FUND EVALUATION REPORT

City of Phoenix Employees' Retirement System

August 4, 2016

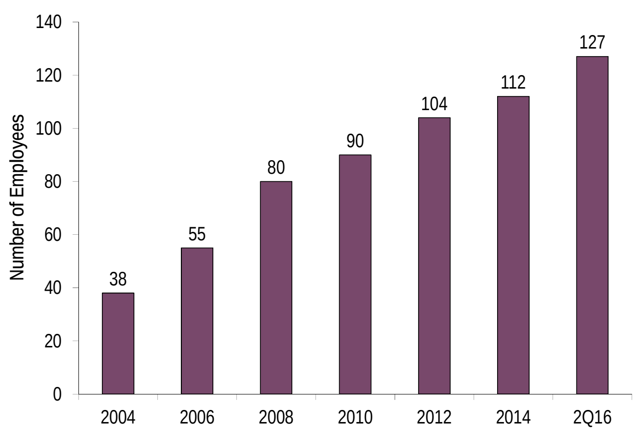
Agenda

1. **Corporate Update**
2. **Executive Summary**
3. **Performance Update as of June 30, 2016**
4. **Markets 101**
5. **Appendices**
   - The World Markets in the Second Quarter of 2016
   - Capital Markets Outlook
   - Global Macroeconomic Outlook
   - Glossary and Notes

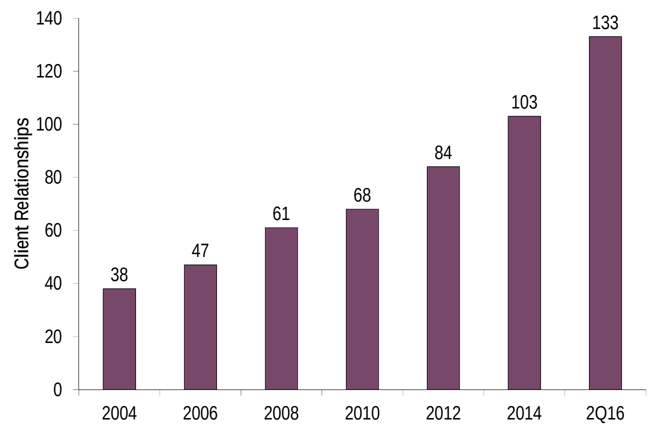
Meketa Investment Group
Corporate Update

- Staff of 127, including 78 investment professionals and 27 CFA Charterholders
- 133 clients, with over 200 funds throughout the United States
- Significant investment in staff and resources
- Offices in Boston, Chicago, Miami, Portland (OR), San Diego, and London
- Clients have aggregate assets of over $830 billion
  - Over $50 billion in assets committed to alternative investments
    - Private Equity
    - Infrastructure
    - Natural Resources
    - Real Estate
    - Hedge Funds
    - Commodities

Employee Growth



Client Growth



Meketa Investment Group is proud to work for 4.9 million American families everyday

Asset Classes Followed Intensively by Meketa Investment Group

Domestic Equities

- Passive
- Enhanced Index
- Large Cap
- Midcap
- Small Cap
- Microcap
- 130/30

International Equities

- Large Cap Developed
- Small Cap Developed
- Emerging Markets
- Frontier Markets

Private Equity

- Buyouts
- Venture Capital
- Private Debt
- Special Situations
- Secondaries
- Fund of Funds

Real Assets

- Public REITs
- Core Real Estate
- Value Added Real Estate
- Opportunistic Real Estate
- Infrastructure
- Timber
- Natural Resources
- Commodities

Fixed Income

- Short-Term
- Core
- Core Plus
- TIPS
- High Yield
- Bank Loans
- Distressed
- Global
- Emerging Markets

Hedge Funds

- Long/Short Equity
- Event Driven
- Relative Value
- Fixed Income Arbitrage
- Multi Strategy
- Market Neutral
- Global Macro
- Fund of Funds
- Portable Alpha

Executive Summary
As of June 30, 2016

The value of the City of Phoenix Employees' Retirement System assets was $2.1 billion on June 30, 2016, an increase of approximately $14.8 million from the end of the first quarter. The System had net cash outflows totaling $33.3 million during the second quarter.

- As of the end of the second quarter, each of the Retirement System's asset classes fell within their respective target allocation ranges, and deviations from the Interim Target Allocations were approximately 1-2%.
- The Retirement System's net of fees return was +2.3% for the quarter, +3.6% year-to-date, and +0.6% for the fiscal year.
  - Emerging Markets Debt and Real Return were the highest returning public market asset classes for the quarter and year-to-date periods. Over these periods, Emerging Markets Debt returned +4.8% and +9.4%, and Real Return returned +4.1% and +9.5%, respectively.
  - International Equity returned +0.1% for the quarter, +1.3% year-to-date, and -6.1% for the fiscal year. Relative to the MSCI ACWI (ex. U.S.) IMI benchmark, International Equity outperformed in each of these periods by 80 basis points, 220 basis points and 350 basis points, respectively.
- Relative to the preliminary Public Defined Benefit Plans > $1 Billion Universe, the Retirement System ranked in the top percentile for the quarter and year-to-date periods, and in the top decile for the fiscal year. Median returns for the peer universe were +1.4% for the quarter, +2.3% year-to-date, and -0.6% for the fiscal year.

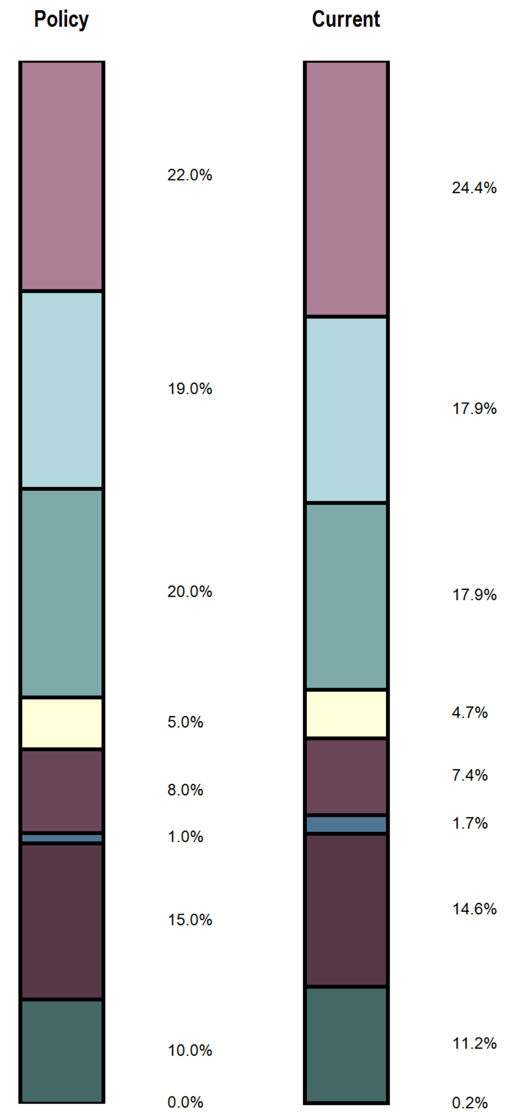
Manager performance was mostly positive for the quarter and year-to-date periods. Only two of the System's public managers had negative returns for the quarter, and only three managers had negative returns year-to-date.

- Robeco BP Large Cap Value returned +1.5% for the quarter, +1.2% year-to-date, and -3.7% for the fiscal year. Relative to the Russell 1000 Value benchmark, Robeco underperformed by 310 basis points, 410 basis points, and 660 basis points over these same periods, respectively. Robeco's underperformance for the quarter was mainly due to security selection within the communication and transportation sectors, and energy holdings (oil refineries) were hurt by increasing oil prices.
- Eagle Small Cap Growth returned +4.7% for the quarter, +0.2% year-to-date, and -5.9% for the fiscal year. Over these same periods, Eagle outperformed the Russell 2000 Growth benchmark by 150 basis points, 180 basis points, and 490 basis points, respectively. For the quarter, Eagle's health care sector holdings drove outperformance, while security selection in the consumer discretionary sector was additive.
- Boston Company U.S. MidCap Opportunistic Value Equity returned +0.9% for the quarter, +1.9% year-to-date, and -9.7% for the fiscal year, significantly underperforming the Russell MidCap Value in each period. Relative to peers, Boston Company ranked in the bottom quartile for the fiscal year and three-year periods, but was in the top decile for the 10-year, and since inception periods. For the quarter, the portfolio was hurt by the sell off of U.S. equities after the Brexit vote and stock selection within the financials sector.
- MFS Emerging Markets Debt returned +4.8% for the quarter, +9.4% year-to-date, and +6.8% for the fiscal year. While MFS underperformed the JP Morgan EMBI Global Diversified benchmark for these periods, the strategy ranked in the 33rd, 73rd, and 30th percentiles relative to peers over these same periods, respectively. MFS' underweight positions to low yielding sovereign debt (China, Philippines, etc.) was additive for the quarter, while remaining underweight to U.S. Treasury duration detracted.

Performance Update
As of June 30, 2016

Index Returns

	2Q16 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Domestic Equity					
Russell 3000	2.6	2.1	11.1	11.6	7.4
Russell 1000	2.5	2.9	11.5	11.9	7.5
Russell 1000 Growth	0.6	3.0	13.1	12.3	8.8
Russell 1000 Value	4.6	2.9	9.9	11.4	6.1
Russell MidCap	3.2	0.6	10.8	10.9	8.1
Russell MidCap Growth	1.6	-2.1	10.5	10.0	8.1
Russell MidCap Value	4.8	3.2	11.0	11.7	7.8
Russell 2000	3.8	-6.7	7.1	8.4	6.2
Russell 2000 Growth	3.2	-10.8	7.7	8.5	7.1
Russell 2000 Value	4.3	-2.6	6.4	8.1	5.2
Foreign Equity					
MSCI ACWI (ex. U.S.)	-0.6	-10.2	1.2	0.1	1.9
MSCI EAFE	-1.5	-10.2	2.1	1.7	1.6
MSCI EAFE (local currency)	-0.7	-10.2	5.8	6.2	2.1
MSCI EAFE Small Cap	-2.6	-3.7	7.3	4.8	3.6
MSCI Emerging Markets	0.7	-12.1	-1.6	-3.8	3.3
MSCI Emerging Markets (local currency)	0.7	-7.7	3.7	2.0	5.7
Fixed Income					
Barclays Universal	2.5	5.8	4.2	4.0	5.3
Barclays Aggregate	2.2	6.0	4.1	3.8	5.1
Barclays U.S. TIPS	1.7	4.4	2.3	2.6	4.7
Barclays High Yield	5.5	1.6	4.2	5.8	7.6
JPMorgan GBI-EM Global Diversified (Local Currency)	3.0	2.0	-3.6	-2.2	5.7
Other					
NAREIT Equity	7.4	23.6	13.3	12.5	7.5
Bloomberg Commodity Index	12.8	-13.3	-10.6	-10.8	-5.6
HFRI Fund of Funds	0.7	-5.2	2.0	1.7	1.6



Allocation vs. Targets and Policy

	Current Balance	Current Allocation	Interim Target Allcoation	Approved Target Allocation	Difference	Policy Range	Within IPS Range?
US Equity	$525,028,999	24.4%	22.0%	18.0%	2.4%	20.0% - 55.0%	Yes
International Equity	$383,676,690	17.9%	19.0%	16.0%	-1.1%	15.0% - 40.0%	Yes
US Fixed Income	$384,155,636	17.9%	20.0%	20.0%	-2.1%	15.0% - 30.0%	Yes
Emerging Market Bonds	$100,319,195	4.7%	5.0%	5.0%	-0.3%	0.0% - 5.0%	Yes
Real Return	$158,926,008	7.4%	8.0%	8.0%	-0.6%	0.0% - 8.0%	Yes
Private Equity	$37,526,366	1.7%	1.0%	3.0%	0.7%	0.0% - 5.0%	Yes
Real Estate	$314,481,234	14.6%	15.0%	15.0%	-0.4%	7.0% - 19.0%	Yes
Absolute Return	$239,666,251	11.2%	10.0%	15.0%	1.2%	0.0% - 15.0%	Yes
Cash	$4,542,461	0.2%	--	--	--	--	--
Total	**$2,148,322,840**	**100.0%**	**100.0%**	**100.0%**			

Asset Class Performance Summary

	Market Value ($)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Total Fund	**2,148,322,840**	**100.0**	**2.3**	**3.7**	**0.9**	**0.9**	**6.3**	**6.0**	**4.6**	**7.7**	**Dec-87**
Total Fund (net)			**2.3**	**3.6**	**0.6**	**0.6**	**5.9**	**5.5**	**4.2**	**7.5**	
COPERS Policy Benchmark			*1.4*	*2.8*	*2.1*	*2.1*	*6.9*	*6.6*	*4.8*	*8.5*	*Dec-87*
COPERS Custom Benchmark			*1.4*	*2.8*	*2.1*	*2.1*	*6.8*	*6.3*	*4.8*	*--*	*Dec-87*
U.S. Equity	**525,028,999**	**24.4**	**3.0**	**4.3**	**1.1**	**1.1**	**10.2**	**10.1**	**7.3**	**7.4**	**Mar-05**
U.S. Equity (net)			**2.9**	**4.0**	**0.6**	**0.6**	**9.7**	**9.6**	**6.9**	**7.0**	
Russell 3000			*2.6*	*3.6*	*2.1*	*2.1*	*11.1*	*11.6*	*7.4*	*7.4*	*Mar-05*
International Equity	**383,676,690**	**17.9**	**0.2**	**1.5**	**-5.7**	**-5.7**	**4.4**	**2.7**	**2.4**	**4.2**	**Mar-05**
International Equity (net)			**0.1**	**1.3**	**-6.1**	**-6.1**	**3.9**	**2.1**	**1.9**	**3.6**	
MSCI ACWI (ex. U.S.) IMI			*-0.7*	*-0.9*	*-9.6*	*-9.6*	*1.9*	*0.7*	*1.3*	*3.0*	*Mar-05*
U.S. Fixed Income	**384,155,636**	**17.9**	**2.4**	**5.2**	**5.8**	**5.8**	**4.0**	**4.1**	**5.7**	**5.2**	**Mar-05**
U.S. Fixed Income (net)			**2.4**	**5.2**	**5.6**	**5.6**	**3.8**	**3.9**	**5.5**	**5.0**	
Barclays Aggregate			*2.2*	*5.3*	*6.0*	*6.0*	*4.1*	*3.8*	*5.1*	*4.7*	*Mar-05*
Emerging Markets Debt	**100,319,195**	**4.7**	**4.8**	**9.4**	**6.9**	**6.9**	**6.1**	**--**	**--**	**3.5**	**Feb-13**
Emerging Markets Debt (net)			**4.8**	**9.4**	**6.8**	**6.8**	**5.7**	**--**	**--**	**3.1**	
JP Morgan EMBI Global Diversified			*5.0*	*10.3*	*9.8*	*9.8*	*7.2*	*6.5*	*8.0*	*4.2*	*Feb-13*
Real Return	**158,926,008**	**7.4**	**4.3**	**9.9**	**0.9**	**0.9**	**1.3**	**1.1**	**--**	**1.1**	**Jul-07**
Real Return (net)			**4.1**	**9.5**	**0.0**	**0.0**	**0.5**	**0.5**	**--**	**0.6**	
CPI+4%			*2.2*	*3.9*	*5.0*	*5.0*	*5.1*	*5.4*	*5.8*	*5.7*	*Jul-07*

1 Fiscal Year begins July 1.

2 The COPERS Policy Benchmark is composed of 22% Russell 3000, 19% MSCI ACWI (ex. U.S.) IMI, 20% Barclays U.S. Aggregate Bond, 5% JP Morgan CEMBI Global Diversified Total Return (USD), 8%Consumer Price Index + 4%, 15% NCREIF ODCE, 1% Russell 3000 + 3%, 10% ARS Custom Benchmark.

3 The Custom Benchmark represents how the System is currently invested and will be modified as the System invests in new asset classes. Each asset class benchmark is weighted monthly based on the actual asset allocation.

4 Prior to 6/1/11, the International Equity benchmark was the MSCI EAFE Index.

Total Fund

As of June 30, 2016

	Market Value ($)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Real Estate	**314,481,234**	**14.6**	**1.6**	**4.0**	**9.5**	**9.5**	**11.8**	**12.7**	**--**	**7.0**	**Dec-06**
Real Estate (net)			**1.6**	**4.0**	**9.5**	**9.5**	**11.3**	**12.0**	**--**	**6.1**	
Core Real Estate	198,769,893	9.3	2.2	4.1	11.2	11.2	13.6	14.0	--	7.3	Jan-09
Core Real Estate (net)			2.2	4.1	11.2	11.2	12.9	13.1	--	6.3	
Non-Core Real Estate (net)	115,711,341	5.4	0.7	3.8	6.7	6.7	8.5	10.2	--	8.2	Feb-09
Private Equity (net)	**37,526,366**	**1.7**	**5.3**	**5.3**	**4.7**	**4.7**	**--**	**--**	**--**	**3.8**	**Apr-15**
Absolute Return (net)	**239,666,251**	**11.2**	**2.7**	**-2.2**	**-7.6**	**-7.6**	**--**	**--**	**--**	**-0.6**	**Jan-14**
ARS Custom Benchmark			*0.8*	*-1.0*	*-4.0*	*-4.0*	*2.2*	*1.8*	*1.7*	*0.5*	*Jan-14*
Cash	**4,542,461**	**0.2**	**0.0**	**0.1**	**0.1**	**0.1**	**1.4**	**1.6**	**1.2**	**1.9**	**Mar-05**
91 Day T-Bills			*0.1*	*0.1*	*0.2*	*0.2*	*0.1*	*0.1*	*0.9*	*1.2*	*Mar-05*

1 Fiscal Year begins July 1.
2 Since 8/1/14, the ARS Custom Benchmark is calculated as the beginning weight of each underlying Absolute Return Manager times their benchmark return. Prior to 8/1/14, the ARS Custom Benchmark was the HFRI Fund of Funds Composite Index.

Trailing Performance

	Market Value ($)	% of Portfolio	3 Mo Net Cash Flows ($)	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Total Fund	**2,148,322,840**	**100.0**	**-33,322,185**	**2.3**	**3.7**	**0.9**	**0.9**	**6.3**	**6.0**	**4.6**	**7.7**	**Dec-87**
Total Fund (net)				**2.3**	**3.6**	**0.6**	**0.6**	**5.9**	**5.5**	**4.2**	**7.5**	
COPERS Policy Benchmark				*1.4*	*2.8*	*2.1*	*2.1*	*6.9*	*6.6*	*4.8*	*8.5*	*Dec-87*
COPERS Custom Benchmark				*1.4*	*2.8*	*2.1*	*2.1*	*6.8*	*6.3*	*4.8*	*--*	*Dec-87*
InvestorForce Public DB > $1B Net Median				*1.4*	*2.3*	*-0.6*	*-0.6*	*5.8*	*5.9*	*5.3*	*7.7*	*Dec-87*
InvestorForce Public DB > $1B Net Rank				*1*	*1*	*9*	*9*	*45*	*48*	*71*	*56*	*Dec-87*
U.S. Equity	**525,028,999**	**24.4**	**0**	**3.0**	**4.3**	**1.1**	**1.1**	**10.2**	**10.1**	**7.3**	**7.4**	**Mar-05**
U.S. Equity (net)				**2.9**	**4.0**	**0.6**	**0.6**	**9.7**	**9.6**	**6.9**	**7.0**	
Russell 3000				*2.6*	*3.6*	*2.1*	*2.1*	*11.1*	*11.6*	*7.4*	*7.4*	*Mar-05*
SSgA FTSE RAFI U.S. Low Volatility	137,883,268	6.4	0	6.1	12.4	14.9	14.9	--	--	--	7.9	Jan-15
SSgA FTSE RAFI U.S. Low Volatility (net)				6.1	12.4	14.9	14.9	--	--	--	7.9	
FTSE RAFI U.S. Low Volatility Index				*6.2*	*12.4*	*15.0*	*15.0*	*13.0*	*13.9*	*10.6*	*8.0*	*Jan-15*
Russell 3000				*2.6*	*3.6*	*2.1*	*2.1*	*11.1*	*11.6*	*7.4*	*2.7*	*Jan-15*
Robeco BP Large Cap Value	122,331,507	5.7	0	1.6	1.4	-3.2	-3.2	8.2	--	--	9.0	May-13
Robeco BP Large Cap Value (net)				1.5	1.2	-3.7	-3.7	7.7	--	--	8.6	
Russell 1000 Value				*4.6*	*6.3*	*2.9*	*2.9*	*9.9*	*11.4*	*6.1*	*9.9*	*May-13*
eA US Large Cap Value Equity Net Median				*2.1*	*2.7*	*-1.3*	*-1.3*	*8.8*	*10.1*	*6.4*	*8.9*	*May-13*
eA US Large Cap Value Equity Net Rank				*60*	*63*	*63*	*63*	*65*	*--*	*--*	*47*	*May-13*

1 Fiscal Year begins July 1.
2 The COPERS Policy Benchmark is composed of 22% Russell 3000, 19% MSCI ACWI (ex. U.S.) IMI, 20% Barclays U.S. Aggregate Bond, 5% JP Morgan CEMBI Global Diversified Total Return (USD), 8% Consumer Price Index + 4%, 15% NCREIF ODCE, 1% Russell 3000 + 3%, 10% ARS Custom Benchmark.
3 The Custom Benchmark represents how the System is currently invested and will be modified as the System invests in new asset classes. Each asset class benchmark is weighted monthly based on the actual asset allocation.

Total Fund

As of June 30, 2016

	Market Value ($)	% of Portfolio	3 Mo Net Cash Flows ($)	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Artisan Global Opportunities	122,078,147	5.7	0	1.1	0.8	-0.4	-0.4	--	--	--	5.1	Dec-14
Artisan Global Opportunities (net)				0.9	0.3	-1.3	-1.3	--	--	--	4.2	
MSCI ACWI				*1.0*	*1.2*	*-3.7*	*-3.7*	*6.0*	*5.4*	*4.3*	*-2.0*	*Dec-14*
eA Global Core Equity Net Median				*0.8*	*0.2*	*-2.9*	*-2.9*	*7.1*	*6.7*	*5.0*	*-0.3*	*Dec-14*
eA Global Core Equity Net Rank				*43*	*46*	*34*	*34*	--	--	--	*13*	*Dec-14*
Eagle Small Cap Growth	50,556,312	2.4	0	4.8	0.5	-5.3	-5.3	8.2	8.6	9.9	10.3	Jul-05
Eagle Small Cap Growth (net)				4.7	0.2	-5.9	-5.9	7.6	7.9	9.3	9.7	
Russell 2000 Growth				*3.2*	*-1.6*	*-10.8*	*-10.8*	*7.7*	*8.5*	*7.1*	*7.8*	*Jul-05*
eA US Small Cap Growth Equity Net Median				*3.6*	*-0.7*	*-8.7*	*-8.7*	*7.0*	*8.2*	*6.8*	*7.5*	*Jul-05*
eA US Small Cap Growth Equity Net Rank				*31*	*38*	*23*	*23*	*33*	*42*	*1*	*2*	*Jul-05*
CRM Small Cap Value	51,180,503	2.4	0	2.7	5.0	-1.4	-1.4	9.0	8.3	--	7.9	Feb-08
CRM Small Cap Value (net)				2.4	4.5	-2.3	-2.3	8.0	7.3	--	6.9	
Russell 2000 Value				*4.3*	*6.1*	*-2.6*	*-2.6*	*6.4*	*8.1*	*5.2*	*6.6*	*Feb-08*
eA US Small Cap Value Equity Net Median				*2.2*	*4.3*	*-3.9*	*-3.9*	*7.5*	*9.0*	*6.6*	*7.7*	*Feb-08*
eA US Small Cap Value Equity Net Rank				*43*	*39*	*29*	*29*	*22*	*67*	--	*46*	*Feb-08*
Boston Company U.S. MidCap Opportunistic Value Equity	40,999,262	1.9	0	1.1	2.3	-9.1	-9.1	7.4	9.3	9.5	10.6	May-02
Boston Company U.S. MidCap Opportunistic Value Equity (net)				0.9	1.9	-9.7	-9.7	6.7	8.5	8.7	9.8	
Russell MidCap Value				*4.8*	*8.9*	*3.2*	*3.2*	*11.0*	*11.7*	*7.8*	*9.6*	*May-02*
eA US Mid Cap Value Equity Net Median				*2.4*	*5.6*	*-1.0*	*-1.0*	*9.2*	*9.9*	*7.6*	*9.1*	*May-02*
eA US Mid Cap Value Equity Net Rank				*70*	*78*	*92*	*92*	*85*	*69*	*5*	*6*	*May-02*
International Equity	**383,676,690**	**17.9**	**-6,900,000**	**0.2**	**1.5**	**-5.7**	**-5.7**	**4.4**	**2.7**	**2.4**	**4.2**	**Mar-05**
International Equity (net)				**0.1**	**1.3**	**-6.1**	**-6.1**	**3.9**	**2.1**	**1.9**	**3.6**	
MSCI ACWI (ex. U.S.) IMI				*-0.7*	*-0.9*	*-9.6*	*-9.6*	*1.9*	*0.7*	*1.3*	*3.0*	*Mar-05*

1 Fiscal Year begins July 1.
2 Prior to 6/1/11, the International Equity benchmark was the MSCI EAFE Index.

Total Fund

As of June 30, 2016

	Market Value ($)	% of Portfolio	3 Mo Net Cash Flows ($)	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Baillie Gifford ACWI ex-U.S. Alpha Equities	143,746,626	6.7	0	-0.1	0.4	-6.9	-6.9	4.2	3.4	--	3.4	Jul-11
Baillie Gifford ACWI ex-U.S. Alpha Equities (net)				-0.3	0.1	-7.4	-7.4	3.6	2.8	--	2.8	
MSCI ACWI ex USA				*-0.6*	*-1.0*	*-10.2*	*-10.2*	*1.2*	*0.1*	*1.9*	*0.1*	*Jul-11*
eA All ACWI ex-US Equity Net Median				*-1.1*	*-2.1*	*-7.7*	*-7.7*	*3.3*	*2.5*	*3.3*	*2.5*	*Jul-11*
eA All ACWI ex-US Equity Net Rank				*33*	*27*	*43*	*43*	*36*	*30*	*--*	*30*	*Jul-11*
GMO Global All Country Equity Allocation	122,494,690	5.7	-6,900,000	0.5	2.3	-6.1	-6.1	--	--	--	1.4	Oct-13
GMO Global All Country Equity Allocation (net)				0.3	2.0	-6.7	-6.7	--	--	--	0.8	
MSCI ACWI				*1.0*	*1.2*	*-3.7*	*-3.7*	*6.0*	*5.4*	*4.3*	*3.7*	*Oct-13*
eA Global Core Equity Net Median				*0.8*	*0.2*	*-2.9*	*-2.9*	*7.1*	*6.7*	*5.0*	*4.9*	*Oct-13*
eA Global Core Equity Net Rank				*58*	*37*	*71*	*71*	*--*	*--*	*--*	*91*	*Oct-13*
SSgA FTSE RAFI Developed ex-U.S. Low Volatility Index	64,278,963	3.0	0	2.9	3.5	--	--	--	--	--	-3.5	Aug-15
SSgA FTSE RAFI Developed ex-U.S. Low Volatility Index (net)				2.9	3.5	--	--	--	--	--	-3.5	
FTSE RAFI Developed ex-U.S. Low Volatility Index				*3.0*	*3.7*	*-0.5*	*-0.5*	*6.5*	*5.8*	*5.5*	*-3.1*	*Aug-15*
MSCI EAFE				*-1.5*	*-4.4*	*-10.2*	*-10.2*	*2.1*	*1.7*	*1.6*	*-12.0*	*Aug-15*
Mondrian International Small Cap Equity	53,156,411	2.5	0	-2.4	0.3	-2.6	-2.6	5.1	4.6	--	4.6	Jul-11
Mondrian International Small Cap Equity (net)				-2.4	0.3	-3.0	-3.0	4.6	4.0	--	4.0	
MSCI World ex USA Small Cap				*-1.3*	*-0.7*	*-3.3*	*-3.3*	*6.3*	*3.6*	*3.3*	*3.6*	*Jul-11*
eA Non-US Diversified Small Cap Eq Net Median				*-1.6*	*-3.1*	*-3.8*	*-3.8*	*6.9*	*5.8*	*5.0*	*5.8*	*Jul-11*
eA Non-US Diversified Small Cap Eq Net Rank				*58*	*15*	*41*	*41*	*75*	*70*	*--*	*70*	*Jul-11*
U.S. Fixed Income	**384,155,636**	**17.9**	**-2,000,000**	**2.4**	**5.2**	**5.8**	**5.8**	**4.0**	**4.1**	**5.7**	**5.2**	**Mar-05**
U.S. Fixed Income (net)				**2.4**	**5.2**	**5.6**	**5.6**	**3.8**	**3.9**	**5.5**	**5.0**	
Barclays Aggregate				*2.2*	*5.3*	*6.0*	*6.0*	*4.1*	*3.8*	*5.1*	*4.7*	*Mar-05*

1 Fiscal Year begins July 1.

Total Fund

As of June 30, 2016

	Market Value ($)	% of Portfolio	3 Mo Net Cash Flows ($)	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Aberdeen Total Return Bond	161,148,644	7.5	-1,000,000	2.4	5.5	6.2	6.2	4.1	4.1	--	4.3	Jul-10
Aberdeen Total Return Bond (net)				2.4	5.5	6.1	6.1	3.9	3.8	--	4.1	
Barclays Aggregate				*2.2*	*5.3*	*6.0*	*6.0*	*4.1*	*3.8*	*5.1*	*3.8*	*Jul-10*
eA US Core Fixed Inc Net Median				*2.3*	*5.3*	*5.8*	*5.8*	*4.1*	*4.0*	*5.4*	*4.1*	*Jul-10*
eA US Core Fixed Inc Net Rank				*48*	*35*	*29*	*29*	*50*	*45*	*--*	*32*	*Jul-10*
PIMCO Total Return	140,282,093	6.5	-1,000,000	2.1	4.5	5.1	5.1	3.3	3.7	--	4.0	Jul-10
PIMCO Total Return (net)				2.0	4.4	4.8	4.8	3.0	3.4	--	3.7	
Barclays Aggregate				*2.2*	*5.3*	*6.0*	*6.0*	*4.1*	*3.8*	*5.1*	*3.8*	*Jul-10*
eA US Core Fixed Inc Net Median				*2.3*	*5.3*	*5.8*	*5.8*	*4.1*	*4.0*	*5.4*	*4.1*	*Jul-10*
eA US Core Fixed Inc Net Rank				*73*	*87*	*76*	*76*	*93*	*77*	*--*	*60*	*Jul-10*
Western Asset U.S. Core Plus	82,724,898	3.9	0	2.9	5.8	6.0	6.0	5.1	5.1	5.9	5.3	Feb-05
Western Asset U.S. Core Plus (net)				2.9	5.7	5.8	5.8	4.8	4.8	5.6	5.0	
Barclays Aggregate				*2.2*	*5.3*	*6.0*	*6.0*	*4.1*	*3.8*	*5.1*	*4.6*	*Feb-05*
eA US Core Fixed Inc Net Median				*2.3*	*5.3*	*5.8*	*5.8*	*4.1*	*4.0*	*5.4*	*4.8*	*Feb-05*
eA US Core Fixed Inc Net Rank				*8*	*20*	*41*	*41*	*8*	*8*	*21*	*20*	*Feb-05*
Emerging Markets Debt	**100,319,195**	**4.7**	**-6,400,000**	**4.8**	**9.4**	**6.9**	**6.9**	**6.1**	**--**	**--**	**3.5**	**Feb-13**
Emerging Markets Debt (net)				**4.8**	**9.4**	**6.8**	**6.8**	**5.7**	**--**	**--**	**3.1**	
JP Morgan EMBI Global Diversified				*5.0*	*10.3*	*9.8*	*9.8*	*7.2*	*6.5*	*8.0*	*4.2*	*Feb-13*

1 Fiscal Year begins July 1.
2 The All Asset Custom Benchmark is composed of 12.5% BofA Merrill Lynch 1 Year Treasury Bill Index, 12.5% Barclays U.S. Aggregate Bond, 12.5% PIMCO Global Advantage Bond, 12.5% BofA Merrill Lynch U.S. High Yield Master II Index, 12.5% Barclays TIPS, 12.5% Russell 3000, 12.5% MSCI ACWI, 12.5% BofA Merrill Lynch 3 Month U.S. T-Bill Index + 3%.
3 Since 8/1/14, the ARS Custom Benchmark is calculated as the beginning weight of each underlying Absolute Return Manager times their benchmark return. Prior to 8/1/14, the ARS Custom Benchmark was the HFRI Fund of Funds Composite Index.

	Market Value ($)	% of Portfolio	3 Mo Net Cash Flows ($)	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
MFS Emerging Markets Debt	100,319,195	4.7	-6,400,000	4.8	9.4	6.9	6.9	6.1	--	--	3.5	Feb-13
MFS Emerging Markets Debt (net)				4.8	9.4	6.8	6.8	5.7	--	--	3.1	
JP Morgan EMBI Global Diversified				*5.0*	*10.3*	*9.8*	*9.8*	*7.2*	*6.5*	*8.0*	*4.2*	*Feb-13*
eA Emg Mkt Fixed Inc Unhedged Net Median				*4.2*	*10.7*	*4.9*	*4.9*	*4.0*	*3.8*	*7.7*	*1.0*	*Feb-13*
eA Emg Mkt Fixed Inc Unhedged Net Rank				*33*	*73*	*30*	*30*	*6*	*--*	*--*	*7*	*Feb-13*
Real Return	**158,926,008**	**7.4**	**0**	**4.3**	**9.9**	**0.9**	**0.9**	**1.3**	**1.1**	**--**	**1.1**	**Jul-07**
Real Return (net)				**4.1**	**9.5**	**0.0**	**0.0**	**0.5**	**0.5**	**--**	**0.6**	
CPI+4%				*2.2*	*3.9*	*5.0*	*5.0*	*5.1*	*5.4*	*5.8*	*5.7*	*Jul-07*
PIMCO All Asset	158,926,008	7.4	0	4.3	9.9	0.9	0.9	--	--	--	1.2	Dec-13
PIMCO All Asset (net)				4.1	9.5	0.0	0.0	--	--	--	0.3	
All Asset Custom Benchmark				*2.0*	*4.4*	*2.4*	*2.4*	*4.1*	*4.3*	*5.1*	*2.9*	*Dec-13*
Real Estate	**314,481,234**	**14.6**	**-1,476,874**	**1.6**	**4.0**	**9.5**	**9.5**	**11.8**	**12.7**	**--**	**7.0**	**Dec-06**
Real Estate (net)				**1.6**	**4.0**	**9.5**	**9.5**	**11.3**	**12.0**	**--**	**6.1**	
Core Real Estate	198,769,893	9.3	-945,788	2.2	4.1	11.2	11.2	13.6	14.0	--	7.3	Jan-09
Core Real Estate (net)				2.2	4.1	11.2	11.2	12.9	13.1	--	6.3	
Non-Core Real Estate (net)	115,711,341	5.4	-531,086	0.7	3.8	6.7	6.7	8.5	10.2	--	8.2	Feb-09
Private Equity (net)	**37,526,366**	**1.7**	**4,950,000**	**5.3**	**5.3**	**4.7**	**4.7**	**--**	**--**	**--**	**3.8**	**Apr-15**
Neuberger Berman Sonoran (net)	37,526,366	1.7	4,950,000	5.3	5.3	4.7	4.7	--	--	--	3.8	Apr-15

1 Fiscal Year begins July 1.

	Market Value ($)	% of Portfolio	3 Mo Net Cash Flows ($)	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Absolute Return (net)	**239,666,251**	**11.2**	**0**	**2.7**	**-2.2**	**-7.6**	**-7.6**	**--**	**--**	**--**	**-0.6**	**Jan-14**
ARS Custom Benchmark				*0.8*	*-1.0*	*-4.0*	*-4.0*	*2.2*	*1.8*	*1.7*	*0.5*	*Jan-14*
PAAMCO Newport Phoenix, LLC (net)	126,485,855	5.9	0	0.9	-2.3	-7.0	-7.0	--	--	--	-0.3	Jan-14
HFRI Fund of Funds Composite Index				*0.6*	*-2.6*	*-5.4*	*-5.4*	*1.9*	*1.6*	*1.6*	*0.2*	*Jan-14*
Carlson Double Black Diamond, L.P. (net)	60,038,680	2.8	0	2.2	-0.4	-1.8	-1.8	--	--	--	0.0	Aug-14
HFRI RV: Multi-Strategy Index				*1.1*	*1.3*	*-0.8*	*-0.8*	*2.9*	*3.4*	*3.7*	*1.1*	*Aug-14*
Fir Tree International Value Fund, Ltd. (net)	53,141,716	2.5	0	7.9	-3.9	-14.7	-14.7	--	--	--	-7.0	Nov-14
HFRI RV: Multi-Strategy Index				*1.1*	*1.3*	*-0.8*	*-0.8*	*2.9*	*3.4*	*3.7*	*1.3*	*Nov-14*
Cash	**4,542,461**	**0.2**	**-21,495,311**	**0.0**	**0.1**	**0.1**	**0.1**	**1.4**	**1.6**	**1.2**	**1.9**	**Mar-05**
91 Day T-Bills				*0.1*	*0.1*	*0.2*	*0.2*	*0.1*	*0.1*	*0.9*	*1.2*	*Mar-05*
Dreyfus Government Cash Management Institutional	4,542,461	0.2	-21,495,311	0.0	0.1	0.1	0.1	1.4	1.6	2.3	2.6	Mar-05
91 Day T-Bills				*0.1*	*0.1*	*0.2*	*0.2*	*0.1*	*0.1*	*0.9*	*1.2*	*Mar-05*

1 Fiscal Year begins July 1.

Total Fund

As of June 30, 2016

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
SSgA FTSE RAFI Developed ex-U.S. Low Volatility Index	$62,481,043	$0	$1,797,920	$64,278,963
SSgA FTSE RAFI U.S. Low Volatility	$129,912,141	$0	$7,971,127	$137,883,268
TA Associates Realty Fund IX	$7,193,560	-$517,619	$170,004	$6,845,945
Western Asset U.S. Core Plus	$80,365,408	$0	$2,359,490	$82,724,898
Wheelock Street Partners	$10,039,398	-$1,899,022	$65,259	$8,205,635
Wheelock Street Partners II	$16,882,511	$0	$6,129	$16,888,640
Wrightwood Captial High Yield Partners II LP	$686,094	-$697,338	$11,245	$1
Total	**$2,133,485,122**	**-$33,322,185**	**$48,159,903**	**$2,148,322,840**

Cash Flow Summary
Quarter Ending 6/30/2016

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
Aberdeen Total Return Bond	$158,369,549	-$1,000,000	$3,779,096	$161,148,644
Artisan Global Opportunities	$120,964,730	$0	$1,113,416	$122,078,147
Baillie Gifford ACWI ex-U.S. Alpha Equities	$144,143,150	$0	-$396,524	$143,746,626
Boston Company U.S. MidCap Opportunistic Value Equity	$40,624,657	$0	$374,605	$40,999,262
Carlson Double Black Diamond, L.P.	$58,762,675	$0	$1,276,005	$60,038,680
CRM Small Cap Value	$49,958,173	$0	$1,222,329	$51,180,503
Dreyfus Government Cash Management Institutional	$26,291,844	-$21,495,311	-$254,072	$4,542,461
Eagle Small Cap Growth	$48,308,824	$0	$2,247,488	$50,556,312
Fir Tree International Value Fund, Ltd.	$49,257,897	$0	$3,883,819	$53,141,716
GMO Global All Country Equity Allocation	$128,947,112	-$6,900,000	$447,578	$122,494,690
HSI Real Estate V	$315,832	$1,005,409	-$331,229	$990,013
JDM Partners Opportunity Fund I	$25,694,120	$0	$509,996	$26,204,117
JPMorgan Strategic Property	$102,106,000	-$945,788	$2,045,322	$103,205,534
MFS Emerging Markets Debt	$101,973,958	-$6,400,000	$4,745,237	$100,319,195
Mondrian International Small Cap Equity	$54,454,344	$0	-$1,297,933	$53,156,411
Morgan Stanley Prime Property	$93,343,761	$0	$2,220,598	$95,564,359
Neuberger Berman Sonoran	$30,794,964	$4,950,000	$1,781,402	$37,526,366
Northwood Real Estate Partners, L.P. (Series IV)	$15,573,918	$374,939	$550,318	$16,499,175
Northwood Real Estate Partners, L.P. (Series V)	$17,346,159	$80,096	$122,214	$17,548,469
PAAMCO Newport Phoenix, LLC	$125,358,628	$0	$1,127,228	$126,485,855
PIMCO All Asset	$152,722,239	$0	$6,203,768	$158,926,008
PIMCO Total Return	$138,478,221	-$1,000,000	$2,803,872	$140,282,093
Real Estate Capital Asia Partners III LP	$13,442,233	$416,224	$324,873	$14,183,330
Real Estate Capital Asia Partners IV LP	$7,345,432	$744,816	$206,742	$8,296,990
Real Estate Capital Partners II TE, L.P	$881,831	-$38,592	-$794,213	$49,026
Robeco BP Large Cap Value	$120,464,714	$0	$1,866,793	$122,331,507

Total Fund

As of June 30, 2016

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
SSgA FTSE RAFI Developed ex-U.S. Low Volatility Index	$62,481,043	$0	$1,797,920	$64,278,963
SSgA FTSE RAFI U.S. Low Volatility	$129,912,141	$0	$7,971,127	$137,883,268
TA Associates Realty Fund IX	$7,193,560	-$517,619	$170,004	$6,845,945
Western Asset U.S. Core Plus	$80,365,408	$0	$2,359,490	$82,724,898
Wheelock Street Partners	$10,039,398	-$1,899,022	$65,259	$8,205,635
Wheelock Street Partners II	$16,882,511	$0	$6,129	$16,888,640
Wrightwood Captial High Yield Partners II LP	$686,094	-$697,338	$11,245	$1
Total	**$2,133,485,122**	**-$33,322,185**	**$48,159,903**	**$2,148,322,840**

Markets 101

Investable Universe – Public Markets

Investable Universe as of June 30, 2016

- The investable global equity market, as measured by the MSCI All Country World Investable Market Index ("ACWI IMI"), is approximately $41.3 trillion and has over 8,700 investable companies.
- The size of the global fixed income market is more difficult to approximate. Barclays indices track over 70,000 securities from more than 75 countries. The broadest available benchmark is the Barclays Multiverse, with 20,996 issues valued at $50.3 trillion.

	Top Countries	(%)	Top Sectors	(%)
Equity[1]	United States	53.0	Financials	20.3
	Japan	8.0	Information Technology	14.7
	United Kingdom	6.4	Consumer Discretionary	12.6
	Canada	3.2	Health Care	11.9
	France	2.9	Consumer Staples	10.2
Fixed Income[2]	United States	37.5	Treasuries	53.5
	Japan	17.9	Corporate	20.3
	France	5.6	Securitized	13.7
	United Kingdom	5.6	Government-Related	12.5
	Germany	5.0	NA	NA

[1] MSCI ACWI IMI.
[2] Barclays Multiverse.

Active vs. Passive Investing

Active Management

- Active management refers to a portfolio management strategy where the investment manager makes specific investments with the goal of outperforming a benchmark index.
- This may include decisions relating to stocks, sectors, countries, etc.

Passive Management

- Passive management refers to a portfolio management strategy where the investment manager makes specific investments with the goal of mimicking the structure and performance of a benchmark index.
- Some investors may prefer passive management because it provides broad market exposure, with minimal operating costs.

Active vs. Passive Peer Comparison

- A recent survey[1] conducted on public funds showed that COPERS utilizes significantly fewer passive management options than peers.

	Passive Allocation (%)
All Public Funds Average	22.6
Less than 10 percent	*19.0*
Between 10 - 50 percent	*78.5*
More than 50 percent	*2.5*
Public Funds $1B < $5B	20.6
COPERS[2]	9.4

[1] Data as of 6/30/2015; 79 Funds reported, including COPERS.
[2] As of 6/30/2016

Stock Market

Stock Basics

What is a Stock?

- A share in the ownership of a company; a claim on a company's assets and earnings

Why are stocks important in a long-term portfolio?

- Stocks are ***generative*** assets
- Primary growth provider in a long-term portfolio
- Protect against loss of purchasing power – stock returns tend to follow rising standards of living

What factors influence stock returns?

- Macroeconomic environment
- Corporate Earnings (actual vs. projected)
- Market sentiment

Stock Basics (continued)

Value Stocks	Growth Stocks
• Stocks with *lower* prices relative to intrinsic values, as measured by: – Price to Earnings – Price to Sales – Price to Cash Flow – Price to Book Value • Lower (slower) growth expectations • Higher dividend yields • Sector Concentrations: – Financial Services – Utilities – Consumer Staples • Stock Example: – Wells Fargo	• Stocks with *higher* prices relative to intrinsic value, as measured by: – Price to Earnings – Price to Sales – Price to Cash Flow – Price to Book Value • Higher growth expectations • Low (or no) dividend yields • Sector Concentrations: – Information Technology – Health Care • Stock Example: – Alphabet (Google)

Index Composition Example: MSCI ACWI IMI

MSCI ACWI IMI[1]	
Scope	Global Equity Index
Composition	Small, Mid, and Large cap stocks across 23 Developed and 23 Emerging Markets Countries. 8,721 Constituents as of June 30, 2016.
Market Capitalization	Average: $4.7 Billion Median: $0.9 Billion
Top 5 Sectors	Financials Information Technology Consumer Discretionary Health Care Industrials

Market Capitalization – Total value of a company's outstanding shares

- Calculation: Number of shares outstanding x stock price

[1] As of June 30, 2016.

Index Composition Example: Russell 3000

Russell 3000[1]	
Scope	Large Cap U.S. Equity Index
Composition	Top 3,000 U.S. Companies Based On Descending Total Market Capitalization
Market Capitalization	Average: $114.6 Billion Median: $1.4 Billion
Top 5 Sectors	Financial Services Technology Consumer Discretionary Health Care Producer Durables

1 As of June 30, 2016

Index Composition Example: MSCI ACWI (ex. U.S.)

MSCI ACWI (ex. U.S.)[1]	
Scope	International Developed Markets Equity
Composition	Large and Mid Cap Stocks Across 22 of 23 Developed Markets and 23 Emerging Markets Countries. 1,859 Constituents as of June 30, 2016.
Market Capitalization	Average: \$8.9 Billion Median: \$3.9 Billion
Top 5 Sectors	Financials Consumer Staples Consumer Discretionary Industrials Health Care

[1] As of June 30, 2016

Index Composition Example: MSCI Emerging Markets

MSCI Emerging Markets[1]	
Scope	Emerging Markets Equity
Composition	Large and Mid Cap Stocks Across 23 Emerging Markets Countries. 836 Constituents as of June 30, 2016.
Market Capitalization	Average: $4.5 Billion Median: $2.3 Billion
Top 5 Sectors	Financials Information Technology Consumer Discretionary Consumer Staples Energy

[1] As of June 30, 2016

COPERS Portfolio Example: Artisan Global Opportunities

Mandate: Global Equities
Active/Passive: Active
Market Value: $121.0 million
Portfolio Manager: James D. Hamel, CFA
Location: Milwaukee, Wisconsin
Inception Date: 12/1/2014
Account Type: Commingled

	Value	Core	Growth
Large			
Medium			
Small			

Fee Schedule:
0.85% on all assets

Liquidity Constraints:
Daily

Strategy:
Artisan Global Opportunities employs a fundamental investment process to construct a diversified global equity portfolio of companies across a broad capitalization range. The investment process focuses on two distinct areas: security selection and capital allocation.

Performance (%):	1Q16	Fiscal YTD[1]	1 YR	Since 12/1/14
Artisan Global Opportunities	**-0.4**	**-1.6**	**3.3**	**5.2**
Net of Fees	**-0.6**	**-2.2**	**2.4**	**4.3**
MSCI ACWI	0.2	-4.7	-4.3	-3.0
Peer Global Equity	-0.7	-4.9	-3.7	-1.1
Peer Ranking (percentile)	*46*	*20*	*6*	*5*

	3/31/16		12/31/15	
Capitalization Structure:	**Artisan Global Opportunities**	**MSCI ACWI**	**Artisan Global Opportunities**	**MSCI ACWI**
Weighted Average Market Cap. (US$ million)	63.3	87.2	70.6	87.9
Median Market Cap. (US$ million)	16.8	8.3	19.7	8.0
Large (% over US$20 billion)	54	70	57	70
Medium (% US$3 billion to US$20 billion)	44	29	40	29
Small (% under US$3 billion)	2	1	3	1
Fundamental Structure:				
Price-Earnings Ratio	31	18	35	18
Price-Book Value Ratio	5.0	1.9	4.6	1.9
Dividend Yield (%)	1.0	2.7	0.9	2.6
Historical Earnings Growth Rate (%)	24	9	21	9
Projected Earnings Growth Rate (%)	18	9	19	10
Sector Allocation (%):				
Information Technology	34	15	35	15
Health Care	16	12	19	12
Industrials	12	11	12	10
Consumer Discretionary	12	13	13	13
Materials	3	5	2	5
Utilities	1	3	2	3
Consumer Staples	8	11	6	10
Telecommunication Services	0	4	0	4
Energy	1	7	1	6
Financials	12	20	12	22
Diversification:				
Number of Holdings	48	2,479	45	2,484
% in 5 largest holdings	24	6	25	5
% in 10 largest holdings	42	9	43	9
Region Allocation (%):				
North America	58	55	60	55
Europe	21	23	21	23
Asia Pacific	16	13	14	13
Emerging	5	9	5	9
Other	0	0	0	0

- Artisan Global Opportunities is a relatively concentrated strategy with 48 holdings as of 3/31/16. Meketa believes holding a concentrated portfolio gives managers a greater chance of outperforming the benchmark.

[1] Fiscal Year begins July 1.

COPERS Portfolio Example: Eagle Small Cap Growth

Mandate: Domestic Equities
Active/Passive: Active
Market Value: $48.3 million
Portfolio Manager: Bert L. Boksen, CFA
Location: St. Petersburg, Florida
Inception Date: 7/1/2005
Account Type: Separately Managed

	Value	*Core*	*Growth*
Large			
Medium			
Small			

Fee Schedule:
0.55% on first $75 mm; 0.50% thereafter

Liquidity Constraints:
Daily

Strategy:
Eagle Asset Management seeks to capture the significant long-term capital appreciation potential of small, rapidly growing, under-researched companies. The market capitalization of these companies falls within the market cap range of the Russell 2000 Index at the time of purchase. Since the small company sector historically has been less efficient than the large capitalization sector, they believe that conducting extensive proprietary research on companies that are not widely followed or owned institutionally should enable Eagle to capitalize on market inefficiencies and thus outperform the Russell 2000 Growth Index.

Guidelines:
Benchmark = Russell 2000 Growth; Max position = 5%; Max 5% in foreign and ADRs; No negative cash; No shorts; Weighted avg. market cap within high/low of Russell 2000 Growth Index;

Performance (%):	**1Q16**	**Fiscal YTD**[1]	**1 YR**	**3 YR**	**5 YR**	**Since 7/1/05**
Eagle Small Cap Growth	**-4.1**	**-9.7**	**-5.6**	**7.7**	**8.5**	**10.1**
Net of Fees	**-4.2**	**-10.0**	**-6.1**	**7.1**	**7.9**	**9.5**
Russell 2000 Growth	-4.7	-13.6	-11.8	7.9	7.7	7.7
Peer Small Cap Growth	-3.5	-11.5	-9.5	8.2	8.1	8.4
Peer Ranking (percentile)	*55*	*36*	*21*	*58*	*38*	*9*

	3/31/16		**12/31/15**	
Capitalization Structure:	**Eagle Small Cap Growth**	**Russell 2000 Growth**	**Eagle Small Cap Growth**	**Russell 2000 Growth**
Weighted Average Market Cap. (US$ billion)	3.1	2.0	3.2	2.1
Median Market Cap. (US$ billion)	2.4	0.7	2.5	0.7
Large (% over US$20 billion)	0	0	0	0
Medium (% US$3 billion to US$20 billion)	44	19	44	21
Small (% under US$3 billion)	56	81	56	79
Fundamental Structure:				
Price-Earnings Ratio	27	24	25	23
Price-Book Value Ratio	3.4	3.4	3.6	3.6
Dividend Yield (%)	0.6	0.8	0.5	0.8
Historical Earnings Growth Rate (%)	19	19	19	18
Projected Earnings Growth Rate (%)	19	17	20	17
Sector Allocation (%):				
Health Care	26	24	30	28
Consumer Discretionary	20	18	20	17
Materials	5	4	5	4
Energy	1	1	1	1
Utilities	0	0	0	0
Financials	8	8	8	8
Industrials	13	14	13	13
Telecommunication Services	0	1	0	1
Consumer Staples	3	4	3	4
Information Technology	24	26	21	25
Diversification:				
Number of Holdings	98	1,181	98	1,192
% in 5 largest holdings	13	3	11	3
% in 10 largest holdings	22	6	21	6

- AUM for Eagle Small Cap Growth has grown significantly over the past several years and has resulted in more holdings (98 as of 3/31/16) and higher market capitalization (2x the number of midcap stocks as the index).

1 Fiscal Year begins July 1.

Fixed Income Market

Bond Basics

What is a Bond?

- A debt security, in which the authorized issuer owes the holders a debt and, depending on the terms of the bond, is obliged to pay interest (the coupon) and/or to repay the principal at a later date (i.e., at maturity)

Why are bonds important in a long-term portfolio?

- Produce stable returns
- Exhibit lower volatility
- Provide current income -- funding source for near-term pension fund liabilities
- Diversification benefits

What factors influence bond returns?

- Creditworthiness of issuer (higher risk, higher coupon)
- Changes in interest rates

Bond Basics (continued)

Bond Terminology

- Duration:
  - The duration of a bond measures the sensitivity of the bond's price to interest rate movements
  - Rising interest rates mean falling bond prices, while declining interest rates mean rising bond prices
  - The greater the duration, the greater the sensitivity to interest rate movements
    - "Bond A" has a duration of 5 years
    - If interest rates rise by 1%, "bond A" will experience a price decline of approximately 5%
- Coupon:
  - The interest rate that a bond issuer will pay to a bondholder
- Yield to maturity:
  - Calculation takes into account the current market price, par value, coupon interest and time to mature
- Credit quality ratings:
  - Assesses the credit worthiness of an issuer's debt
  - Example: "AAA"-rated (high quality); "CCC"-rated (lower quality)

Bond Basics (continued)

Credit Rating Scale (S&P ratings)		
Investment Grade	AAA	Prime
	AA+	High Grade
	AA	
	AA-	
	A+	Upper Medium Grade
	A	
	A-	
	BBB+	Lower Medium Grade
	BBB	
	BBB-	
High Yield "Junk"	BB+	Non-Investment Grade
	BB	
	BB-	
	B+	Highly Speculative
	B	
	B-	
	CCC+	Substantial Risks
	CCC	Extremely Speculative
	CCC-	Default Imminent With Little Prospect For Recovery
	CC	
	C	
	D	In Default

Bond Basics (continued)

Category	Example	Definition
Government Bonds	U.S. Treasuries	Bonds issues and backed by the full faith and credit of the U.S. Government.
	Agencies (Freddie Mac, Ginnie Mae)	Government Sponsored Enterprise (GSE) or Federal Agency debt issues. GSEs are not backed by the U.S. Government, while Federal Government Agency debt is fully backed.
	Foreign Sovereign Debt	Bonds issued by a government that are denominated in a foreign currency.
Corporate Bonds	Investment Grade	Corporate bonds with credit quality rated BBB or higher. Considered to be "safer" bonds.
	High Yield ("Junk" Bonds)	Corporate bonds with credit quality rated lower than BBB. High Yield bonds pay higher coupons to compensate for additional perceived risk.
Asset Backed Securities	Auto Loans	Securitized pool of auto loans backed by the underlying auto-related loans.
	Credit Cards	Securitized pool of credit card loans backed by credit card receivables.
Mortgage-Backed Securities	Commercial Mortgage Backed Securities ("CMBS")	Mortgage-backed security backed by commercial mortgages rather than residential mortgages.
	Agency Mortgage Backed Securities	See above.

Bond Basics (continued)

Derivatives

- Derivatives are securities whose price is dependent on an underlying asset.
  - Contract between two or more parties.
  - Common Types:
    - Credit Default Swaps ("CDS"): Contract in which the buyer of the bond seeks to eliminate potential loss due to default by the issuer. Buyer "insures" contract with a third party which, in exchange for premium payments, will pay the buyer in event of default.
    - Currency Forwards: Contract between two parties to hedge against future currency exchange rate movements. Parties "lock in" an exchange rate for a transaction to occur on a specified date in the future.
- Fixed Income managers typically utilize derivatives more often than equity managers.

Index Composition Example: Barclays Multiverse

Barclays Multiverse[1]	
Scope	Global Investment Grade & Global High Yield Bonds
Composition	20,996 Constituents Consisting of: • Government & Corporate Securities • Mortgage Pass-Through Securities • Asset-Backed Securities
Valuation	Amount Outstanding[2]: $45.1 Trillion Market Value: $50.3 Trillion
Top 4 Sectors	Treasuries: 53.5% Corporates: 20.3% Securitized: 13.7% Government-Related: 12.5%

[1] As of June 30, 2016.
[2] Amount of issues outstanding (in $1,000's of par value).

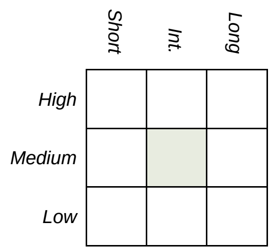
Index Composition Example: Barclays U.S. Aggregate

Barclays U.S. Aggregate[1]	
Scope	U.S. Investment Grade Fixed Rate Bonds
Composition	9,804 Constituents Consisting of: • Government & Corporate Securities • Mortgage Pass-Through Securities • Asset-Backed Securities
Valuation	Amount Outstanding[2]: $17.9 Trillion Market Value: $19.3 Trillion
Top 4 Sectors	Treasuries: 37% Securitized: 30% Corporates: 25% Government-Related: 8%

1 As of June 30, 2016.
2 Amount of issues outstanding (in $1,000's of par value).

COPERS Portfolio Example: Western Asset U.S. Core Plus

Mandate:	Fixed Income
Active/Passive:	Active
Market Value:	$80.4 million
Portfolio Manager:	Team
Location:	Pasadena, California
Inception Date:	2/1/2005
Account Type:	Separately Managed



Fee Schedule:
0.30% on first $100 mm; 0.15% thereafter

Liquidity Constraints:
Daily

Strategy:
The Western Asset U.S. Core Plus strategy invests primarily in U.S. corporate bonds, U.S. government and agency securities, mortgage-backed securities, and money market instruments. Western Asset may invest up to 20% of their assets in foreign fixed income instruments.

Guidelines:
Benchmark = Barclays Aggregate; Avg. duration = +/-20% of benchmark; Max % in non-U.S. = 10%; Min. avg. quality = 3 notches below benchmark; Max % below "A-" = 20%;

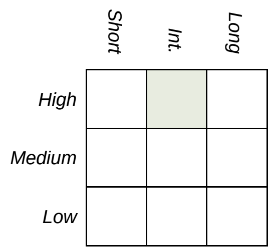
Performance (%):	**1Q16**	**Fiscal YTD[1]**	**1 YR**	**3 YR**	**5 YR**	**Since 2/1/05**
Western Asset U.S. Core Plus	**2.8**	**3.0**	**1.3**	**3.1**	**4.9**	**5.1**
Net of Fees	**2.7**	**2.7**	**1.0**	**2.8**	**4.6**	**4.8**
Barclays Aggregate	3.0	3.7	2.0	2.5	3.8	4.5
Peer Core Fixed Income	3.0	3.7	2.1	2.6	3.8	4.8
Peer Ranking (percentile)	*71*	*85*	*92*	*4*	*4*	*29*

	3/31/16		**12/31/15**	
Duration & Yield:	**Western Asset U.S. Core Plus**	**Barclays Aggregate**	**Western Asset U.S. Core Plus**	**Barclays Aggregate**
Average Effective Duration (years)	5.9	5.5	6.3	5.7
Yield to Maturity (%)	4.5	2.2	4.0	2.6
Quality Structure (%):				
Average Quality	A	AA+	A	AA+
AAA (includes Treasuries and Agencies)	39	72	41	72
AA	8	4	9	4
A	22	11	20	11
BBB	15	13	15	13
BB	10	0	9	0
B	3	0	3	0
Below B	3	0	3	0
Non-Rated	0	0	1	0
Sector Allocation (%):				
U.S. Treasury-Nominal	4	37	5	36
U.S. Treasury-TIPS	4	0	5	0
U.S. Agency	5	3	5	3
Mortgage Backed	27	28	29	29
Corporate	33	25	31	24
Bank Loans	0	0	0	0
Local & Provincial Government	0	1	0	1
Sovereign & Supranational	9	4	8	4
Commercial Mortgage Backed	7	2	7	2
Asset Backed	5	1	5	1
Cash Equivalent	-1	0	-2	0
Other	7	0	8	0
Market Allocation (%):				
United States	91	92	91	92
Foreign (developed markets)	5	6	4	6
Foreign (emerging markets)	4	2	5	2
Currency Allocation (%):				
Non-U.S. Dollar Exposure	-5	0	-3	0

[1] Fiscal Year begins July 1.

COPERS Portfolio Example: PIMCO Total Return

Mandate: Fixed Income
Active/Passive: Active
Market Value: $138.5 million
Portfolio Manager: Team
Location: Newport Beach, California
Inception Date: 7/1/2010
Account Type: Separately Managed



Fee Schedule:
0.50% on first $25 mm; 0.375% on next $25 mm; 0.25% thereafter

Liquidity Constraints:
Daily

Strategy:
PIMCO Total Return is a core plus portfolio that typically invests in intermediate term, investment grade bonds and seeks to maximize total return using both top-down and bottom-up analysis to construct portfolios. PIMCO couples their three-to-five year secular outlook for interest rates and the global economy with their bottom-up fundamental credit research to construct the portfolios.

Guidelines:
None

Performance (%):	1Q16	Fiscal YTD[1]	1 YR	3 YR	5 YR	Since 7/1/10
PIMCO Total Return	**2.3**	**2.9**	**1.2**	**1.6**	**3.7**	**3.8**
Net of Fees	**2.3**	**2.7**	**1.0**	**1.3**	**3.4**	**3.5**
Barclays Aggregate	3.0	3.7	2.0	2.5	3.8	3.6
Peer Core Fixed Income	3.0	3.7	2.1	2.6	3.8	3.6
Peer Ranking (percentile)	*89*	*85*	*92*	*99*	*62*	*39*

	3/31/16		12/31/15	
Duration & Yield:	**PIMCO Total Return**	**Barclays Aggregate**	**PIMCO Total Return**	**Barclays Aggregate**
Average Effective Duration (years)	5.4	5.5	4.5	5.7
Yield to Maturity (%)	3.9	2.2	3.5	2.6
Quality Structure (%):				
Average Quality	AA	AA+	AA	AA+
AAA (includes Treasuries and Agencies)	65	72	64	72
AA	3	4	5	4
A	16	11	18	11
BBB	11	13	8	13
BB	4	0	3	0
B	1	0	2	0
Below B	0	0	0	0
Non-Rated	0	0	0	0
Sector Allocation (%):				
U.S. Treasury-Nominal	3	37	-5	36
U.S. Treasury-TIPS	14	0	14	0
U.S. Agency	0	3	0	3
Mortgage Backed	45	28	41	29
Corporate	28	25	24	24
Bank Loans	0	0	0	0
Local & Provincial Government	4	1	4	1
Sovereign & Supranational	-6	4	-7	4
Commercial Mortgage Backed	7	2	6	2
Asset Backed	1	1	0	1
Cash Equivalent	1	0	20	0
Other	3	0	4	0
Market Allocation (%):				
United States	93	92	96	92
Foreign (developed markets)	-4	6	-6	6
Foreign (emerging markets)	11	2	10	2
Currency Allocation (%):				
Non-U.S. Dollar Exposure	-5	0	-7	0

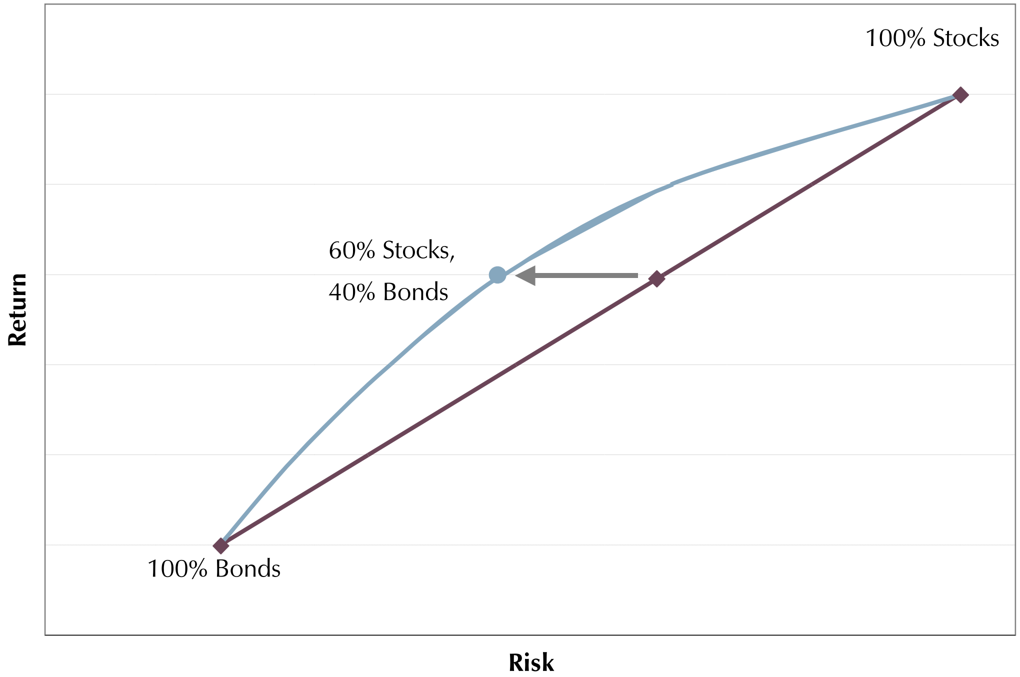
[1] Fiscal Year begins July 1.

Modern Portfolio Theory

Modern Portfolio Theory

- Developed by Harry Markowitz in 1950s
- Attempts to quantify the benefits of diversification
  - Do not chose an investment based solely on its individual risk-return profile
  - Instead, consider within context of entire portfolio
- The risk in a diversified portfolio will be less than the risk in holding any one single investment
  - Why is this? Because assets are generally less than 100% correlated
- **Example:** Consider a portfolio that invests across two risky stocks:
  - One stock that pays off when it is sunny and another stock that pays off when it's not sunny
  - A portfolio that contains both stocks will always pay off, regardless of whether it is sunny or not
  - Adding one risky asset to another can reduce the overall risk of an all-weather portfolio

The Efficient Frontier



- Combining uncorrelated assets produces an "efficient frontier." Different combinations of assets (e.g., 60% stocks & 40% bonds) will lie along this efficient frontier.
- By combining assets that are not highly correlated with each other, COPERS can produce a higher return for a given level of risk than it could by investing in perfectly correlated assets. Alternatively, it can experience lower risk for a given level of return.

Annual Asset Class Performance

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Emerging Equity 32.2%	Emerging Equity 39.4%	Bonds 5.2%	Emerging Equity 78.5%	Emerging Equity 18.9%	Real Estate 14.3%	Emerging Equity 18.2%	US Equity 32.4%	Private Equity 17.6%	Real Estate 13.3%
EAFE Equity 26.3%	Private Equity 26.6%	Cash 1.7%	High Yield 58.2%	Commodities 16.7%	TIPS 14.1%	EAFE Equity 17.3%	EAFE Equity 22.8%	US Equity 13.7%	Private Equity* 11.1%
Private Equity 18.6%	Commodities 16.2%	TIPS -1.1%	EAFE Equity 31.8%	Private Equity 15.7%	Private Equity 12.0%	US Equity 16.0%	Private Equity 18.1%	Real Estate 11.8%	US Equity 1.4%
Real Estate 16.6%	Real Estate 15.8%	Real Estate -6.5%	US Equity 26.5%	High Yield 15.1%	Bonds 7.8%	High Yield 15.8%	Real Estate 11.0%	Bonds 6.0%	Bonds 0.6%
US Equity 15.8%	TIPS 11.6%	Private Equity -7.1%	Hedge Funds 20.0%	US Equity 15.1%	High Yield 5.0%	Private Equity 14.5%	Hedge Funds 9.6%	TIPS 4.5%	Cash 0.0%
Hedge Funds 12.9%	EAFE Equity 11.2%	Hedge Funds -19.0%	Commodities 18.9%	Real Estate 13.1%	US Equity 2.1%	Real Estate 10.5%	High Yield 7.4%	Hedge Funds 3.0%	EAFE Equity -0.8%
High Yield 11.9%	Hedge Funds 10.0%	High Yield -26.2%	TIPS 10.0%	Hedge Funds 10.2%	Cash 0.1%	TIPS 7.3%	Cash 0.0%	High Yield 2.5%	Hedge Funds -0.8%
Cash 4.6%	Bonds 7.0%	Commodities -35.6%	Bonds 5.9%	EAFE Equity 7.8%	Hedge Funds -5.2%	Hedge Funds 6.4%	Bonds -2.0%	Cash 0.0%	TIPS -1.7%
Bonds 4.3%	US Equity 5.5%	US Equity -37.0%	Cash 0.1%	Bonds 6.5%	EAFE Equity -12.1%	Bonds 4.2%	Emerging Equity -2.6%	Emerging Equity -2.2%	High Yield -4.5%
Commodities 2.1%	Cash 4.7%	EAFE Equity -43.4%	Private Equity -6.6%	TIPS 6.3%	Commodities -13.4%	Cash 0.1%	TIPS -9.4%	EAFE Equity -4.9%	Emerging Equity -14.9%
TIPS 0.5%	High Yield 1.9%	Emerging Equity -53.3%	Real Estate -16.9%	Cash 0.1%	Emerging Equity -18.4%	Commodities -1.1%	Commodities -9.5%	Commodities -17.0%	Commodities -24.7%

Multi-Asset Strategies

Multi-Asset Strategies

- Multi-Asset Strategies aren't limited by scope or mandate
  - Able to invest in equities, fixed income, alternatives, etc. within the same portfolio
  - Can move quickly between asset classes as opportunities arise (market timing)
- 60% S&P 500/ 40% Barclays Aggregate (60/40) is a common multi-strategy benchmark
  - U.S. biased as S&P 500 is a proxy for the U.S. Stock Market and the Barclays Aggregate is a proxy for the investment grade U.S. Fixed Income Market.
- Reasoning for/against multi-asset strategies
  - For:
    - Investment opportunities may arise and disappear quickly
    - Manager has wider investment universe at their disposal
  - Against:
    - Requires the manager to be correct when making tactical moves
    - Manager may be duplicating other positions already in the investment portfolio

COPERS Portfolio Example: PIMCO All Asset

Mandate: Tactical
Scope: Domestic
Market Value: $152.7 million
Portfolio Manager: Robert D. Arnott
Location: Newport Beach, California
Inception Date: 12/1/2013
Account Type: Mutual Fund (PAAIX)

Fee Schedule:
0.88% on all assets

Liquidity Constraints:
Daily

Strategy:
The PIMCO All Asset strategy strives to maximize real returns consistent with preservation of capital and prudent investment management. The strategy invests tactically among multiple PIMCO strategies, including both conventional and alternative market sectors.

Performance (%):	1Q16	Fiscal YTD[1]	1 YR	Since 12/1/13
PIMCO All Asset	**5.4**	**-3.3**	**-3.3**	**-0.5**
Net of Fees	**5.2**	**-3.9**	**-4.1**	**-1.4**
All Asset Custom Benchmark[2]	2.3	0.3	0.1	2.4
60% Barclays Agg / 40% S&P 500	2.4	3.1	2.1	5.7

	3/31/2016	
Current Positioning (%):	**PIMCO All Asset**	**60% Barclays Agg/ 40% S&P 500**
Short-Term Strategies	0.7	
Commodities and REITS	7.2	
Emerging Markets Bonds	22.3	
U.S. Core Bonds	3.9	60.0
U.S. Long Maturity Bonds	0.3	
Inflation Linked Bonds	5.7	
Alternative Strategies	13.2	
Credit Strategies	16.7	
Equity Strategies	30.1	40.0

- PIMCO All Asset Correlation to COPERS Total Fund Return since 12/1/13: 0.88

[1] Fiscal Year begins July 1.
[2] The All Asset Custom Benchmark is composed of 12.5% BofA Merrill Lynch 1 Year Treasury Bill Index, 12.5% Barclays U.S. Aggregate Bond, 12.5% PIMCO Global Advantage Bond, 12.5% BofA Merrill Lynch U.S. High Yield Master II Index, 12.5% Barclays TIPS, 12.5% Russell 3000, 12.5% MSCI ACWI, and 12.5% BofA Merrill Lynch 3 Month U.S. T-Bill Index + 3%.

Summary

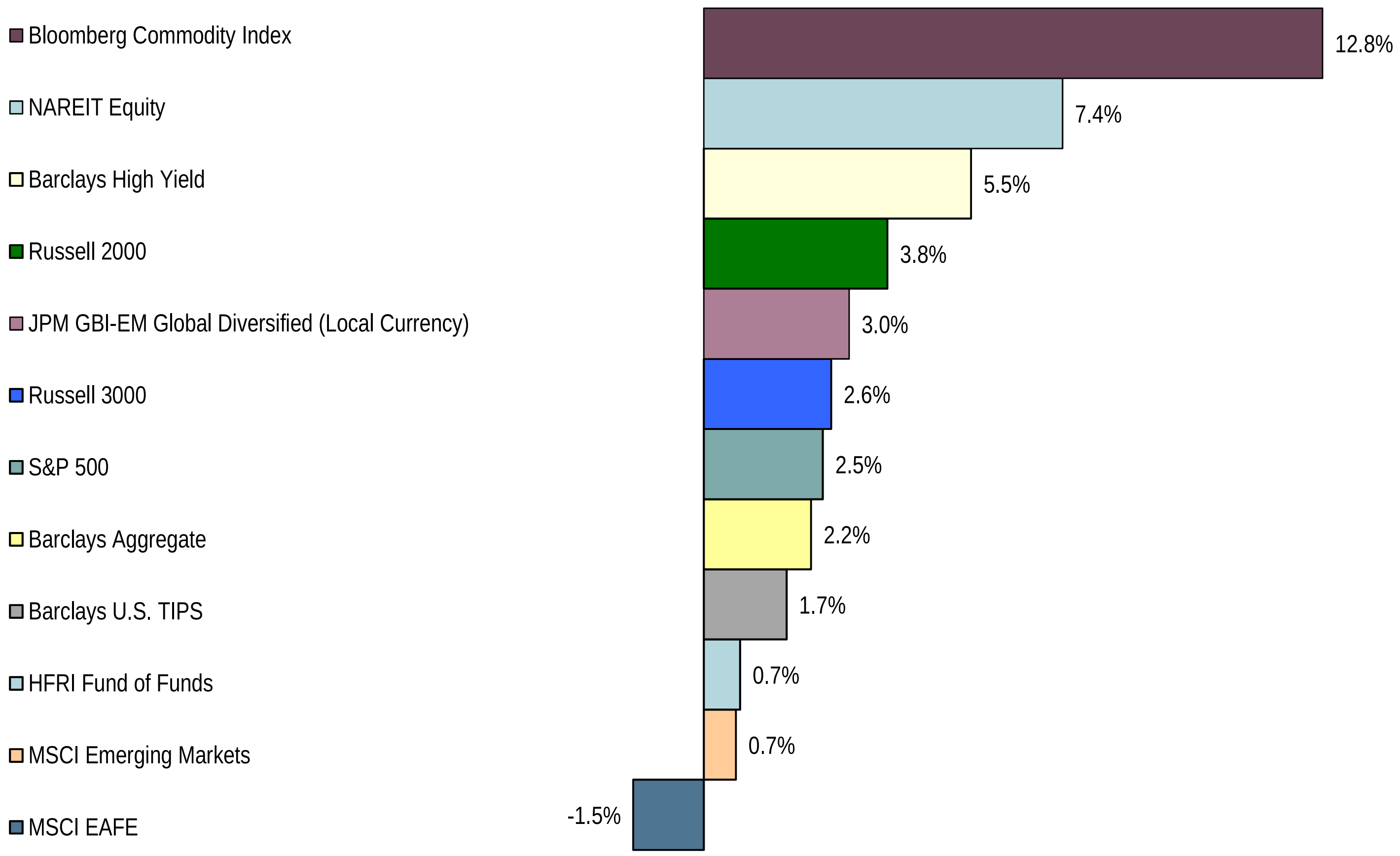
Summary

- The global public markets represent over $90 trillion of investable assets.
- Investors face the difficult task of identifying the most appropriate investment opportunities amongst the thousands of strategies offered.
- We recommend investors:
  - Utilize passive management in efficient asset classes
  - Hire truly "active" managers in less efficient asset classes
  - Only invest in strategies that are understandable and transparent
  - Only invest in strategies where there is a level of comfort with the organization, team, philosophy, and investment process
  - Only invest in strategies that will provide a benefit to the overall portfolio
    - Increase return, reduce risk, or add diversification

Appendices

The World Markets
Second Quarter of 2016

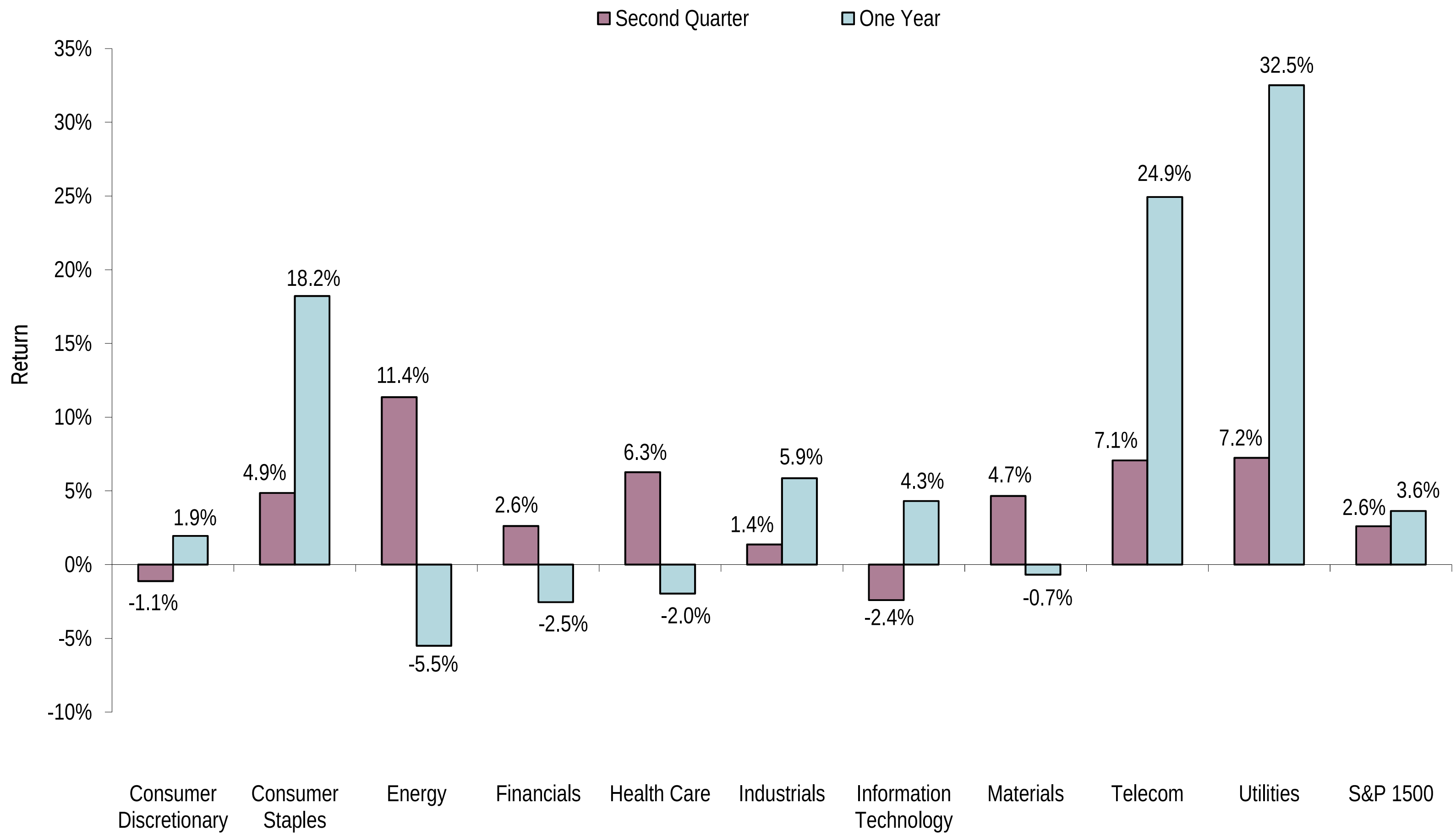
The World Markets
Second Quarter of 2016



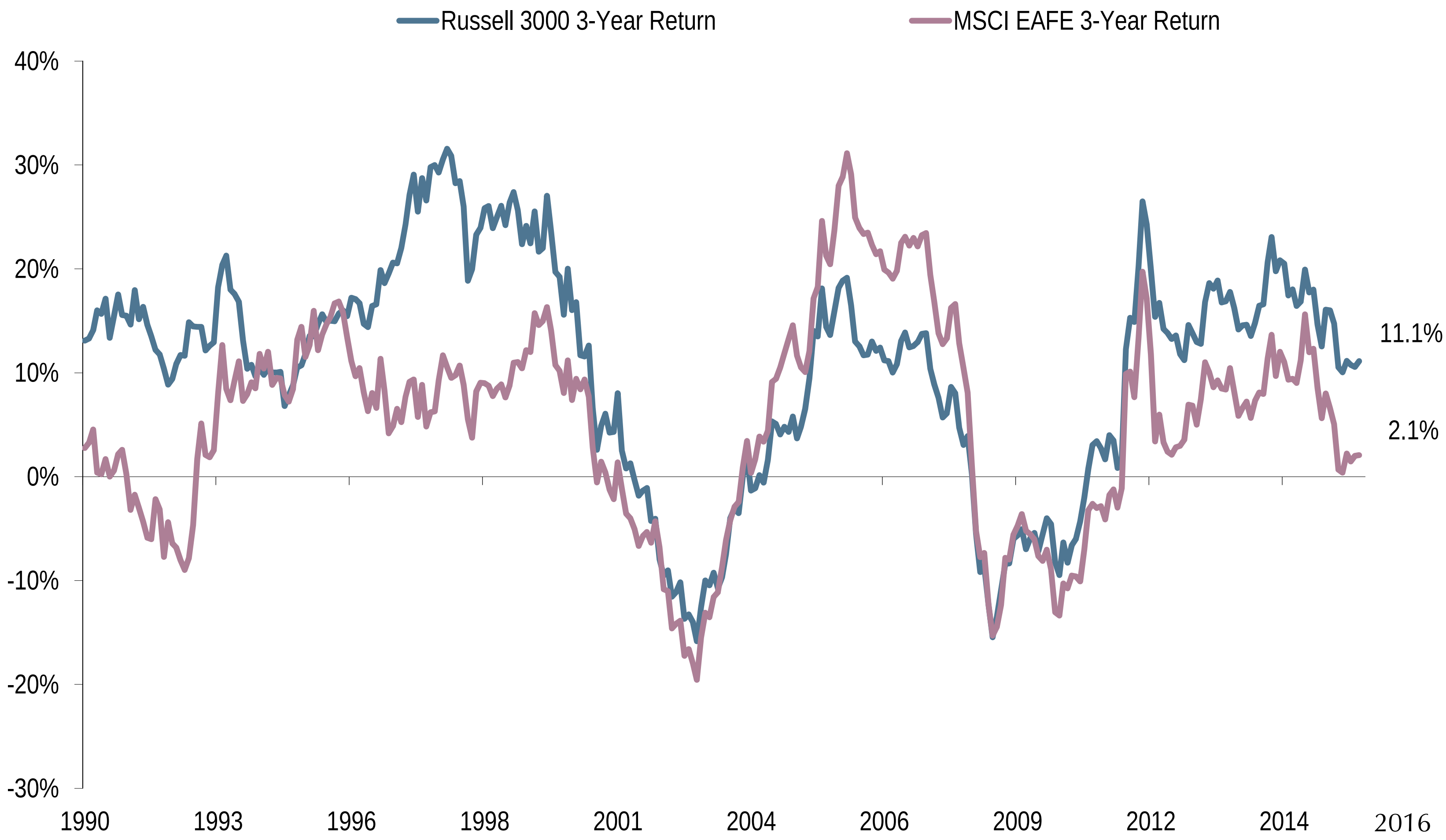
Index Returns

	2Q16 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Domestic Equity					
Russell 3000	2.6	2.1	11.1	11.6	7.4
Russell 1000	2.5	2.9	11.5	11.9	7.5
Russell 1000 Growth	0.6	3.0	13.1	12.3	8.8
Russell 1000 Value	4.6	2.9	9.9	11.4	6.1
Russell MidCap	3.2	0.6	10.8	10.9	8.1
Russell MidCap Growth	1.6	-2.1	10.5	10.0	8.1
Russell MidCap Value	4.8	3.2	11.0	11.7	7.8
Russell 2000	3.8	-6.7	7.1	8.4	6.2
Russell 2000 Growth	3.2	-10.8	7.7	8.5	7.1
Russell 2000 Value	4.3	-2.6	6.4	8.1	5.2
Foreign Equity					
MSCI ACWI (ex. U.S.)	-0.6	-10.2	1.2	0.1	1.9
MSCI EAFE	-1.5	-10.2	2.1	1.7	1.6
MSCI EAFE (local currency)	-0.7	-10.2	5.8	6.2	2.1
MSCI EAFE Small Cap	-2.6	-3.7	7.3	4.8	3.6
MSCI Emerging Markets	0.7	-12.1	-1.6	-3.8	3.3
MSCI Emerging Markets (local currency)	0.7	-7.7	3.7	2.0	5.7
Fixed Income					
Barclays Universal	2.5	5.8	4.2	4.0	5.3
Barclays Aggregate	2.2	6.0	4.1	3.8	5.1
Barclays U.S. TIPS	1.7	4.4	2.3	2.6	4.7
Barclays High Yield	5.5	1.6	4.2	5.8	7.6
JPMorgan GBI-EM Global Diversified (Local Currency)	3.0	2.0	-3.6	-2.2	5.7
Other					
NAREIT Equity	7.4	23.6	13.3	12.5	7.5
Bloomberg Commodity Index	12.8	-13.3	-10.6	-10.8	-5.6
HFRI Fund of Funds	0.7	-5.2	2.0	1.7	1.6

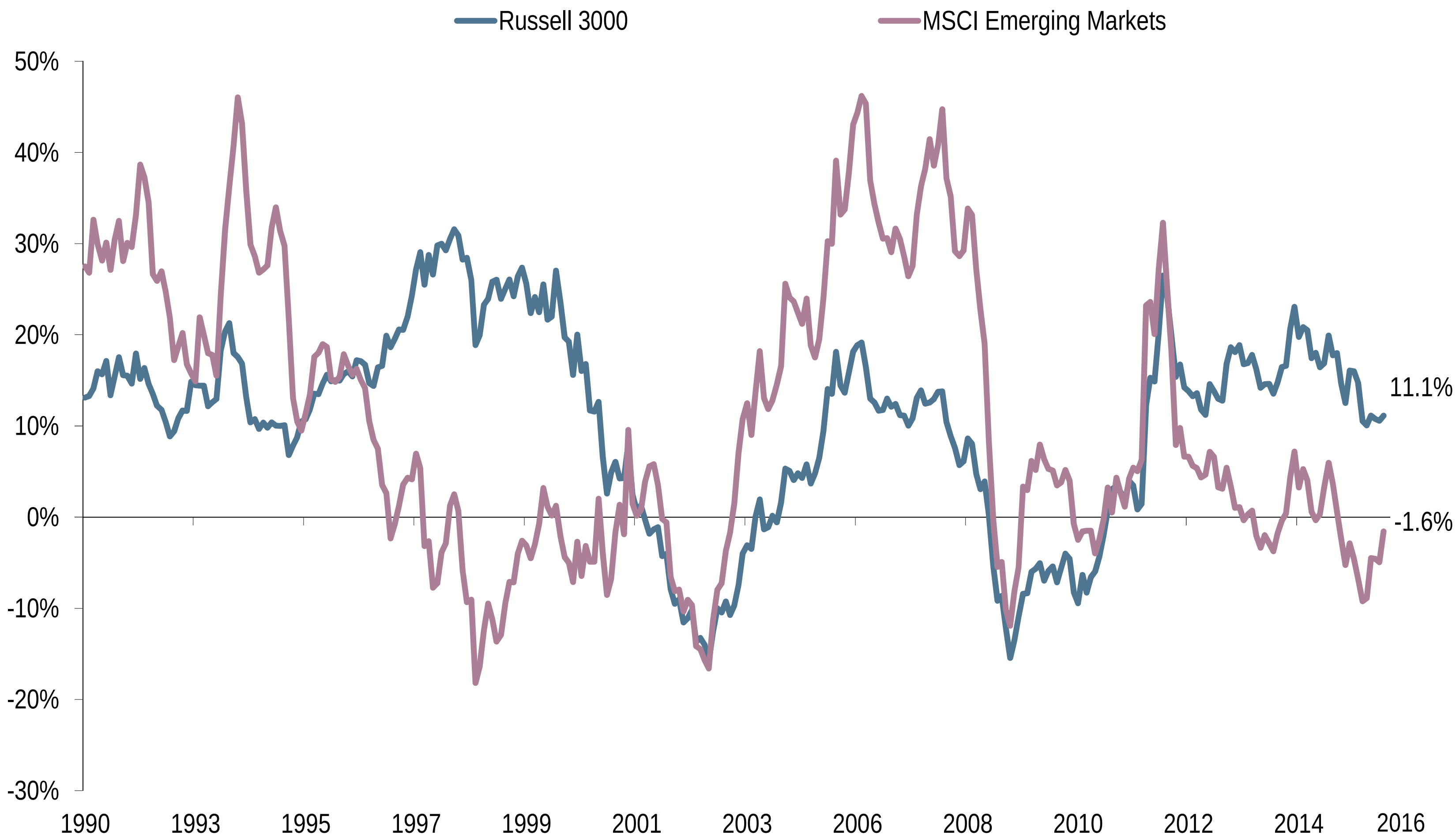
S&P Sector Returns



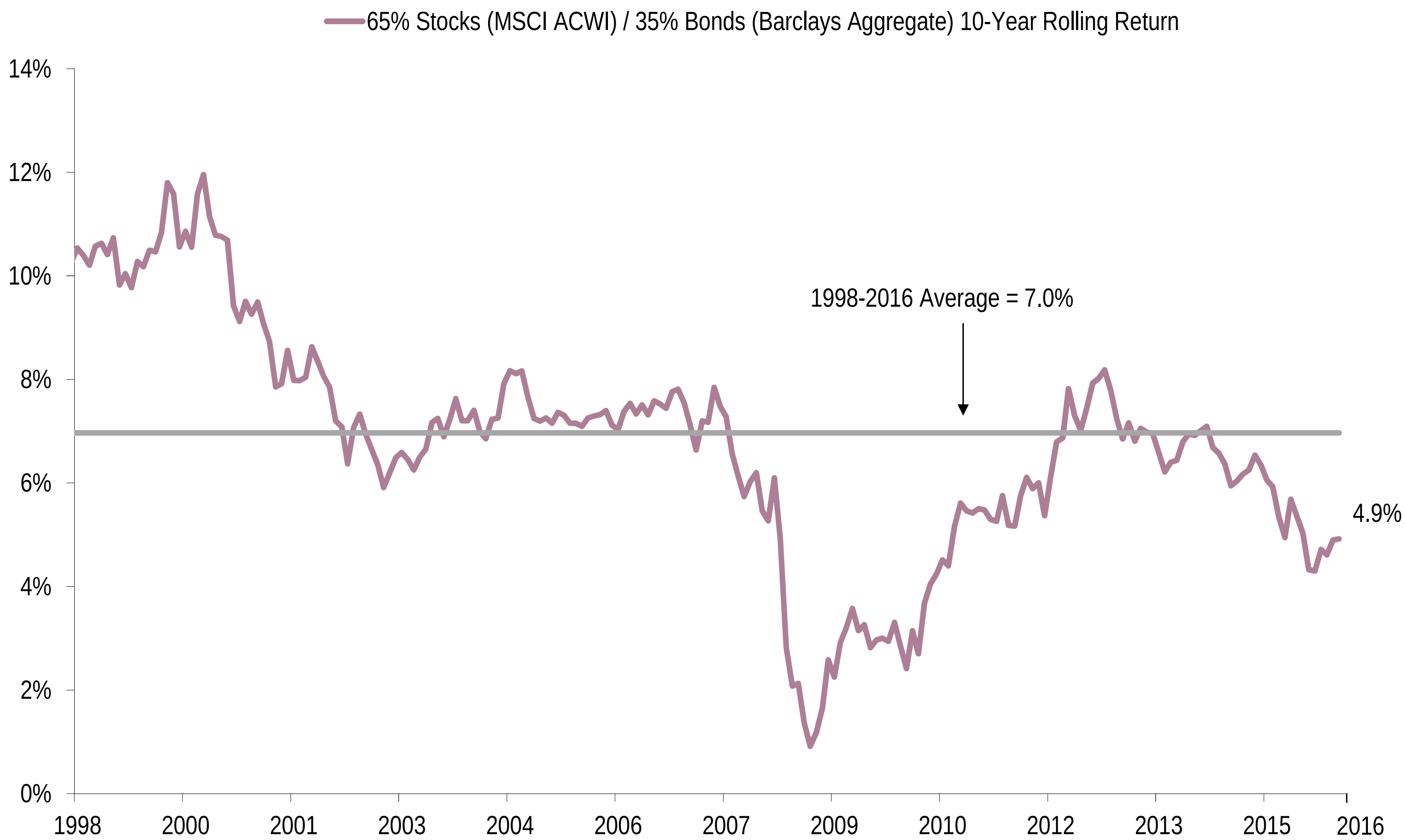
U.S. and Developed Market Foreign Equity Rolling Three-Year Returns



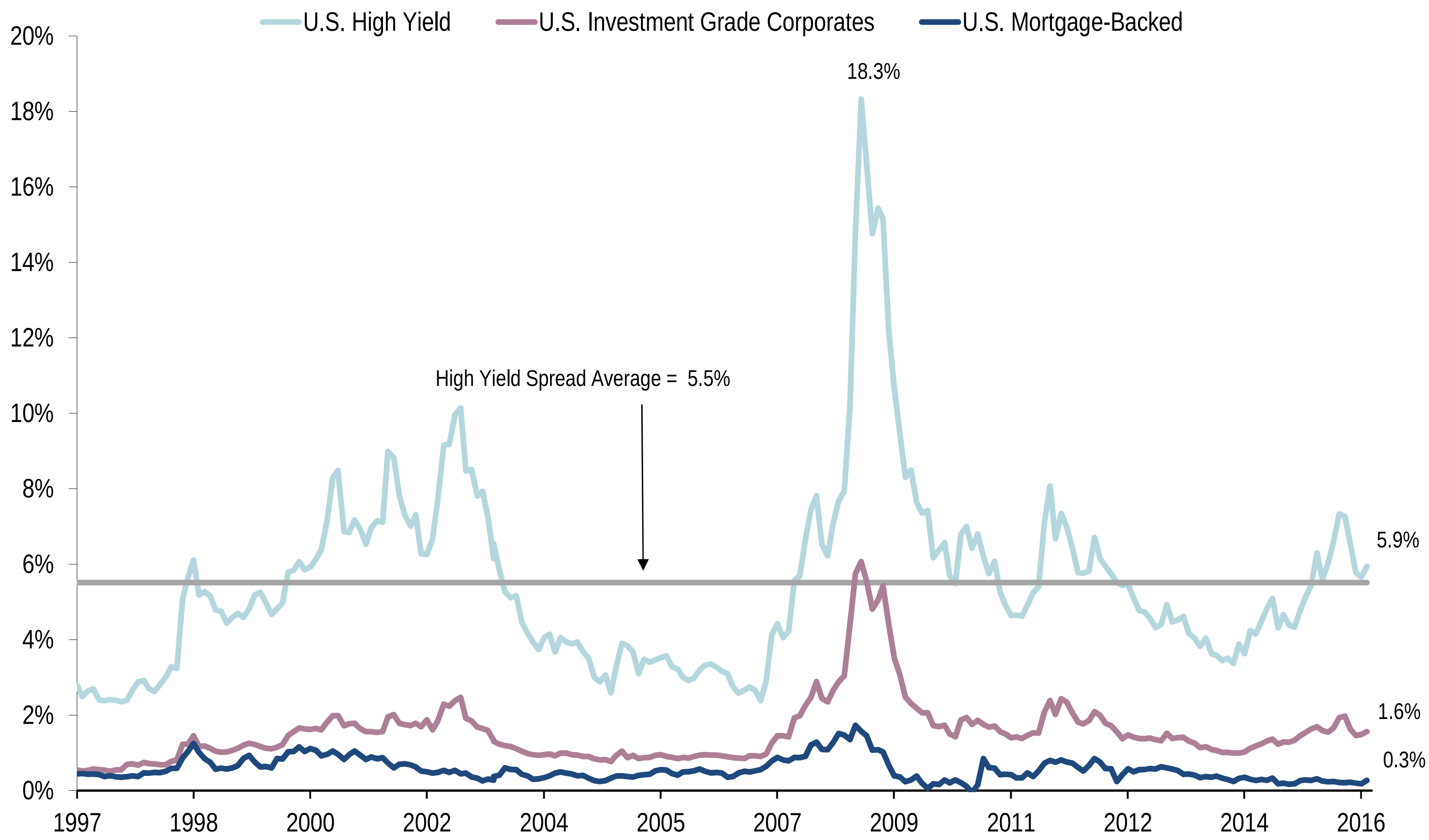
U.S. and Emerging Market Equity Rolling Three-Year Returns



Rolling Ten-Year Returns: 65% Stocks and 35% Bonds

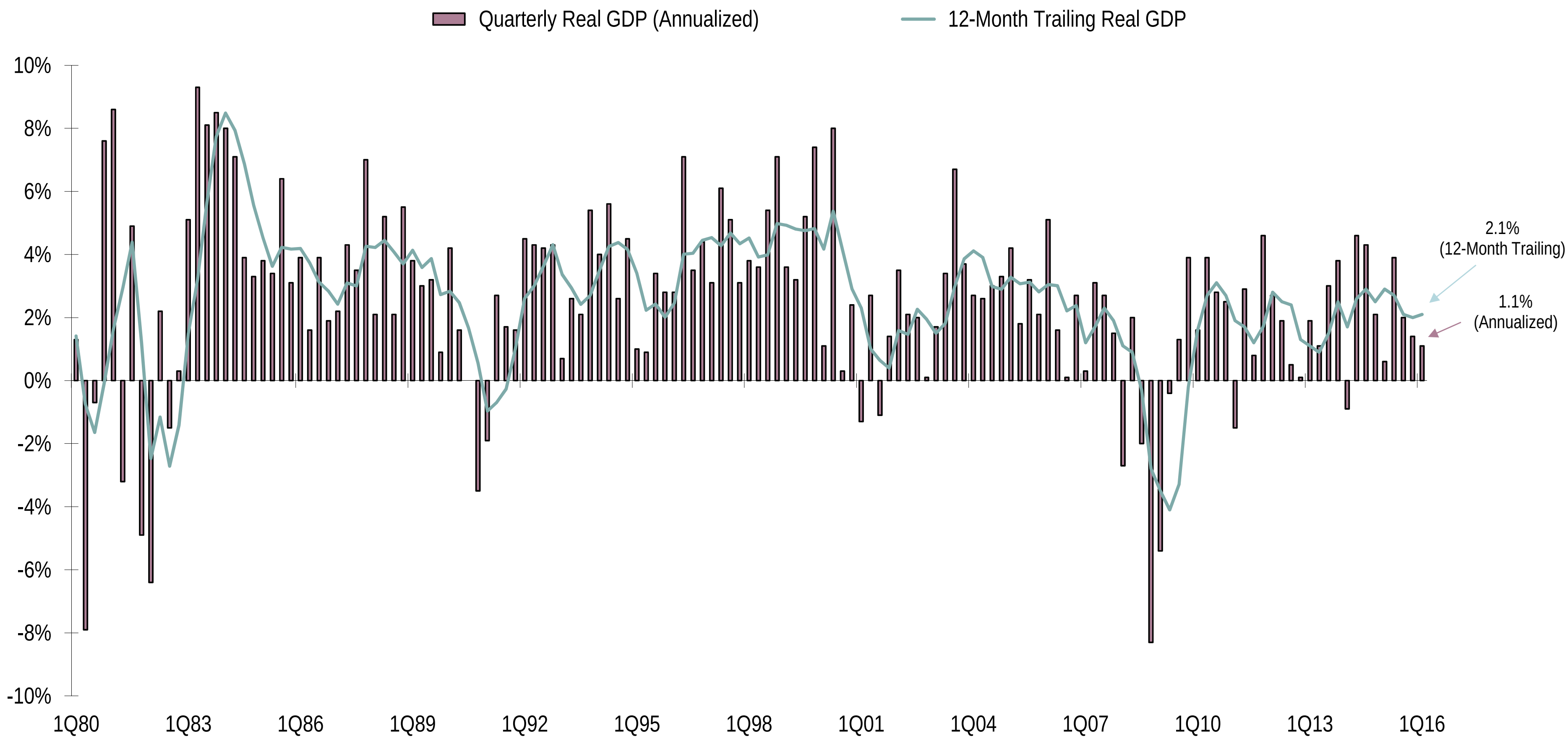


Credit Spreads vs. U.S. Treasury Bonds



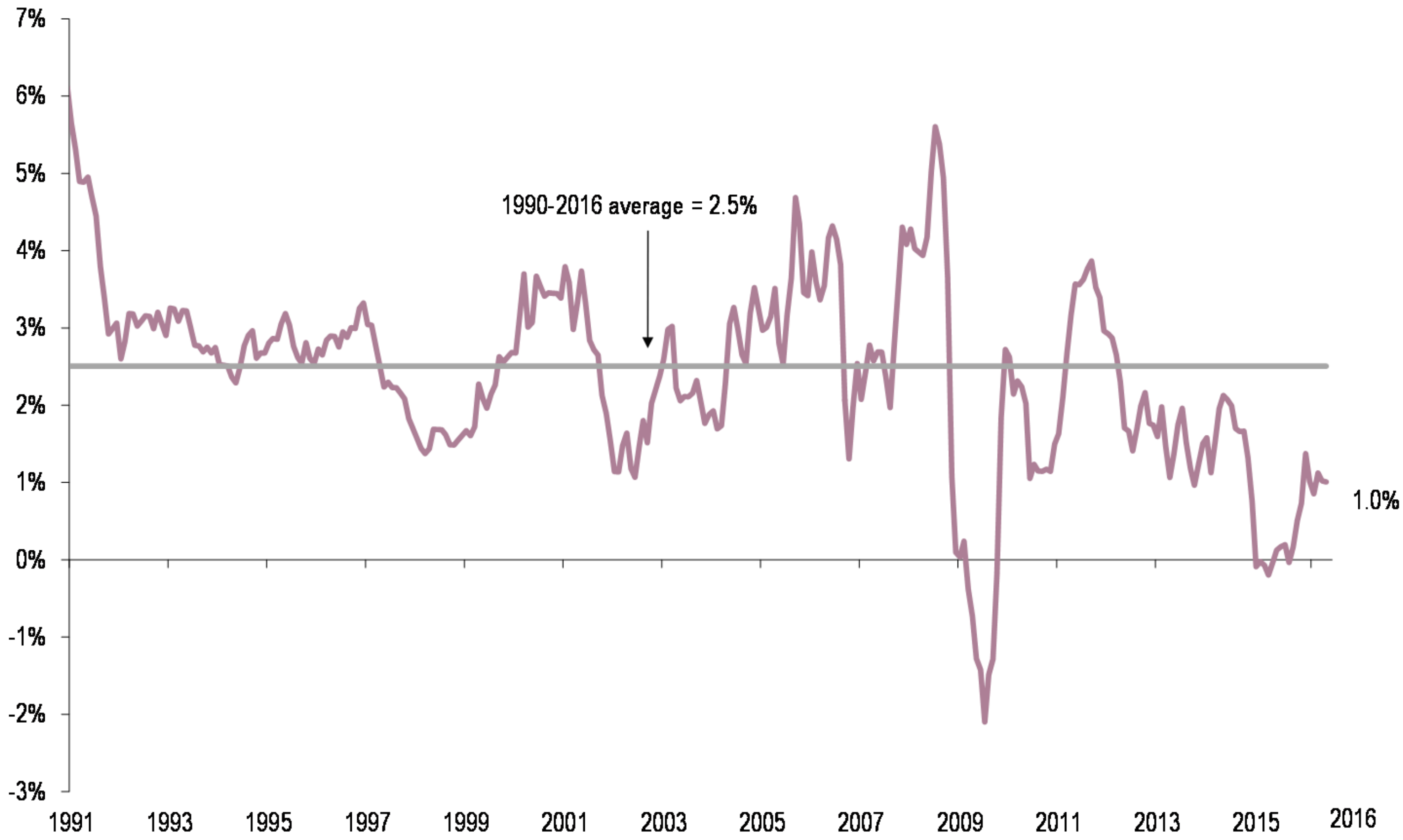
[1] The median high yield spread was 5.1% from 1997-2016.

U.S. Real Gross Domestic Product (GDP) Growth[1]



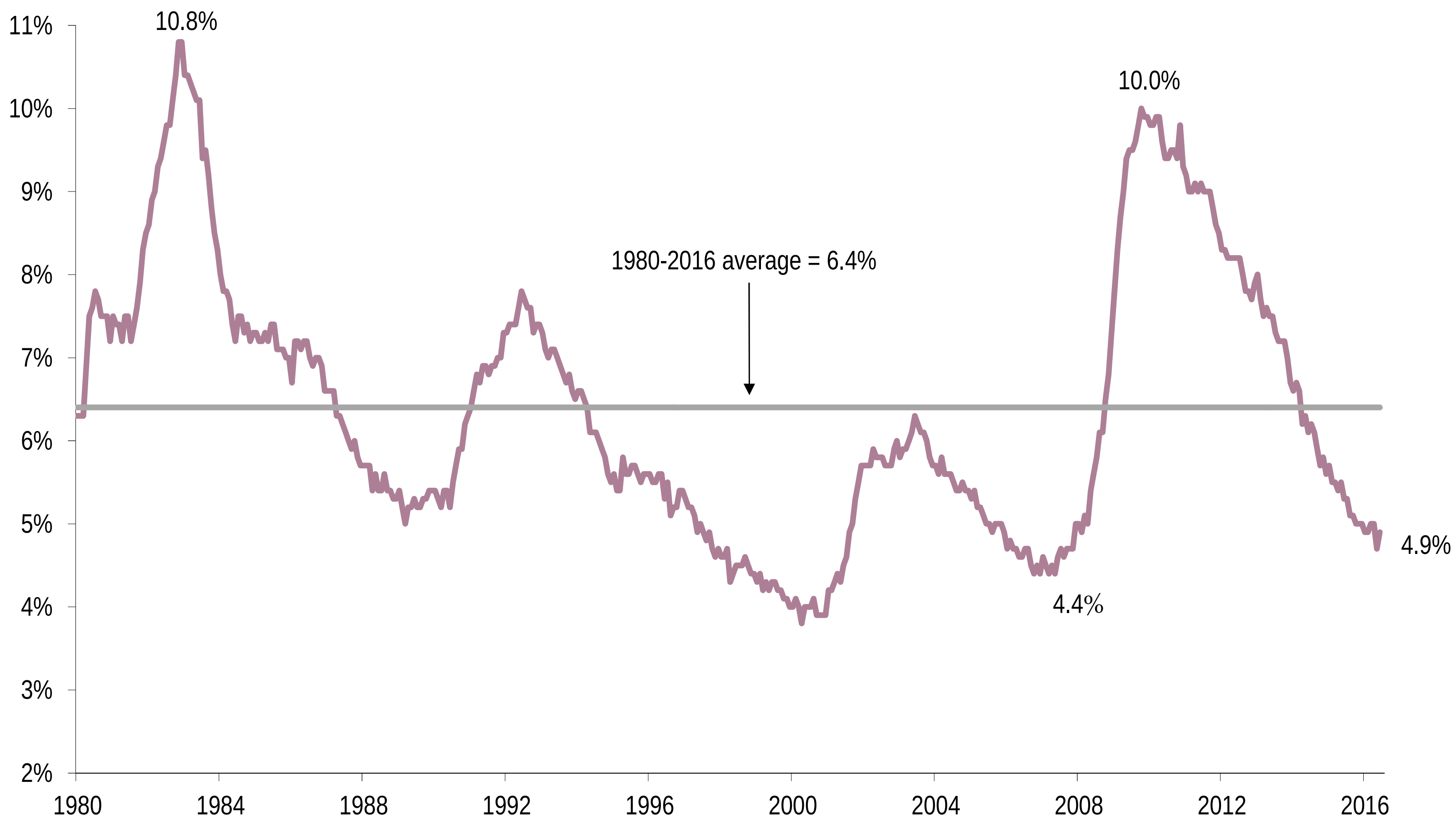
[1] Second quarter 2016 GDP data is not yet available. Data is as of the first quarter.

U.S. Inflation (CPI) Trailing Twelve Months[1]



[1] Data is non-seasonally adjusted CPI, which may be volatile in the short-term.

U.S. Unemployment[1]



[1] Data is as of June 30, 2016.

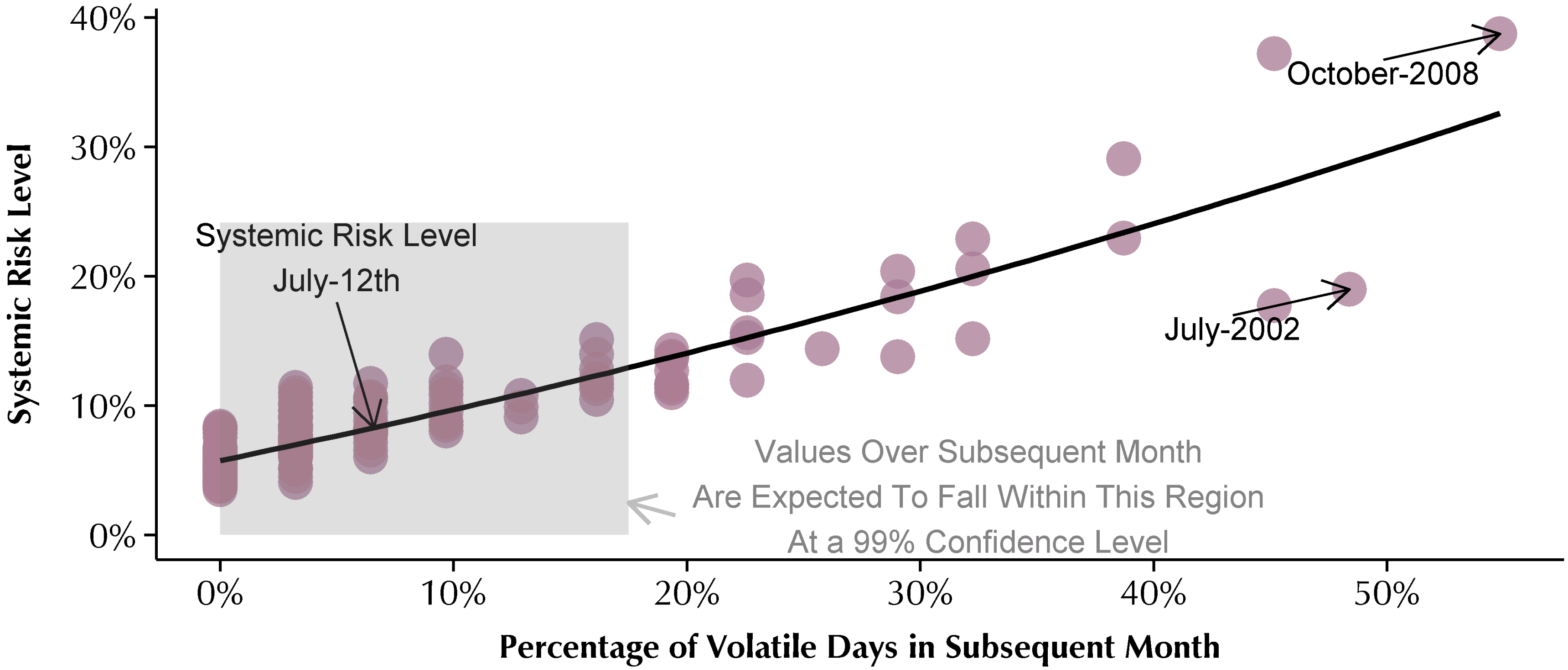
Capital Markets Outlook

Capital Markets Outlook[1]

- Investors are faced with four primary issues in the near-term: 1) historically low bond yields, 2) the potential for a transition into a rising rate environment, 3) the potential for deteriorating corporate earnings, and 4) the possibility of much lower energy prices for a sustained period.
  - The price of the U.S. stock market relative to ten-year average earnings has trended up after the financial crisis, and remains above its historical average (28.8x versus 21.8x).
    - Valuations of small cap domestic stocks have spiked into a historically expensive range relative to large cap stocks after trending towards the historical average last year.
  - Developed international and emerging market stocks are trading at lower valuations than U.S. stocks.
    - Sovereign debt issues and weak economic growth in Europe, and a cyclical slowdown in emerging economies, are weighing down valuations.
  - Risk across markets measured by our Systemic Risk metric has reacted negatively to the recent increase of uncertainty within markets.
    - The recent ‘Brexit’ vote, along with other political upheaval and monetary policy changes by central banks, will continue to have a meaningful impact.
  - At the end of June, spreads for high yield corporate and investment grade bonds (5.9% and 1.6%, respectively) are slightly above their long-term averages.
  - At 1.5%, the yield on the ten-year Treasury remained far below its post-WWII average of 5.6%.
  - Crude Oil prices have partially rebounded from a steep decline, which has had wide ranging effects across several markets.

[1] Sources: Thomson Reuters, U.S. Treasury, and Standard & Poor's. Data is as of June 30, 2016.

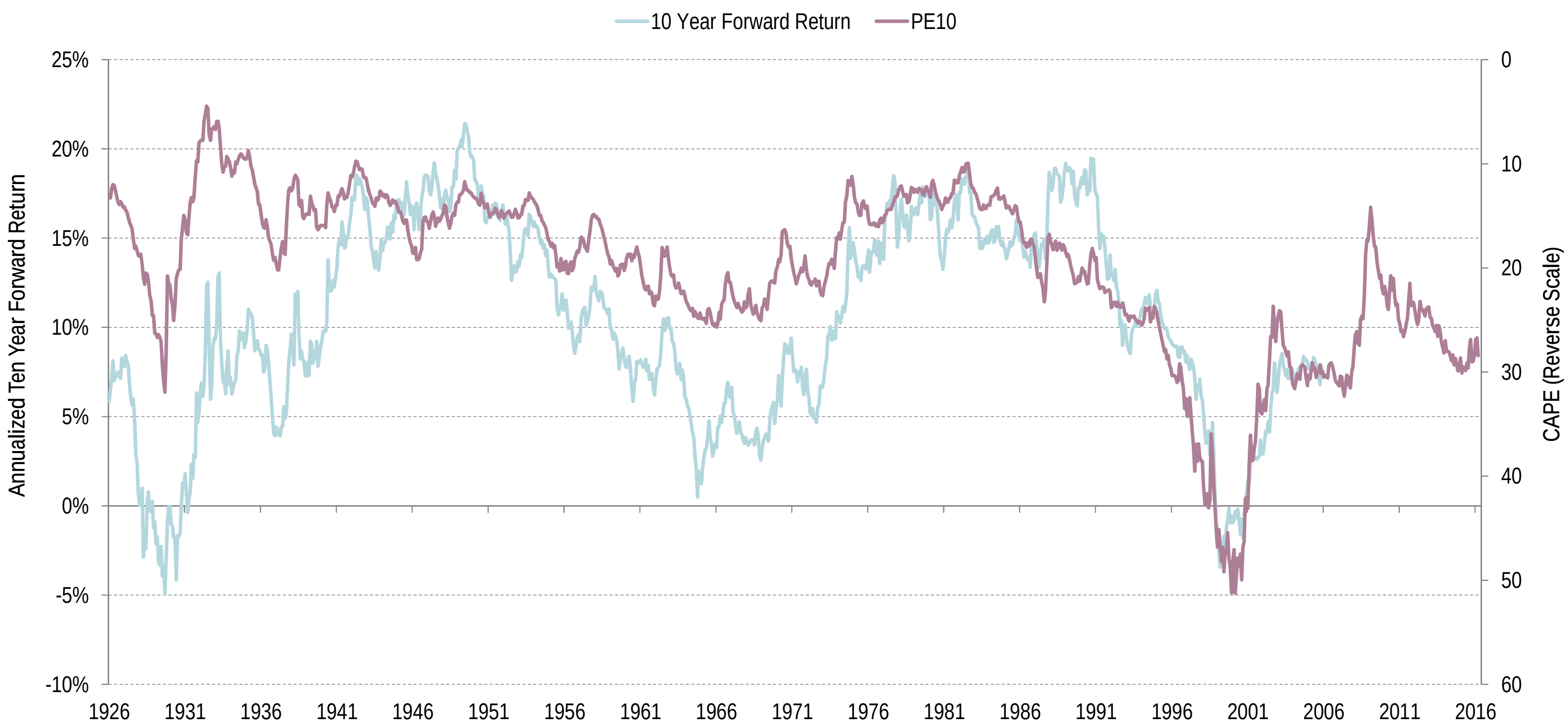
Systemic Risk and Volatile Market Days[1]



- Systemic Risk, which measures risk across markets, is important because the more contagion of risk that exists between assets, the more likely it is that markets will experience volatile periods.
- After a volatile start to the year, our Systemic Risk measure has returned to reasonable levels. While the number of volatile days can differ, this indicates that the next month should be in the lowest 20%.

[1] Source: Meketa Investment Group, as of July 12, 2016. Volatile days are defined as the top 10 percent of realized turbulence which is a multivariate distance between asset returns.

The U.S. Cyclically Adjusted P/E[1] and Long-Term Equity Returns



- One of the most powerful predictors of long-term equity returns has been the Cyclically Adjusted Price to Earnings Ratio (CAPE).
- This fundamentally driven measure is highly correlated with future returns, which are shown in the chart above using the CAPE metric on a reverse scale.

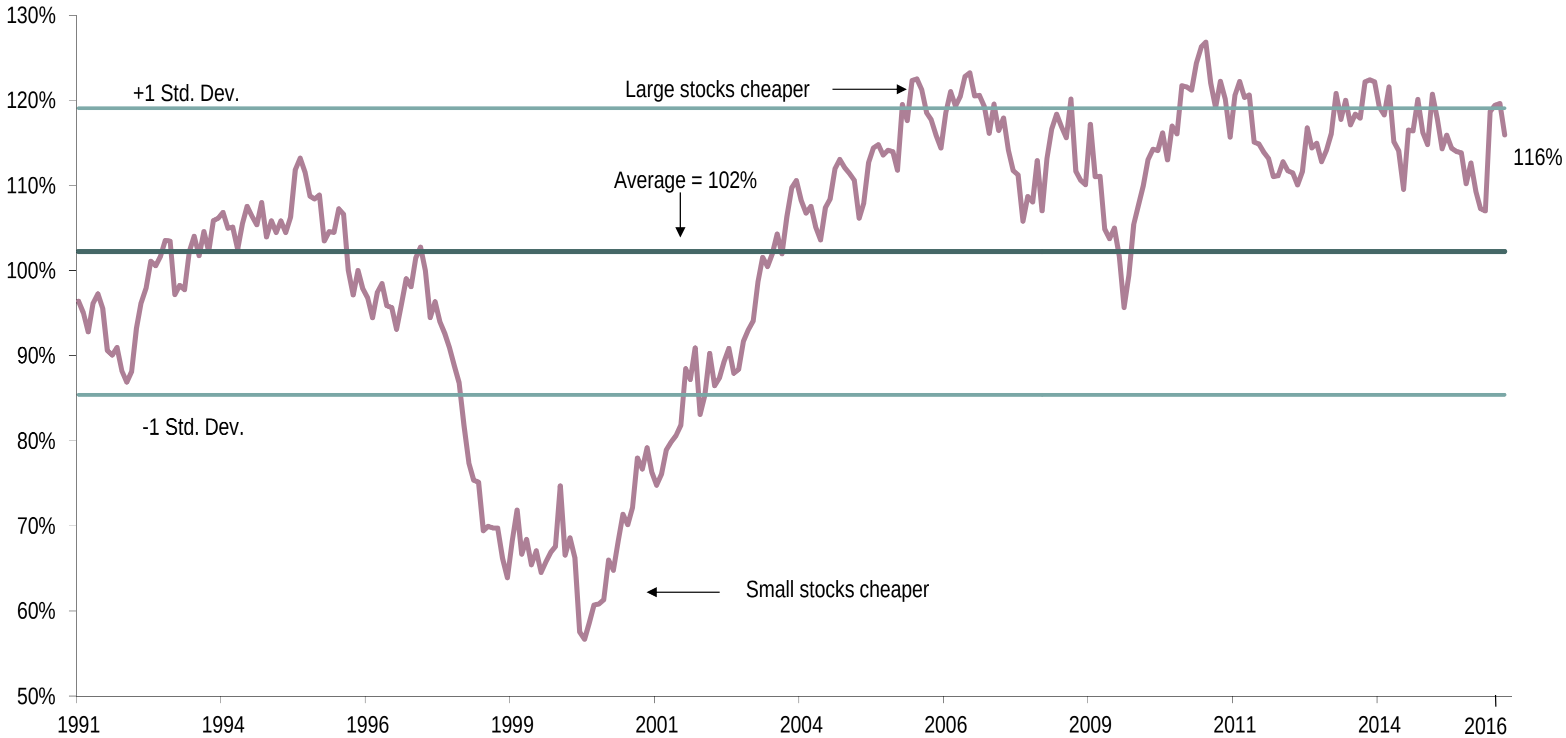
[1] Source: PE data are from Robert Shiller's website from 1926 - 1946; S&P and Thomson Reuters 1946 – present. S&P 500 equity returns are from Morningstar Direct for the entire period. Data is from May 31, 1926 to June 30, 2016.

U.S. Equity Cyclically Adjusted P/E[1]

- The cyclically adjusted P/E ratio for the S&P 500 finished June at 28.8x, above its post-WWII average of 21.8x.
- Due to the recent pullback in equity markets, this metric has fallen slightly below the positive standard deviation threshold. Historically, a P/E ratio at this level has led to roughly average future returns over a 10 year horizon.

[1] Source: Standard & Poor's. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is from January 31, 1946 to June 30, 2016.

Small Cap P/E vs. Large Cap P/E[1]



- The P/E ratio of small cap stocks (Russell 2000) relative to large cap stocks (Russell 1000) recently spiked after trending toward its long term average over last year.
- This relative valuation metric has remained largely range bound since 2010 and remains below the one positive standard deviation threshold.

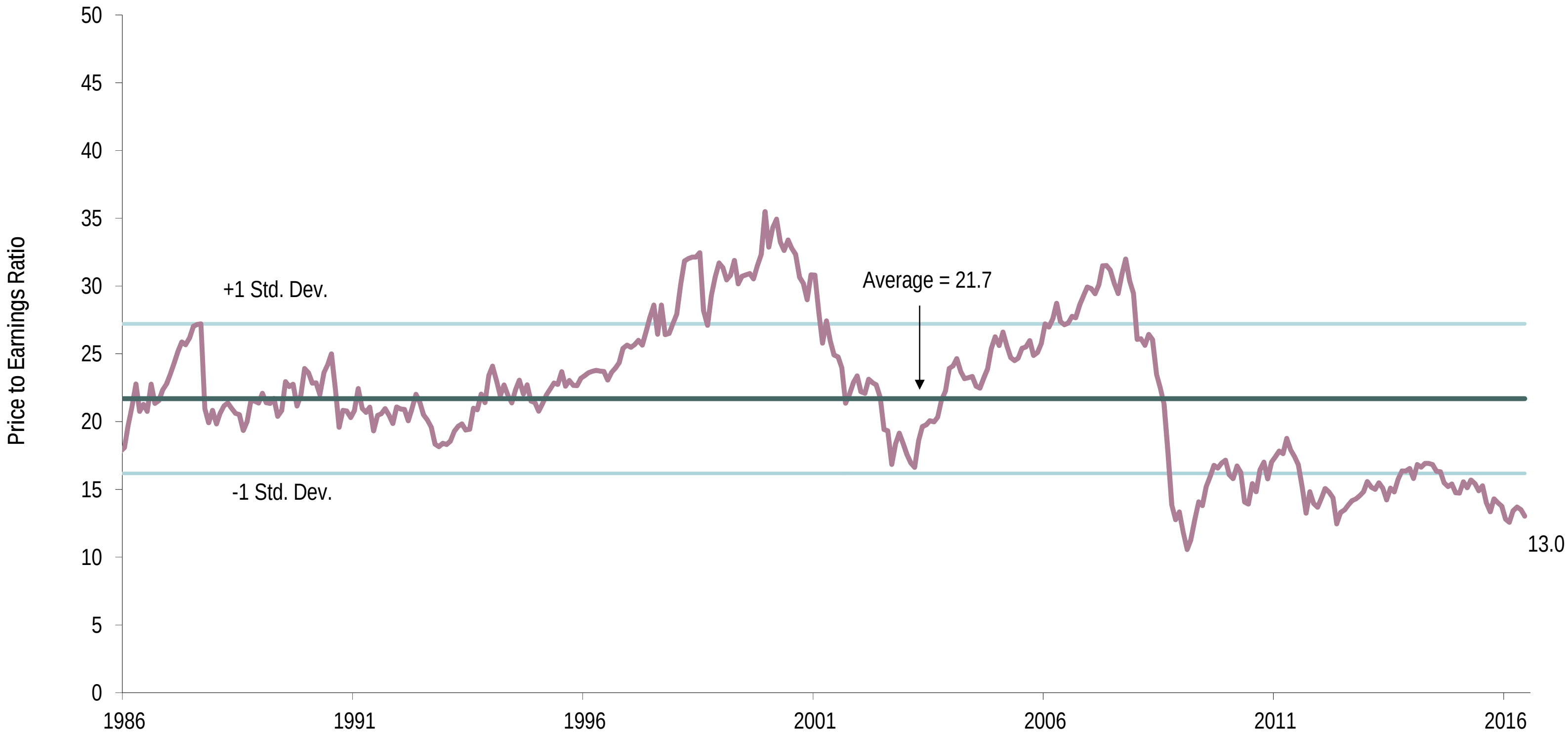
[1] Source: Russell Investments. Earnings figures represent 12-month “as reported” earnings. Data is as of June 30, 2016.

Growth P/E vs. Value P/E[1]

- The P/E ratio of growth stocks (Russell 3000 Growth) relative to value stocks (Russell 3000 Value) finished June at 135%, well above its level in 2009 but still below its long-term average.
- Of note, the long-term average was sharply influenced by the technology bubble of the late 1990s.

[1] Source: Russell Investments. Earnings figures represent 12-month "as reported" earnings. Data is as of June 30, 2016.

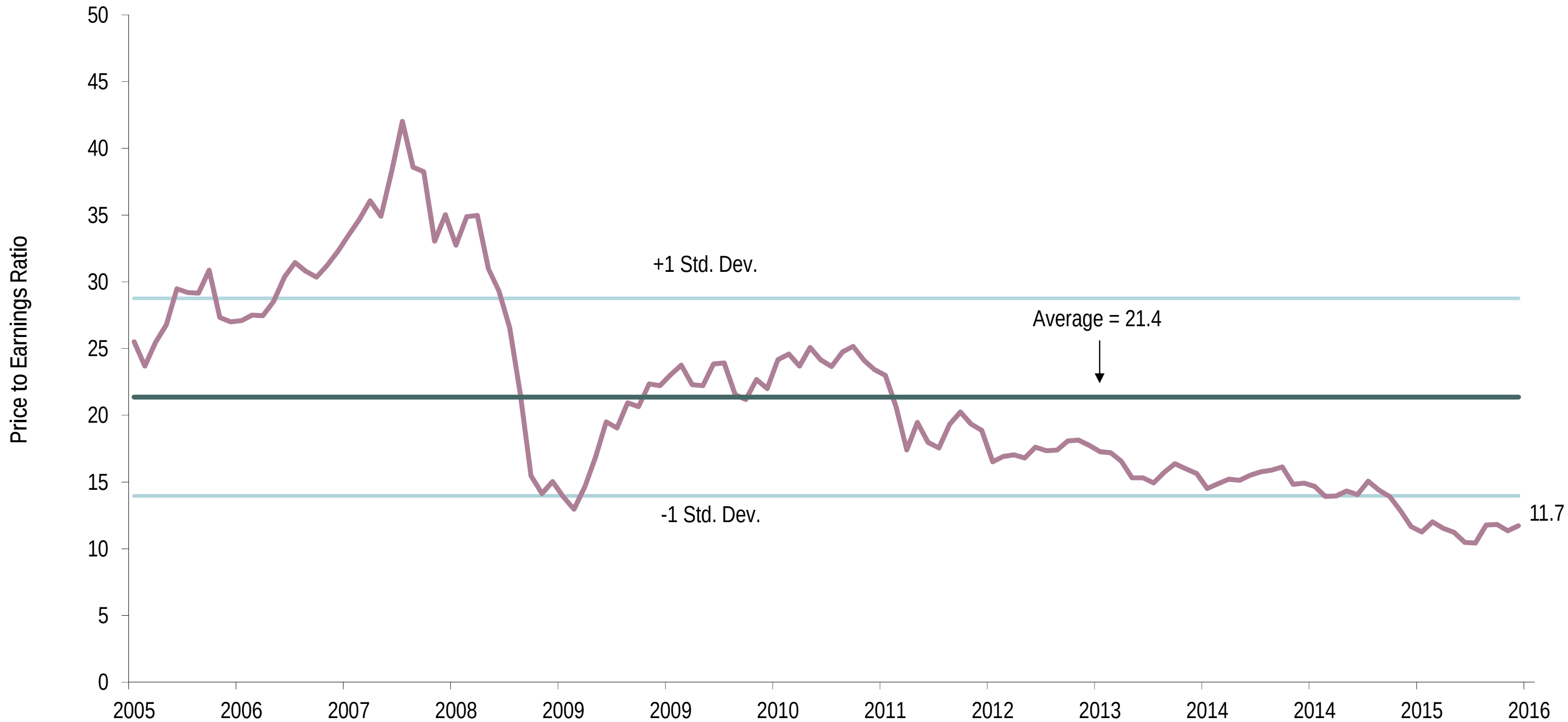
Developed International Equity Cyclically Adjusted P/E[1]



- Valuations for the MSCI EAFE (ex-Japan) remain more than one standard deviation cheaper than their historical average.
- Sovereign debt concerns and the slow pace of economic growth in Europe likely account for the low valuation levels.

[1] Source: MSCI and Thomson Reuters. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of June 30, 2016.

Emerging Market Equity Cyclically Adjusted P/E[1]



- Emerging market equities (MSCI Emerging Markets) are priced more than one standard deviation below their (brief) historical average.
- By this metric, emerging market equities are trading at a much lower valuation than U.S. equities, and at a slightly lower valuation than non-U.S. developed market equities.

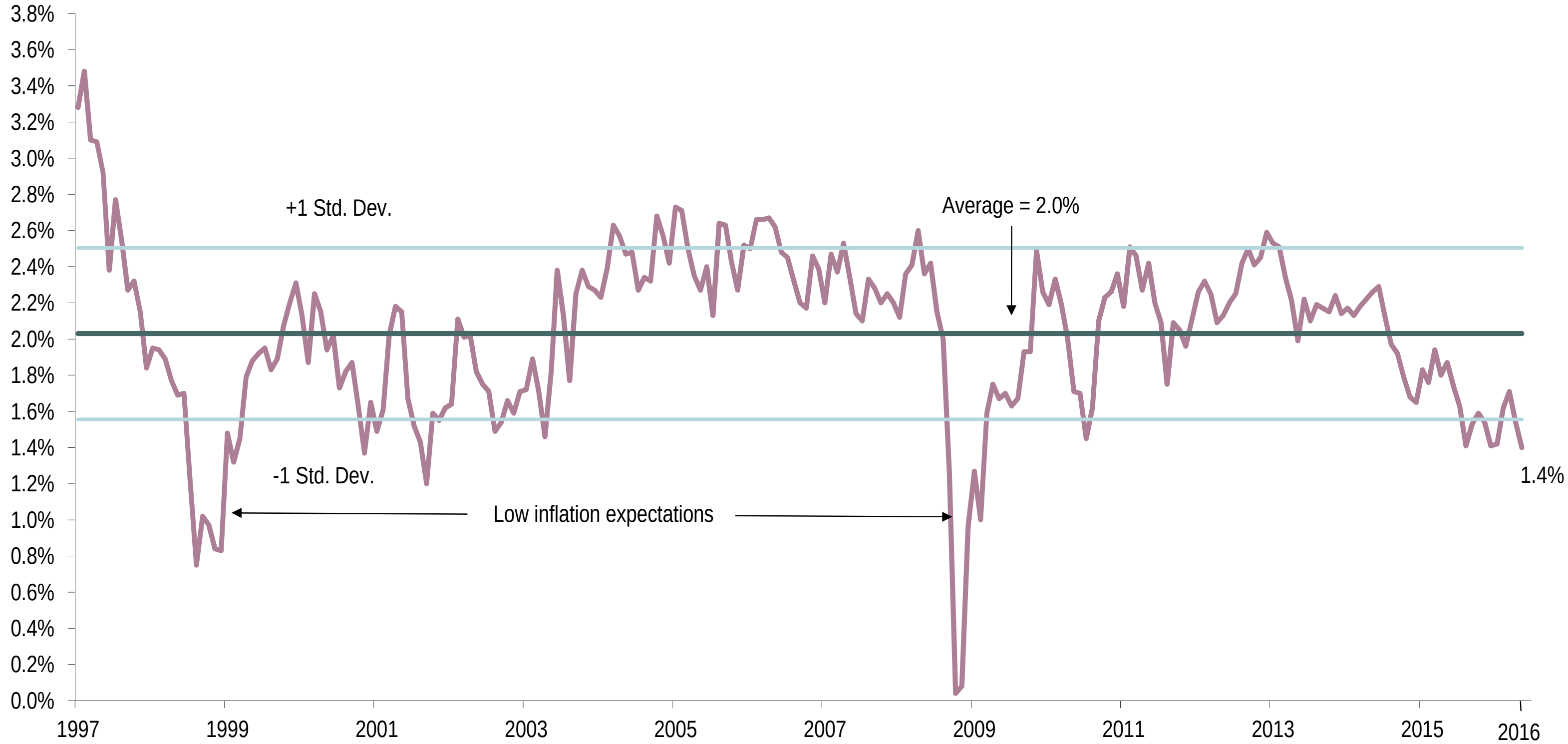
[1] Source: MSCI and Thomson Reuters. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of June 30, 2016.

Ten-Year Treasury Yields[1]

- Ten-year Treasury yields finished June at 1.5%, well below both their post-WWII average and the levels of one year ago.
- Markets have begun to focus on the path of central bank interest rates; at the beginning of the year, the FOMC began the first rising rate environment since 2006, but the guidance remains relatively dovish and long term market expectations remain subdued.

[1] Source: U.S. Treasury. Data is as of June 30, 2016.

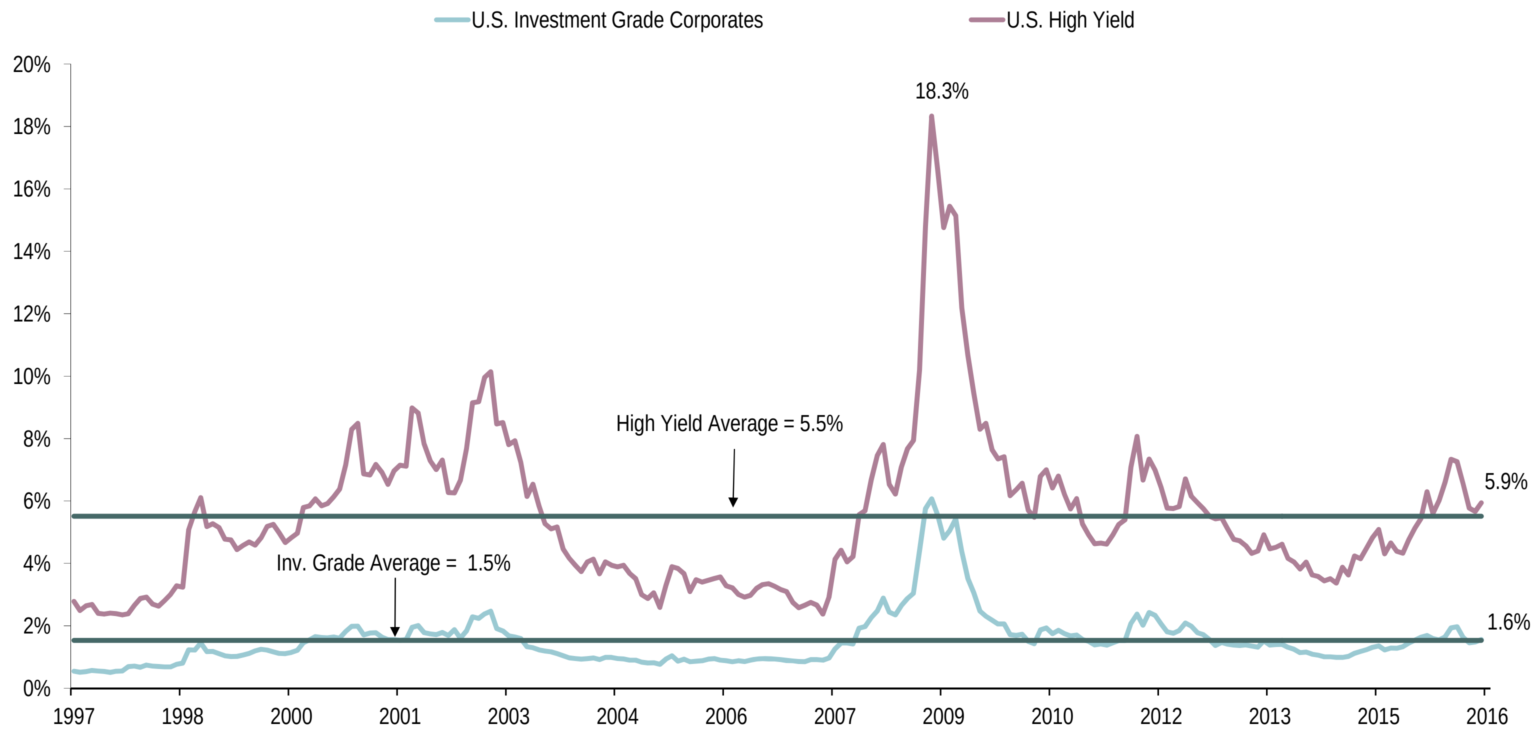
Ten-Year Breakeven Inflation[1]



- Breakeven (or expected) inflation, the difference between the nominal yield on a ten-year Treasury and the real yield on a ten-year TIPS, has fallen well below its long-term average.
- Sharp falls in commodity prices have put pressure on inflation. The most recent Year over Year (YoY) inflation rate was 1.0%, and deflation from commodities (especially energy) has been a major headwind.

[1] Source: U.S. Treasury and Federal Reserve. Data is as of June 30, 2016 for TIPS and Treasuries. Inflation is measured by the Consumer Price Index (CPI-U NSA) for which the most recent data point is from May 31, 2016.

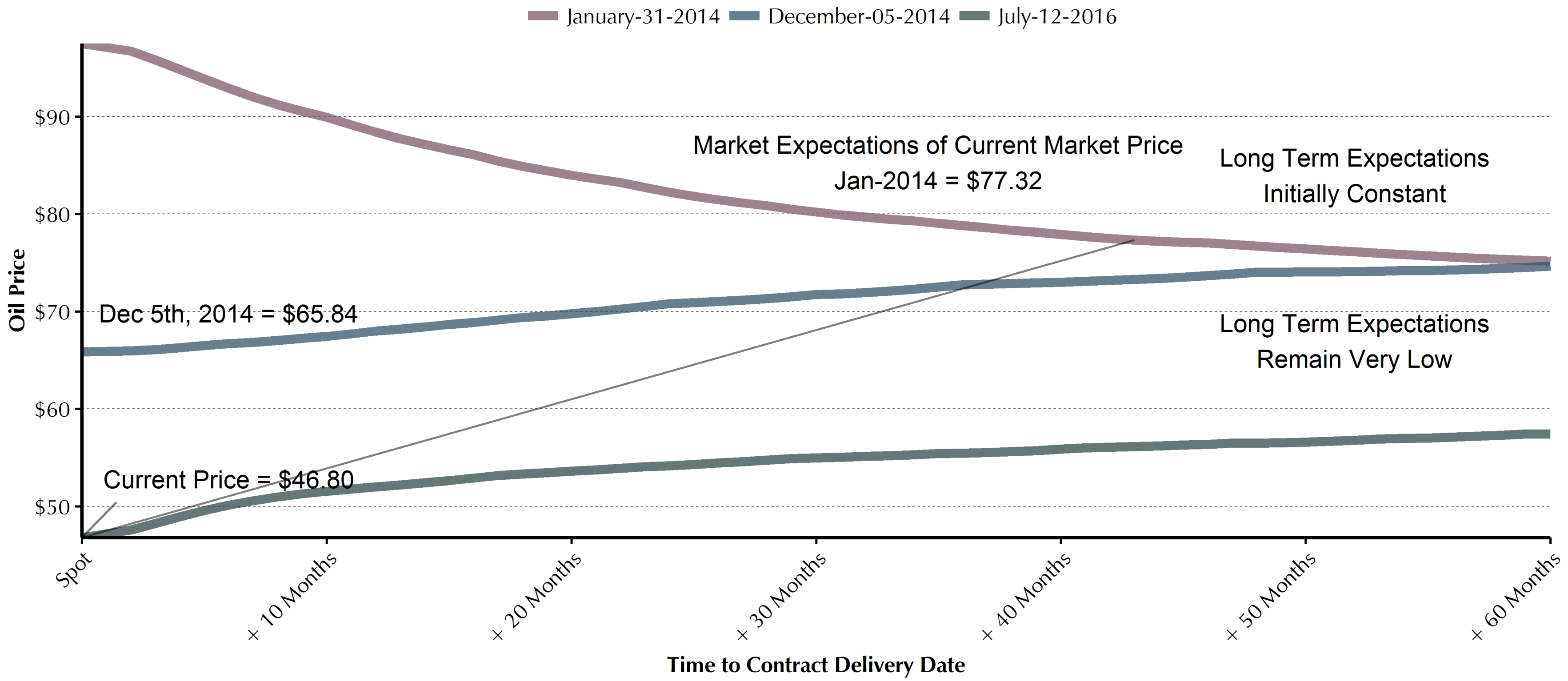
Credit Spreads[1]



- Credit spreads (versus U.S. Treasury bonds) for both high yield and investment grade corporate bonds finished June slightly above or at their respective historical averages.
- The recent jump in market risk caused a widening in spreads, especially within high yield— which was affected by market uncertainty driven largely by the energy sector and political uncertainties surrounding 'Brexit'.

[1] Source: Barclays Capital. High Yield is proxied by the Barclays High Yield index and Investment Grade Corporates are proxied by the Barclays U.S. Corporate Investment Grade index. Data is as of June 30, 2016.

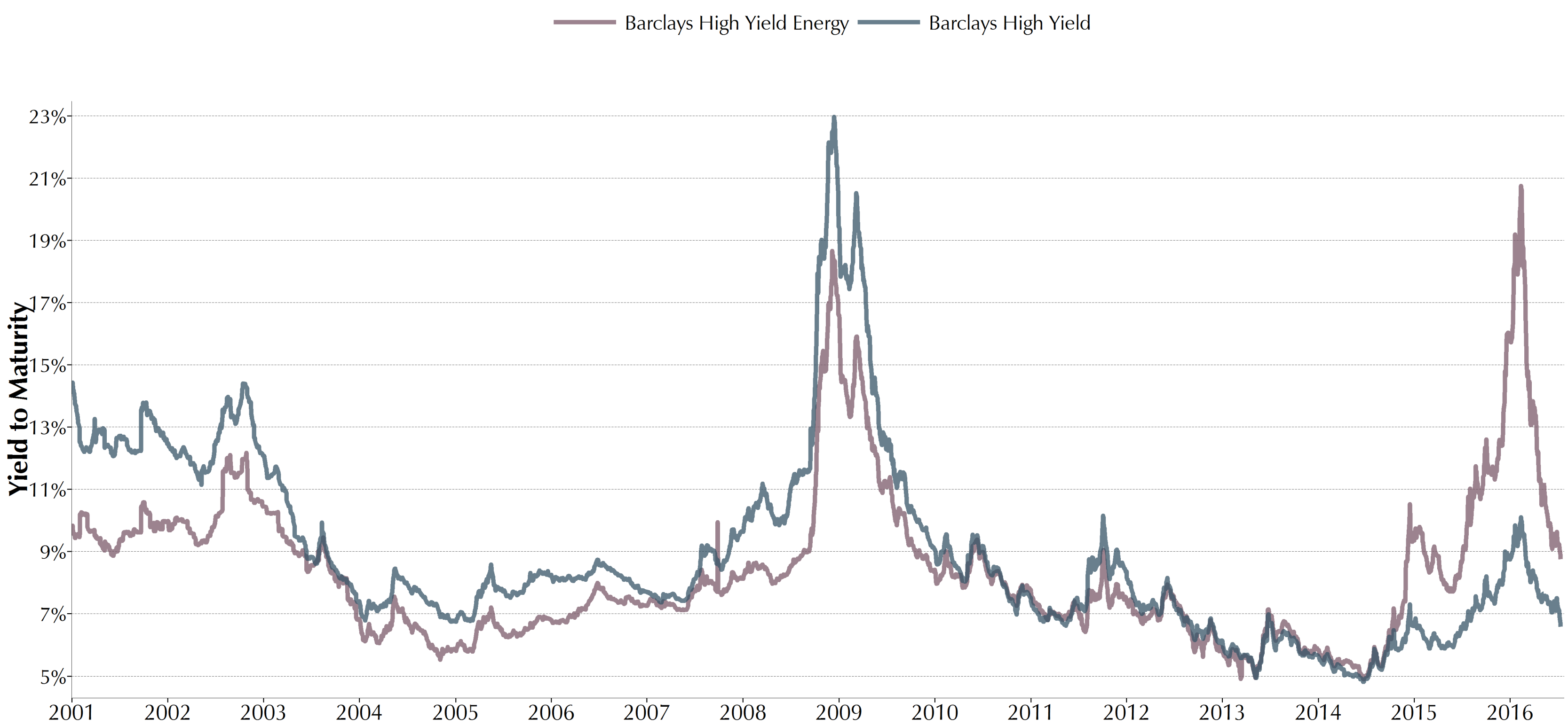
Oil Price Futures Curves[1]



- The chart above shows the WTI Crude Oil futures prices as of January and December of 2014 and July of this year. This highlights how large the price fall has been, especially relative to expectations and history.
- Looking further out on the curve we can see that initially, long-term price expectations remained the same. As the oil price has continued to fall, long-term expectations have settled at a lower price.

[1] Source: WTI Crude Oil Futures Price via Bloomberg. Data is as of July 12, 2016.

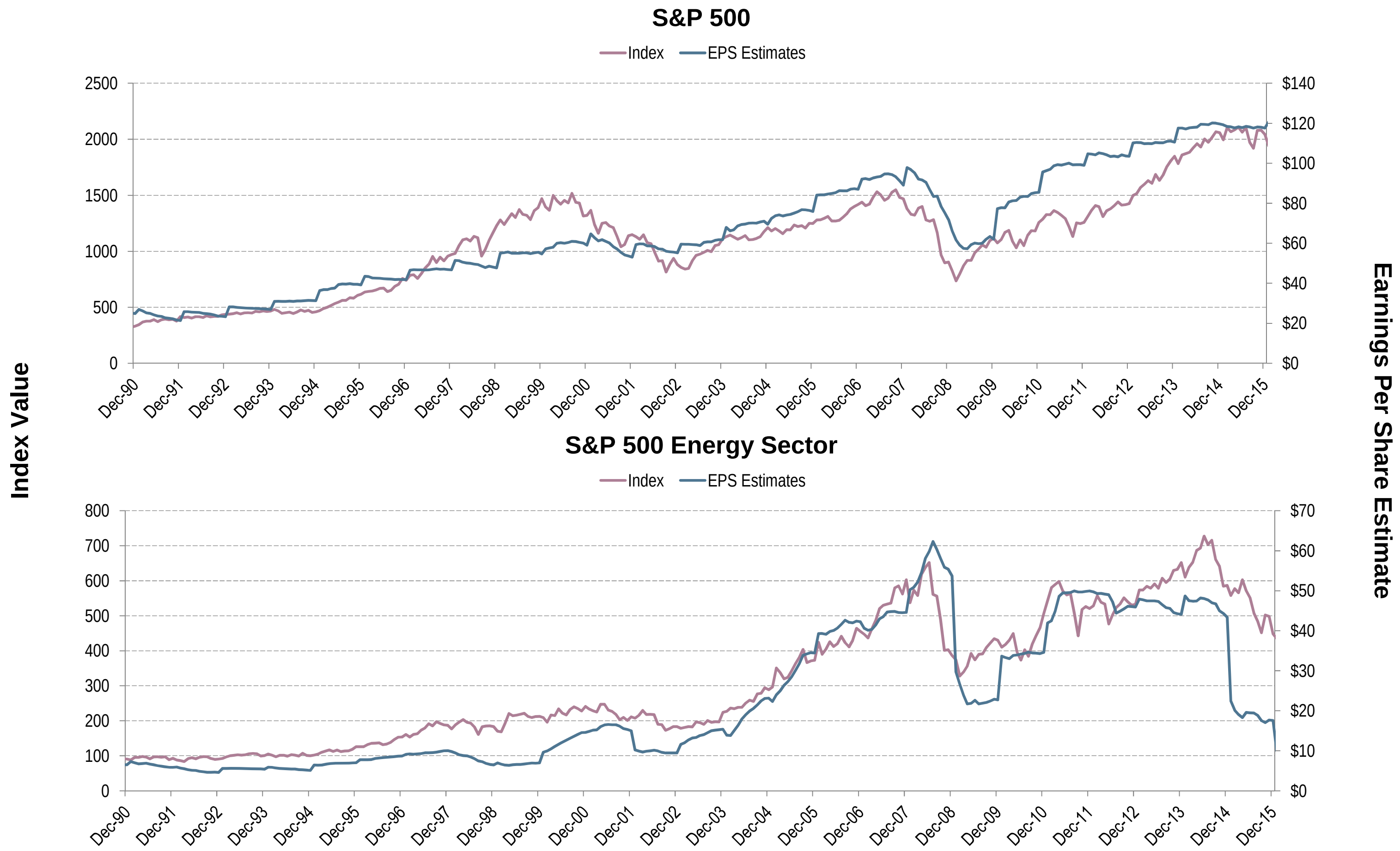
U.S. High Yield Sectors[1]



- The oil price decline has been a major contributing factor to the recent widening of spreads within U.S. High Yield. As the chart shows, spreads have come back in but the energy sector remains risky.
- The energy sector represents roughly 15% of the index, and as illustrated above, most widening of spreads has come from the energy sector which has now surpassed levels seen during the Financial Crisis of 2008.

[1] Source: Barclays and Thompson Reuters. Data is as of July 12, 2016.

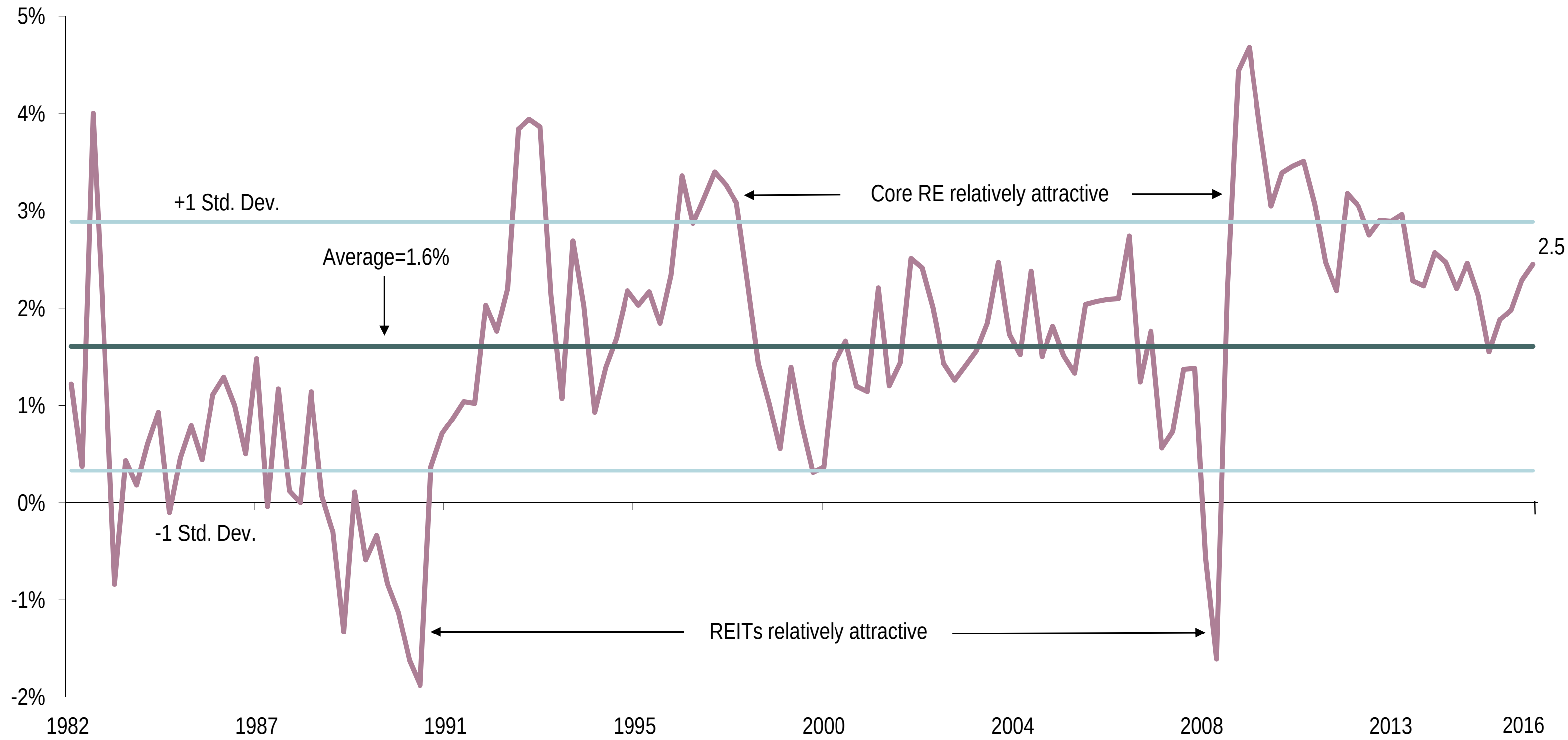
U.S. Corporate Earnings[1]



- The oil price decline has also had a major effect on U.S. earnings expectations. Although the rout in the energy sector continues to be severe, aggregating all sectors, estimates have recently fallen only slightly.

[1] Source: Bloomberg. Earnings Per Share Estimates are the average current quarter estimates of market analyst. Data is as of June 30, 2016.

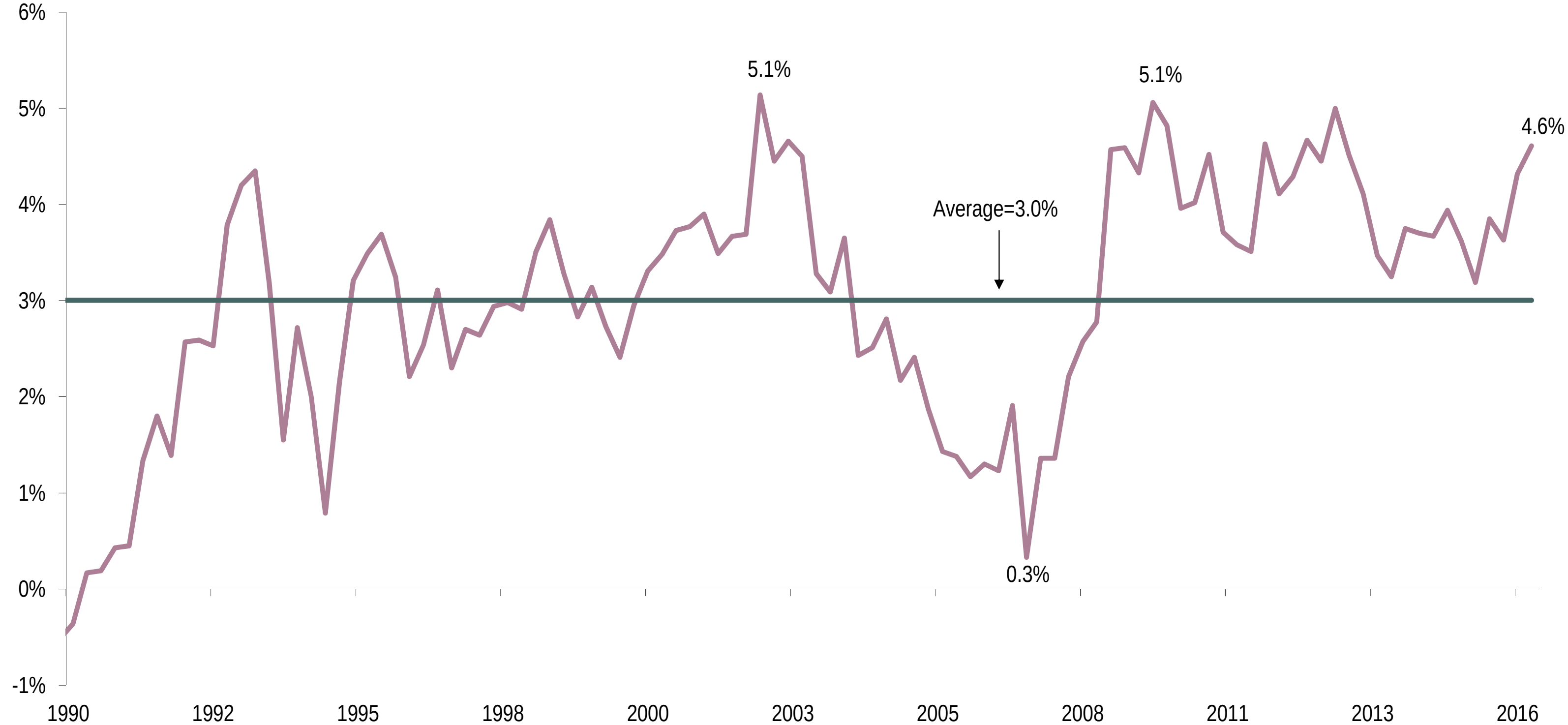
Core Real Estate vs. REITs[1]



- At the end of June, the spread between core real estate cap rates and REIT yields was 2.5%, reaching above the long term historical average level.
- REITs were yielding 3.7%, well below the 10.1% level of early 2009.

[1] Sources: Thomson Reuters and NCREIF. Core Real Estate is proxied by the transaction-based cap rate for the NCREIF NPI index and REITs are proxied by the yield for the NAREIT Equity index. NPI transactional capitalization rates are calculated on a quarterly basis and lagged in their release. Data is as of June 30, 2016 for the NCREIF NPI and June 30, 2016 for the NAREIT Equity index.

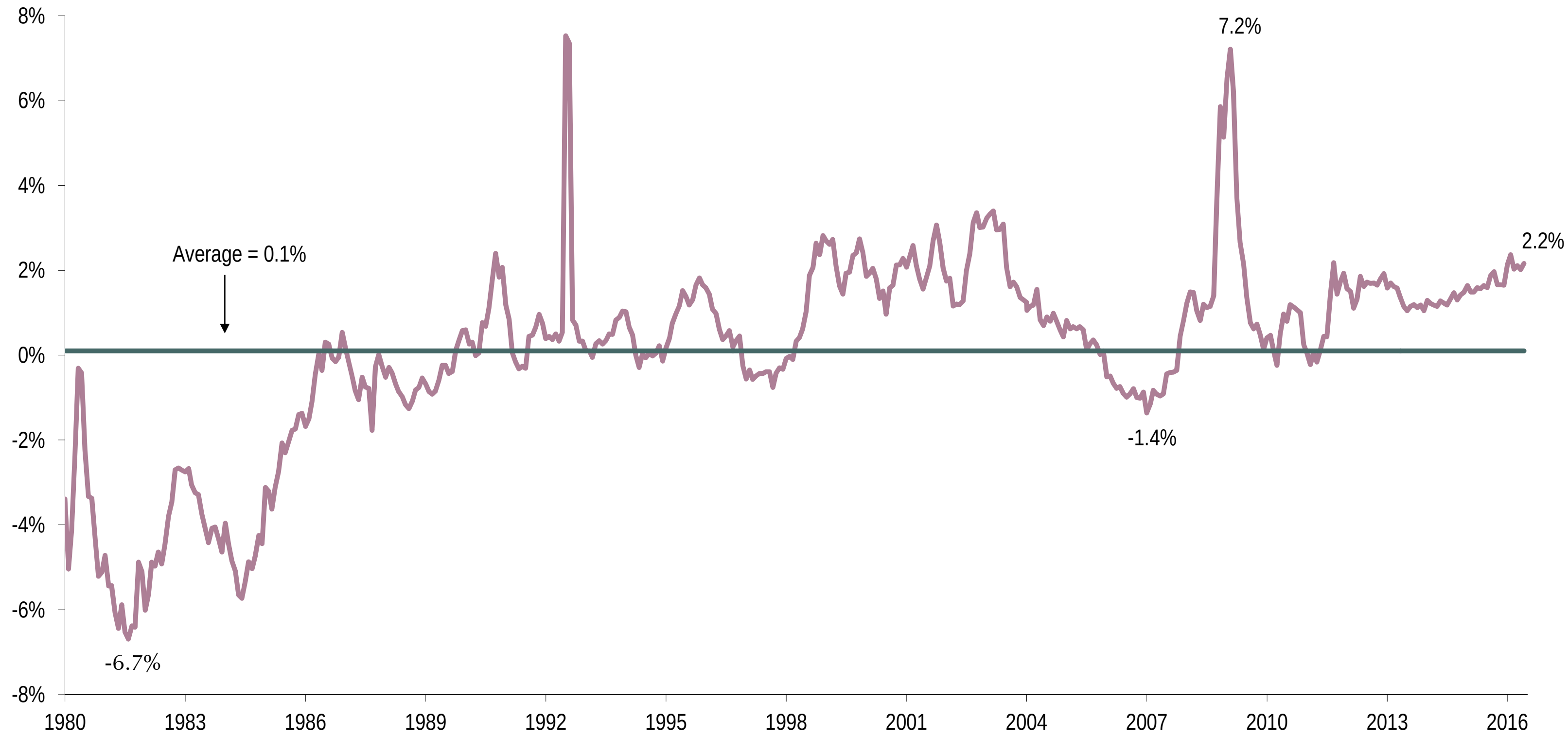
Core Real Estate Spread vs. Ten-Year Treasury[1]



- At 4.6%, the difference between the 6.1% cap rate for core real estate and the 1.5% yield for the ten-year Treasury has begun to widen after trending towards its historical average since 2012.
- Still, the absolute level of core real estate cap rates is near a historical low.

[1] Source: NCREIF, U.S. Treasury. NPI transactional capitalization rates are calculated on a quarterly basis. Data is as of June 30, 2016 for the NCREIF NPI and June 30, 2016 for the ten-year Treasury.

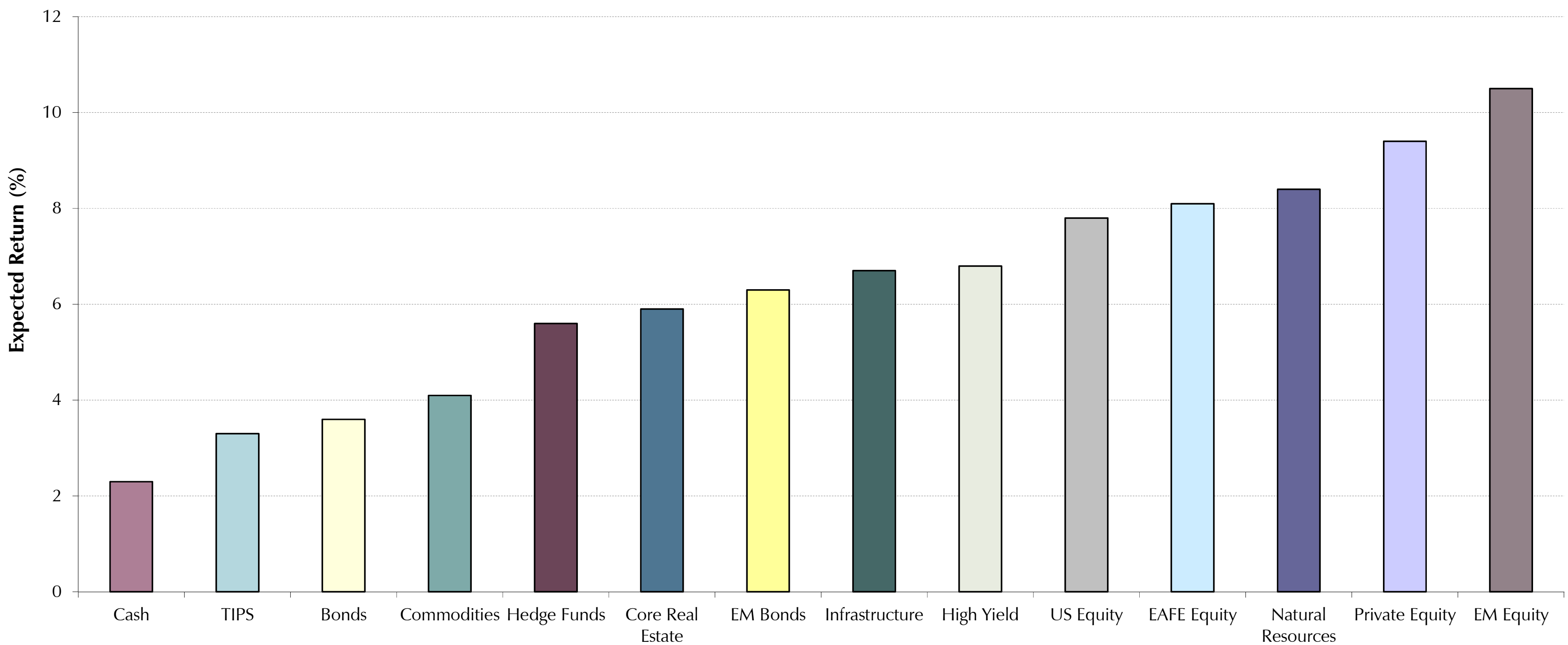
REITs Dividend Yield Spread vs. Ten-Year Treasury[1]



- REIT yield spreads were 2.2% at the end of June. This spread gradually increased last year despite strong REIT performance.
- As with core real estate, the absolute level of REIT dividend yields is near a historical low.

[1] Source: NAREIT, U.S. Treasury. REITs are proxied by the yield for the NAREIT Equity index. Data is as of June 30, 2016.

Long-Term Outlook[1]



- Based on Meketa Investment Group's long-term expectations, only a handful of asset classes are priced to produce returns above 8% per year. All of these asset classes incorporate a high degree of volatility.

[1] Twenty-year expected returns based upon Meketa Investment Group's 2016 Annual Asset Study.

Total Return Comparison of Barclays U.S. Aggregate Minus Barclays U.S. TIPS[1]

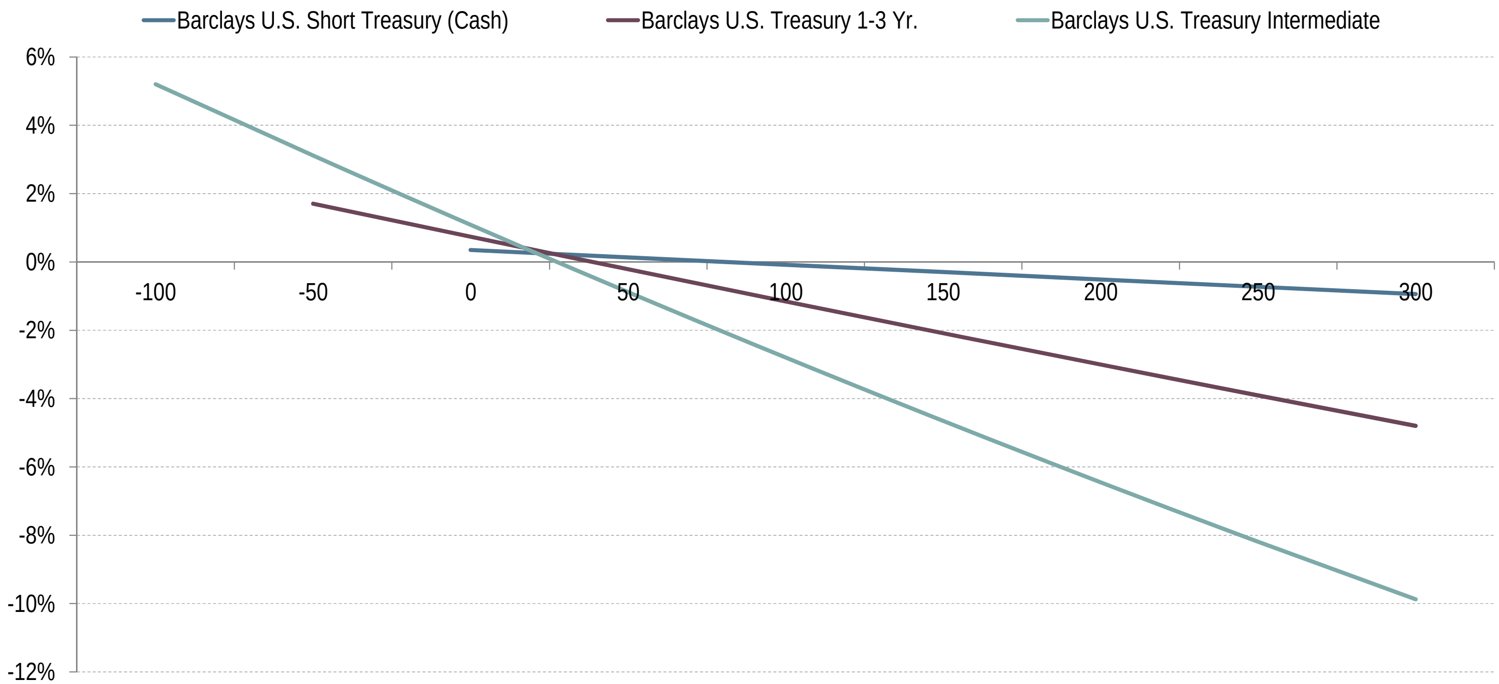
Inflation Rate Scenarios	Changes In Rates (bps)				
	-100	-50	0	50	100
4.0%	-5.74%	-3.96%	-2.33%	-0.85%	0.48%
3.0%	-4.74%	-2.96%	-1.33%	0.15%	1.48%
2.0%	-3.74%	-1.96%	-0.33%	1.15%	2.48%
1.0%	-2.74%	-0.96%	0.68%	2.15%	3.48%
0.0%	-1.74%	0.04%	1.68%	3.15%	4.48%

Total Return Scenario: 100 bps Rate Increase and 2% Inflation

Total Return Over Longer Holding Periods	1 Year	3 Year	5 Year	7 Year	10 Year
Barclays U.S. Aggregate	-3.56%	0.59%	1.44%	1.81%	2.08%
Barclays U.S. Treasury U.S. TIPS	-6.04%	0.06%	1.33%	1.88%	2.29%

[1] Data is as of June 30, 2016 via Barclays, Bloomberg, and Thomson Reuters. Scenario assumes that the rate increase happens over one year.

Total Return Given Changes in Interest Rates (bps)[1]



	Total Return for Given Changes in Interest Rates (bps)									Statistics	
	-100	-50	0	50	100	150	200	250	300	Duration	YTW
Barclays U.S. Short Treasury (Cash)			0.4%	0.2%	0.0%	-0.3%	-0.5%	-0.7%	-0.9%	0.43	0.39%
Barclays U.S. Treasury 1-3 Yr.		1.7%	0.7%	-0.3%	-1.2%	-2.1%	-3.1%	-4.0%	-4.9%	1.93	0.70%
Barclays U.S. Treasury Intermediate	5.1%	3.0%	1.0%	-1.0%	-2.9%	-4.8%	-6.6%	-8.3%	-10.0%	4.03	0.99%
Barclays U.S. Treasury Long	22.5%	11.8%	2.1%	-6.5%	-14.0%	-20.5%	-25.8%	-30.1%	-33.3%	18.29	2.09%

[1] Data represents the expected total return from a given change in interest rates (shown in basis points) over a 12-month period assuming a parallel shift in rates. Data is as of June 30, 2016 via Barclays and Thomson Reuters.

Global Macroeconomic Outlook
June 2016

Global Economic Outlook[1]

Increased uncertainty related to the recent "Brexit" vote led to yet another reduction in projections for global growth.

- The IMF reduced their 2016 global growth forecast by 0.1%, to 3.1%, and lowered its 2017 forecast by the same amount, to 3.4%.
- In advanced economies, the IMF outlook fell from 1.9% to 1.8% for 2016, and from 2.0% to 1.8% for 2017. Downward revisions related to Brexit were concentrated in European countries, with U.K. growth projections lowered 0.9% in 2017 to 1.3% and German's growth projections lowered 0.4% to 1.2%. Growth forecasts for the U.S. and Japan both declined 0.2% for 2016, remained unchanged for the U.S. in 2017, and increased by 0.2% for Japan in 2017.
- Emerging economy growth projections stayed the same for the next two years and remain higher than those for developed economies. Economic environments within emerging market countries remain uneven. Improvements are projected in Russia due to higher oil prices, and in Brazil due to a smaller-than-projected GDP contraction in the first quarter. The forecast for China did not change.

	Real GDP (%)			Inflation (%)		
	IMF 2016 Forecast	IMF 2017 Forecast	Actual 10 Year Average	IMF 2016 Forecast	IMF 2017 Forecast	Actual 10 Year Average
World	3.1	3.4	3.7	2.8	3.0	4.0
U.S.	2.2	2.5	1.4	0.8	1.5	2.0
European Union	1.8	1.9	1.1	0.4	1.3	1.9
Japan	0.3	0.1	0.5	-0.2	1.2	0.2
China	6.6	6.2	9.5	1.8	2.0	2.9
Emerging Markets (ex. China)	2.7	3.5	4.5	6.1	5.6	7.4

1 Source: IMF. World Economic Outlook. April 2016 edition with available updates from July 2016. "Actual 10 Year Average" represents data from 2006 to 2015. Data after 2015 is an estimate.

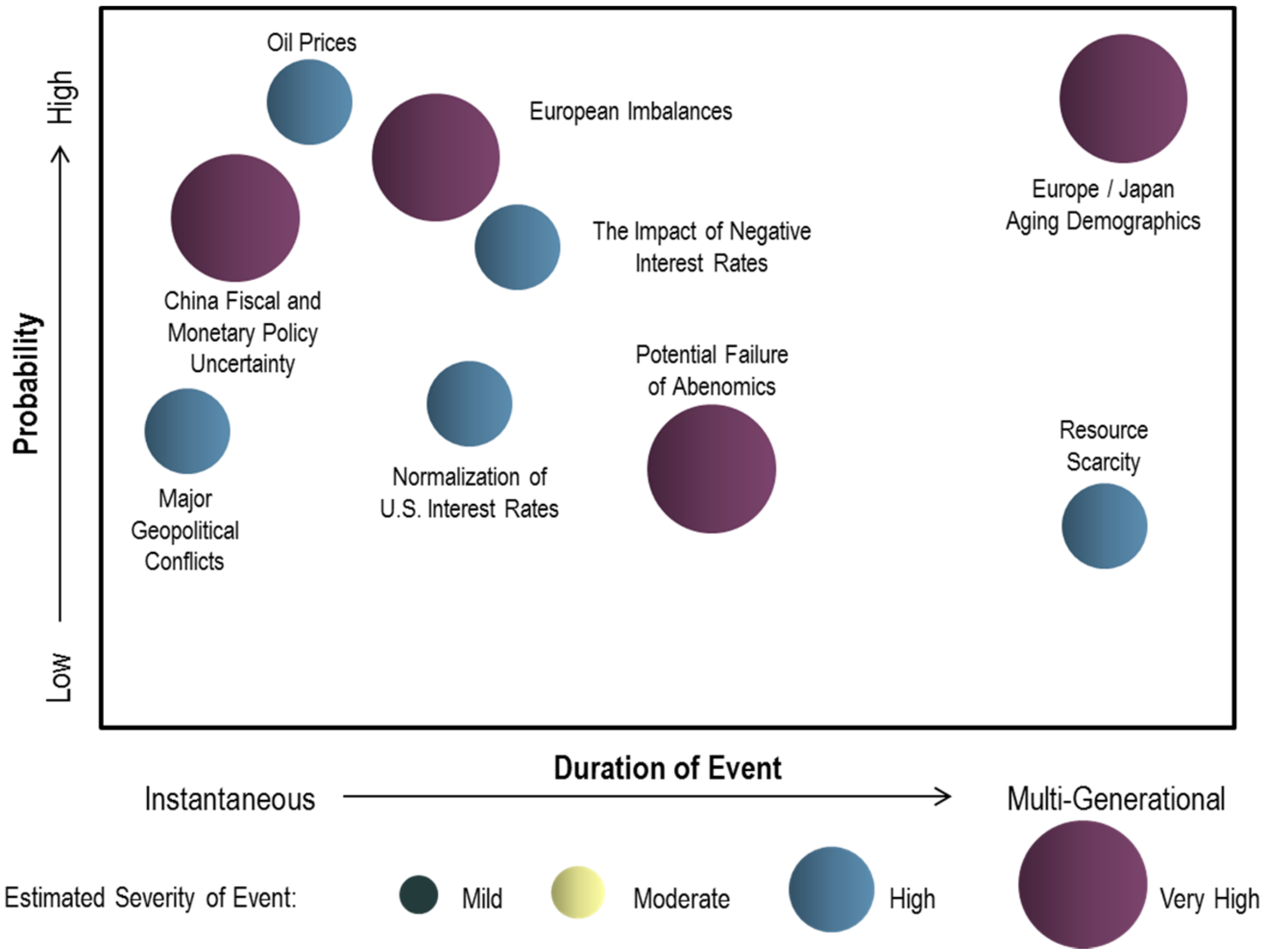
Global Economic Outlook, Continued

Given the recent vote for the U.K. to leave the European Union (EU), the pace of U.S. monetary tightening will probably be further delayed, with additional stimulus in Europe, Japan, and China likely.

- After their initial 0.25% rate increase to 0.5% in December of last year, the U.S. Federal Reserve has made no additional rate increases. The recent “Brexit” vote pushed market expectations for the next rate increase out to 2017.
- The Bank of England (BOE) recently decided to keep interest rates unchanged until more economic data related to the impact of the referendum vote comes in. It is expected that the BOE will cut interest rates at their next meeting this summer. The European Central Bank (ECB) did not make any policy changes at their June meeting, keeping bank deposit rates at -0.4% and its key interest rate at close to 0%. In further efforts to stimulate growth and prices, the ECB continues to offer very cheap loans to banks and to buy government and corporate bonds.
- The Bank of Japan (BOJ) has made no significant recent changes to its very aggressive monetary policy. The yen’s continued strength in light of global uncertainties has weighed on the BOJ’s efforts to fan inflation. It is likely, given continued low inflation and weak growth, that the BOJ will continue to expand its stimulative efforts.
- To fight slowing growth, the People’s Bank of China (PBOC) has cut interest rates six times since the end of 2014 and reduced bank reserve requirements. The PBOC has more room than other major central banks to make further cuts if needed.

Several issues are of primary concern: 1) declining growth in China, along with uncertain fiscal and monetary policies; 2) continued economic sluggishness in Europe, and risks related to the U.K.’s exit from the European Union; 3) weakening economic activity in the U.S.; 4) divergent growth in emerging economies.

Macroeconomic Risk Matrix



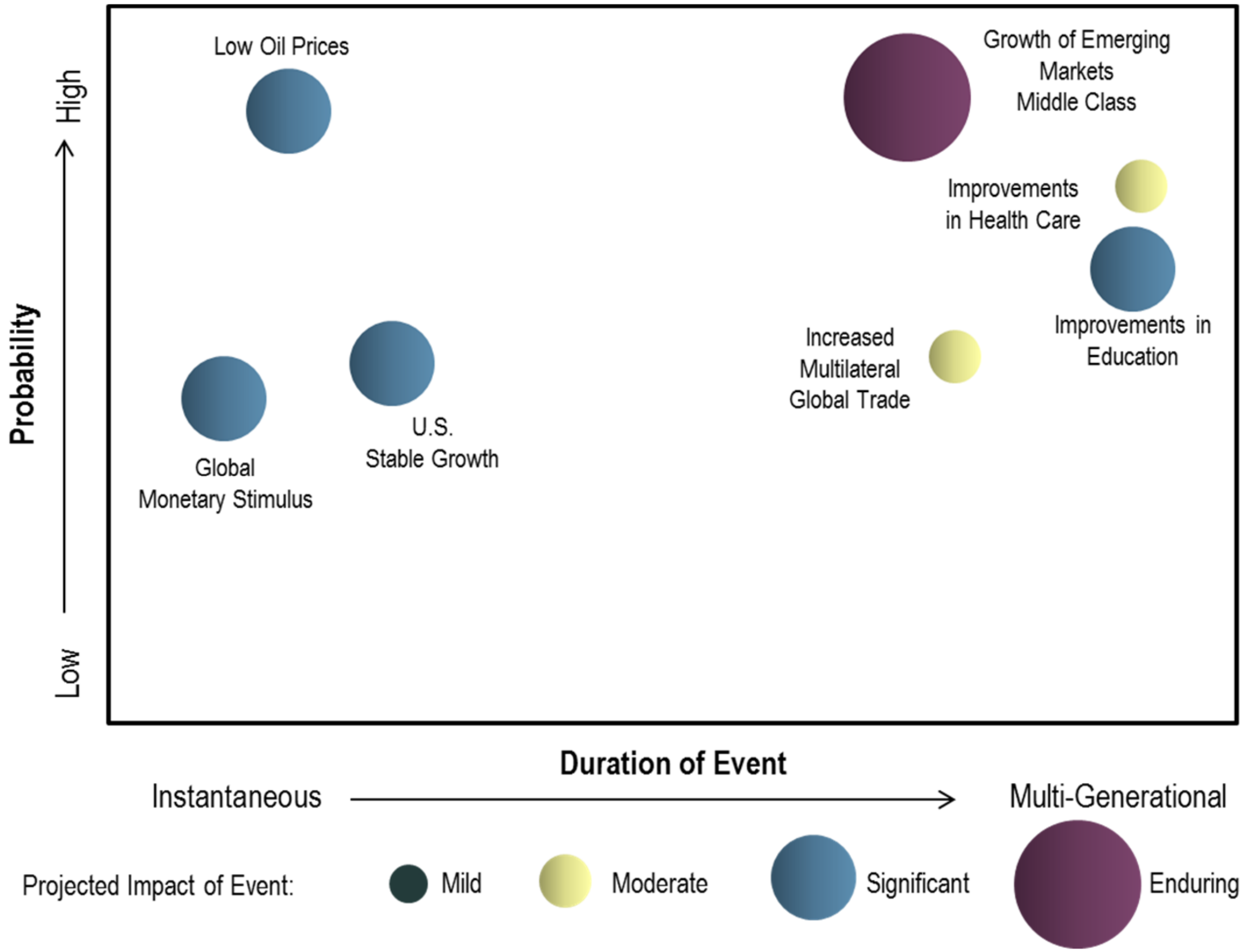
Macroeconomic Risk Overviews

Low Oil Prices	Although oil prices recently increased, they remain historically low. An extended period of low oil prices will hurt countries such as Iran, Russia, and Venezuela that depend heavily on oil export revenues. Low prices will continue to hurt oil exploration and production (E&P) companies, and companies that support the oil industry. Recently, the stress of low oil prices has particularly affected E&P companies, with bond defaults ticking up. The risk of increased geopolitical tensions also exists with depressed oil prices.
European Imbalances	The crisis is rooted in structural issues in the Eurozone related to the combination of a single currency combined with 17 fiscal authorities. In the broader European Union, tensions exist, as highlighted in the recent U.K. referendum, related to policies on immigration, laws, and budgetary contributions. Additional countries leaving either group, particularly the Eurozone, could set a dangerous precedent, especially if they ultimately experience growth. The massive influx of refugees into Europe from the Middle East and North Africa exacerbates economic stress.
Potential Failure of Abenomics	Japan is engaged in a historic stimulus program, referred to as "Abenomics" to fight its decades of deflation. The plan includes monetary, fiscal, and structural components. If Japan overshoots with its policies, or dramatically changes them unexpectedly, it could prove disruptive to markets and growth.
Europe/Japan Aging Demographics	In Japan and Europe, birth rates have declined for decades, resulting in populations becoming older and smaller relative to the rest of the world. These demographic trends will have a negative long-term impact on GDP growth and fiscal budgets, amplifying debt problems.
Major Geopolitical Conflicts	Recently, a military coup was attempted in Turkey that was ultimately thwarted. Since, thousands were detained or fired and a state of emergency was declared. The recent attacks in the U.S., Europe, and Turkey further highlight the continued threat of terrorism. Within Europe, this complicates the refugee crisis, as countries try to balance maintaining open borders with preventing terrorists from entering their countries. Other unresolved geopolitical issues remain, including the civil war in Syria and North Korea's nuclear aspirations.

Macroeconomic Risk Overviews, Continued

China Fiscal and Monetary Policy Uncertainty	China's recent policies, first to support its equity markets and then to devalue its currency, created heightened volatility in global markets. The process of transitioning from a growth model based on fixed asset investment by the government, to a model of consumption-based growth will be difficult. Similar measures responding to slowing growth or to support stock prices could prove disruptive and decrease confidence in China's government. China's abandonment of its support of the yuan, and a resulting major devaluation of the currency, could prove particularly disruptive to global markets and trade.
Normalization of U.S. Interest Rates	After the Global Financial Crisis, the U.S., injected massive amounts of liquidity into the financial system in an effort to prevent depression-like declines in economic activity. Additionally, the central bank reduced short-term interest rates to record lows. Although it appears that the Federal Reserve will pause its interest rate increases, once they resume tightening this could weigh on growth globally, particularly in emerging economies.
Resource Scarcity	The increasing world population, urbanization, and a growing middle class, particularly in emerging economies, could all lead to a scarcity of resources, including food, water, land, energy, and minerals. As demand continues to grow and supply declines, certain commodity prices may skyrocket, hurting the living standards of many and increasing the risk of geopolitical conflicts.
The Impact of Negative Interest Rates	Recently monetary policy amongst major central banks has diverged. The U.S. stopped its bond-buying program and increased interest rates last year, while in Europe and Japan, rates are expected to remain low with deposit rates in negative territory. The hope of negative interest rates is to stimulate economic activity, but it is possible that they could have unintended consequences. If banks absorb the impact of negative interest rates, that could weigh on profit margins and lending, while charging customers to hold their cash may lead to funds being withdrawn from banks. Both results could lead to less lending, not more, and ultimately a decline in economic activity.

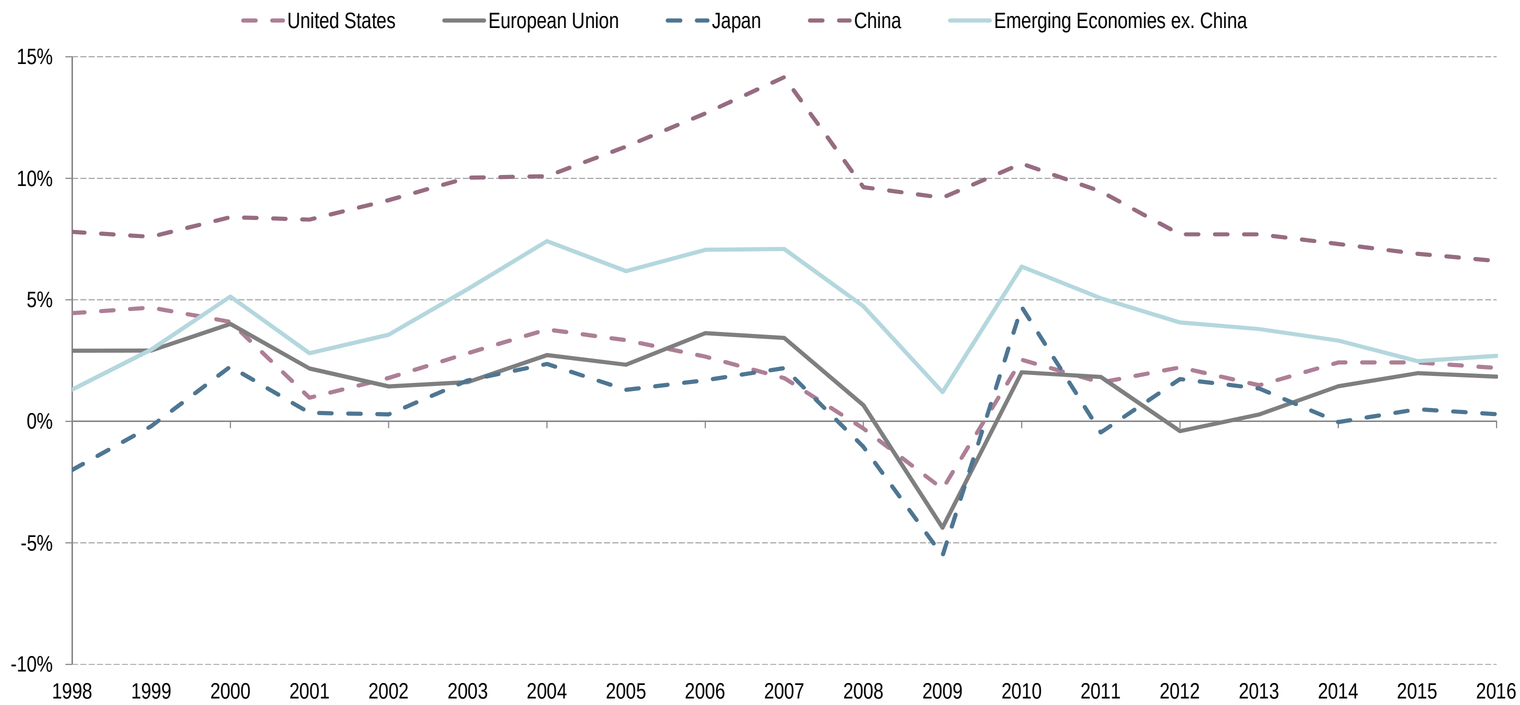
Positive Macroeconomic Trends Matrix



Positive Macroeconomic Trends Overviews

Low Oil Prices	Although oil prices have recently increased, they remain low from a historical perspective. Low oil prices will likely have a positive impact on global growth, particularly for energy importers like China, Japan, and India. Consumers should benefit from falling oil prices, in the form of lower prices for gasoline and heating oil.
U.S. Stable Growth	The U.S. economy has stabilized since the Global Financial Crisis, with GDP growth improving and unemployment declining. Continued stabilization in the world's largest economy should improve employment and growth domestically, and increase demand for goods and services from abroad.
Growth of Emerging Markets Middle Class	In emerging economies, the size of the middle class is projected to grow significantly over the next twenty years. This growing middle class should increase consumption globally, which in turn will drive GDP growth and create jobs.
Increased Multilateral Global Trade	The pace of globalization has accelerated, particularly in emerging economies. Increased trade and investment, and access to foreign capital and export markets for corporations, should lead to greater global growth. The recent U.K. vote to leave the European Union, along with anti-trade sentiment in the U.S., could weigh on trade going forward.
Improvements in Education/Healthcare	Literacy rates and average life spans have increased globally, particularly in the emerging economies. Higher literacy rates will drive future growth, helping people learn new skills and improve existing skills. When people live longer, it increases incentives to make long-term investments in education and training, resulting in a more productive work force and ultimately more growth.
Global Monetary Stimulus	Developed market central banks embarked on a massive monetary stimulus campaign in the aftermath of the Global Financial Crisis. The U.S., European, and Japanese central banks continue to maintain interest rates at record lows. Japan has embarked on an unprecedented asset purchase program, while the European Central Bank began its own program. In contrast, the U.S. ended its bond-buying program and increased interest rates once in December of 2015. Given the recent events in the European Union, it is unlikely that the Fed will raise interest rates further in the short-term. Additionally, many emerging market central banks have reduced interest rates to stimulate growth. If central banks continue to provide liquidity and keep interest rates low, this should stimulate growth.

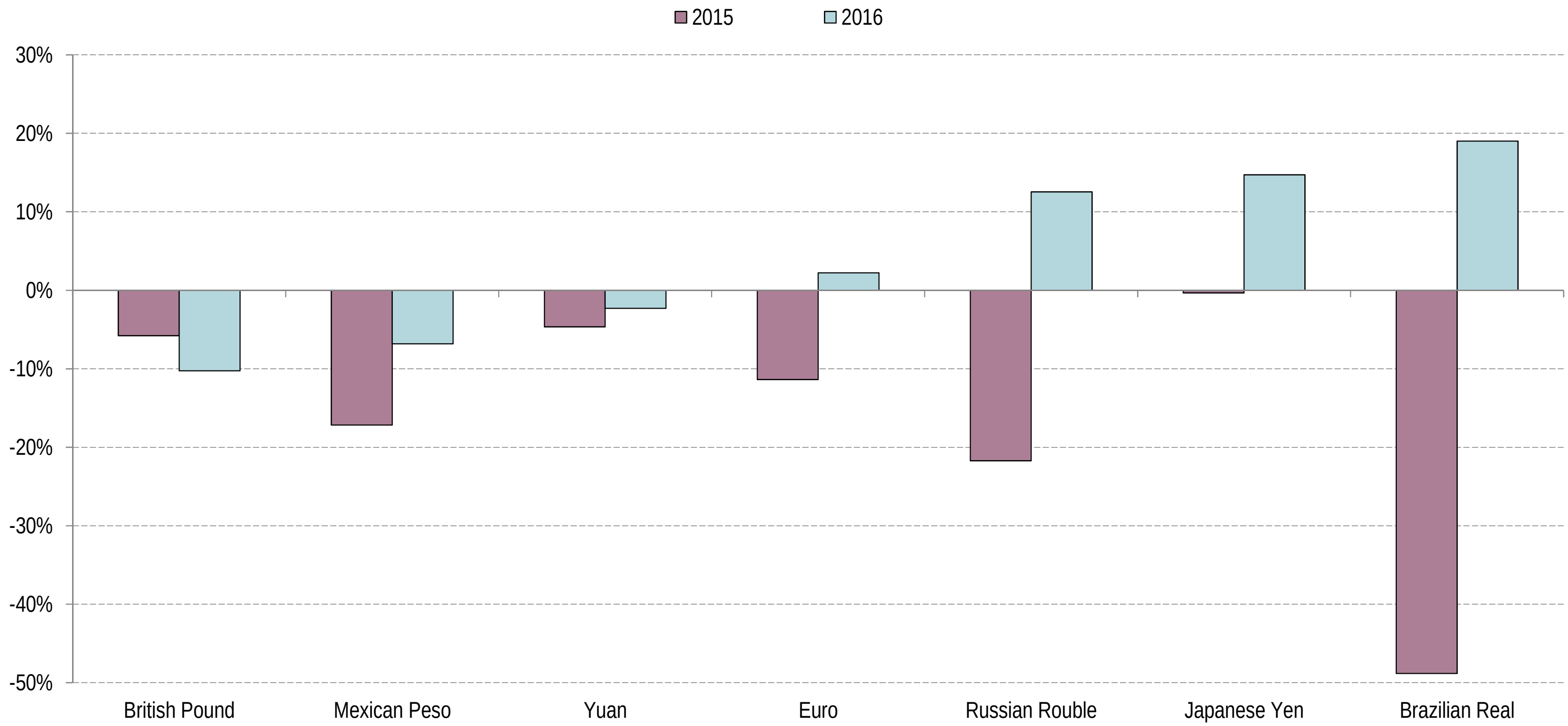
Global Real Gross Domestic Product (GDP) Growth[1]



- Global growth remains weak, with the dynamic of emerging economies growing faster than developed economies remaining intact.
- The recent decision of the United Kingdom to leave the European Union could weigh on growth in Europe and elsewhere. The slowing of China's economy remains another key concern, with a particular impact on commodity exporting countries.

[1] Source: IMF. World Economic Outlook. April 2016 edition with available updates from July 2016. GDP data after 2015 are IMF estimates.

Major Currency Values versus the U.S. Dollar[1]



- After strengthening in 2015 against most major currencies, the U.S. dollar has posted mixed results in 2016, but is overall weaker.
- After the "Brexit" vote, the British pound declined significantly in value, while safe haven currencies like the Japanese yen increased. The recent strengthening of the yen hurt their central bank's efforts to stimulate inflation.

[1] Source: Thomson Reuters. Data is as of June 30, 2016.

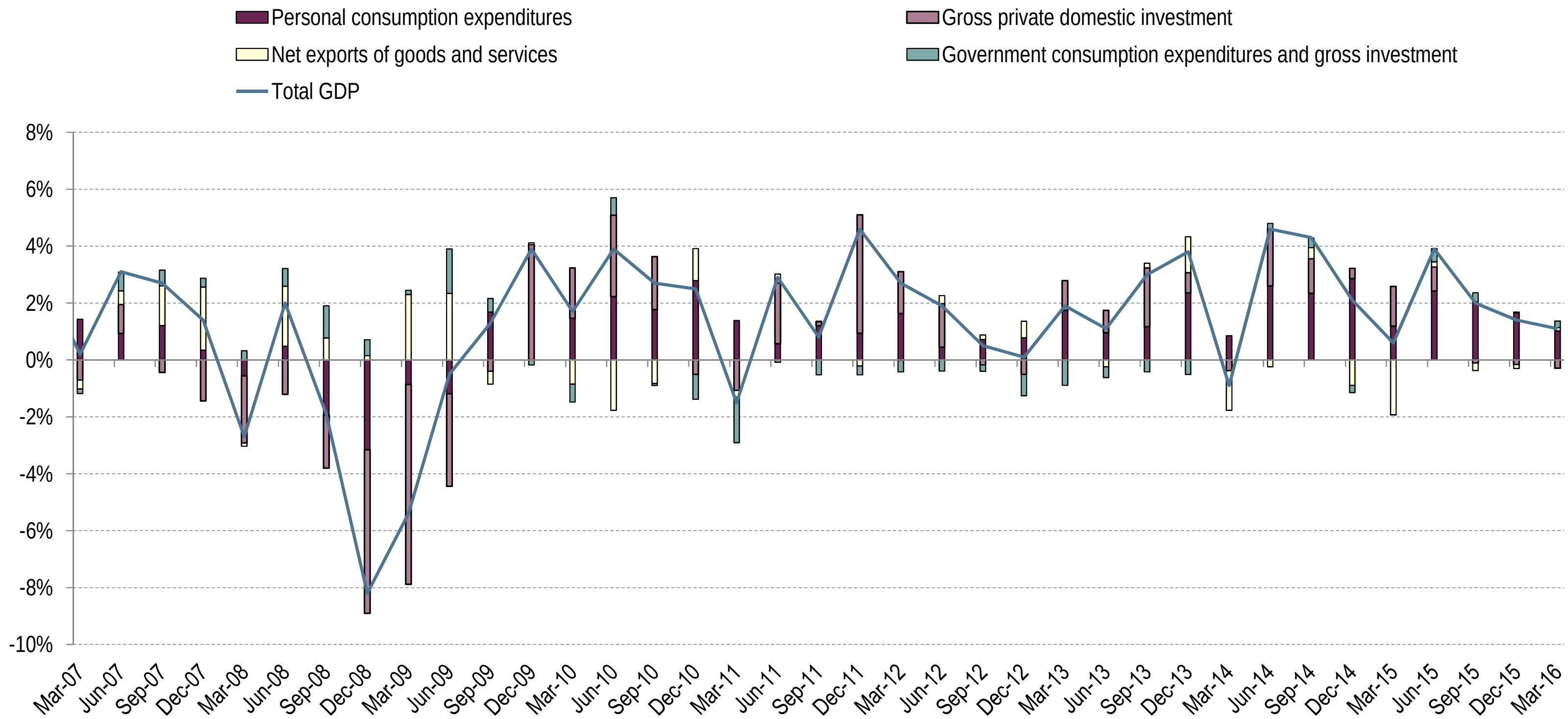
Probability of Federal Funds Rate Increase[1]

Federal Reserve Meeting Date	Probability of Rate Increase As of 12/31/2015	Federal Reserve Meeting Date	Probability of Rate Increase As of 6/30/2016
1/27/2016	0%	7/29/2016	0%
3/16/2016	51%	9/21/2016	0%
4/27/2016	56%	11/2/2016	0%
6/15/2016	75%	12/14/2016	9%
7/29/2016	79%	2/1/2017	9%
9/21/2016	87%	5/3/2017	13%
11/2/2016	90%	3/15/2017	14%
12/14/2016	93%	6/14/2017	23%
2/1/2017	95%	7/26/2017	22%
		9/20/2017	31%
		11/1/2017	32%
		12/13/2017	40%

- Going into 2016, market expectations were for up to four rate increases by the Federal Reserve. To date, there has not been a rate increase since the initial increase in December of last year.
- Post "Brexit," the probability of a rate increase fell to below 50% all the way through the end of 2017.
- If the Fed continues to delay further increasing rates this could continue to benefit U.S. stocks and bonds.

[1] Source: Bloomberg.

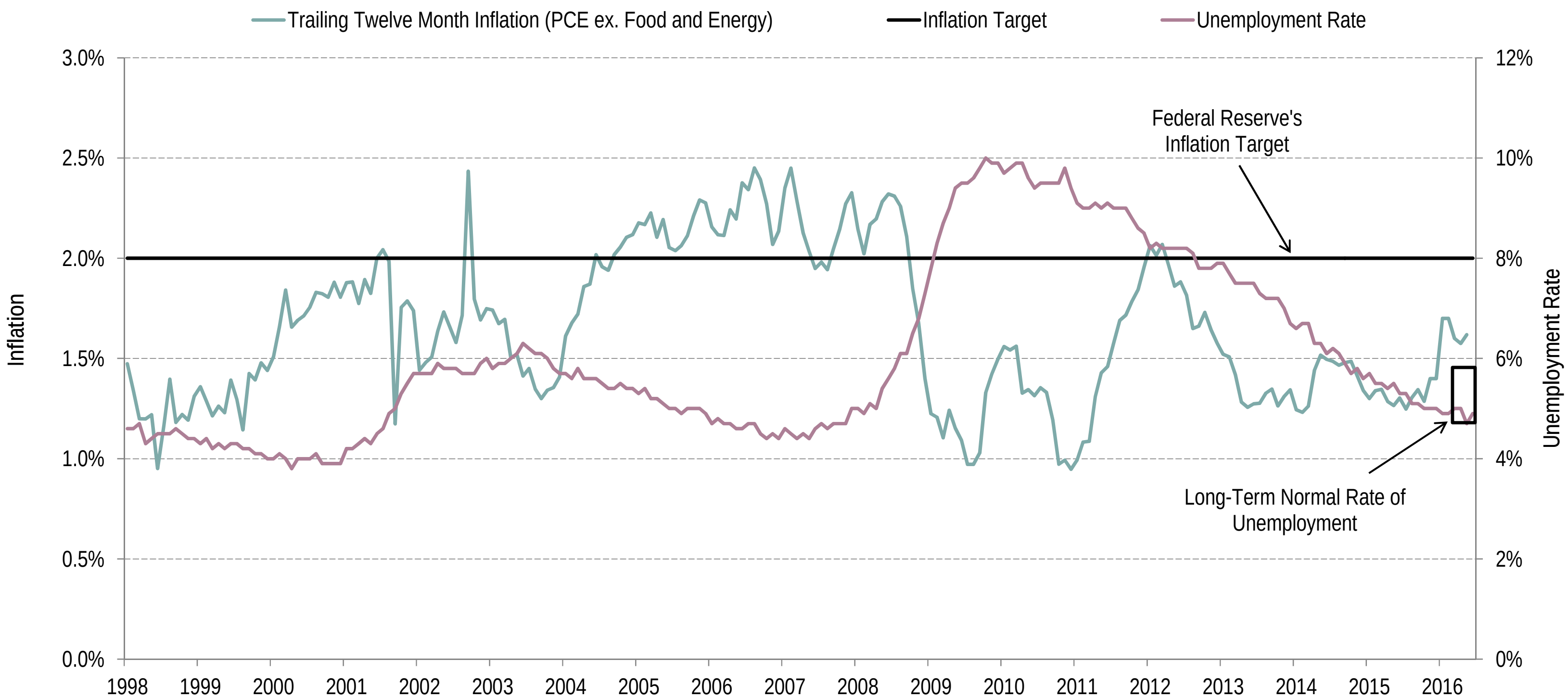
U.S. Real Gross Domestic Product (GDP) Growth[1]



- In the first quarter, U.S. GDP grew at an annual 1.1% rate, representing a third consecutive quarterly decline.
- Reductions in consumer spending and business investment, particularly in energy, contributed to the weakness.

[1] Source: U.S. Bureau of Economic Analysis. Data is as of the first quarter of 2016 and represents the third estimate.

U.S. Inflation & Employment[1]

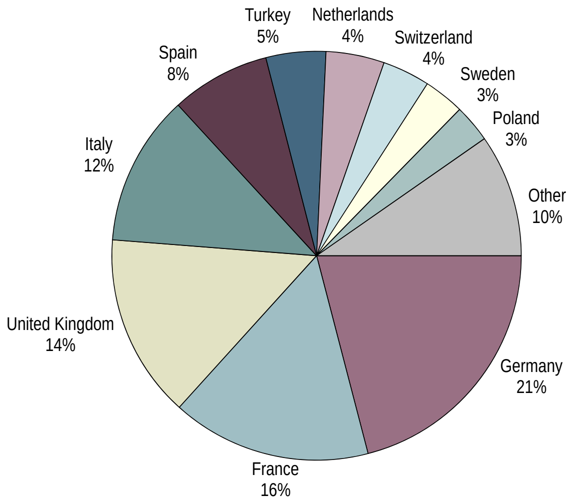


- Despite improving conditions domestically, the Fed remains cautious in the pace of rate increases in light of the recent "Brexit" vote and slowing growth in China.
- The Federal Reserve's preferred measure of inflation recently increased, but remains below its 2.0% target. Further increases in prices could complicate the Fed's rate decision given the global uncertainties.

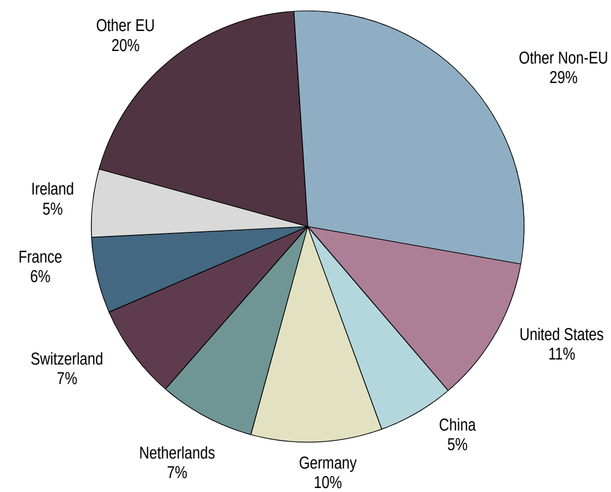
[1] Source: Bureau of Labor Statistics. Unemployment data is as of June 30, 2016 and PCE data is as of May 31, 2016. Federal Open Market Committee (FOMC) participants' recent estimates of long-term normal unemployment had a median value of 4.9% and a range of 4.7% to 5.8%.

European Union Overview

Aggregate European Union GDP[1]



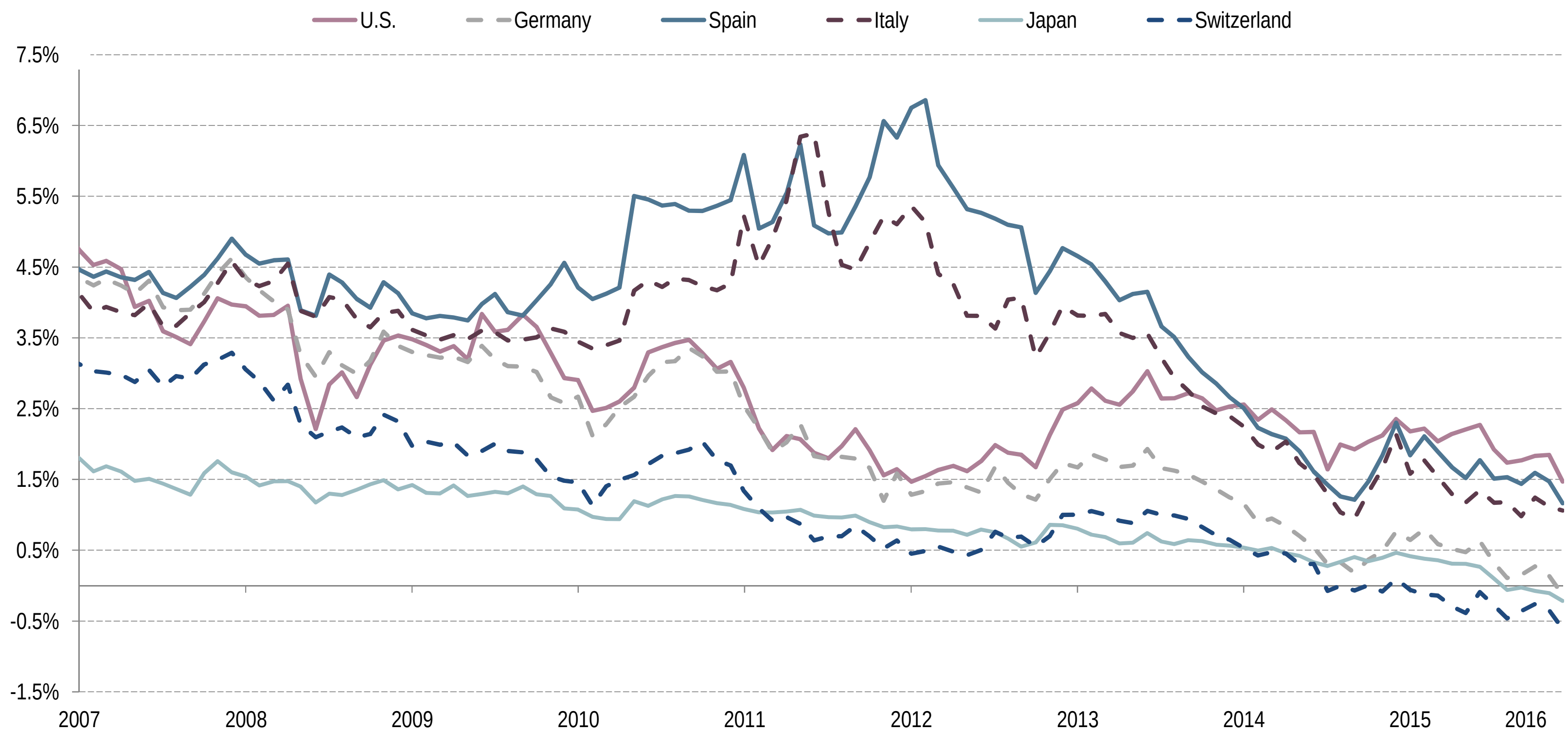
United Kingdom Export Destinations[2]



- The European Union is made up of 28 counties and is an economic/political union. The U.K. makes up approximately 14% of its GDP and exports a majority of its goods to other member countries.
- In late June, the U.K. held a referendum on whether or not to stay in the European Union. The result was a vote in favor of leaving.
- Subsequent to the vote, equity markets declined, the pound fell approximately 10%, and Prime Minister David Cameron resigned. Since then markets have stabilized and a new prime minister, Theresa May, entered office.
- Going forward, key considerations will be the impact of the decision on trade and foreign investment in the U.K.

[1] Source: Eurostat. Represents April 2016 data.
[2] MIT, Observatory for Economic Complexity. Represents 2014 data.

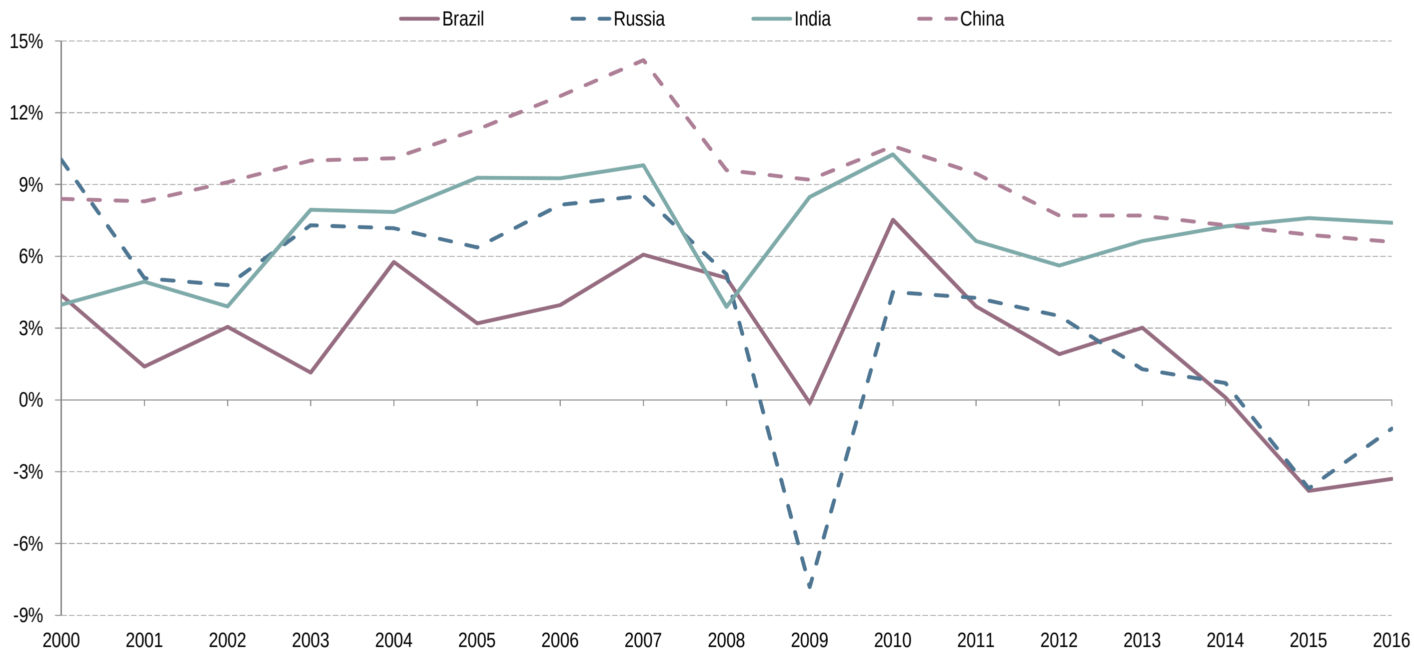
10-Year Government Bond Yields[1]



- Given major central banks' efforts to stimulate growth, close to one-third (approximately $12 trillion) of all government debt has a negative yield.
- This, along with the expectation that the Fed will not increase interest rates in the short term, makes U.S. government debt relatively attractive.

[1] Source: Bloomberg. Data is as of June 30, 2016.

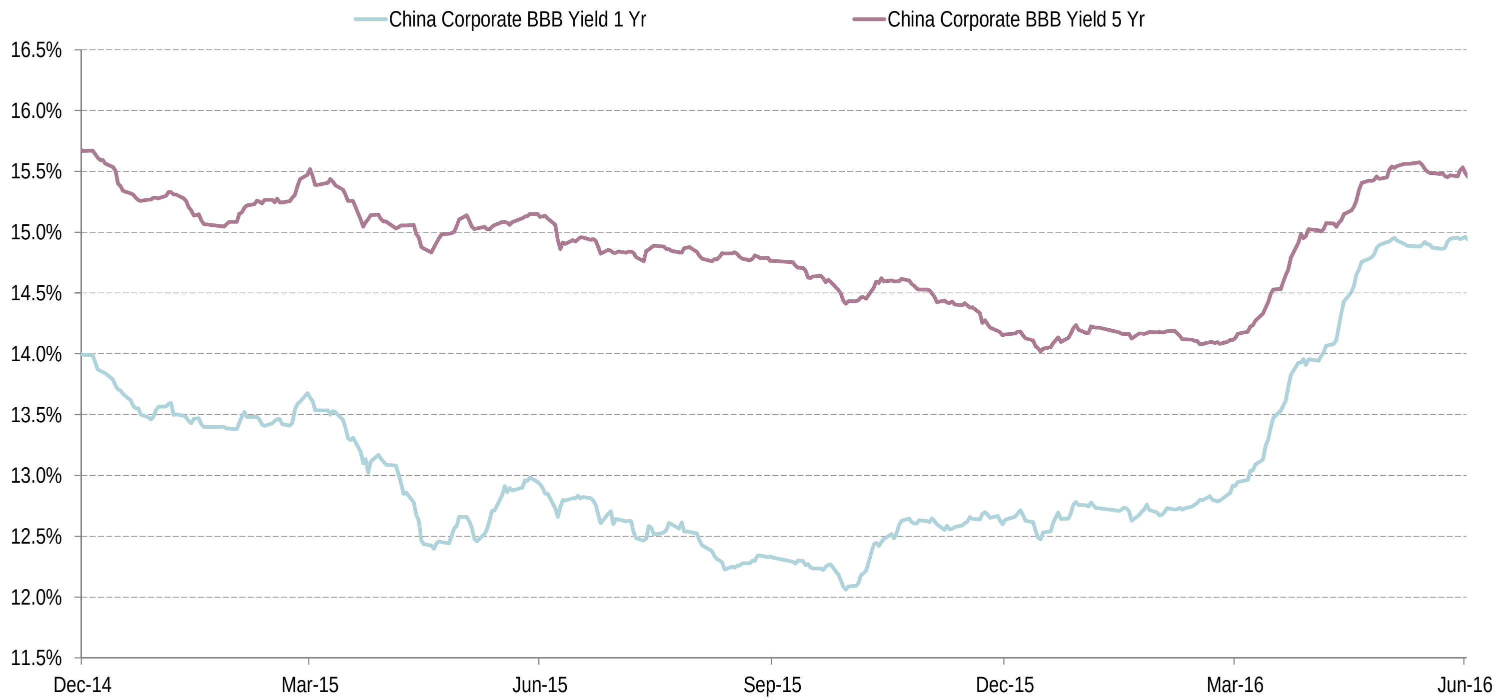
Emerging Market GDP[1]



- Growth in emerging economies remains uneven and has trended downward since 2010.
- China's economy has slowed as they transition from a growth model based on investment to one of consumption, while India remains a bright spot.
- Brazil and Russia remain in recession as the decline in commodity prices has weighed heavily on their economies.

[1] Source: IMF. World Economic Outlook. April 2016 edition with available updates from July 2016. GDP data after 2015 are IMF estimates.

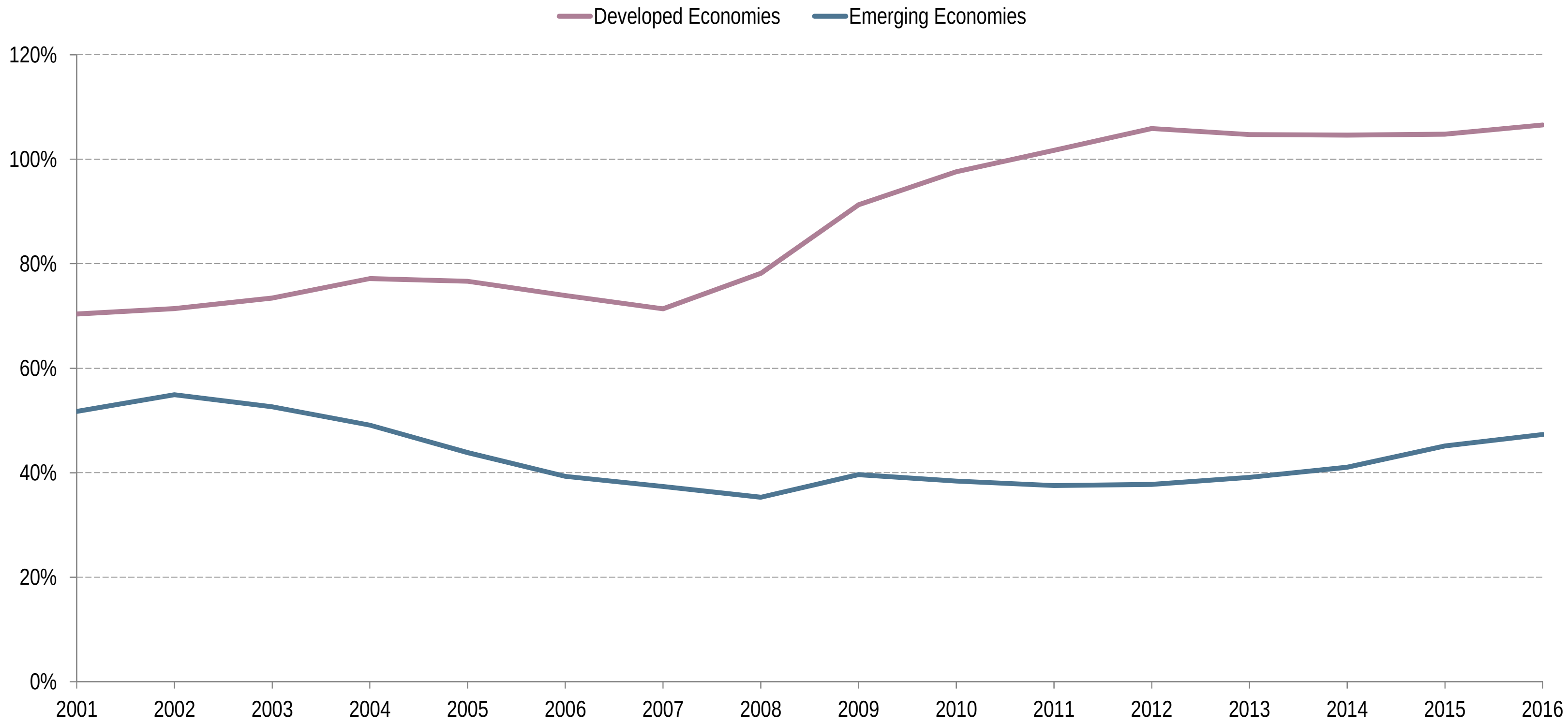
China Yields[1]



- Although the focus has recently shifted to the European Union, the slowing economy in China remains a key issue.
- Driven by recent defaults at state-owned enterprises, China corporate debt yields have increased.
- Higher borrowing costs could weigh on companies' profit margins and their ability to service their debt.

[1] Source: Bloomberg. Data is as of June 30, 2016.

Government Debt as a % of GDP[1]



- Emerging markets have lagged U.S. markets, a trend that has shown signs of reversing as emerging markets have led returns in 2016.
- The long-term growth thesis remains in place for emerging markets. Lower debt levels, improving demographics, and opportunities for improving productivity should help bolster emerging economies' growth.

[1] Source: IMF, World Economic Outlook, April 2016.

Summary

Four primary concerns face the global economy: 1) declining growth in China, along with uncertain fiscal and monetary policies; 2) continued economic sluggishness in Europe and risks related to the U.K.'s exit from the European Union; 3) weakening economic activity in the U.S.; 4) divergent growth in emerging economies.

- Given China's size and contribution to global growth, a slowing of its economy could have a meaningful impact, particularly on countries that depend on its trade. Another unexpected devaluation of the yuan could prove very disruptive to capital markets, weigh on domestic demand, and hurt countries with competing exports.
- The recent decision of the U.K. to leave the European Union further weighs on the fragile recovery in Europe. Going forward, the U.K.'s negotiation of trade deals will be a key issue with a wide range of potential outcomes. Uncertainty related to the outcome of negotiations should weigh on foreign investment and consumption. Any additional moves to leave the European Union or the Eurozone could be disruptive to markets and growth.
- Slowing growth globally and the eventual increase of interest rates could weigh on economic activity in the U.S. Corporate profits remain vulnerable after a period where companies increased margins by cost cutting. The dollar strengthened recently after the "Brexit" vote. Continued dollar strength should particularly weigh on multinational companies and domestic exporters.
- Growth in emerging market economies will likely remain uneven, with commodity export-dependent economies particularly hurt by a sustained slowdown in global growth and prices. Capital could also be attracted away from emerging markets when the U.S. Federal Reserve further increases interest rates. Despite varied headwinds, there are bright spots within emerging markets, including India, where their growth has surpassed China's.

Glossary and Notes

Credit Risk: Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security.)

Duration: Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

Information Ratio: This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Market Capitalization: For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

Market Weighted: Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

Maturity: The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.

Prepayment Risk: The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

Price-Book Value (P/B) Ratio: The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.

Price-Earnings (P/E) Ratio: A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about is future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

Quality Rating: The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

Standard Deviation: A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

STIF Account: Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

Style: The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

Yield to Maturity: The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a "basis book." For example, a 5% bond pays $5 a year interest on each $100 par value. To figure its current yield, divide $5 by $95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay $100 for the bond that can be bought now for $95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

$$\frac{5\% \text{ (discount)}}{5 \text{ (yrs. to maturity)}} = \begin{array}{c}1\% \text{ pro rata, plus} \\ 5.26\% \text{ (current yield)}\end{array} = 6.26\% \text{ (yield to maturity)}$$

Sources: <u>Investment Terminology</u>, International Foundation of Employee Benefit Plans, 1999.
<u>The Handbook of Fixed Income Securities</u>, Fabozzi, Frank J., 1991.

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Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.