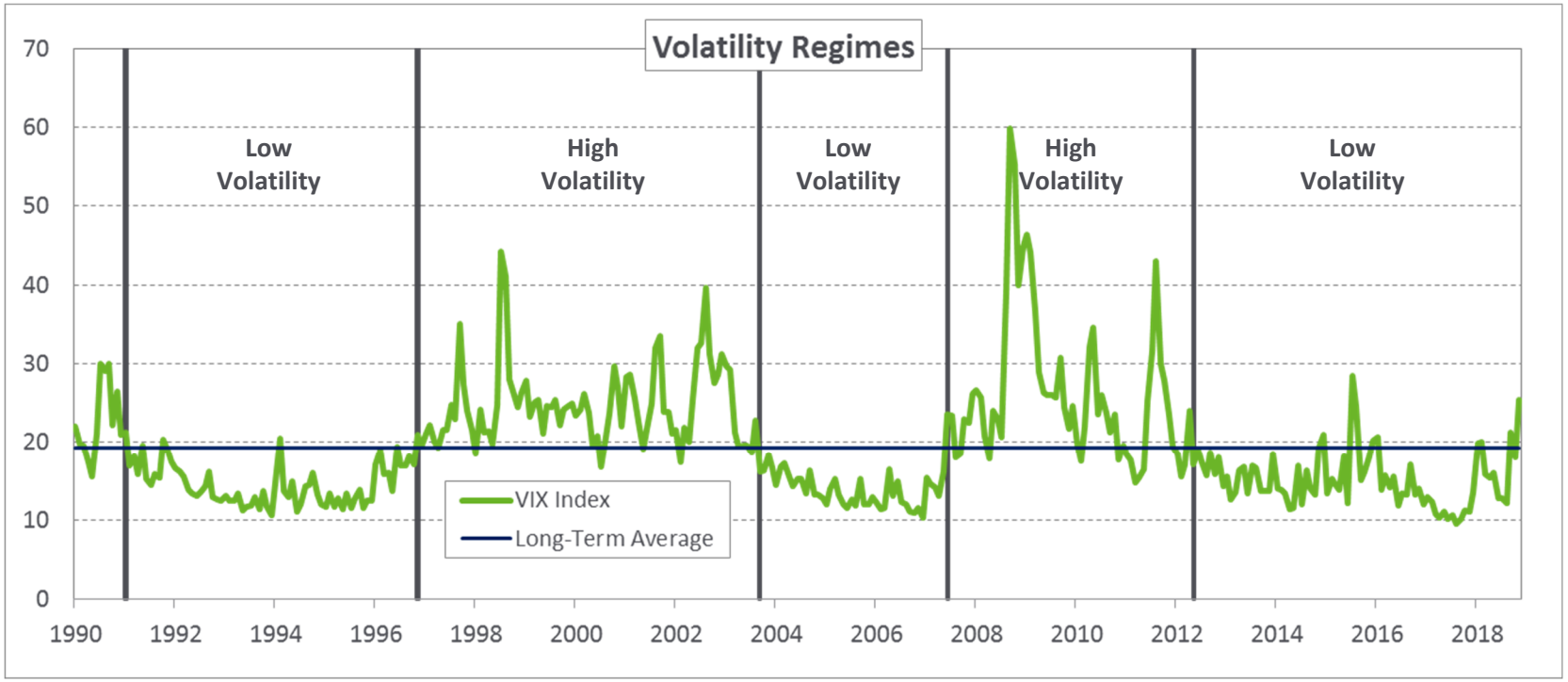
We recommend reducing lower quality credit exposure as higher default rates are a common aspect of late-cycle market dynamics

THE ECONOMIC CYCLE IS IN TRANSITION



Source: St. Louis Federal Reserve, NBER

BRACE FOR HIGHER VOLATILITY IN 2019



Source: S&P, CBOE, Bloomberg, NEPC

Equity volatility regimes tend to persist over prolonged periods and 2018 was witness to a material shift higher in equity volatility

We encourage investors to raise "safe haven" fixed income exposure as trends associated with each of our key market themes suggest higher volatility is on the horizon

2019 may prove to be a difficult year for markets but higher volatility can also offer a greater number of opportunities for dynamic investors

Investors should be prepared to act in a higher volatility regime, as dynamic opportunities may arise to deploy safe-haven assets back into US equity and other risk assets

2019 THEMES AND OPPORTUNITIES

Key Market Themes

- Late Cycle Dynamics
- Tightening Global Liquidity
- China Transitions
- Globalization Backlash

Current Opportunities

- Rebalance Developed Market Equities
- Raise Safe-Haven Fixed Income Exposure
- Reduce Lower Quality Credit Exposure
- Maintain Overweight to Emerging Market Equities
- Add Long Volatility Exposure
- Fund Public Midstream Energy Exposure
- Fund Emerging Local Debt

KEY MARKET THEMES

KEY MARKET THEMES

Late Cycle Dynamics

Tightening Global Liquidity

China Transitions

Globalization Backlash

KEY MARKET THEMES

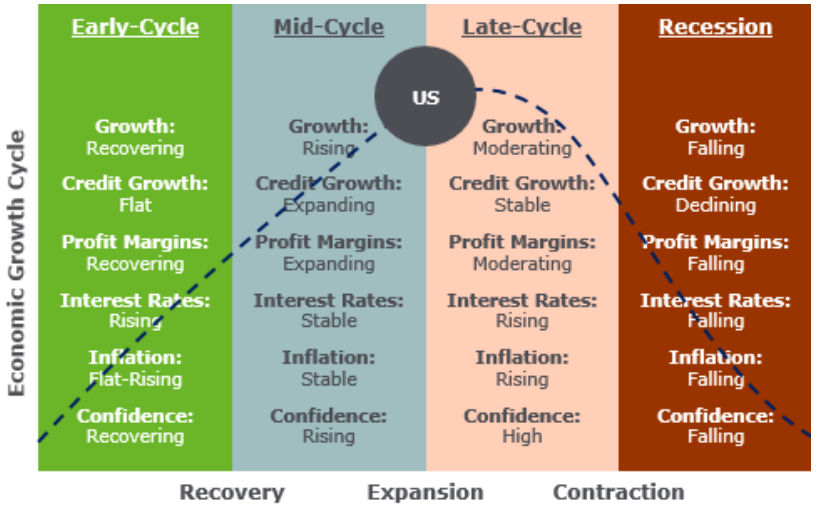
Late Cycle Dynamics

The US economy has transitioned from a mid- to late-cycle environment

Late cycle does not mean end of cycle; equity markets can offer strong returns and abandoning risk assets early may detract from long-term results

Positive economic data can support continued US economic expansion and further equity gains

However, moving into a late cycle negatively skews the range of outcomes and our investment outlook reflects a more risk-averse posture with a bias toward selling low quality credit and increasing safe-haven fixed income exposure



Trends among key indicators suggest a transition to late-cycle has occurred

These indicators provide a useful guide to recognize changes in the economic cycle

Despite the recent trend, there is minimal evidence in economic/financial indicators to suggest that a US recession is imminent

US Indicators	Late-Cycle Trend	Current Trend
Equities	Peaking	Uncertain
Interest Rates	Rising	Yes
Yield Curve	Flattening	Yes
Inflation	Rising	Yes
GDP Growth	Moderating	Uncertain
Credit Spreads	Stable/Rising	Yes
Output Gap	Near/Above Potential	Yes
Unemployment	Falling/Bottoming	Uncertain

Source: (Top) NEPC
Source: (Bottom) NEPC

KEY MARKET THEMES

Late Cycle Dynamics

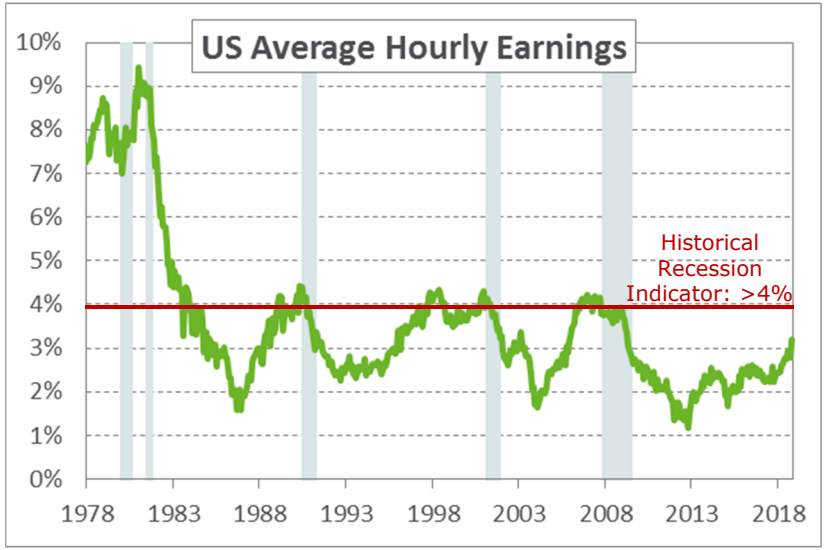
Key indicators are helpful guides, but all business cycles are different

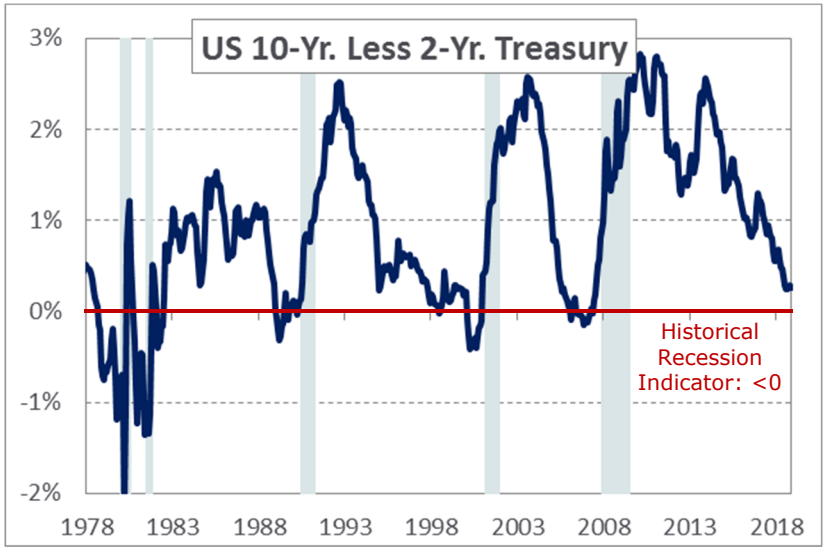
Late-Cycle Dynamics	
↑	Growth: This expansion has been the longest ever, but cumulative GDP growth remains well below average. Sustainability of current growth from fiscal stimulus remains unclear.
↑	Interest Rates: The Fed has methodically increased rates off post-crisis lows. They appear to be on a tightening path to push rates above the long-term neutral rate through 2019 and beyond.
↑	Inflation: Despite record low unemployment rates, inflation pressures have been slow to materialize relative to history. Yet US inflation is up nearly 2% over the last three years, but remains below historic levels.

We are evaluating market indicators such as the yield curve that would lead us to adopt a defensive outlook

Should the yield curve invert and economic metrics weaken, our recommendation will be to materially increase safe-haven fixed income and reduce equity exposure

There is a greater need to seek portfolio balance in a late cycle, while the increased volatility may offer tactical opportunities





Source: (Top) Bloomberg, NEPC

Source: (Bottom) Federal Reserve Bank of St. Louis, NEPC; Light blue shading indicates recession

KEY MARKET THEMES

Tightening Global Liquidity

The Fed has shifted from a "lower for longer" policy to a more balanced posture of raising rates in line with higher inflation

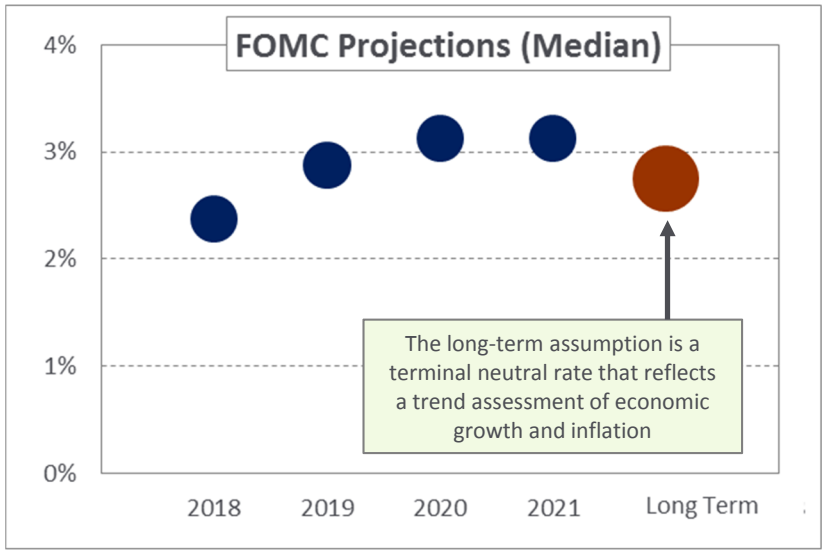
Based on the FOMC projections, the Fed is communicating a tightening path as their forecast for interest rate hikes moves beyond the long-term neutral rate

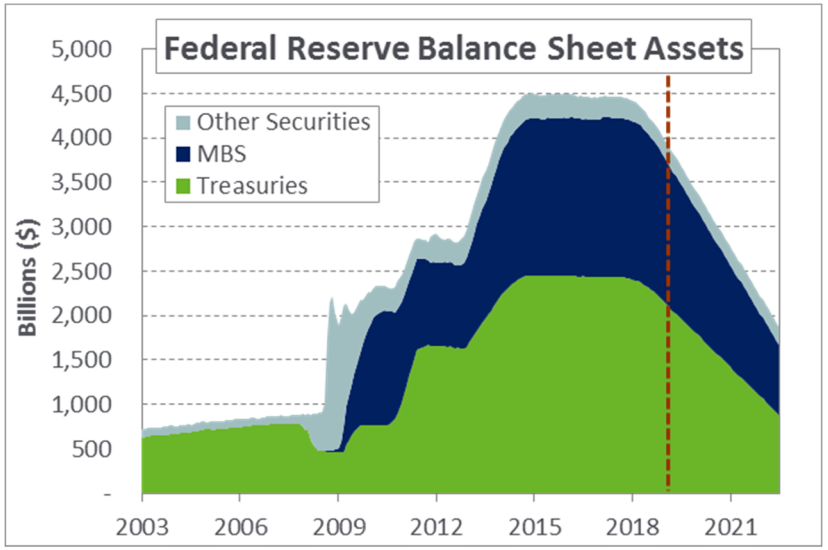
Markets are discounting a muted pace of hikes relative to Fed projections, creating potential for capital market disruption. However, the Fed's bias appears to be to raise rates in the absence of market turmoil

The Fed's balance sheet has shrunk by $400B and will continue to decline by a monthly maximum target of $50B

Normalization of the balance sheet is a form of monetary policy tightening as liquidity is methodically extracted from the system

The impact of the balance sheet reduction is untested – potentially mirroring how the Fed's balance sheet expansion (QE) had easing effects





Source: (Top) Bloomberg, NEPC
Source: (Bottom) Bloomberg, NEPC

KEY MARKET THEMES

Tightening Global Liquidity

Transmission of tighter liquidity is already underway and is felt globally

Slowing money supply growth rates tighten financial conditions and are a headwind for credit and equity markets across the world

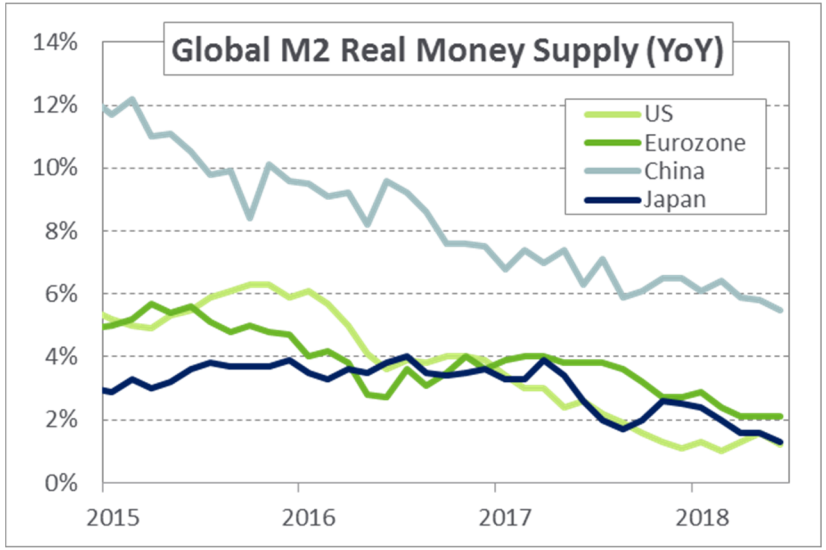
Ability to ease financial conditions is limited outside the US as central banks do not have dry powder with interest rates near historic lows and the ECB restricted in their ability to expand QE purchasing capacity

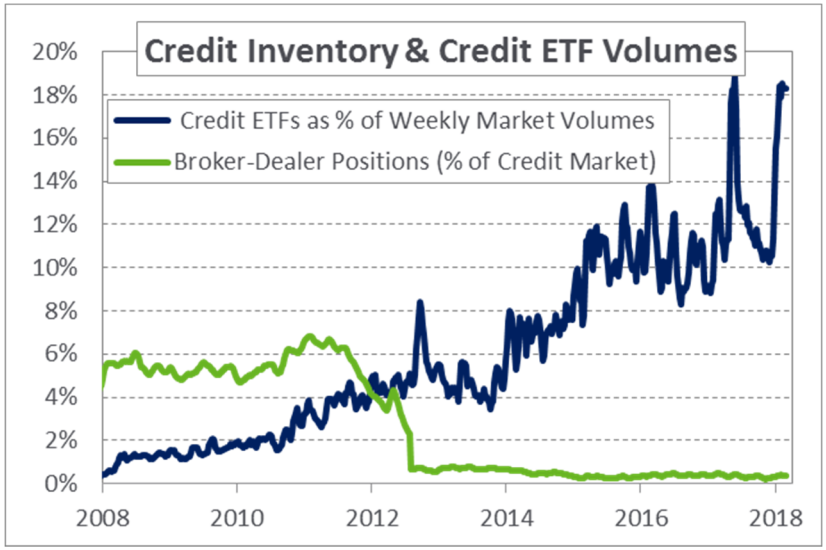
A pause in Fed tightening or a large stimulus program from China are the limited global levers available to ease tighter conditions

The diminishing support from central banks warrants caution regarding liquidity in credit markets

Underlying trading conditions for ETF and credit markets remain fragile and are likely to be severely tested to absorb an exodus from crowded credit positions

The "Fed put" or a reversal of balance sheet normalization may be necessary to avoid a liquidity crisis in a severe market disruption





Source: (Top) Bloomberg, NEPC
Source: (Bottom) Bloomberg, NEPC

KEY MARKET THEMES

China Transitions

China is the global growth engine but faces fundamental transitions

China's economy is transitioning from a focus on production and investment to a service and consumption based economy

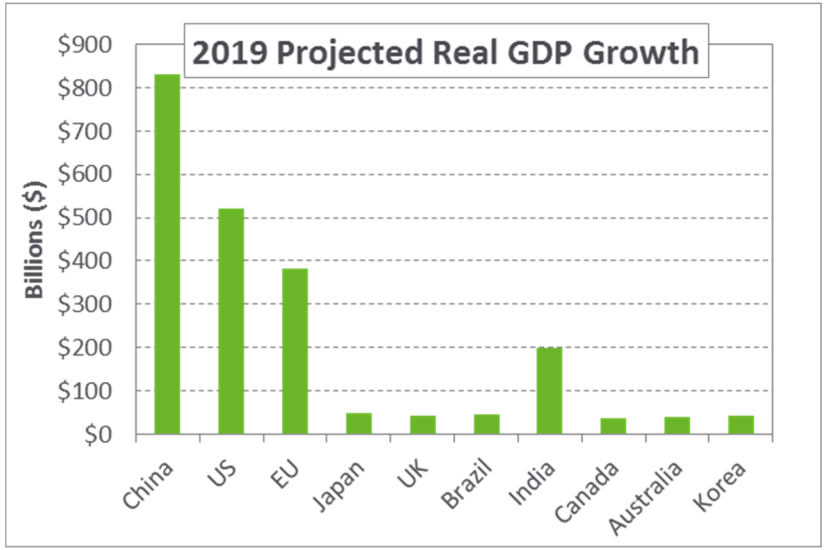
Fixed investment and credit expansion is needed to sustain the "old" production-based economy and support employment as the population shifts to urban centers

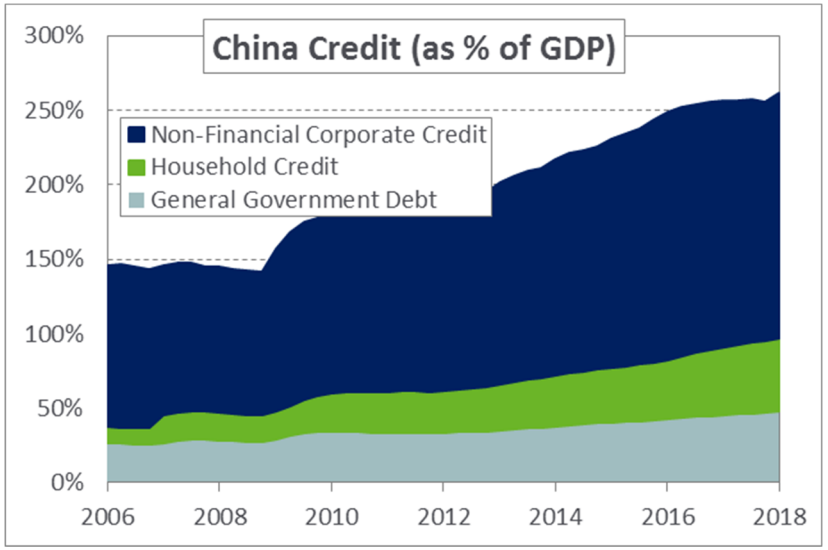
Any disruption to these transitions will be transmitted globally due to China's outsized role in the world economy

Policy makers must continue to balance goals of moderating credit expansion against sustaining healthy economic growth rates

Recent shifts in policy suggest a tilt away from credit moderation to offset the harmful effects of the US-China trade dispute

However, an uncontrolled expansion of credit growth and real estate development pose a future systemic risk to the economy





Source: (Top) Bloomberg, NEPC
Source: (Bottom) BIS, NEPC

KEY MARKET THEMES

China Transitions

China's economy is expected to equal the size of the US within 25 years

China's increased economic and geopolitical prominence on the world stage can be viewed as a threat to US leadership

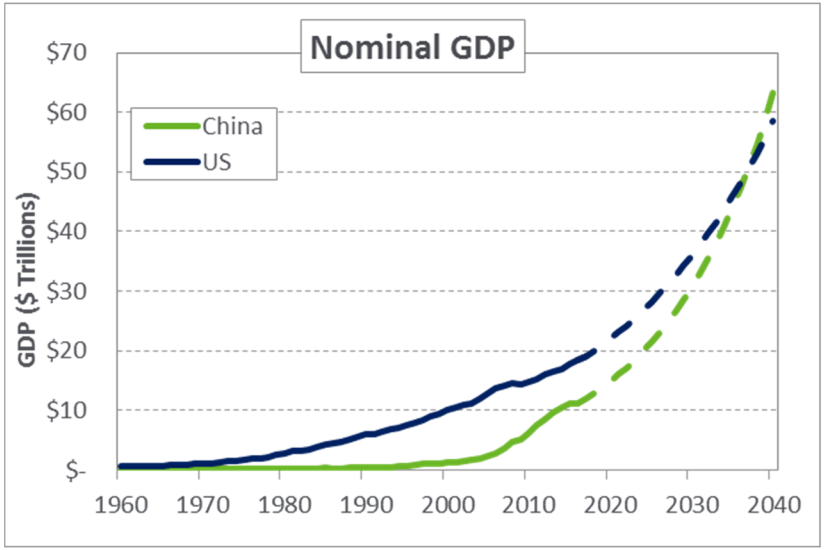
Tariffs and trade conflict are a form of "Thucydides Trap", where a rising power causes fear in an established power

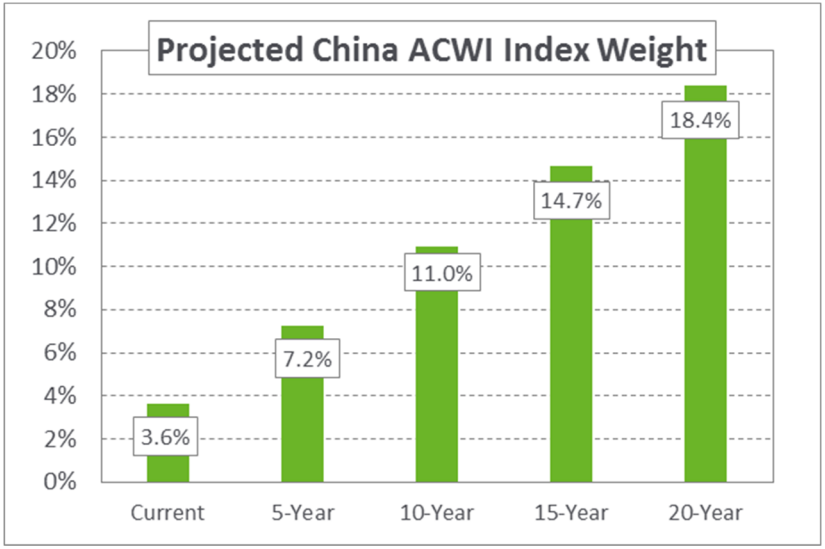
China is in a race against time: *Can they get rich before they get old?* This race may conflict with some US geopolitical interests and risks a zero-sum dynamic of economic competition between the US and China

Access to local financial markets is accelerating and expected to expand

Expansion of Hong Kong-mainland stock connect program broadens access to A-shares and strengthens the case for increasing size of Chinese equities in indices

With limited access for foreign investors, China is looking to slowly open access to the world's third largest fixed income market





Source: (Top) St. Louis Fed, NEPC; China is projected to grow at 7.5% and the US is projected to grow at 5.0%

Source: (Bottom) MSCI, Bloomberg, NEPC

KEY MARKET THEMES

Globalization Backlash

Uneven economic growth and wage gains have fueled political discontent in the developed and emerging world

Fatigue over globalization has led to a turn inward and greater political interest in nationalism, while multilateral relationships are viewed with suspicion

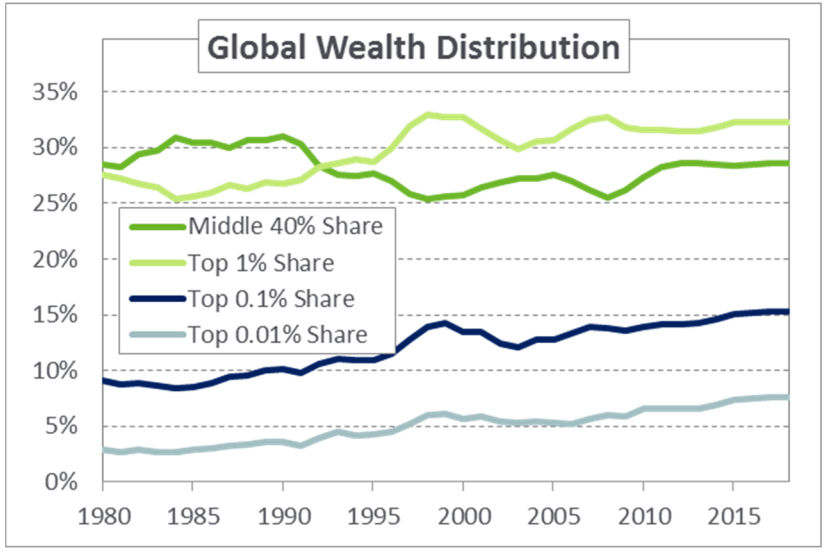
Globalization Backlash is a long-term trend as populist movements lead to shifts away from political/economic orthodoxy, which heightens tail risks

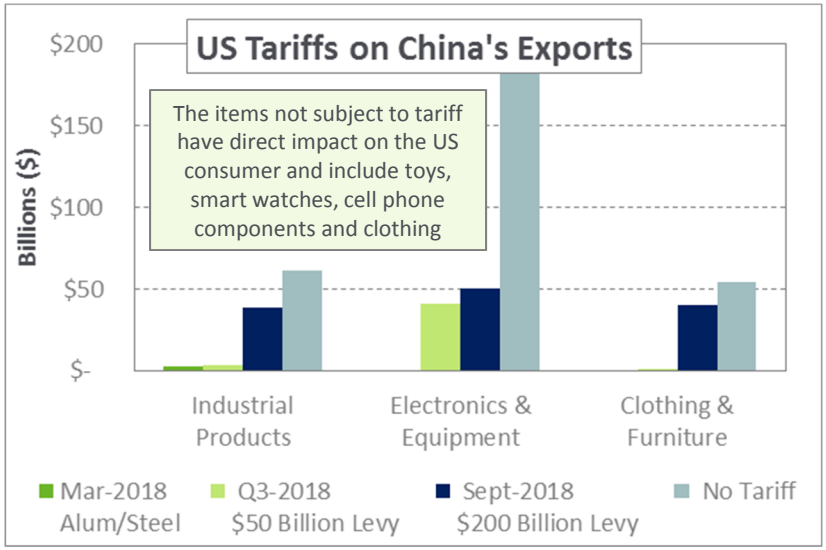
US-China trade tensions are a full expression of our backlash theme

Levying tariffs is a dangerous game as both the US and China look to negotiate an end to the tensions but must demonstrate strength for their domestic audience

In the past, markets have taken the US administration's rhetoric with a grain of salt but the tit-for-tat tariff escalation with China is a concern for market sentiment

We have likely settled into a prolonged "cold war" in the ongoing US-China trade battle





Source: (Top) WID.World, World Inequality Lab
Source: (Bottom) USTR, Bloomberg, NEPC

KEY MARKET THEMES

Globalization Backlash

Expanding protectionism from US trade policy is a material risk to global markets and the economy

US adopted a more restrictive trade policy in 2018 and investor sentiment outside the US deteriorated along with US-China relations

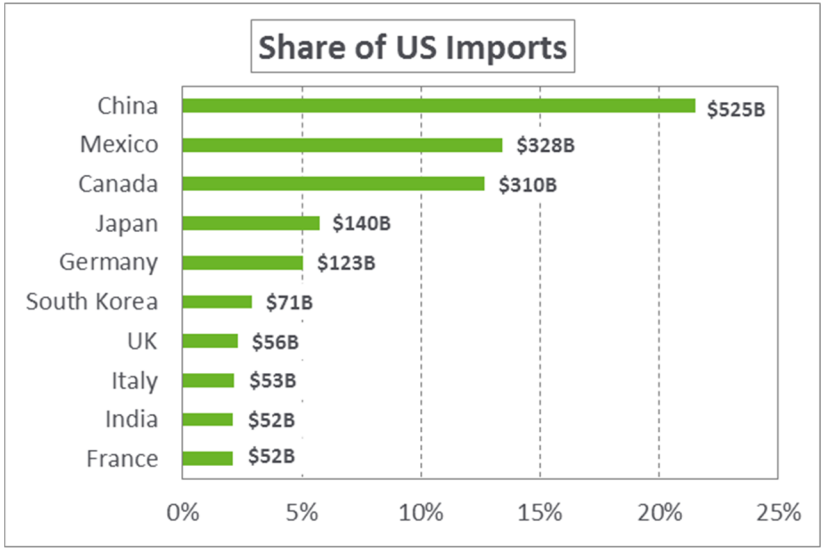
US-China tariffs are the "new normal" and we expect this dynamic to continue for the foreseeable future. We do not anticipate the trade dispute to escalate beyond tariff levies and prohibit the flow of goods and services

The UK serves as a live case study for the effects of globalization backlash

Economic metrics across the country have turned lower in the time since the UK voted to leave the European Union

Deterioration in business and consumer confidence along with potential disruption to the financial sector are a cautionary tale

The economic unease of voters remain and the political instability likely leads to higher levels of currency volatility over time



	Brexit Vote	Current
Real GDP (YoY%)	1.7%	1.5%
Household Consumption	3.3%	1.8%
Exports (YoY%)	1.1%	-1.3%
Imports (YoY%)	3.2%	0.2%
CPI (YoY%)	0.4%	2.5%
Unemployment (%)	4.9%	4.0%
Central Bank Rate	0.50%	0.75%
GBP/USD Exchange Rate	1.49*	1.28
Economic Sentiment	106.9	105.6

Source: (Top) Bloomberg, NEPC
*Source: (Bottom) Bloomberg, NEPC, *Data as of 6/23/16*

CURRENT OPPORTUNITIES

NEPC, LLC

CURRENT OPPORTUNITIES

Rebalance Developed Market Equities
Funding Sources: EAFE equity, lower quality credit, multi-asset strategies

Raise Safe-Haven Fixed Income Exposure
Funding Sources: Lower quality credit, equity, multi-asset strategies

Reduce Lower Quality Credit Exposure
Funding Sources: High yield, bank loans, US direct lending

Maintain Overweight to Emerging Market Equities
Funding Sources: US equity and EAFE equity

Add Long Volatility Exposure
Funding Sources: Multi-asset strategies

Fund Public Midstream Energy Exposure
Funding Sources: Commodities, high yield, equity

Fund Emerging Local Debt
Funding Sources: High yield and equity

CURRENT OPPORTUNITIES

Rebalance Developed Market Equities

Adjust US and EAFE regional exposure to developed market index weights

Continue to recommend an overweight to emerging equity and adopt an index weight for US/EAFE relative to MSCI World

We encourage a global equity target weight of 52% to the US, 33% EAFE, and 15% to the EM. Larger overweight to EM can be funded pro rate from developed equity

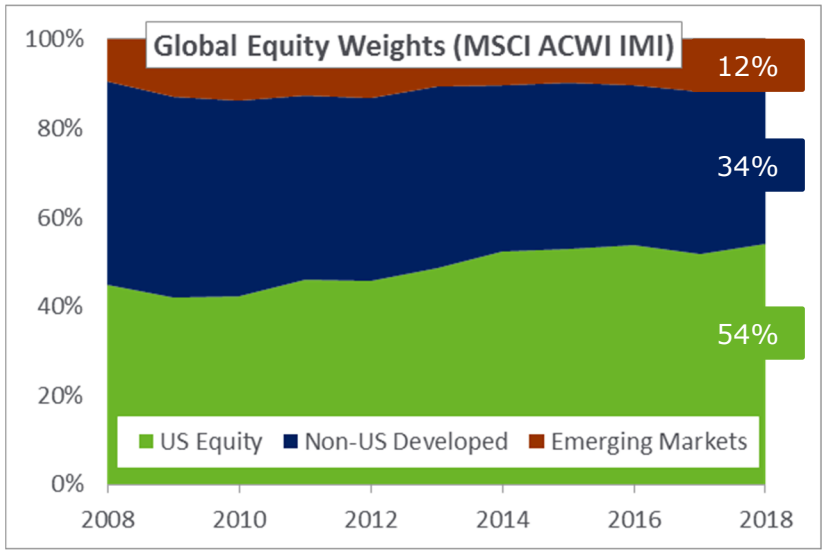
Should US equity declines continue, look to exploit the market volatility and overweight US exposure relative to EAFE index weights

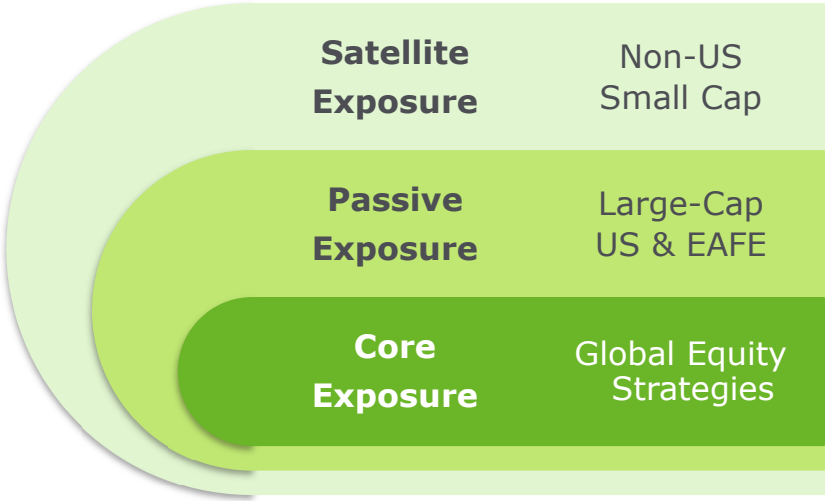
Global equity strategies can serve as the core implementation approach for developed market equity exposure

We remain supportive of pairing active global equity strategies with passive large-cap US and EAFE equity exposure

Within non-US developed markets, we have a strong bias to active small-cap equities

EAFE and US small-cap are a viable funding source for private market commitments





Source: (Top) MSCI, Bloomberg, NEPC; represents free float market cap weights as of 12/31 each year

Source: (Bottom) NEPC

CURRENT OPPORTUNITIES

Raise Safe-Haven Fixed Income Exposure

The potential for an adverse economic outcome appears to have expanded

Safe-haven exposure is an essential asset class exposure to mitigate portfolio risks

We are evaluating market metrics such as the yield curve that would cause us to shift to a more defensive recommendation

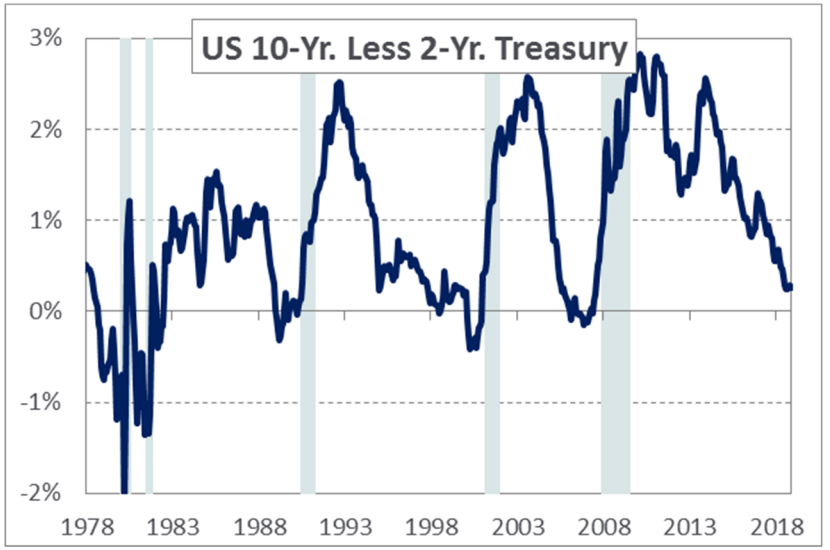
Should the yield curve invert and economic metrics show weakness, we are likely to recommend a material increase to safe-haven fixed income exposure

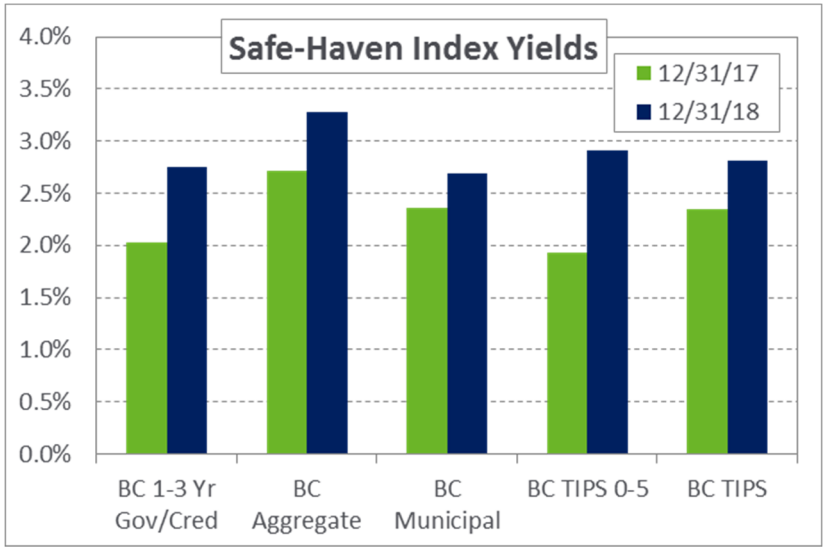
Short duration safe-haven exposure is attractive on a relative value basis

We encourage investors to increase safe-haven fixed income and use lower quality credit exposure as a funding source

Market volatility has depressed long rates and inflation expectations making short duration segments an important part of a safe haven allocation

TIPS continue to have a place in safe-haven fixed income as a strategic allocation





Source: (Top) Federal Reserve Bank of St. Louis, NEPC; Light blue shading indicates recession

Source: (Bottom) Bloomberg, TIPS yield includes CPI accrual

CURRENT OPPORTUNITIES

Reduce Return Seeking Credit Exposure

Lower-rated credit exposure does not adequately compensate investors for the risk relative to safer alternatives

Late-cycle markets generally exhibit higher than average credit default rates, acutely impacting debt rated BBB and below

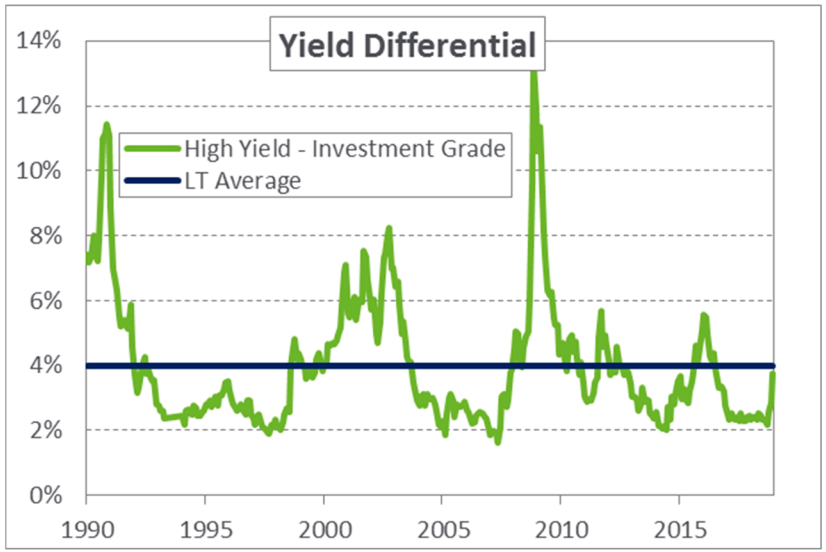
Despite credit spreads trading near median levels, we encourage moving away from lower quality credit and look to alternatives such as safe-haven fixed income, IG CLO's, and higher quality IG corporate bonds

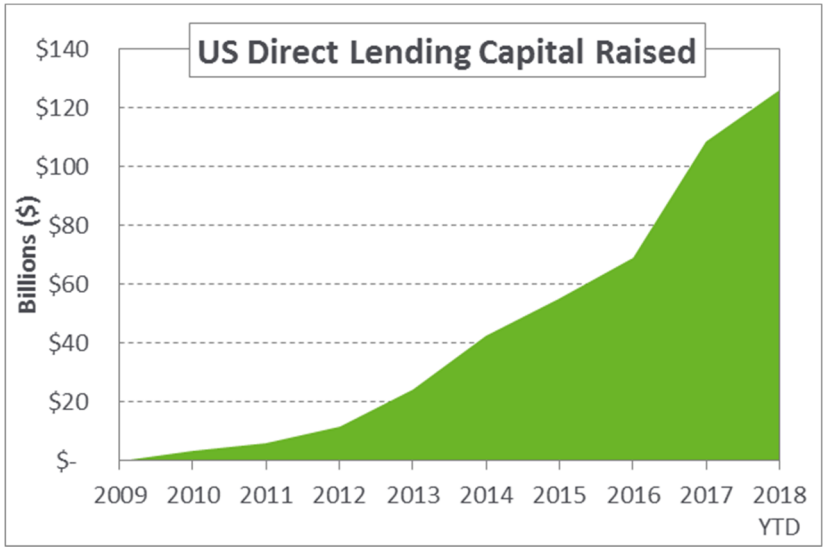
A misaligned risk-return tradeoff also applies to private credit markets

US direct lending is one example as the space has absorbed a large influx of capital over a multi-year horizon

Distressed and niche segments of private markets offer opportunities but require a hyper-focus on underwriting standards

We encourage reducing exposure to credit segments that have performed well over a prolonged period such as high yield, bank loans, and many private debt approaches





Source: (Top) MSCI, Bloomberg
Source: (Bottom) Preqin; represents cumulative capital raised

CURRENT OPPORTUNITIES

Maintain Overweight to Emerging Market Equities

Emerging equities offer the highest total return potential for investors

Valuation levels and fundamentals suggest an overweight relative to global equity market cap weights (e.g. 15% to 20%)

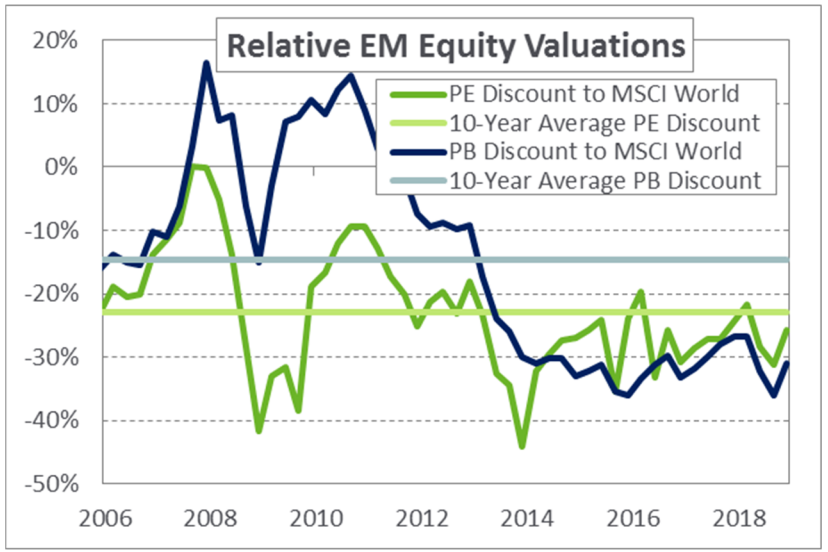
Growth premium relative to the developed world persists as economic conditions in EM remain supportive despite the negative sentiment associated with US trade policies

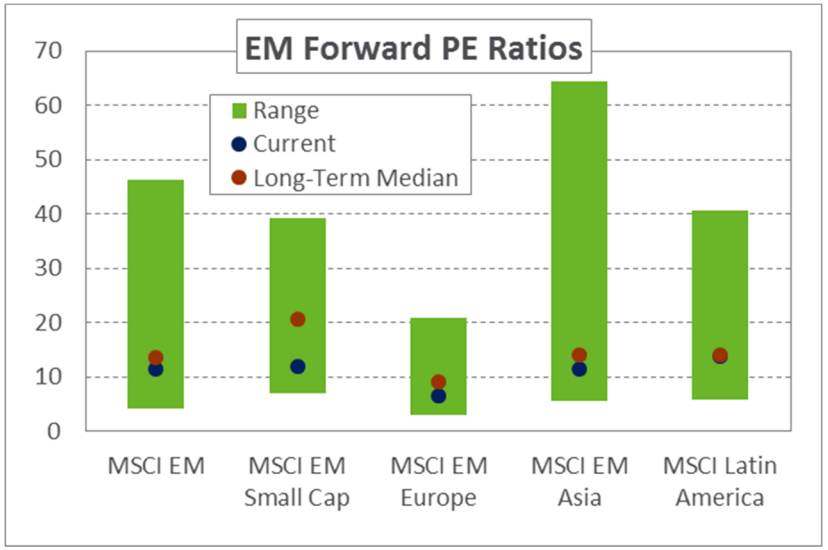
High tracking error strategies offer greater flexibility to invest across emerging countries and are preferred to benchmark focused mandates

Opportunity set for active management and excess return appear more abundant in EM versus developed markets

Strategies that invest down the market cap spectrum offer investors more focused exposure to local country growth rates

We encourage the use of multiple emerging market strategies to mitigate the risk of an unintended value-growth style or size bias





Source: (Top) MSCI, Bloomberg
Source: (Bottom) MSCI, Bloomberg

CURRENT OPPORTUNITIES

Add Long Volatility Exposure

Volatility levels for markets outside equities remain near historic lows

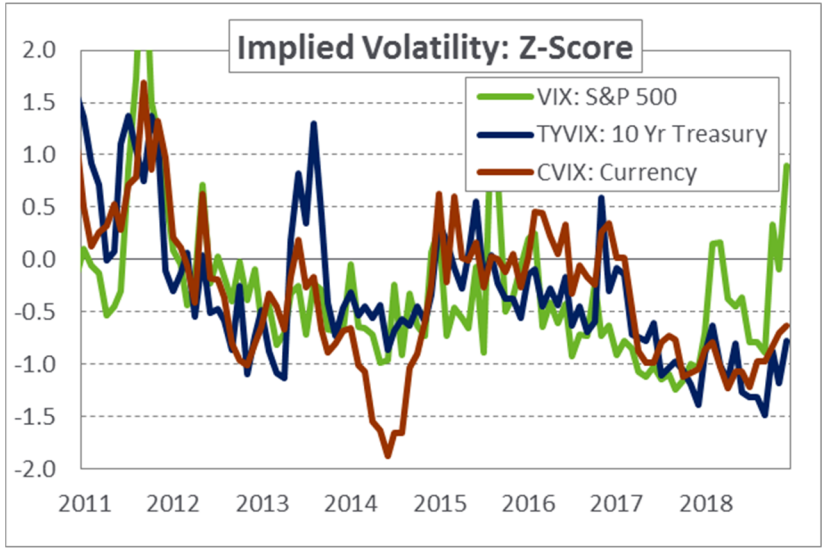
Long volatility exposure positively benefits from rising asset class volatility and an allocation of 1% to 2% can provide a significant return contribution should volatility normalize across global markets

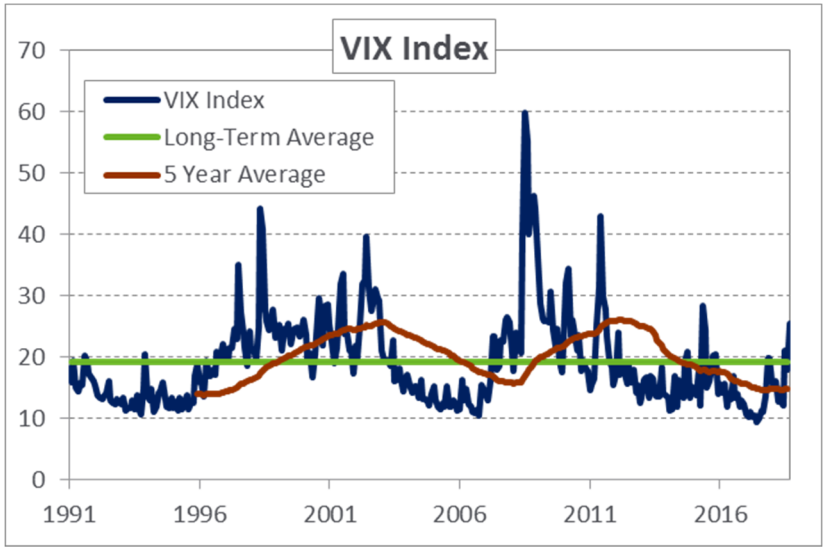
Exposure is not without risk. Losses would be expected if market volatility declines. Discipline of a multi-year time horizon is required should volatility levels move slowly back to normal levels

Long volatility strategies with positive carry are the only implementation option we recommend

Purchasing S&P VIX is a costly method to implement long volatility exposure due to the negative roll yield of the VIX curve

More suited for opportunistic investors willing to fund from multi-asset or other unconstrained strategies





Source: (Top) Bloomberg
Source: (Bottom) Bloomberg

CURRENT OPPORTUNITIES

Fund Public Midstream Energy Exposure

Midstream energy offers an attractive long-term growth potential

Balance sheet reform and a sustainable financing profile has been underappreciated by the market

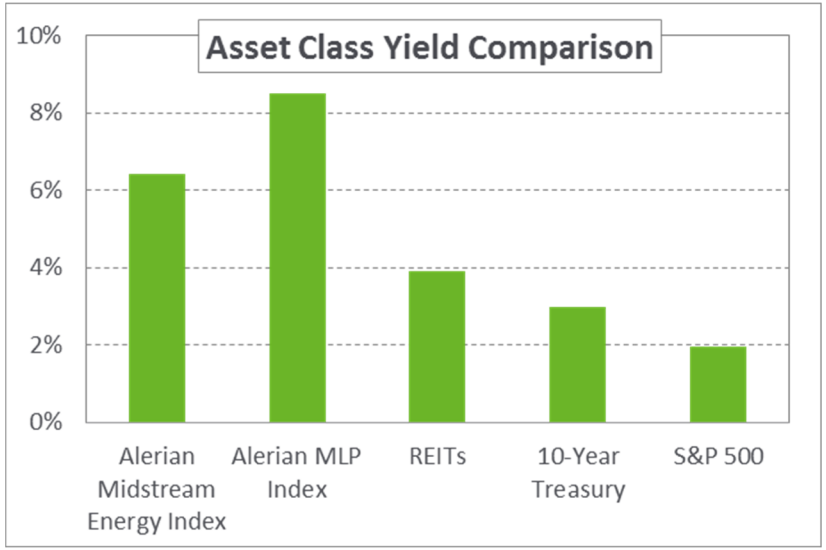
Reform of the MLP operating structure (IDR elimination) offers a more stable business model and improved corporate governance

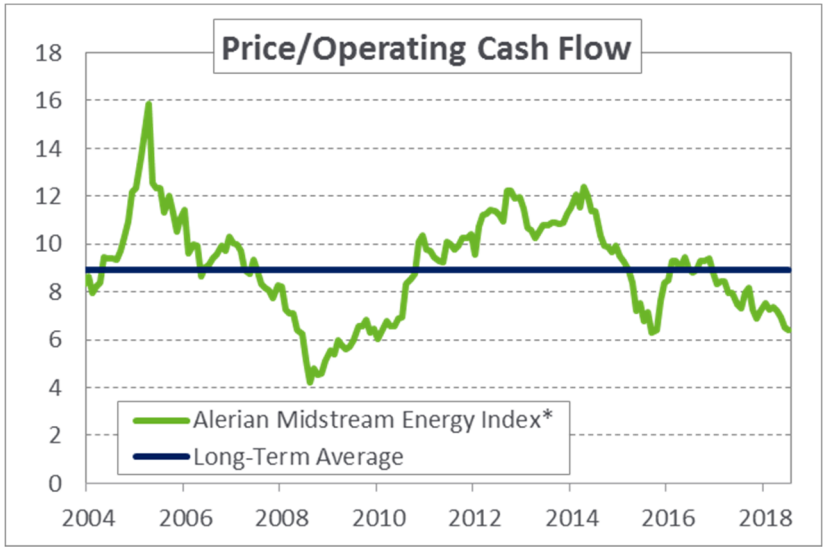
Negative sentiment weighs on the energy infrastructure market as performance has been poor over the last five years and operational concerns remain for some MLPs

Recovery of the energy infrastructure sector offers a compelling total return

Risk assets, such as high yield bonds and equities are an appropriate funding source for new midstream energy allocations

Nearly half of the midstream energy market is made up of MLPs. While down materially from recent years, careful thought must be given for tax-exempt investors as MLPs generate UBTI





Source: (Top) Alerian, NAREIT, Barclays, S&P, Bloomberg; As of 11/30/2018

*Source: (Bottom) Alerian, Bloomberg.*01/31/2018 to present a 50%/50% blend of the Alerian MLP and Midstream Energy Index*

CURRENT OPPORTUNITIES

Fund Emerging Local Debt

EM local debt offers an attractive total return opportunity

The combination of high real rates, lower inflation levels, and low currency valuations represents an attractive investment profile

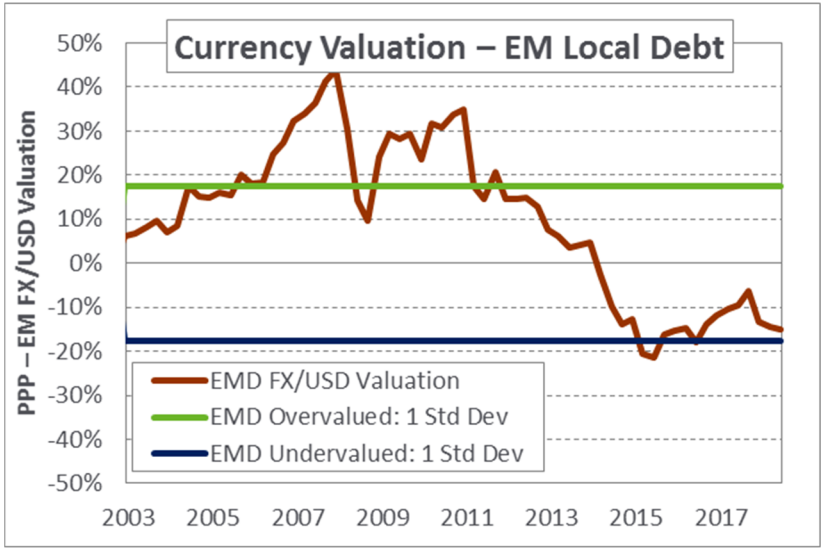
Above average index yields relative to the developed world provide a cushion to offset currency volatility and declines

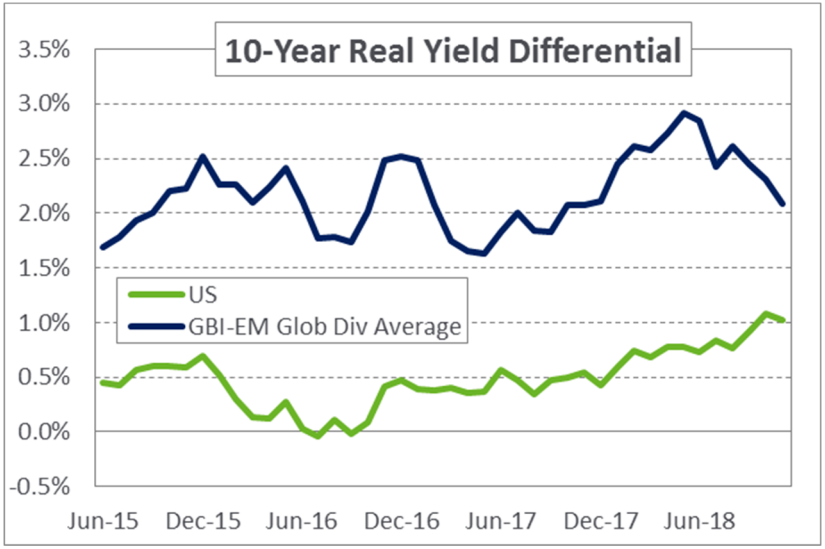
Additional Fed rate hikes not fully priced into market expectations are a risk and was a key source of the negative sentiment that hit the asset class in 2018

For tactical oriented investors, look to fund emerging local debt from high yield and equity exposure

A balanced EMD approach of local currency and dollar denominated debt remains our long-term bias as a strategic allocation

Currently, our preferred implementation is with a stand alone local debt strategy but unique macro or credit hedge funds may offer a unique return opportunity





Source: (Top) JPM, Bloomberg, NEPC
Source: (Bottom) JP Morgan, Bloomberg, NEPC

CORE RETURN ASSUMPTIONS

	Asset Class	5-7 Year Return	Change 2019-2018	Volatility
	Cash	2.50%	**+.50%**	1.00%
	US Inflation	2.25%	**-0.25%**	-
Equity	Large Cap Equities	6.00%	**+0.75%**	16.50%
Equity	International Equities (Unhedged)	6.75%	**-0.75%**	20.50%
Equity	Emerging International Equities	9.25%	**+0.25%**	28.00%
Equity	*Private Equity**	*10.01%*	***+2.01%***	*24.16%*
Rates/Credit	Treasuries	2.50%	**+0.25%**	5.50%
Rates/Credit	*Core Bonds**	*3.04%*	***+0.29%***	*6.10%*
Rates/Credit	Municipal Bonds (1-10 Year)	3.00%	**+0.50%**	5.50%
Rates/Credit	High Yield Bonds	5.25%	**+1.50%**	12.50%
Rates/Credit	*Private Debt**	*7.60%*	***+1.10%***	*11.97%*
Real Assets	Commodities	4.25%	**-0.50%**	19.00%
Real Assets	Midstream Energy	8.25%	**+1.00%**	18.50%
Real Assets	REITs	6.75%	**+0.25%**	20.00%
Real Assets	Core Real Estate	6.00%	**+0.25%**	13.00%
Multi-Asset	*US 60/40**	*5.07%*	***+0.53%***	*10.45%*
Multi-Asset	*Global 60/40**	*5.08%*	***+0.17%***	*10.95%*
Multi-Asset	*Hedge Funds**	*5.74%*	***-0.09%***	*8.15%*

INFORMATION DISCLAIMER

Past performance is no guarantee of future results.

The goal of this report is to provide a basis for substantiating asset allocation recommendations. The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.

Information on market indices was provided by sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.

All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.

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MARKET UPDATE

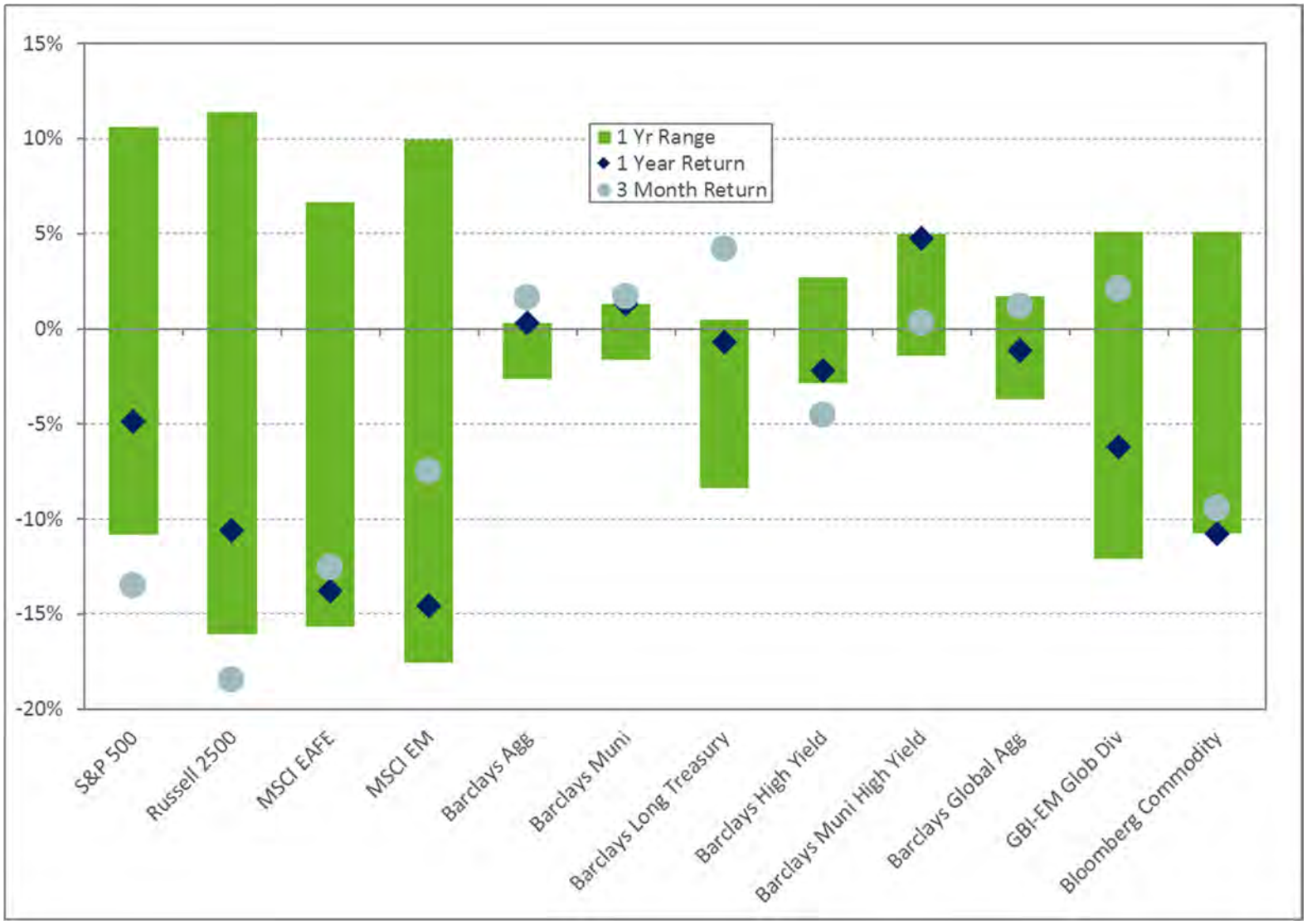
NEPC, LLC

CALENDAR YEAR INDEX PERFORMANCE

	2009	2010	2011	2012	2013	2014	2015	2016	2017	Q1	Q2	Q3	Oct	Nov	Dec	Q4	YTD
S&P 500	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	21.8%	-0.8%	3.4%	7.7%	-6.8%	2.0%	-9.0%	-13.5%	-4.4%
Russell 1000	28.4%	16.1%	1.5%	16.4%	33.1%	13.2%	0.9%	12.1%	21.7%	-0.7%	3.6%	7.4%	-7.1%	2.0%	-9.1%	-13.8%	-4.8%
Russell 2000	27.2%	26.9%	-4.2%	16.3%	38.8%	4.9%	-4.4%	21.3%	14.6%	-0.1%	7.8%	3.6%	-10.9%	1.6%	-11.9%	-20.2%	-11.0%
Russell 2500	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	16.8%	-0.2%	5.7%	4.7%	-10.2%	1.9%	-11.0%	-18.5%	-10.0%
MSCI EAFE	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	25.0%	-1.5%	-1.2%	1.4%	-8.0%	-0.1%	-4.9%	-12.5%	-13.8%
MSCI EM	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	37.3%	1.4%	-8.0%	-1.1%	-8.7%	4.1%	-2.7%	-7.5%	-14.6%
MSCI ACWI	34.6%	12.7%	-7.3%	16.1%	22.8%	4.2%	-2.4%	7.9%	24.0%	-1.0%	0.5%	4.3%	-7.5%	1.5%	-7.0%	-12.8%	-9.4%
Private Equity*	13.7%	19.7%	7.9%	12.5%	20.6%	12.7%	9.6%	8.3%	19.9%	3.3%	4.8%	-	-	-	-	-	8.2%
BC TIPS	11.4%	6.3%	13.6%	7.0%	-8.6%	3.6%	-1.4%	4.7%	3.0%	-0.8%	0.8%	-0.8%	-1.4%	0.5%	0.5%	-0.4%	-1.3%
BC Municipal Bond	12.9%	2.4%	10.7%	6.8%	-2.6%	9.1%	3.3%	0.2%	5.4%	-1.1%	0.9%	-0.2%	-0.6%	1.1%	1.2%	1.7%	1.3%
BC Muni High Yield	32.7%	7.8%	9.2%	18.1%	-5.5%	13.8%	1.8%	3.0%	9.7%	0.6%	3.1%	0.8%	-1.3%	0.7%	0.9%	0.3%	4.8%
BC US Corp High Yield	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	7.5%	-0.9%	1.0%	2.4%	-1.6%	-0.9%	-2.1%	-4.5%	-2.1%
BC US Aggregate	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	3.5%	-1.5%	-0.2%	0.0%	-0.8%	0.6%	1.8%	1.6%	0.0%
BC Global Aggregate	2.6%	5.2%	6.4%	1.6%	-4.0%	-0.5%	-3.6%	1.6%	7.5%	1.4%	-2.8%	-0.9%	-1.1%	0.3%	2.0%	1.2%	-1.2%
BC Long Treasuries	-12.9%	9.4%	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	8.5%	-3.3%	0.3%	-2.9%	-3.0%	1.9%	5.5%	4.2%	-1.8%
BC US Long Credit	16.8%	10.7%	17.1%	12.7%	-6.6%	16.4%	-4.6%	10.2%	12.2%	-3.8%	-2.7%	1.3%	-3.6%	-0.4%	2.5%	-1.6%	-6.8%
BC US STRIPS 20+ Yr	-36.0%	10.9%	58.5%	3.0%	-21.0%	46.4%	-3.7%	1.4%	13.7%	-4.6%	0.9%	-4.7%	-5.3%	2.4%	7.8%	4.6%	-4.1%
JPM GBI-EM Glob Div	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	9.9%	15.2%	4.4%	-10.4%	-1.8%	-2.0%	2.8%	1.3%	2.1%	-6.2%
JPM EMBI Glob Div	29.8%	12.2%	7.3%	17.4%	-5.3%	7.4%	1.2%	10.2%	10.1%	-1.7%	-3.5%	2.3%	-2.2%	-0.4%	1.4%	-1.3%	-4.3%
CS Leveraged Loan	44.9%	10.0%	1.8%	9.4%	6.2%	2.1%	-0.4%	9.9%	4.2%	1.6%	0.8%	1.9%	0.0%	-0.8%	-2.3%	-3.1%	1.1%
CS Hedge Fund	18.6%	10.9%	-2.5%	7.7%	9.7%	4.1%	-0.7%	1.2%	7.1%	0.5%	0.1%	0.6%	-2.6%	-0.6%	-	-	-2.0%
BBG Commodity	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-0.4%	0.4%	-2.0%	-2.2%	-0.6%	-6.9%	-9.4%	-11.2%
Alerian MLP	76.4%	35.9%	13.9%	4.8%	27.6%	4.8%	-32.6%	18.3%	-6.5%	-11.1%	11.8%	6.6%	-8.0%	-0.8%	-9.4%	-17.3%	-12.4%
FTSE NAREIT Eq REITs	28.0%	28.0%	8.3%	18.1%	2.5%	30.1%	3.2%	8.5%	5.2%	-8.2%	10.0%	0.8%	-3.0%	4.7%	-8.2%	-6.7%	-4.6%

Source: Bloomberg, Barclays, Alerian, Nareit, MSCI, JP Morgan, Credit Suisse, Thomson One
*Private Equity return represents calendar year pooled IRR and is subject to a one quarter lag

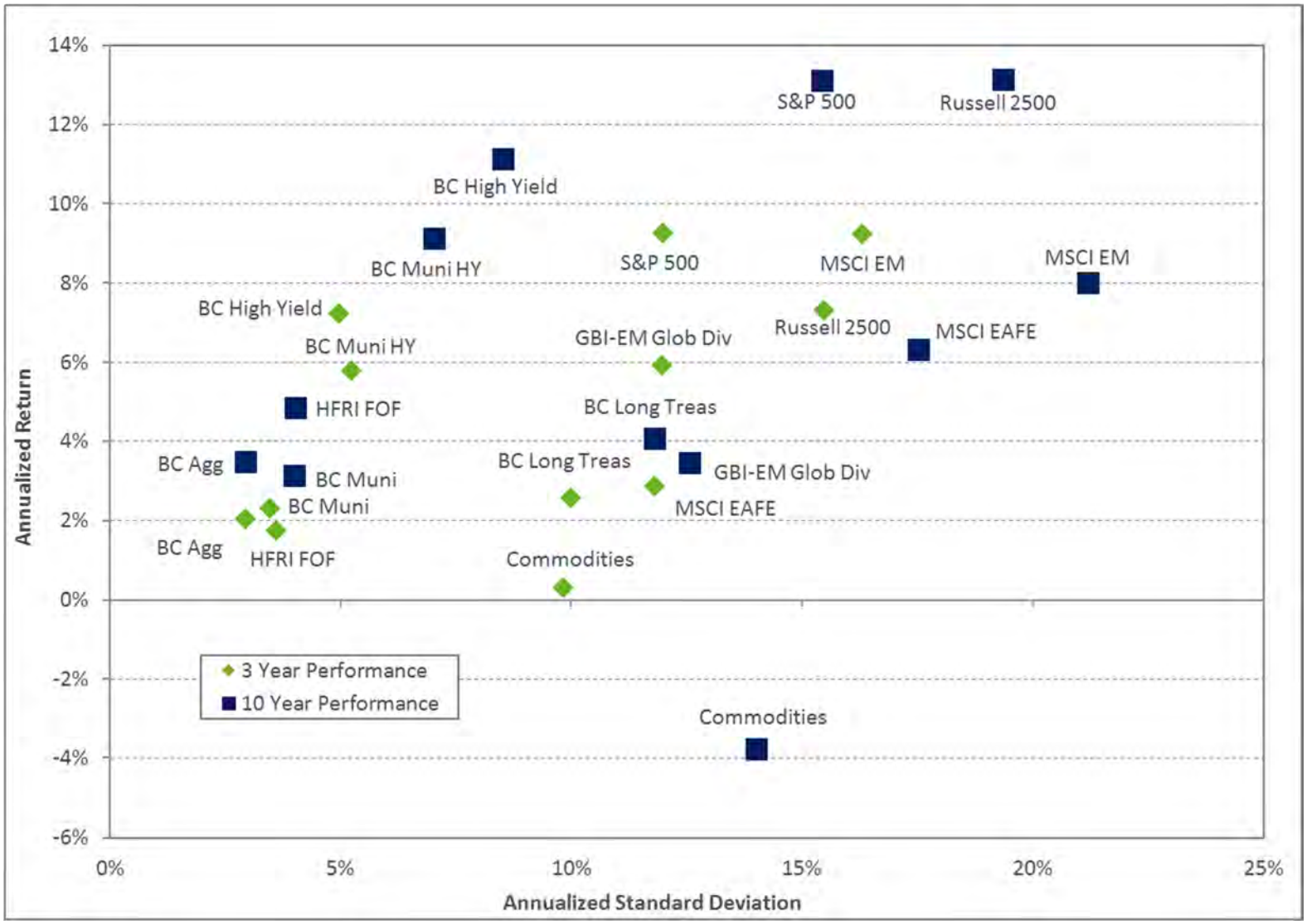
SHORT-TERM PERFORMANCE SUMMARY



Source: Bloomberg, Standard and Poor's, Russell, MSCI, Barclays, JP Morgan

*1 Yr Range: Represents range of cumulative high/low daily index returns for an investment made one year ago

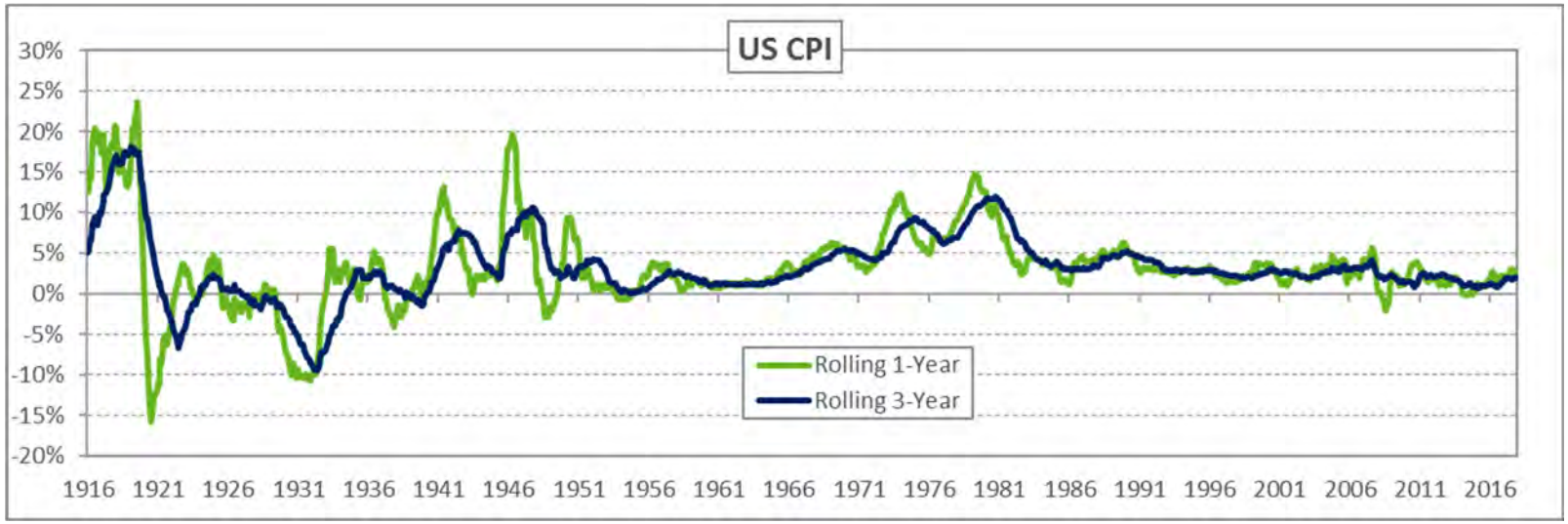
LONG-TERM PERFORMANCE SUMMARY



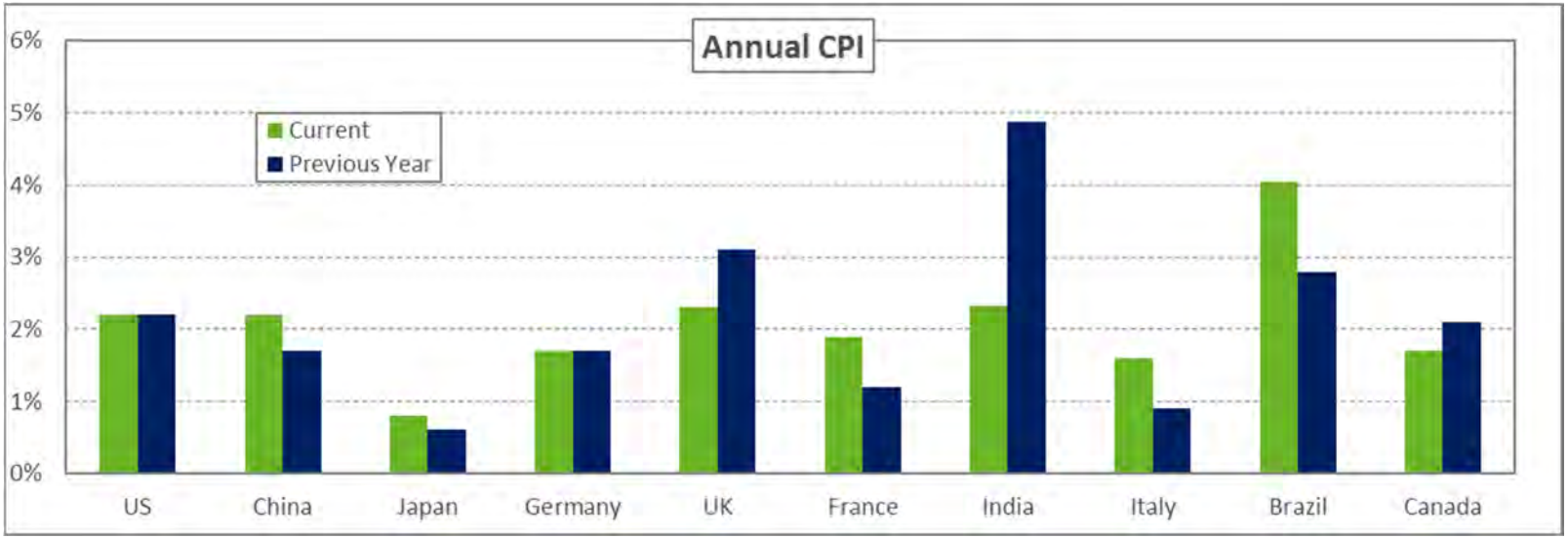
Source: Bloomberg, Standard and Poor's, Russell, MSCI, Barclays, JP Morgan

MACRO

INFLATION

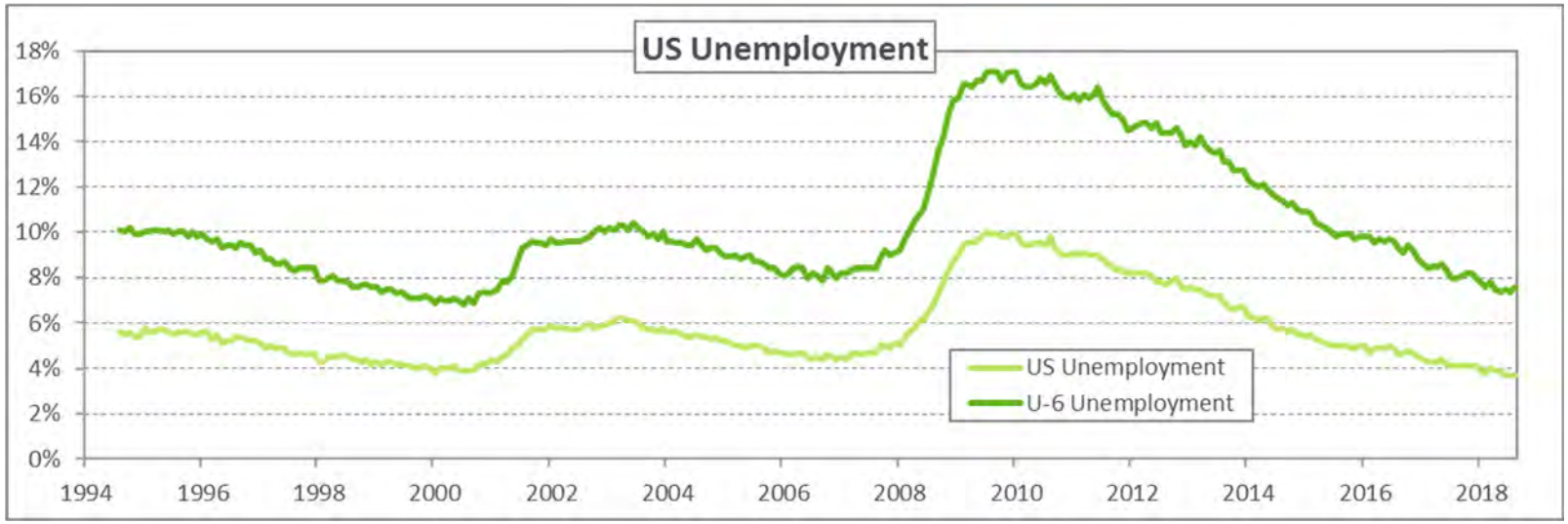


Source: Bureau of Labor Statistics, Bloomberg, NEPC

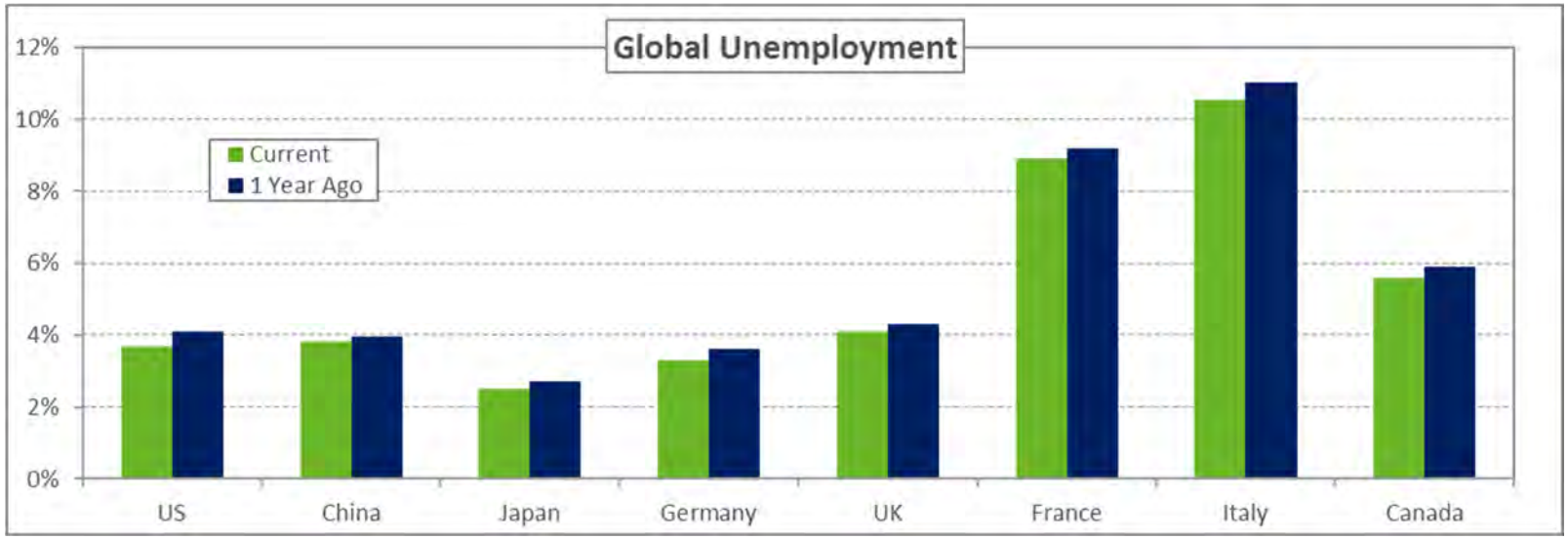


Source: Bureau of Labor Statistics, National Bureau of Statistics of China, Ministry of Internal Affairs and Communications (Japan), German Federal Statistics Office, UK Office for National Statistics, National Statistics Office of France, India Central Statistical Organization, ISTAT, IBGE, STCA, Bloomberg

UNEMPLOYMENT



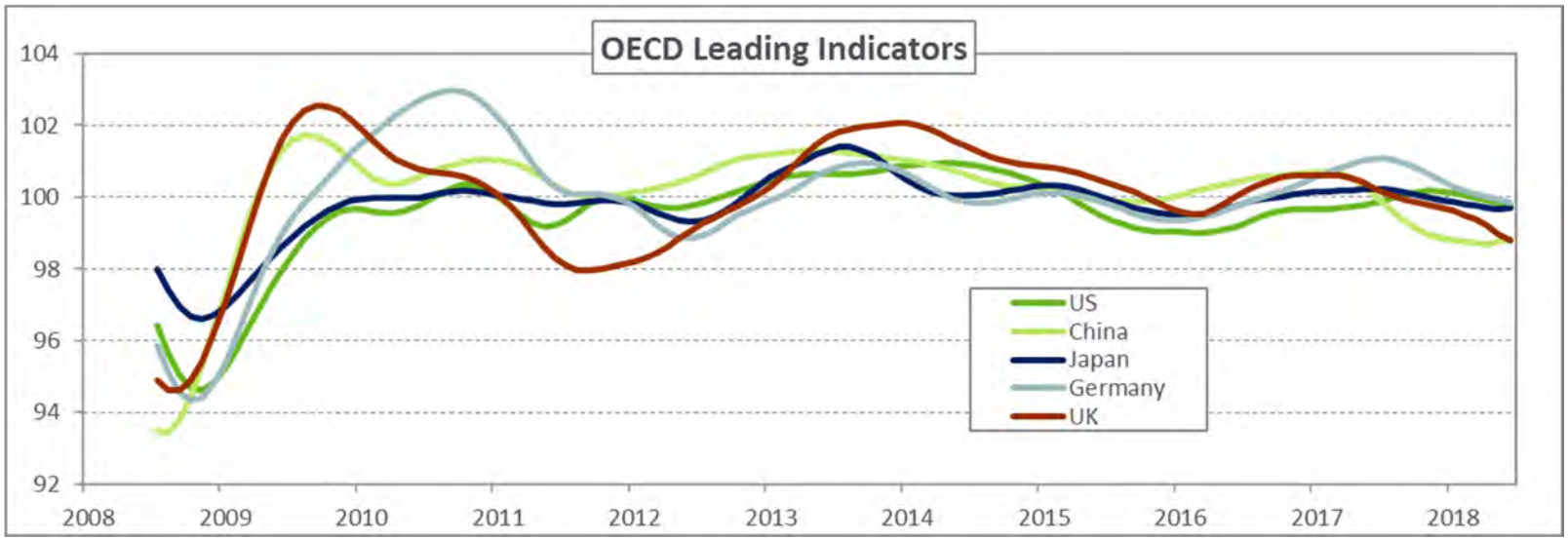
Source: Bureau of Labor Statistics, Bloomberg



Source: Bureau of Labor Statistics, STA, National Bureau of Statistics of China, Ministry of Internal Affairs and Communications (Japan), German Federal Statistics Office, UK Office for National Statistics, National Statistics Office of France, ISTAT, IBGE, Bloomberg

ECONOMIC INDICATORS

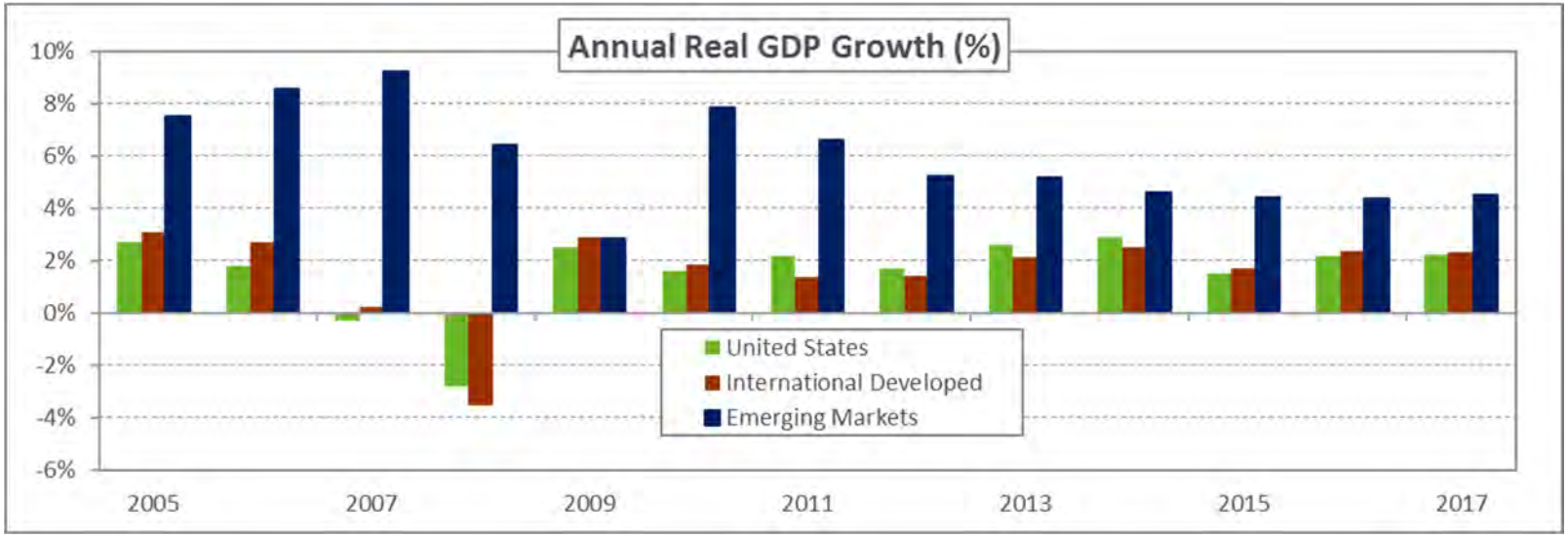
Source: IMF



Source: OECD, Bloomberg

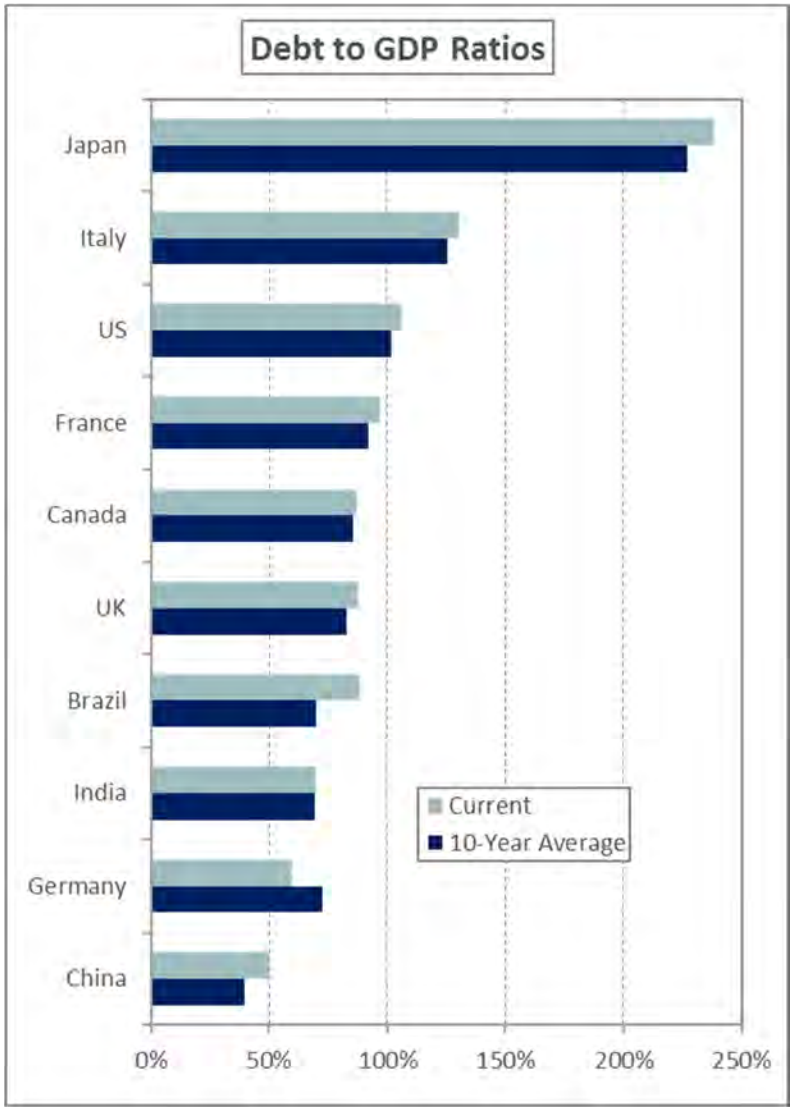
GROSS DOMESTIC PRODUCT

Source: Bloomberg

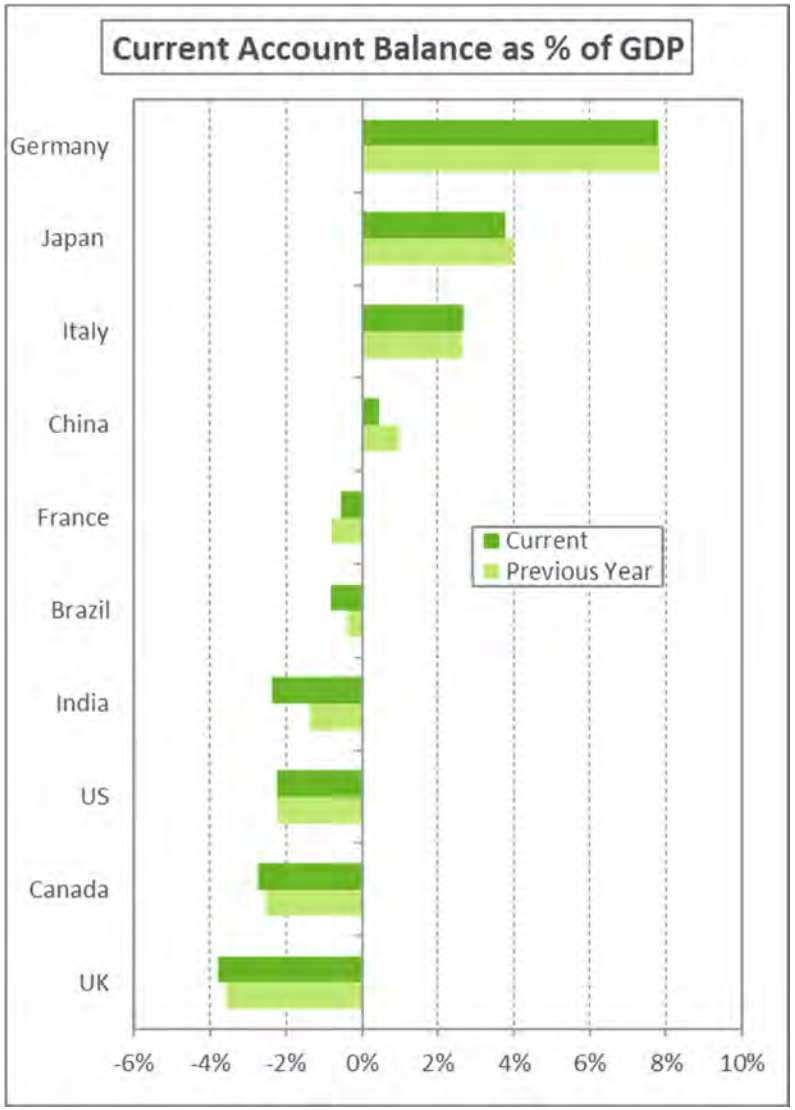


Source: Bloomberg

GROSS DOMESTIC PRODUCT METRICS

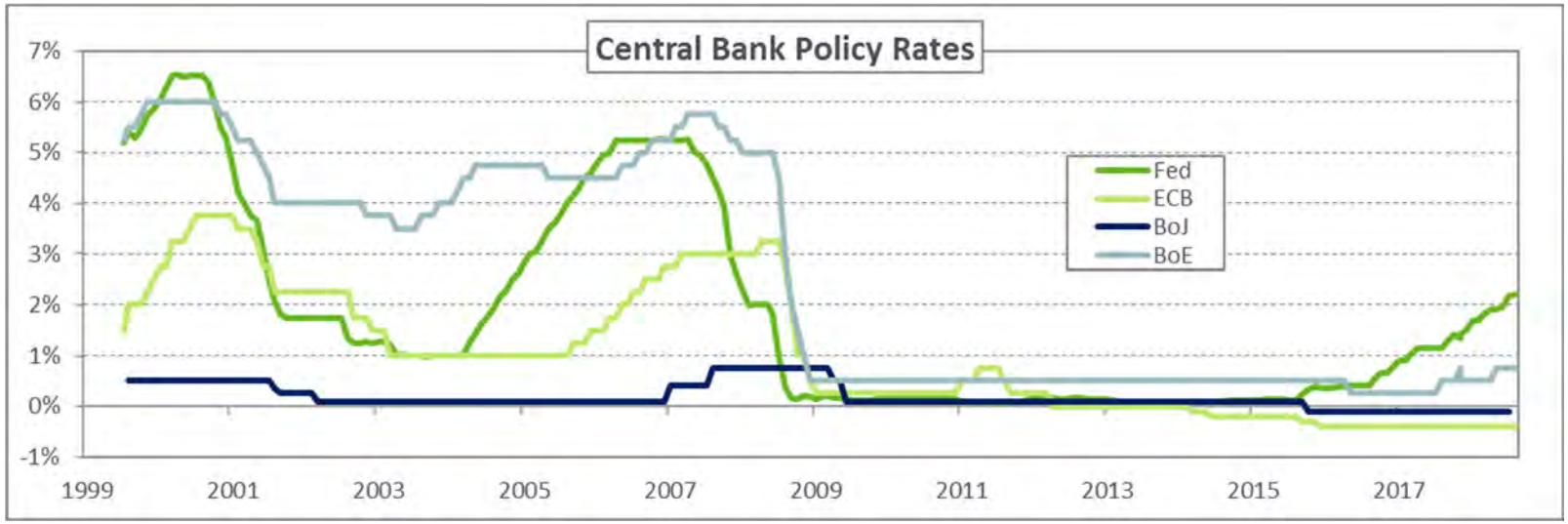


Source: IMF, Bloomberg

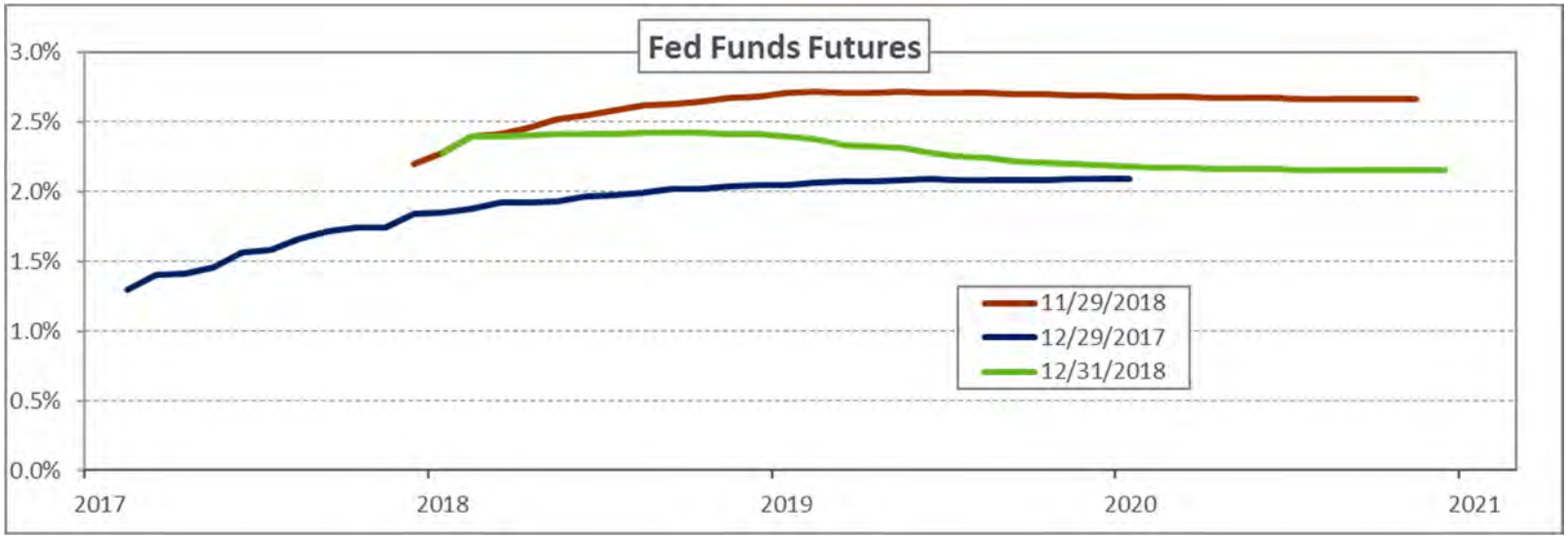


Source: Bloomberg

CENTRAL BANK RATES



Source: Federal Reserve, ECB, Bank of Japan, Bank of England, Bloomberg



Source: Bloomberg

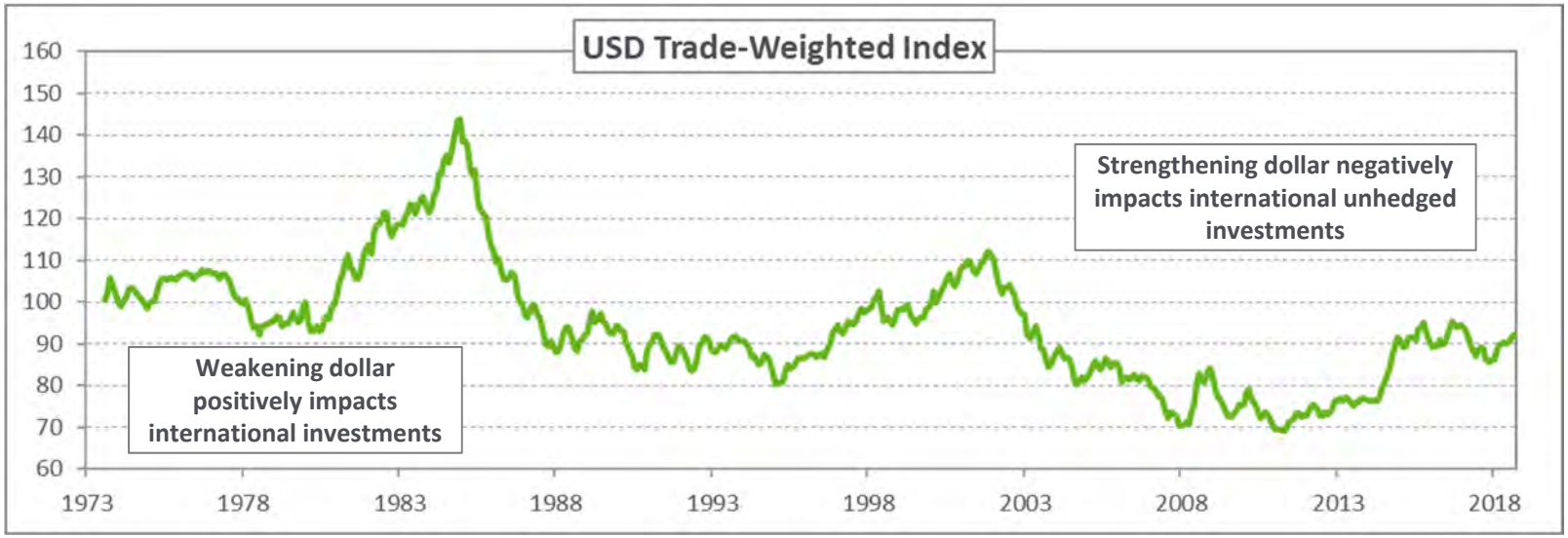
CENTRAL BANK BALANCE SHEETS

Source: Federal Reserve, Bank of Japan, ECB, Bloomberg, NEPC

CURRENCIES

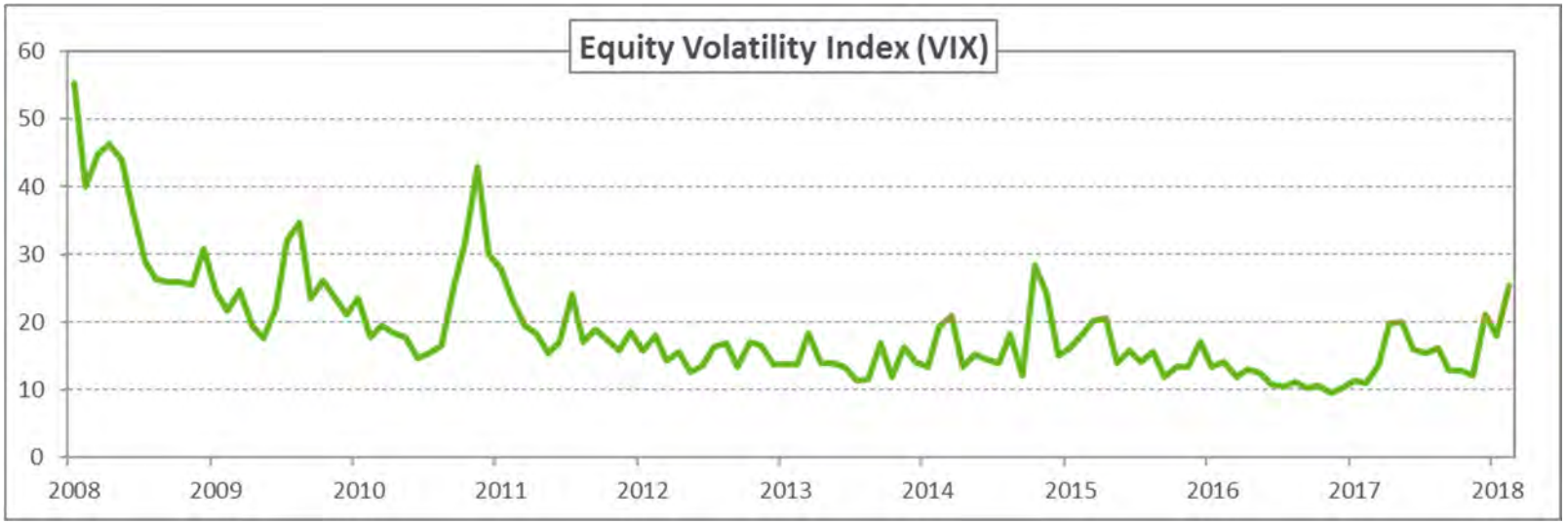
		% Change Relative to USD		
Currencies	Spot	1 Month	YTD	1 Year
Euro	1.15	1.3%	-4.5%	-4.5%
British Pound	1.28	0.0%	-5.6%	-5.6%
Japanese Yen	109.69	3.5%	2.7%	2.7%
Swiss Franc	0.98	1.6%	-0.8%	-0.8%
Australian Dollar	0.70	-3.5%	-9.7%	-9.7%
Chinese Yuan	6.88	1.2%	-5.4%	-5.4%
Brazilian Real	3.87	-0.2%	-14.6%	-14.6%
Russian Ruble	69.72	-3.9%	-17.3%	-17.3%
Indian Rupee	69.77	-0.3%	-8.5%	-8.5%
Mexican Peso	19.65	3.6%	0.0%	0.0%
South African Rand	14.35	-3.3%	-13.7%	-13.7%

Source: Bloomberg



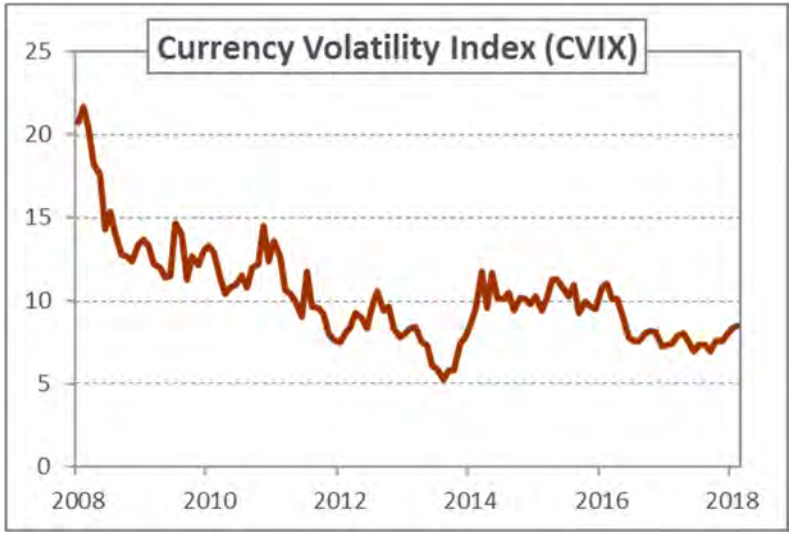
Source: Bloomberg

VOLATILITY



Source: CBOE, Bloomberg

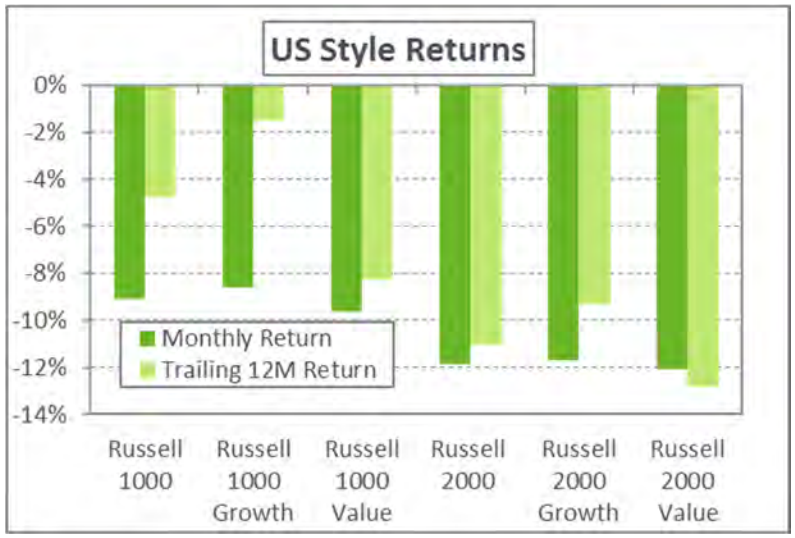
Source: Merrill Lynch, Bloomberg



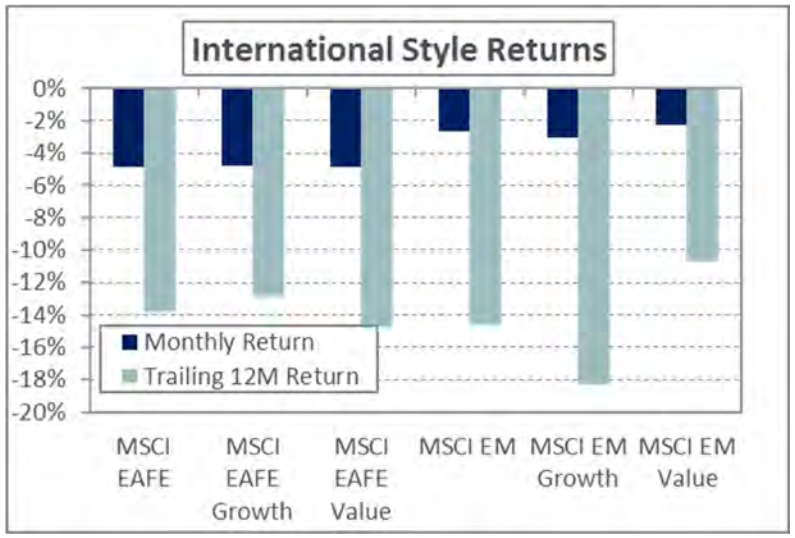
Source: Deutsche Bank, Bloomberg

EQUITY

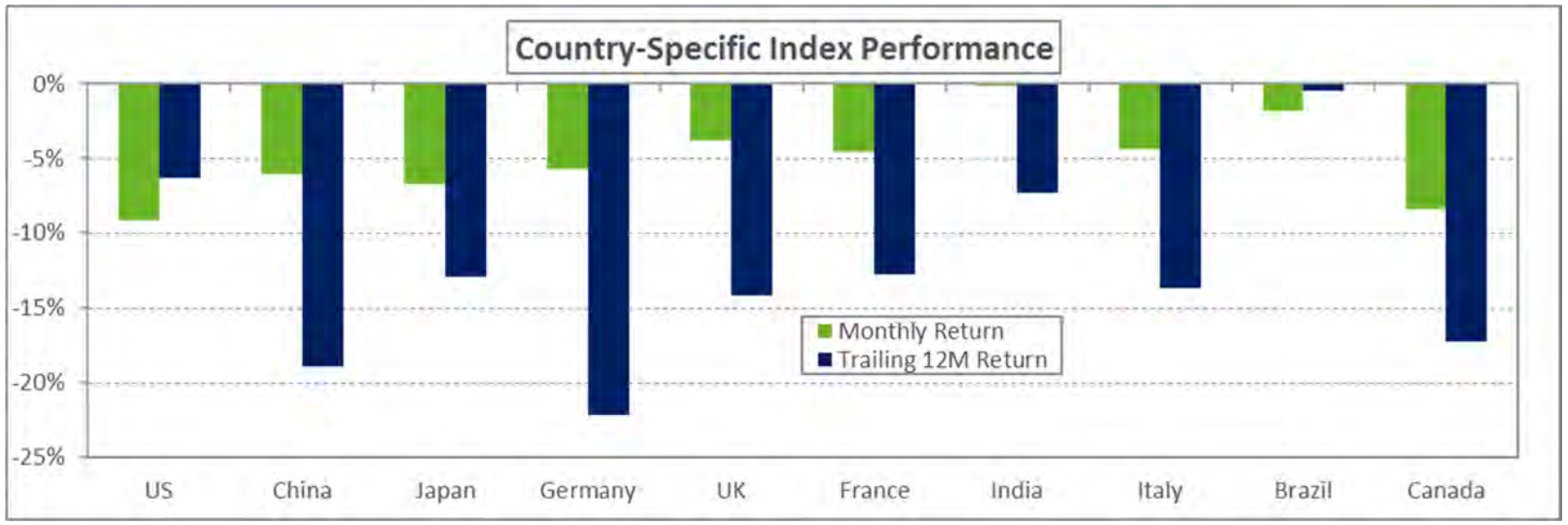
EQUITY INDEX PERFORMANCE



Source: Russell, Bloomberg



Source: MSCI, Bloomberg



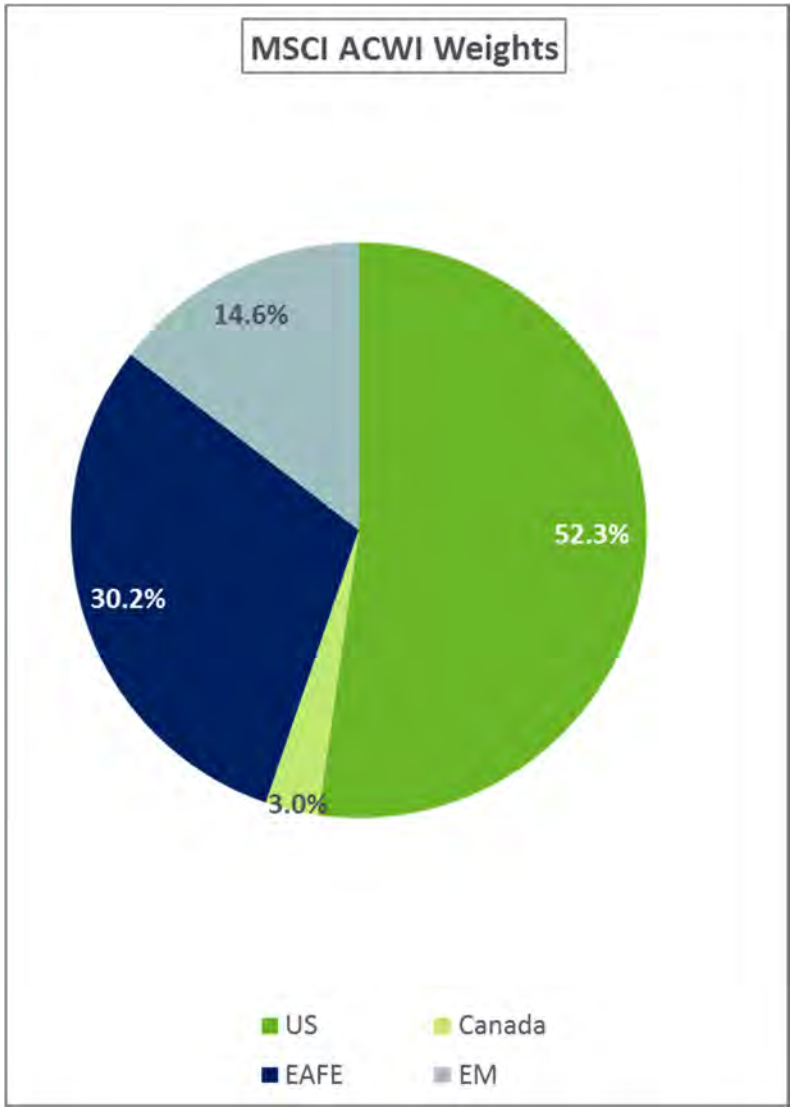
Source: MSCI, Bloomberg
Represents returns in USD

INDEX COMPOSITION

	MTD	QTD	YTD	Index Weight
S&P 500	**-9.0%**	**-13.5%**	**-4.4%**	**100%**
Cons Disc	-8.4%	-16.5%	0.4%	10.0%
Cons Staples	-9.2%	-5.4%	-9.2%	7.5%
Energy	-12.7%	-24.0%	-18.8%	5.4%
Financials	-11.3%	-13.3%	-13.5%	12.7%
Health Care	-8.6%	-8.8%	5.9%	15.8%
Industrials	-10.7%	-17.4%	-13.8%	9.3%
Info Tech	-8.5%	-17.4%	-0.7%	20.0%
Materials	-7.0%	-12.5%	-15.2%	2.8%
Real Estate	-7.6%	-4.1%	-3.3%	3.0%
Telecom	-7.3%	-13.3%	-13.7%	10.2%
Utilities	-4.1%	1.1%	3.0%	3.4%

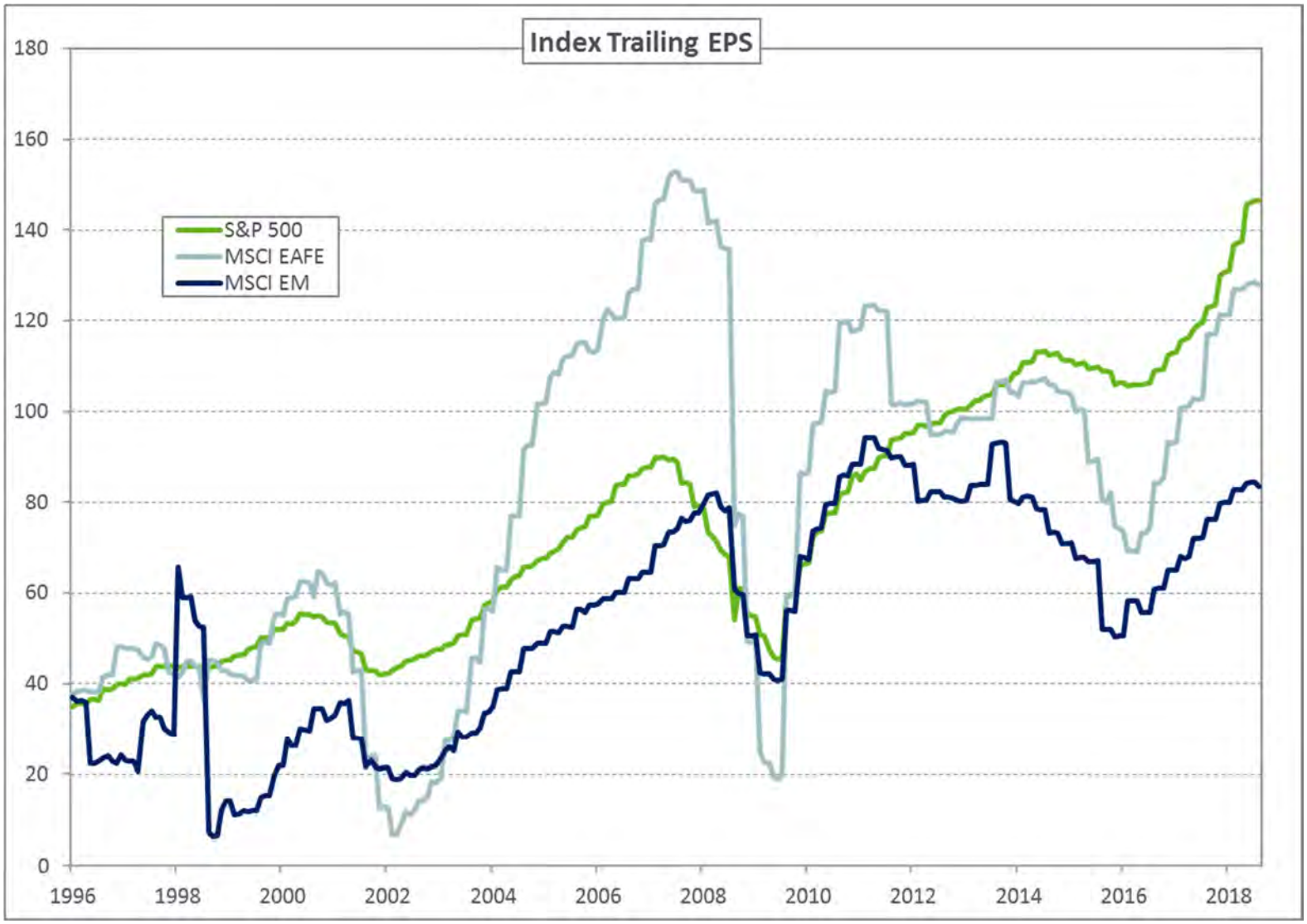
	MTD	QTD	YTD	Index Weight
MSCI ACWI	**-7.0%**	**-12.7%**	**-9.0%**	**100%**
Cons Disc	-7.0%	-14.4%	-8.3%	10.8%
Cons Staples	-6.1%	-6.6%	-10.5%	8.4%
Energy	-9.0%	-20.2%	-13.3%	6.0%
Financials	-7.9%	-11.9%	-15.7%	17.7%
Health Care	-8.1%	-9.6%	1.7%	11.8%
Industrials	-7.9%	-15.6%	-14.4%	10.7%
Info Tech	-7.6%	-17.1%	-5.8%	14.1%
Materials	-3.5%	-13.4%	-16.0%	5.0%
Real Estate	-4.9%	-4.0%	-7.7%	3.2%
Telecom	-6.0%	-6.2%	-10.9%	8.9%
Utilities	-2.0%	0.7%	1.4%	3.4%

Source: S&P, MSCI, Bloomberg



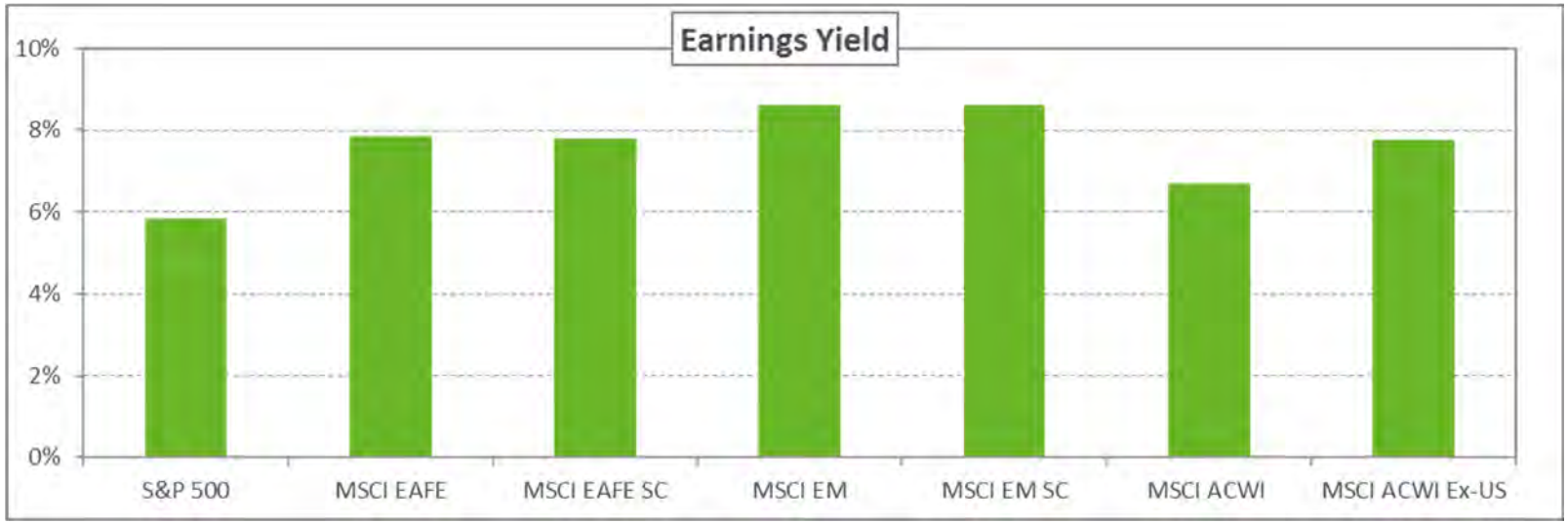
Source: MSCI, Bloomberg

EARNINGS

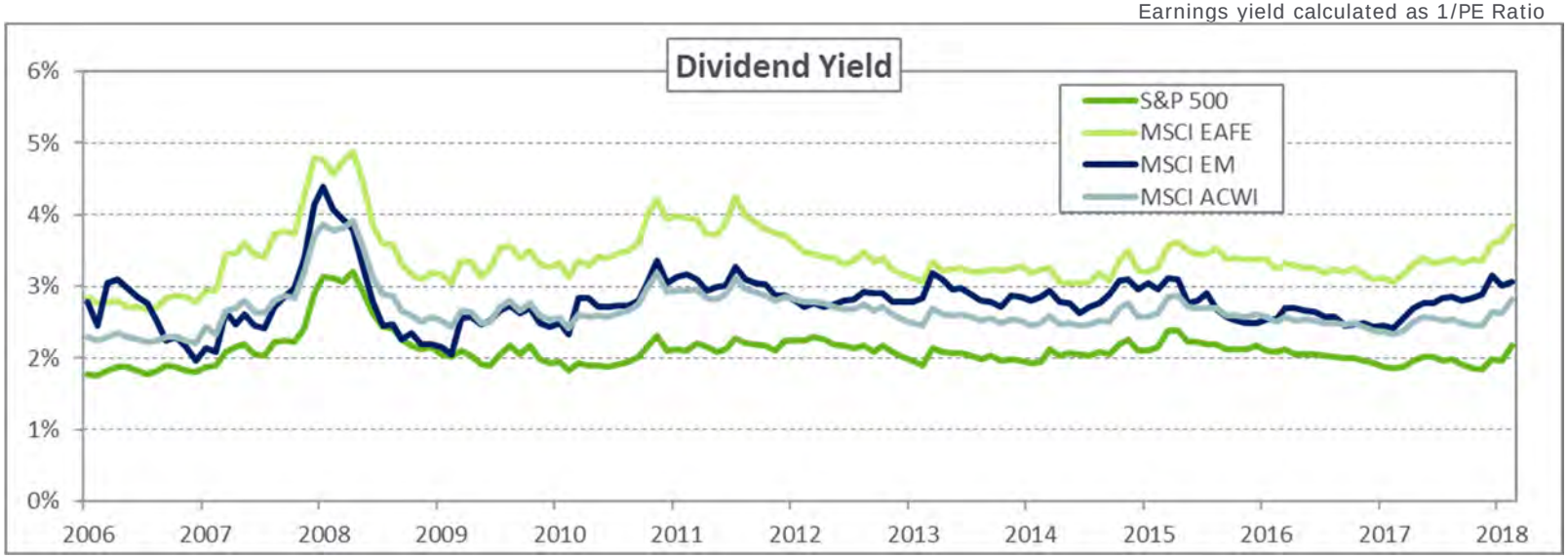


Source: S&P, MSCI, Bloomberg

YIELDS

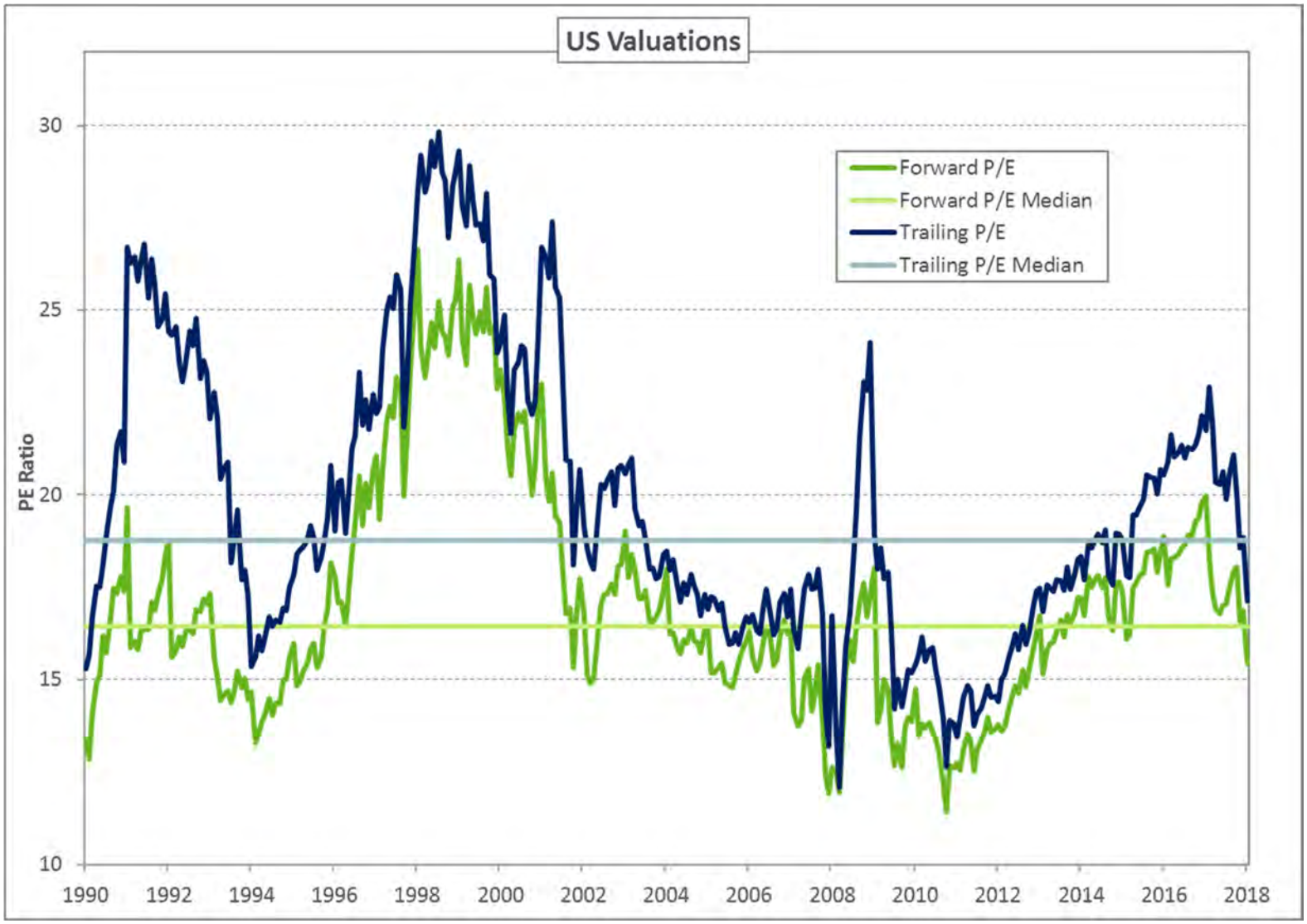


Source: S&P, MSCI, Bloomberg
Earnings yield calculated as 1/PE Ratio



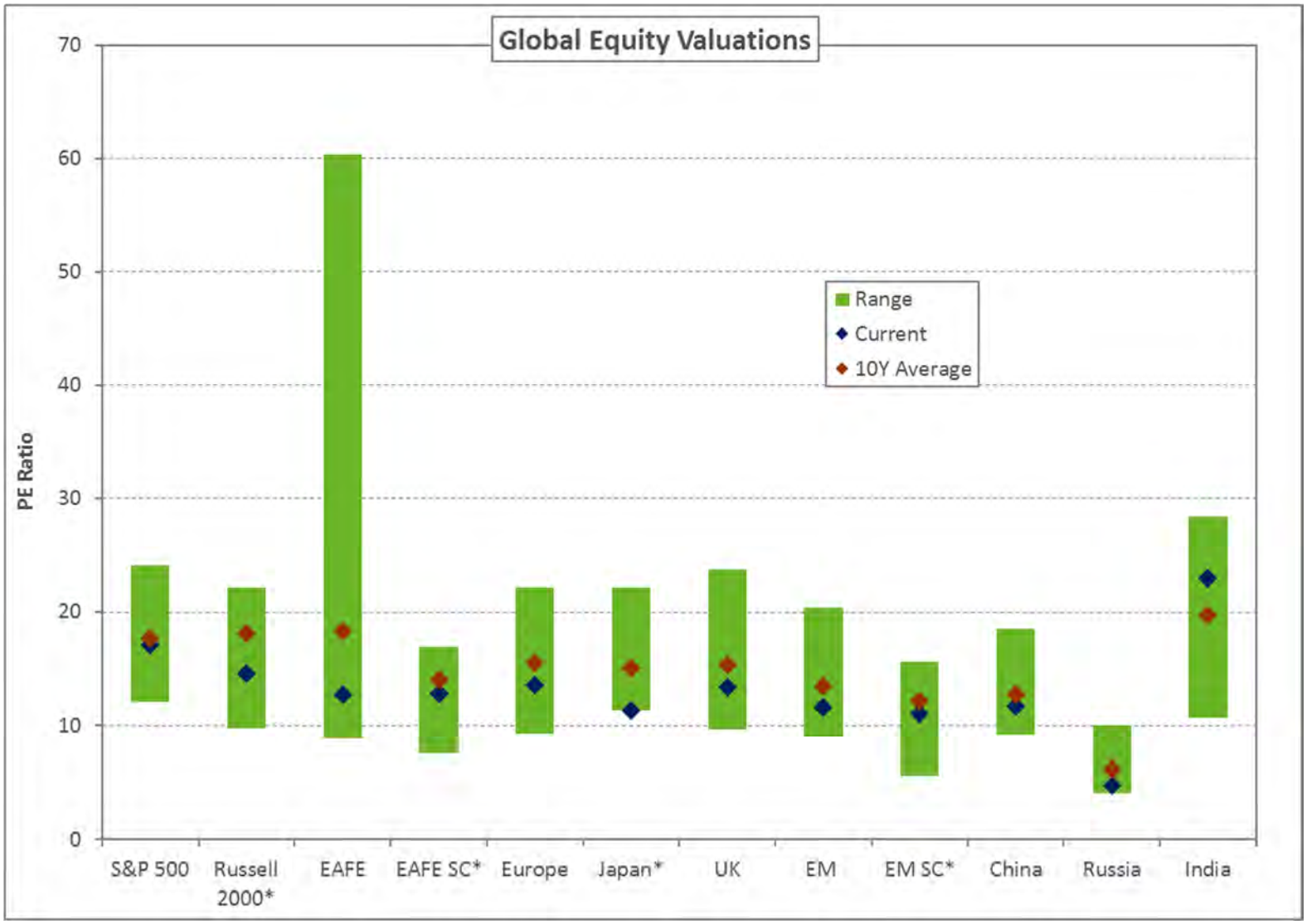
Source: S&P, MSCI, Bloomberg

US EQUITY VALUATIONS



Source: S&P, Bloomberg
Medians calculated as of 01/31/1990

GLOBAL EQUITY VALUATIONS



Source: S&P, Russell, MSCI, Bloomberg, NEPC
*Denotes the use of index-adjusted positive PE ratio
Ranges calculated using trailing 10-year figures

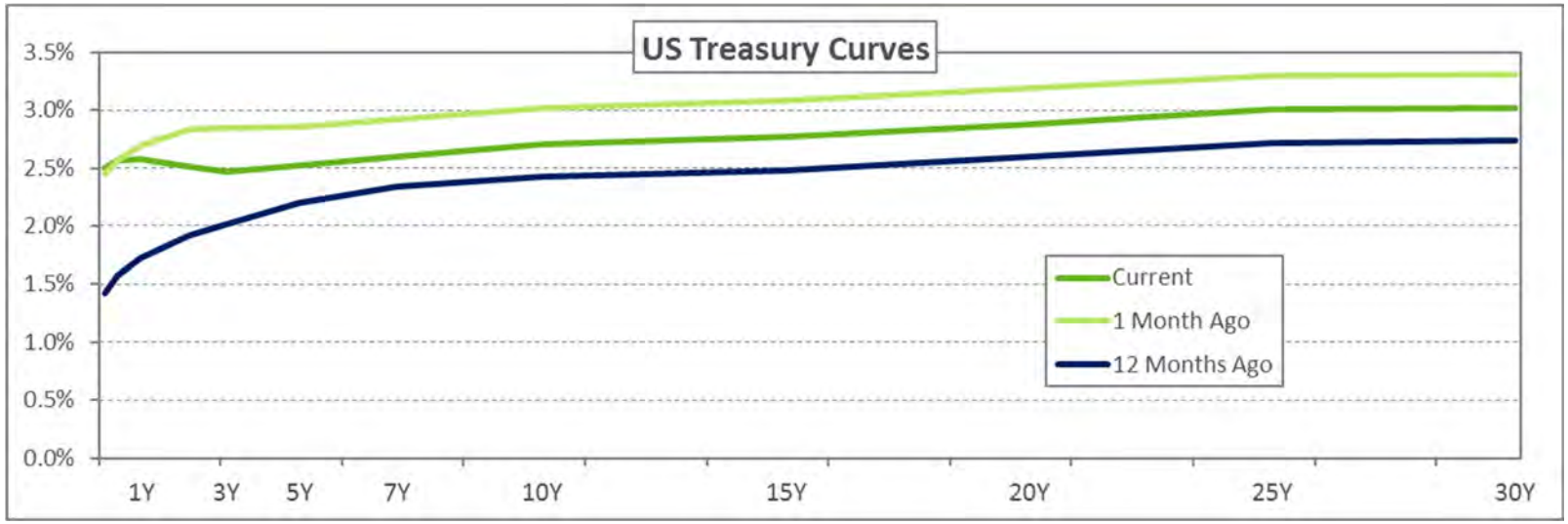
CREDIT

FIXED INCOME CHARACTERISTICS

	Averages			Total Returns (%)		
	Yield to Worst	Spread (bps)	Duration (Years)	1-Month	YTD	1-Year
Barclays Aggregate	3.3%	54	5.9	1.8%	1.6%	0.0%
Barclays Treasury	2.6%	-	6.1	2.2%	2.6%	0.9%
Barclays Agency	2.8%	16	4.0	1.4%	1.9%	1.3%
Barclays MBS	3.4%	35	4.7	1.8%	2.1%	1.0%
Barclays ABS	3.0%	47	2.3	0.9%	1.3%	1.7%
Barclays CMBS	3.4%	86	5.3	1.6%	1.7%	0.8%
Barclays Corp IG	4.2%	153	7.1	1.5%	-0.2%	-2.5%
Barclays Muni	2.7%	-	6.2	1.2%	1.7%	1.3%
Barclays HY Muni	5.0%	-	8.9	0.9%	0.3%	4.8%
Barclays TIPS	2.8%	-	5.3	0.5%	-0.4%	-1.3%
Barclays HY	8.0%	526	4.0	-2.1%	-4.5%	-2.1%
Barclays Global Agg	2.0%	55	7.0	2.0%	1.2%	-1.2%
JPM EMBI Glob Div	7.0%	434.61	7.1	1.3%	-1.3%	-4.3%
JPM CEMBI Broad	5.3%	337.93	4.5	0.7%	0.0%	-1.6%
JPM GBI - EM	6.5%	-	5.1	1.3%	2.1%	-6.2%

Source: Barclays, JPM, Bloomberg

TREASURIES

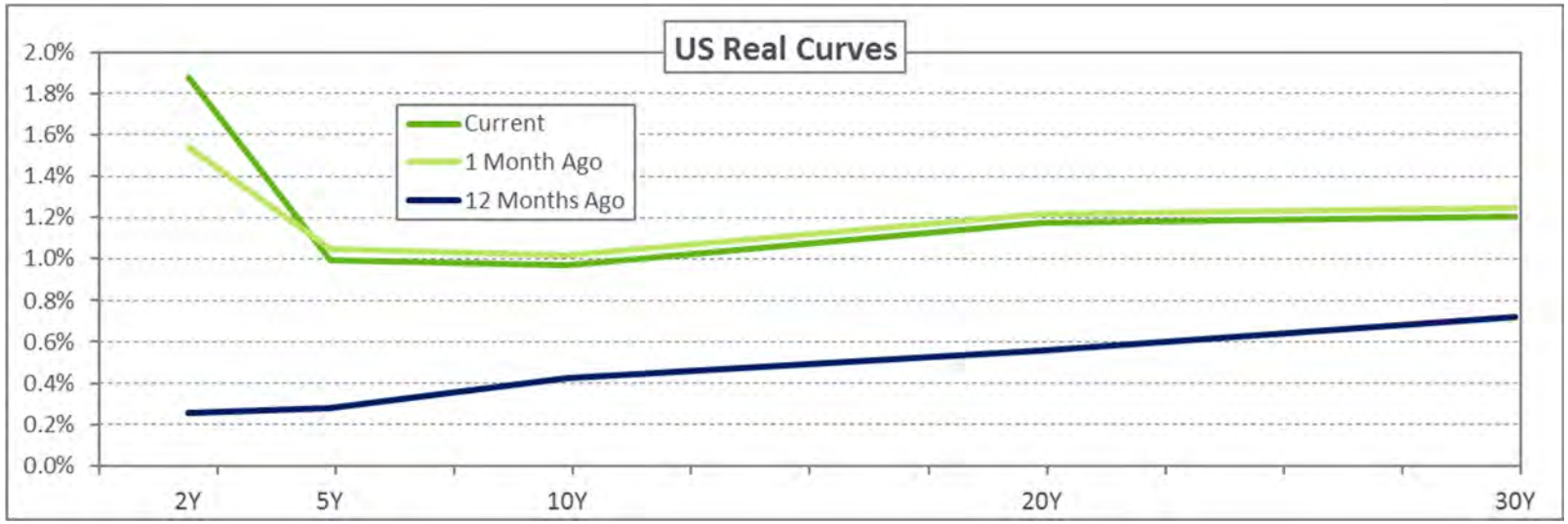


Source: Bloomberg

	Yield (%)			Total Return (%)	
	Current	1 Month Ago	12 Months Ago	1 Month	12 Months
3M Treasury	2.51%	2.45%	1.42%	0.19%	1.83%
6M Treasury	2.57%	2.56%	1.57%	0.22%	1.92%
2Y Treasury	2.51%	2.83%	1.92%	0.81%	1.40%
5Y Treasury	2.52%	2.86%	2.20%	1.86%	1.42%
10Y Treasury	2.70%	3.02%	2.42%	3.01%	0.00%
30Y Treasury	3.02%	3.31%	2.74%	5.94%	-2.72%

Source: Barclays, Bloomberg

REAL YIELDS

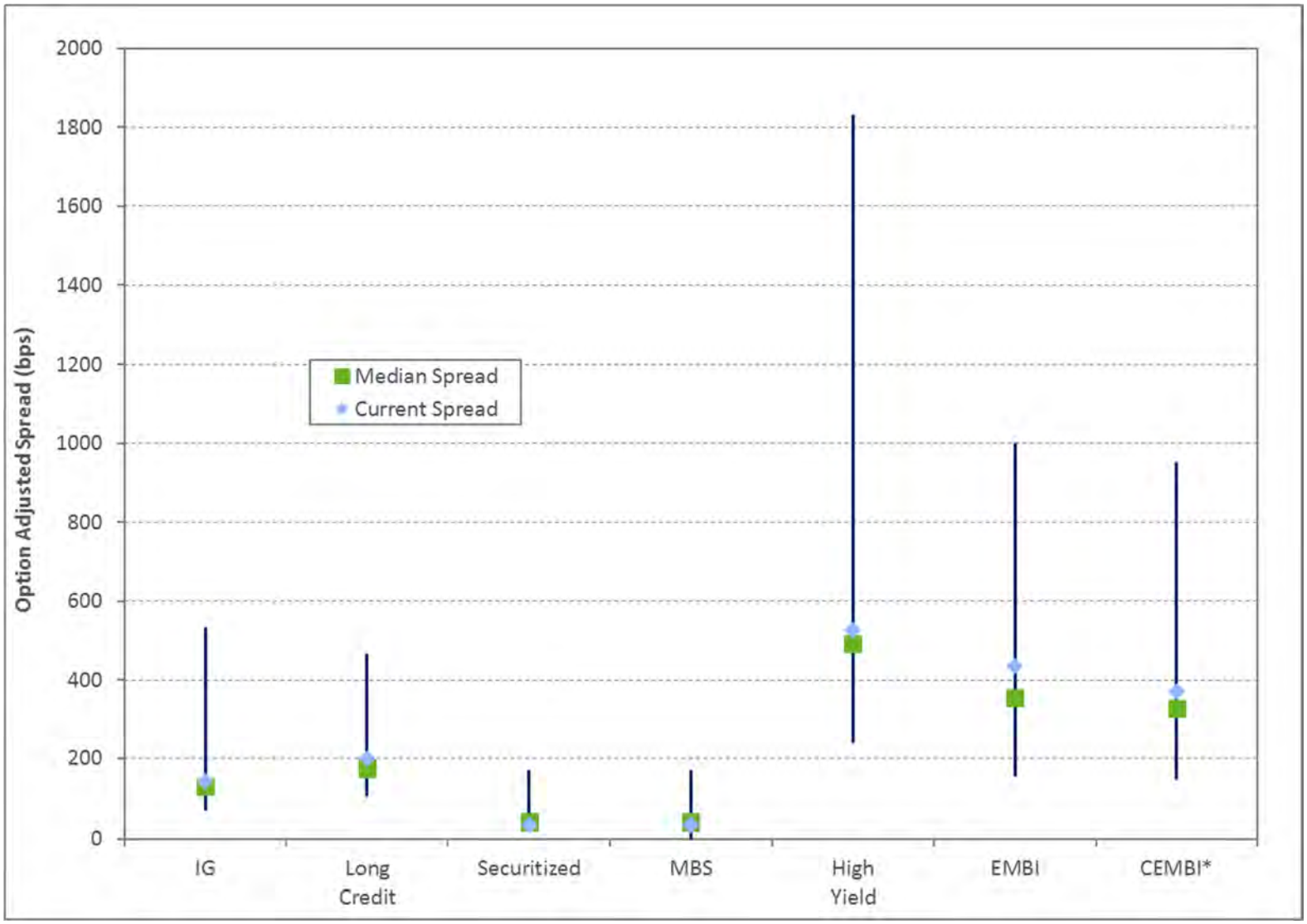


Source: Bloomberg

	Real Rates			Breakeven Rates	
	Current	1 Month Ago	12 Months Ago	Current	12 Months Ago
2Y Treasury	1.88%	1.54%	0.25%	0.66%	1.56%
5Y Treasury	0.99%	1.05%	0.28%	1.49%	1.88%
10Y Treasury	0.97%	1.02%	0.42%	1.71%	1.98%
20Y Treasury	1.17%	1.22%	0.56%	1.66%	1.86%
30Y Treasury	1.21%	1.25%	0.72%	1.82%	2.02%

Source: Barclays, Bloomberg

CREDIT SPREADS



Source: Barclays, JPM, Bloomberg
Data range: 01/31/2000 through month-end
*JPM CEMBI calculated since 12/31/2001

DECEMBER 2018 PERFORMANCE FLASH REPORT

NEPC, LLC

Town of Belmont DB

TOTAL FUND PERFORMANCE DETAIL - GROSS OF FEES

	Market Value ($)	% of Portfolio	Policy %	Ending December 31, 2018									
				1 Mo (%)	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
Composite	**100,756,056**	**100.0**	**100.0**	**-2.9**	**-5.7**	**-2.8**	**6.7**	**5.7**	**8.3**	**9.9**	**7.8**	**9.1**	**Jan-85**
Allocation Index				*-2.8*	*-5.5*	*-3.5*	*5.6*	*5.0*	*7.3*	*8.3*	*6.3*	*8.6*	*Jan-85*
Policy Index				*-2.6*	*-5.4*	*-3.2*	*5.6*	*5.1*	*7.2*	*8.3*	*5.9*	--	*Jan-85*
Total Equity	**41,267,826**	**41.0**	**43.0**	**-7.1**	**-12.3**	**-9.0**	**6.9**	**5.6**	**10.7**	**--**	**--**	**8.7**	**Dec-10**
Total Domestic Equity	**23,748,107**	**23.6**	**23.0**	**-9.1**	**-12.6**	**-4.7**	**8.5**	**7.3**	**12.3**	**--**	**--**	**10.9**	**Dec-10**
Rothschild US Large Cap Value	9,666,360	9.6	9.0	-9.4	-11.1	-7.6	6.5	6.4	12.2	--	--	11.0	Dec-09
Russell 1000 Value				*-9.6*	*-11.7*	*-8.3*	*7.0*	*5.9*	*11.0*	*11.2*	*7.0*	*10.4*	*Dec-09*
Atlanta US Small Cap	5,028,889	5.0	5.0	-8.7	-13.7	1.6	11.5	8.6	13.4	15.6	12.0	11.7	Jul-01
Russell 2000				*-11.9*	*-20.2*	*-11.0*	*7.4*	*4.4*	*10.4*	*12.0*	*7.5*	*7.1*	*Jul-01*
Rhumbline S&P 500	9,052,858	9.0	9.0	-9.0	-13.5	-4.4	9.2	--	--	--	--	7.1	Jun-15
S&P 500				*-9.0*	*-13.5*	*-4.4*	*9.3*	*8.5*	*12.7*	*13.1*	*7.8*	*7.2*	*Jun-15*
Total International Equity	**11,427,247**	**11.3**	**13.0**	**-5.1**	**-13.8**	**-14.4**	**3.3**	**1.5**	**6.4**	**--**	**--**	**3.4**	**Dec-10**
PRIM International Equity	11,427,247	11.3	13.0	-5.1	-13.8	-14.4	3.3	1.5	--	--	--	5.6	Nov-12
MSCI ACWI ex USA				*-4.5*	*-11.5*	*-14.2*	*4.5*	*0.7*	*4.8*	*6.6*	*5.2*	*3.8*	*Nov-12*
Total Emerging Markets Equity	**6,092,471**	**6.0**	**7.0**	**-3.0**	**-8.4**	**-15.2**	**--**	**--**	**--**	**--**	**--**	**3.1**	**Apr-17**
PRIM Emerging Markets	6,092,471	6.0	7.0	-3.0	-8.4	-15.2	--	--	--	--	--	3.1	Apr-17
MSCI Emerging Markets				*-2.7*	*-7.5*	*-14.6*	*9.2*	*1.6*	*3.2*	*8.0*	*7.9*	*3.0*	*Apr-17*
Total Fixed Income	**21,615,859**	**21.5**	**21.0**	**1.6**	**1.3**	**0.7**	**4.7**	**2.9**	**3.2**	**--**	**--**	**3.8**	**Dec-10**
Scout Core Plus	11,164,771	11.1	10.0	2.4	2.8	1.2	3.0	2.4	3.2	7.4	5.9	6.1	Jan-02
BBgBarc US Aggregate TR				*1.8*	*1.6*	*0.0*	*2.1*	*2.5*	*2.1*	*3.5*	*3.9*	*4.2*	*Jan-02*
Loomis Sayles Multi-sector	10,451,088	10.4	11.0	0.6	-0.1	0.1	6.3	--	--	--	--	3.4	Jun-14
BBgBarc US Govt/Credit TR				*1.9*	*1.5*	*-0.4*	*2.2*	*2.5*	*2.1*	*3.5*	*3.9*	*1.9*	*Jun-14*
BBgBarc US High Yield TR				*-2.1*	*-4.5*	*-2.1*	*7.2*	*3.8*	*6.0*	*11.1*	*7.0*	*3.2*	*Jun-14*

1. Returns for periods longer than one year are annualized
2. PIMCO All Asset Index: 40% BC Aggregate / 30% TIPS / 10% S&P 500 / 10% High Yield / 10% JPMEMBI+
3. NCREIF ODCE and NCREIF Property returns only available on a quarterly basis
4. AEW Core Property Trust is preliminary as of 12/31/2018, cash adjusted through 12/31/2018
5. AEW Partners VI is final as of 9/30/2018, cash adjusted through 12/31/2018
6. Harbourvest VII and VIII are preliminary as of 12/31/2018, cash adjusted through 12/31/2018

Returns are gross of fees except for Hedge Funds, Private Equity and AEW Real Estate Funds which are reported net of fees

TOTAL FUND PERFORMANCE DETAIL - GROSS OF FEES

	Market Value ($)	% of Portfolio	Policy %	Ending December 31, 2018									
				1 Mo (%)	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
Total Real Assets	**10,196,487**	**10.1**	**10.0**	**-1.0**	**-3.1**	**-4.2**	**8.0**	**3.4**	**4.9**	**--**	**--**	**5.4**	**Oct-11**
PIMCO All Asset Fund	10,196,487	10.1	10.0	-1.0	-3.1	-4.2	8.0	3.4	4.9	--	--	5.4	Oct-11
PIMCO All Asset Index				*-0.1*	*-1.3*	*-1.1*	*3.5*	*3.1*	*3.4*	*5.5*	*4.8*	*3.7*	*Oct-11*
Total Balanced	**2,433,570**	**2.4**	**0.0**	**-2.6**	**-6.1**	**-1.8**	**7.8**	**6.6**	**8.8**	**--**	**--**	**8.3**	**Dec-10**
Pension Reserves Inv. Trust Fund	2,433,570	2.4	0.0	-2.6	-6.1	-1.8	7.8	6.5	8.8	9.2	7.3	9.3	Jan-85
50% MSCI World (Net)/ 50% FTSE WGBI				*-2.6*	*-6.0*	*-4.6*	*4.7*	*2.8*	*4.7*	*5.8*	*4.9*	--	*Jan-85*
Total Real Estate	**13,248,690**	**13.1**	**12.0**	**-0.4**	**-0.2**	**6.5**	**8.0**	**10.3**	**11.0**	**--**	**--**	**10.9**	**Dec-10**
AEW Core Property Trust	4,000,976	4.0	4.5	1.5	1.5	6.5	6.8	8.6	--	--	--	8.4	Apr-12
AEW Partners VI	1,312,131	1.3	3.0	0.0	0.0	13.8	13.7	15.8	16.4	--	--	14.9	Aug-10
PRIM Real Estate Fund	7,935,583	7.9	4.5	-1.4	-1.1	5.6	7.4	9.7	10.5	--	--	11.1	Dec-10
NCREIF ODCE NET				*1.5*	*1.5*	*7.9*	*8.1*	*10.3*	*10.9*	*6.9*	*8.2*	*12.1*	*Dec-10*
NCREIF Property Index				*0.0*	*0.0*	*5.3*	*6.7*	*9.0*	*9.5*	*7.3*	*8.8*	*10.6*	*Dec-10*

TOTAL FUND PERFORMANCE DETAIL - GROSS OF FEES

	Market Value ($)	% of Portfolio	Policy %	Ending December 31, 2018									
				1 Mo (%)	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
Total Hedge Fund	**6,654,231**	**6.6**	**7.0**	**-1.5**	**-3.5**	**-1.6**	**3.6**	**2.9**	**5.0**	**--**	**--**	**4.1**	**Dec-10**
PRIM Portfolio Completion	6,654,231	6.6	7.0	-1.5	-3.5	-1.6	3.6	2.9	5.0	5.0	--	4.1	Jul-05
HFRI Fund of Funds Composite Index				*-1.6*	*-4.8*	*-3.9*	*1.3*	*1.4*	*2.9*	*3.1*	*2.7*	*2.5*	*Jul-05*
Total Private Equity	**4,804,766**	**4.8**	**7.0**	**2.2**	**1.8**	**17.0**	**14.2**	**14.4**	**14.5**	**--**	**--**	**15.7**	**Dec-10**
Harbourvest Dover Street VII	274,399	0.3		-3.5	-3.5	-2.4	-6.4	-1.5	1.4	5.3	--	5.4	Oct-08
Harbourvest Dover Street VIII	793,432	0.8		-5.1	-5.1	8.5	11.4	13.8	--	--	--	26.2	May-13
PRIT Vintage Year 2001	67,247	0.1		1.7	1.4	12.3	11.3	10.2	11.3	9.3	13.5	10.0	Apr-01
PRIT Vintage Year 2004	14,729	0.0		21.6	21.7	16.4	14.3	15.8	15.6	15.8	--	14.5	Jul-05
PRIT Vintage Year 2005	54,789	0.1		0.7	0.7	3.2	11.7	12.8	14.5	11.9	--	12.2	Aug-05
PRIT Vintage Year 2006	87,985	0.1		2.9	2.7	10.0	8.0	10.0	12.3	11.1	--	8.1	Jun-06
PRIT Vintage Year 2007	173,889	0.2		2.3	1.4	14.3	18.5	15.8	16.7	14.7	--	-3.3	Jun-07
PRIT Vintage Year 2008	462,971	0.5		4.3	4.1	18.5	21.4	21.2	21.5	16.1	--	8.8	May-08
PRIT Vintage Year 2009	99,352	0.1		4.0	3.8	29.7	18.6	22.0	20.1	--	--	13.1	Nov-09
PRIT Vintage Year 2010	358,006	0.4		3.1	2.8	29.0	22.0	22.0	20.0	--	--	11.5	May-10
PRIT Vintage Year 2011	417,056	0.4		6.3	6.1	27.5	23.6	24.2	16.7	--	--	4.6	Apr-11
PRIT Vintage Year 2012	378,825	0.4		3.6	2.3	16.5	18.2	15.0	--	--	--	1.6	Jul-12
PRIT Vintage Year 2013	329,736	0.3		4.9	4.0	18.7	16.5	11.2	--	--	--	5.1	Jul-13
PRIT Vintage Year 2014	400,613	0.4		8.0	7.8	35.2	21.8	--	--	--	--	12.5	Jul-14
PRIT Vintage Year 2015	352,073	0.3		7.4	6.5	35.5	19.5	--	--	--	--	10.3	Apr-15
PRIT Vintage Year 2016	238,368	0.2		4.0	3.4	11.6	--	--	--	--	--	--	May-16
PRIT Vintage Year 2017	162,397	0.2		0.4	-2.2	3.3	--	--	--	--	--	4.8	Jun-17
PRIT Vintage Year 2018	138,900	0.1		0.0	-1.7	--	--	--	--	--	--	-15.3	Jun-18
Private Equity Benchmark (1 Qtr. Lag)				*0.0*	*0.0*	*14.2*	*13.2*	*12.7*	*13.4*	*8.7*	*13.5*	*8.7*	*Jun-18*
Other	**534,628**	**0.5**	**0.0**	**0.2**	**0.5**	**1.6**	**0.7**	**0.4**	**0.3**	**--**	**--**	**0.3**	**Dec-10**
Cash	534,628	0.5		0.2	0.5	1.6	0.7	0.4	0.3	0.2	1.1	1.6	Aug-99
91 Day T-Bills				*0.2*	*0.5*	*1.9*	*1.0*	*0.6*	*0.5*	*0.4*	*1.2*	*1.7*	*Aug-99*

TOTAL FUND PERFORMANCE DETAIL - NET OF FEES

	Market Value ($)	% of Portfolio	Policy %	Ending December 31, 2018 1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
Composite	**100,756,056**	**100.0**	**100.0**	**-3.0**	**-3.2**	**6.4**	**5.3**	**7.9**	**9.5**	**7.4**	**8.7**	**Jan-85**
Allocation Index				*-2.8*	*-3.5*	*5.6*	*5.0*	*7.3*	*8.3*	*6.3*	*8.6*	*Jan-85*
Policy Index				*-2.6*	*-3.2*	*5.6*	*5.1*	*7.2*	*8.3*	*5.9*	--	*Jan-85*
Total Equity	**41,267,826**	**41.0**	**43.0**	**-7.2**	**-9.3**	**6.6**	**5.3**	**10.3**	**--**	**--**	**8.4**	**Dec-10**
Total Domestic Equity	**23,748,107**	**23.6**	**23.0**	**-9.1**	**-5.0**	**8.2**	**6.9**	**11.9**	**--**	**--**	**10.4**	**Dec-10**
Rothschild US Large Cap Value	9,666,360	9.6	9.0	-9.4	-7.9	6.2	6.1	11.9	--	--	10.7	Dec-09
Russell 1000 Value				*-9.6*	*-8.3*	*7.0*	*5.9*	*11.0*	*11.2*	*7.0*	*10.4*	*Dec-09*
Atlanta US Small Cap	5,028,889	5.0	5.0	-8.8	0.9	10.7	7.9	12.6	14.8	11.2	10.9	Jul-01
Russell 2000				*-11.9*	*-11.0*	*7.4*	*4.4*	*10.4*	*12.0*	*7.5*	*7.1*	*Jul-01*
Rhumbline S&P 500	9,052,858	9.0	9.0	-9.0	-4.4	9.2	--	--	--	--	7.1	Jun-15
S&P 500				*-9.0*	*-4.4*	*9.3*	*8.5*	*12.7*	*13.1*	*7.8*	*7.2*	*Jun-15*
Total International Equity	**11,427,247**	**11.3**	**13.0**	**-5.1**	**-14.6**	**3.1**	**1.3**	**6.2**	**--**	**--**	**3.2**	**Dec-10**
PRIM International Equity	11,427,247	11.3	13.0	-5.1	-14.6	3.1	1.3	--	--	--	5.4	Nov-12
MSCI ACWI ex USA				*-4.5*	*-14.2*	*4.5*	*0.7*	*4.8*	*6.6*	*5.2*	*3.8*	*Nov-12*
Total Emerging Markets Equity	**6,092,471**	**6.0**	**7.0**	**-3.0**	**-15.7**	**--**	**--**	**--**	**--**	**--**	**2.5**	**Apr-17**
PRIM Emerging Markets	6,092,471	6.0	7.0	-3.0	-15.7	--	--	--	--	--	2.5	Apr-17
MSCI Emerging Markets				*-2.7*	*-14.6*	*9.2*	*1.6*	*3.2*	*8.0*	*7.9*	*3.0*	*Apr-17*
Total Fixed Income	**21,615,859**	**21.5**	**21.0**	**1.5**	**0.2**	**4.2**	**2.4**	**2.7**	**--**	**--**	**3.3**	**Dec-10**
Scout Core Plus	11,164,771	11.1	10.0	2.4	0.8	2.6	2.0	2.8	6.9	5.4	5.6	Jan-02
BBgBarc US Aggregate TR				*1.8*	*0.0*	*2.1*	*2.5*	*2.1*	*3.5*	*3.9*	*4.2*	*Jan-02*
Loomis Sayles Multi-sector	10,451,088	10.4	11.0	0.6	-0.5	5.7	--	--	--	--	2.8	Jun-14
BBgBarc US Govt/Credit TR				*1.9*	*-0.4*	*2.2*	*2.5*	*2.1*	*3.5*	*3.9*	*1.9*	*Jun-14*
BBgBarc US High Yield TR				*-2.1*	*-2.1*	*7.2*	*3.8*	*6.0*	*11.1*	*7.0*	*3.2*	*Jun-14*
Total Real Assets	**10,196,487**	**10.1**	**10.0**	**-1.1**	**-5.0**	**7.1**	**2.5**	**4.0**	**--**	**--**	**4.4**	**Oct-11**
PIMCO All Asset Fund	10,196,487	10.1	10.0	-1.1	-5.0	7.1	2.5	4.0	--	--	4.4	Oct-11
PIMCO All Asset Index				*-0.1*	*-1.1*	*3.5*	*3.1*	*3.4*	*5.5*	*4.8*	*3.7*	*Oct-11*

1. Returns for periods longer than one year are annualized
2. PIMCO All Asset Index: 40% BC Aggregate / 30% TIPS / 10% S&P 500 / 10% High Yield / 10% JPMEMBI+
3. NCREIF ODCE and NCREIF Property returns only available on a quarterly basis
4. AEW Core Property Trust is preliminary as of 12/31/2018, cash adjusted through 12/31/2018
5. AEW Partners VI is final as of 9/30/2018, cash adjusted through 12/31/2018
6. Harbourvest VII and VIII are preliminary as of 12/31/2018, cash adjusted through 12/31/2018

Returns are net of fees

TOTAL FUND PERFORMANCE DETAIL - NET OF FEES

	Market Value ($)	% of Portfolio	Policy %	Ending December 31, 2018 1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
Total Balanced	**2,433,570**	**2.4**	**0.0**	**-2.7**	**-2.3**	**7.2**	**6.0**	**8.2**	**--**	**--**	**7.7**	**Dec-10**
Pension Reserves Inv. Trust Fund	2,433,570	2.4	0.0	-2.7	-2.3	7.2	6.0	8.2	8.7	6.8	9.1	Jan-85
50% MSCI World (Net)/ 50% FTSE WGBI				*-2.6*	*-4.6*	*4.7*	*2.8*	*4.7*	*5.8*	*4.9*	--	*Jan-85*
Total Real Estate	**13,248,690**	**13.1**	**12.0**	**-0.4**	**6.2**	**7.8**	**10.1**	**10.7**	**--**	**--**	**10.4**	**Dec-10**
AEW Core Property Trust	4,000,976	4.0	4.5	1.5	6.5	6.8	8.6	--	--	--	8.4	Apr-12
AEW Partners VI	1,312,131	1.3	3.0	0.0	13.8	13.7	15.8	16.4	--	--	13.8	Aug-10
PRIM Real Estate Fund	7,935,583	7.9	4.5	-1.5	5.0	6.9	9.2	10.0	--	--	10.5	Dec-10
NCREIF ODCE NET				*1.5*	*7.9*	*8.1*	*10.3*	*10.9*	*6.9*	*8.2*	*12.1*	*Dec-10*
NCREIF Property Index				*0.0*	*5.3*	*6.7*	*9.0*	*9.5*	*7.3*	*8.8*	*10.6*	*Dec-10*
Total Hedge Fund	**6,654,231**	**6.6**	**7.0**	**-1.5**	**-1.6**	**3.6**	**2.9**	**5.0**	**--**	**--**	**4.1**	**Dec-10**
PRIM Portfolio Completion	6,654,231	6.6	7.0	-1.5	-1.6	3.6	2.9	5.0	5.0	--	4.0	Jul-05
HFRI Fund of Funds Composite Index				*-1.6*	*-3.9*	*1.3*	*1.4*	*2.9*	*3.1*	*2.7*	*2.5*	*Jul-05*
Total Private Equity	**4,804,766**	**4.8**	**7.0**	**2.2**	**17.0**	**14.2**	**14.4**	**14.4**	**--**	**--**	**15.4**	**Dec-10**
Harbourvest Dover Street VII	274,399	0.3		-3.5	-2.4	-6.4	-1.5	1.4	4.7	--	4.7	Oct-08
Harbourvest Dover Street VIII	793,432	0.8		-5.1	8.5	11.4	13.8	--	--	--	26.2	May-13
PRIT Vintage Year 2001	67,247	0.1		1.7	12.3	11.3	10.2	11.3	9.0	13.2	9.6	Apr-01
PRIT Vintage Year 2004	14,729	0.0		21.6	16.4	14.3	15.8	15.6	15.5	--	13.9	Jul-05
PRIT Vintage Year 2005	54,789	0.1		0.7	3.2	11.7	12.8	14.5	11.6	--	10.2	Aug-05
PRIT Vintage Year 2006	87,985	0.1		2.9	10.0	8.0	10.0	12.3	10.7	--	5.4	Jun-06
PRIT Vintage Year 2007	173,889	0.2		2.3	14.3	18.5	15.8	16.7	13.9	--	1.9	Jun-07
PRIT Vintage Year 2008	462,971	0.5		4.3	18.5	21.4	21.2	21.5	14.7	--	4.8	May-08
PRIT Vintage Year 2009	99,352	0.1		4.0	29.7	18.6	22.0	20.1	--	--	7.6	Nov-09
PRIT Vintage Year 2010	358,006	0.4		3.1	29.0	22.0	22.0	20.0	--	--	9.0	May-10
PRIT Vintage Year 2011	417,056	0.4		6.3	27.5	23.6	24.2	16.7	--	--	2.8	Apr-11
PRIT Vintage Year 2012	378,825	0.4		3.6	16.5	18.2	15.0	--	--	--	1.6	Jul-12
PRIT Vintage Year 2013	329,736	0.3		4.9	18.7	16.5	11.2	--	--	--	5.1	Jul-13
PRIT Vintage Year 2014	400,613	0.4		8.0	35.2	21.8	--	--	--	--	12.5	Jul-14
PRIT Vintage Year 2015	352,073	0.3		7.4	35.5	19.5	--	--	--	--	10.3	Apr-15
PRIT Vintage Year 2016	238,368	0.2		4.0	11.6	--	--	--	--	--	--	May-16
PRIT Vintage Year 2017	162,397	0.2		0.4	3.3	--	--	--	--	--	4.8	Jun-17
PRIT Vintage Year 2018	138,900	0.1		0.0	--	--	--	--	--	--	-15.3	Jun-18
Private Equity Benchmark (1 Qtr. Lag)				*0.0*	*14.2*	*13.2*	*12.7*	*13.4*	*8.7*	*13.5*	*8.7*	*Jun-18*
Other	**534,628**	**0.5**	**0.0**	**0.2**	**1.6**	**0.7**	**0.4**	**0.3**	**--**	**--**	**0.3**	**Dec-10**
Cash	534,628	0.5		0.2	1.6	0.7	0.4	0.3	0.1	1.0	1.5	Aug-99
91 Day T-Bills				*0.2*	*1.9*	*1.0*	*0.6*	*0.5*	*0.4*	*1.2*	*1.7*	*Aug-99*

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- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
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