

# FUND EVALUATION REPORT

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## San Jose Federated City Employees' Retirement System

Quarterly Review  
September 30, 2016



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**Meketa Investment Group has prepared this report on the basis of sources believed to be reliable. The data are based on matters as they are known as of the date of preparation of the report, and not as of any future date, and will not be updated or otherwise revised to reflect information that subsequently becomes available.**

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# **Executive Summary**

## **As of September 30, 2016**

**The value of the San Jose Federated City Employees' Retirement System assets was \$2.0 billion on September 30, 2016, an increase of approximately \$130.9 million from the end of the fiscal year. The increase was due to \$85.2 million of net inflows and \$45.7 million of investment gains.**

- The Retirement System's net of fees performance for the quarter was +2.2%, slightly below the Policy Benchmark (+2.4%), but above the Custom Benchmark (+2.0 %). The Retirement System underperformed the peer Public Defined Benefit Plans > \$1 Billion Universe's median return of +3.8%.
- The Retirement System returned +6.1% year-to-date, and +6.6% over the trailing one-year period, underperforming the Policy and Custom Benchmarks in these periods. The peer universe median was +6.8% and +9.3% over these same periods. The System's standard deviation of returns was 5.1% for the trailing one-year period, versus 7.1% for the peer median.
  - Total Global Equity returned +5.3% for the quarter, slightly underperforming the MSCI ACWI IMI's return of +5.6%. Each of Total Global Equity's subcomponents had positive returns for the quarter, but were mixed relative to their respective benchmarks. For the quarter, Global Equity returned +7.1%, U.S. Equity returned +5.9%, International Equity returned +6.1%, Emerging Markets Equity returned +5.0%, and Marketable Alternative Equity returned +1.7%.
  - Global Fixed Income returned +1.0% for the quarter, underperforming the custom benchmark's return of +1.4%. Each of the subcomponents of Global Fixed Income had positive returns for the quarter: Global Core returned +0.6%, Non-Investment Grade Credit returned +0.5%, and Emerging Markets Debt returned +3.7%.
  - Real Assets returned +1.5% for the quarter and +13.0% calendar year-to-date. Real Assets' year-to-date return was driven by strong performance from its subcomponents, particularly Infrastructure (+19.1%) and Natural Resources (+24.7%).
- The Retirement System added three investment managers during the quarter: Cross Ocean (Private Debt), Global Infrastructure Partners III (Infrastructure), and JD Capital (Relative Value).

**Artisan**

- Artisan Global Value returned +7.1% for the quarter and +8.4% year-to-date, outperforming the MSCI ACWI Value's returns of +5.3% and 7.5%, respectively. For the quarter, nearly all of Artisan's underlying holdings appreciated with the top contributors being ABB, Microsoft, ING, Qualcomm, and Samsung Electronics. ABB (+18%), Microsoft (+13%), and ING (+21%) benefited from strong reported earnings; Qualcomm (+29%) improved profitability and royalty collection from manufacturers; and Samsung Electronics (+17%) volume growth and improved pricing for its semiconductor business.

**Oberweis**

- Oberweis International Opportunities returned +4.7% for the quarter and +3.5% year-to-date, underperforming the MSCI World ex USA Small Cap Growth's returns of +7.3% and +6.7% over the same periods, respectively. The strategy's stock selection within financials, consumer discretionary and industrial sectors detracted, while stock selection in information technology aided performance.

**Voya**

- Voya Securitized Credit returned +2.9% for the quarter and +6.2% year-to-date, outperforming the Barclays Global Securitized benchmark returns of +0.8% and +4.2%, respectively. Voya's allocation to non-agency residential mortgage backed securities ("RMBS") was the top contributor to third quarter performance as the housing market improved and access to mortgage credit was strong.

**Infrastructure and Natural Resources**

- The Retirement System's Infrastructure and Natural Resources asset classes are passively invested through separately managed accounts with Rhumblin. The indices these investments track exhibited strong returns year-to-date. As such, the two investments, Rhumblin Brookfield Global Infrastructure and Rhumblin S&P Global Large MidCap Commodity and Natural Resources, returned +19.1% and +24.7% year-to-date, respectively.

## Third Quarter Manager Summary

Investment Manager	Asset Class	Changes/ Announcements	Performance Concerns	Meketa Recommendation <sup>1</sup>	Comments
Artisan Global Value	Global Equity	---	---	---	---
Oberweis International Opps.	Int'l Small Cap Equity	---	---	---	---
Cove Street Small Cap Value	Small Cap Equity	---	---	---	---
Aberdeen Frontier Markets Equity	Frontier Markets Equity	Yes	---	Hold	Personnel Changes
Senator Global Opportunity	Long-Short Equity	---	---	---	---
Horizon Portfolio I	Long-Short Equity	Yes	---	Hold	Personnel Change
Sandler Plus	Long-Short Equity	Yes	---	Hold	Personnel Changes
Marshall Wace Eureka	Long-Short Equity	---	---	---	---
Voya Securitized Credit	Global Credit	---	---	---	---
Davidson Kempner Inst.	Long-Short Credit	---	---	---	---
BlueBay EM Select Debt	Global Credit	---	---	---	---
Credit Suisse Risk Parity	Commodities	Yes	---	Hold	Personnel Changes
Pinnacle Natural Resources	Commodities	---	---	---	---

<sup>1</sup> The Meketa Investment Group recommendations are based on the noted organizational or resource changes at each manager.



**Aberdeen**

- During the quarter, Gordon Neilly and Campbell Fleming joined the Group Management Board (“GMB”). The GMB is responsible for the management and operational development of the overall business. The GMB reports to the Aberdeen Asset Management PLC Board of Directors.
- The Global Emerging Markets (“GEM”) team had one analyst join the team during the quarter, and two additional analysts joined subsequent to the end of the third quarter.

**Credit Suisse**

- In July 2016, Bill Johnson, Managing Director and Deputy Global Head of Asset Management, was appointed CEO of CSAM, LLC, the New York-based Registered Investment Adviser of Credit Suisse Asset Management (“CSAM”), and Head of Asset Management Americas in September 2016. Mr. Johnson continues to report to Eric Varvel, the Global Head of Asset Management. Effective September 14, 2016, Nelson Louie, Global Head of CSAM Commodities, now reports directly to Bill Johnson.

**Horizon**

- As previously reported, during the third quarter Douglas Calder resigned as Director of the Boards of Horizon Portfolio Limited, Horizon Portfolio I Limited, and Horizon Asset Cayman Limited, the general partner of Horizon Portfolio LP. Mr. Calder will continue to serve as an advisor to the Horizon Funds. Mark Lewis was been appointed to replace Mr. Calder as the director of each of the Horizon Funds.



## Sandler

- Will Huff and Ethan Levy joined Sandler Capital during the third quarter as junior research analysts, primarily supporting the team's senior analysts as well as searching for emerging themes and technologies across a variety of industries.
- As previously reported, Vanessa Barrett of Carne Global Financial Services (Cayman) Limited, was named to the Board of Directors during the third quarter as an outside director. Ms. Barrett replaced Don Seymour of DMS Offshore Investment Services. Prior to this change, both outside directors were from DMS.

## 3Q16 Review

## Total Fund Aggregate

As of September 30, 2016

## Allocation vs. Targets and Policy

	Current Balance	Current Allocation	Russell Overlay Net Position	Policy	Policy Range	Within IPS Range?
<b>Total Global Equity</b>	<b>\$535,096,877</b>	<b>26.1%</b>	<b>28.5%</b>	<b>28.0%</b>	<b>20.0% - 36.0%</b>	<b>Yes</b>
US Equity	\$89,675,156	4.4%	4.0%	--	--	--
International Equity	\$167,148,181	8.2%	8.9%	--	--	--
Global Equity	\$142,697,328	7.0%	7.8%	--	--	--
Emerging Markets Equity	\$17,902,877	0.9%	1.9%	--	--	--
Marketable Alternative Equity	\$117,673,334	5.7%	5.7%	6.0%	3.0% - 9.0%	Yes
<b>Private Equity</b>	<b>\$68,513,047</b>	<b>3.3%</b>	<b>3.3%</b>	<b>9.0%</b>	<b>4.0% - 14.0%</b>	<b>No</b>
<b>Global Fixed Income</b>	<b>\$404,877,286</b>	<b>19.8%</b>	<b>17.9%</b>	<b>19.0%</b>	<b>9.0% - 29.0%</b>	<b>Yes</b>
Global Core	\$310,790,442	15.2%	13.3%	12.0%	7.0% - 17.0%	Yes
Non-Investment Grade Credit	\$41,162,671	2.0%	2.0%	4.0%	0.0% - 6.0%	Yes
Emerging Markets	\$52,924,173	2.6%	2.6%	3.0%	0.0% - 5.0%	Yes
<b>Private Debt</b>	<b>\$92,516,642</b>	<b>4.5%</b>	<b>4.5%</b>	<b>5.0%</b>	<b>0.0% - 10.0%</b>	<b>Yes</b>
<b>Real Assets</b>	<b>\$494,117,139</b>	<b>24.1%</b>	<b>24.1%</b>	<b>23.0%</b>	<b>15.0% - 30.0%</b>	<b>Yes</b>
Real Estate	\$113,864,981	5.6%	5.6%	7.0%	4.0% - 10.0%	Yes
Commodities	\$126,441,591	6.2%	6.2%	6.0%	2.0% - 10.0%	Yes
Infrastructure	\$148,717,151	7.3%	7.3%	5.0%	2.0% - 8.0%	Yes
Natural Resources	\$105,093,417	5.1%	5.1%	5.0%	2.0% - 8.0%	Yes
<b>Absolute Return</b>	<b>\$268,754,091</b>	<b>13.1%</b>	<b>13.1%</b>	<b>11.0%</b>	<b>6.0% - 16.0%</b>	<b>Yes</b>
<b>GTAA/Opportunistic</b>	<b>--</b>	<b>--</b>	<b>0.0%</b>	<b>5.0%</b>	<b>0.0% - 8.0%</b>	<b>Yes</b>
<b>Cash</b>	<b>\$183,712,082</b>	<b>9.0%</b>	<b>8.6%</b>	<b>0.0%</b>	<b>0.0% - 5.0%</b>	<b>No</b>
<b>Total</b>	<b>\$2,047,587,164</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>		

<sup>1</sup> Data in the column titled "Russell Overlay Net Position" is based on physical exposures, adjusted for synthetic positions provided by Russell Investments.

<sup>2</sup> Global Equity includes <\$0.1 million of residuals from terminated managers or previous transitions.

<sup>3</sup> Cash includes the cash account, cash equitized in the Russell Investments Overlay program, cash from private manager distributions, and residuals from the Terminated Manager Account.

## Total Fund Aggregate

As of September 30, 2016

## Asset Class Net Performance Summary

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
<b>Total Fund Aggregate</b>	<b>2,047,587,163</b>	<b>100.0</b>	<b>2.2</b>	<b>2.2</b>	<b>6.1</b>	<b>6.6</b>	<b>3.5</b>	<b>5.8</b>	<b>3.9</b>	<b>6.7</b>	<b>Jan-94</b>
<i>Total Fund Ex Overlay (net)</i>			2.0	2.0	5.5	6.0	3.3	5.6	3.8	6.7	Jan-94
<i>Consumer Price Index</i>			0.2	0.2	2.1	1.5	1.0	1.2	1.8	2.2	Jan-94
<i>San Jose FCERS Policy Benchmark</i>			2.4	2.4	8.3	9.2	3.4	6.5	4.5	7.0	Jan-94
<i>San Jose FCERS Custom Benchmark</i>			1.9	1.9	7.7	8.4	3.2	6.0	4.0	--	Jan-94
<i>InvestorForce Public DB &gt; \$1B Net Median</i>			3.8	3.8	6.8	9.3	5.5	8.8	5.4	7.3	Jan-94
<i>InvestorForce Public DB &gt; \$1B Net Rank</i>			95	95	80	98	97	99	99	72	Jan-94
<b>Total Global Equity</b>	<b>535,096,877</b>	<b>26.1</b>	<b>5.3</b>	<b>5.3</b>	<b>5.0</b>	<b>8.9</b>	<b>5.2</b>	<b>10.4</b>	<b>--</b>	<b>7.5</b>	<b>May-10</b>
<i>MSCI ACWI IMI Net USD</i>			5.6	5.6	7.0	12.3	5.2	10.9	--	7.4	May-10
<b>Global Equity</b>	<b>142,697,328</b>	<b>7.0</b>	<b>7.1</b>	<b>7.1</b>	<b>7.6</b>	<b>12.7</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>3.6</b>	<b>Jul-15</b>
<i>MSCI ACWI IMI Net USD</i>			5.6	5.6	7.0	12.3	--	--	--	1.2	Jul-15
<b>US Equity</b>	<b>89,675,156</b>	<b>4.4</b>	<b>5.9</b>	<b>5.9</b>	<b>10.2</b>	<b>16.3</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>5.3</b>	<b>Jul-15</b>
<i>Russell 3000</i>			4.4	4.4	8.2	15.0	--	--	--	5.3	Jul-15
<b>International Equity</b>	<b>167,148,181</b>	<b>8.2</b>	<b>6.1</b>	<b>6.1</b>	<b>2.3</b>	<b>7.6</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>-2.3</b>	<b>Jul-15</b>
<i>MSCI EAFE</i>			6.4	6.4	1.7	6.5	--	--	--	-3.5	Jul-15
<b>Emerging Markets Equity</b>	<b>17,902,877</b>	<b>0.9</b>	<b>5.0</b>	<b>5.0</b>	<b>3.6</b>	<b>4.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>-4.6</b>	<b>Jul-15</b>
<i>MSCI Emerging Markets</i>			9.0	9.0	16.0	16.8	--	--	--	-3.3	Jul-15
<b>Marketable Alternative Equity</b>	<b>117,673,335</b>	<b>5.7</b>	<b>1.6</b>	<b>1.6</b>	<b>0.7</b>	<b>1.4</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>4.3</b>	<b>Oct-14</b>
<i>HFRI Equity Hedge (Total) Index</i>			4.6	4.6	4.2	6.0	--	--	--	1.5	Oct-14

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Beginning in July 2012, fees are accounted for on a cash basis. Previously, fees were accounted for on an accrual basis.<sup>3</sup> Please see the Appendix for composition of the San Jose FCERS Policy Benchmark.<sup>4</sup> San Jose FCERS Custom Benchmark consists of the individual benchmarks that comprise the San Jose FCERS Policy Benchmark weighted accordingly to actual allocations and re-adjusted monthly.<sup>5</sup> Global Equity includes <\$0.1 million of residuals from terminated managers or previous transitions.<sup>5</sup> Returns for the Equity Aggregate are gross of fees through June 2015 and net of fees thereafter.

## Total Fund Aggregate

As of September 30, 2016

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
<b>Private Equity</b>	<b>68,513,047</b>	<b>3.3</b>	<b>1.2</b>	<b>1.2</b>	<b>2.9</b>	<b>0.7</b>	<b>10.8</b>	<b>9.8</b>	<b>7.3</b>	<b>6.4</b>	<b>Jan-06</b>
Cambridge Associates Private Equity Composite			0.3	0.3	1.4	2.0	9.5	10.1	9.5	10.2	Jan-06
<b>Global Fixed Income</b>	<b>404,877,286</b>	<b>19.8</b>	<b>1.0</b>	<b>1.0</b>	<b>4.9</b>	<b>4.0</b>	<b>2.0</b>	<b>--</b>	<b>--</b>	<b>2.9</b>	<b>Jan-12</b>
Fixed Income Custom Benchmark			1.4	1.4	10.5	10.0	2.5	--	--	2.0	Jan-12
<b>Global Core</b>	<b>310,790,442</b>	<b>15.2</b>	<b>0.6</b>	<b>0.6</b>	<b>4.1</b>	<b>3.6</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>3.1</b>	<b>Jul-15</b>
BBgBarc Global Aggregate TR			0.8	0.8	9.9	8.8	--	--	--	7.7	Jul-15
<b>Non-Investment Grade Credit</b>	<b>41,162,671</b>	<b>2.0</b>	<b>0.5</b>	<b>0.5</b>	<b>1.5</b>	<b>-1.9</b>	<b>-2.2</b>	<b>--</b>	<b>--</b>	<b>-0.4</b>	<b>Feb-13</b>
50% BAML Global HY / 50% S&P Global Leveraged Loan			4.3	4.3	10.2	11.9	5.2	--	--	6.0	Feb-13
<b>Emerging Markets</b>	<b>52,924,173</b>	<b>2.6</b>	<b>3.6</b>	<b>3.6</b>	<b>13.6</b>	<b>13.7</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>Jul-15</b>
50% JPM EMBI GD / 50% JPM GBI-EM			3.4	3.4	16.0	16.7	--	--	--	--	Jul-15
<b>Private Debt</b>	<b>92,516,642</b>	<b>4.5</b>	<b>1.6</b>	<b>1.6</b>	<b>2.8</b>	<b>3.4</b>	<b>5.7</b>	<b>7.9</b>	<b>--</b>	<b>6.3</b>	<b>Dec-10</b>
S&P Global Leveraged Loan +2%			3.7	3.7	8.9	7.2	4.3	6.9	--	6.2	Dec-10
<b>Real Assets</b>	<b>494,117,139</b>	<b>24.1</b>	<b>1.5</b>	<b>1.5</b>	<b>13.0</b>	<b>11.1</b>	<b>0.4</b>	<b>-1.6</b>	<b>--</b>	<b>-0.1</b>	<b>May-10</b>
<b>Real Estate</b>	<b>113,864,981</b>	<b>5.6</b>	<b>2.8</b>	<b>2.8</b>	<b>9.6</b>	<b>13.8</b>	<b>16.5</b>	<b>14.0</b>	<b>5.8</b>	<b>9.3</b>	<b>Jan-94</b>
NCREIF Property Index			1.8	1.8	6.1	9.2	11.3	11.2	7.2	9.6	Jan-94
<b>Commodities</b>	<b>126,441,591</b>	<b>6.2</b>	<b>-3.1</b>	<b>-3.1</b>	<b>1.5</b>	<b>-4.9</b>	<b>-10.9</b>	<b>-9.3</b>	<b>--</b>	<b>-5.7</b>	<b>May-10</b>
Bloomberg Commodity Index TR USD			-3.9	-3.9	8.9	-2.6	-12.3	-9.4	--	-6.8	May-10
<b>Infrastructure</b>	<b>148,717,151</b>	<b>7.3</b>	<b>2.3</b>	<b>2.3</b>	<b>19.1</b>	<b>15.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>6.1</b>	<b>Mar-14</b>
DJ Brookfield Global Infrastructure Net TR USD			2.2	2.2	18.8	15.3	--	--	--	5.3	Mar-14
<b>Natural Resources</b>	<b>105,093,417</b>	<b>5.1</b>	<b>4.7</b>	<b>4.7</b>	<b>24.7</b>	<b>23.0</b>	<b>-4.9</b>	<b>--</b>	<b>--</b>	<b>-5.0</b>	<b>Nov-12</b>
S&P Global Natural Resources Index TR USD			6.0	6.0	24.0	24.7	-3.8	--	--	-3.1	Nov-12

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Cambridge Associates Private Equity Composite (40% Secondary and 60% Fund of Funds) used since 1Q14. Data for the Venture Economics Private Equity Index was used through 4Q13, but the index was discontinued in early 2014.<sup>3</sup> Returns for the Fixed Income, Private Debt, and Real Assets Aggregates are gross of fees through June 2015 and net of fees thereafter.<sup>4</sup> Prior to 7/1/2015, Fixed Income Custom Benchmark was 100% Barclays Global Aggregate. After 7/1/2015, Fixed Income Custom Benchmark consists of 80% Barclays Global Aggregate, 5% JPM GBI-EM GD, 5% JPM EMBI GD, 5% S&P Global Leveraged Loan, and 5% BAML Global HY Index.

## Total Fund Aggregate

As of September 30, 2016

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
<b>Absolute Return</b>	<b>268,754,091</b>	<b>13.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.3</b>	<b>-0.5</b>	<b>3.1</b>	--	--	<b>3.4</b>	<b>Nov-12</b>
<i>HFRI Macro (Total) Index</i>			<i>-1.0</i>	<i>-1.0</i>	<i>1.7</i>	<i>1.5</i>	<i>2.6</i>	--	--	<i>1.6</i>	<i>Nov-12</i>
<b>Relative Value</b>	<b>116,176,150</b>	<b>5.7</b>	<b>1.6</b>	<b>1.6</b>	<b>2.6</b>	<b>2.2</b>	--	--	--	<b>3.3</b>	<b>Oct-14</b>
<i>HFRI Relative Value (Total) Index</i>			<i>2.9</i>	<i>2.9</i>	<i>5.7</i>	<i>5.4</i>	--	--	--	<i>2.2</i>	<i>Oct-14</i>
<b>Macro</b>	<b>152,577,941</b>	<b>7.5</b>	<b>-1.0</b>	<b>-1.0</b>	<b>-1.0</b>	<b>-2.2</b>	--	--	--	<b>0.5</b>	<b>Oct-14</b>
<i>HFRI Macro: Discretionary Thematic Index</i>			<i>-0.5</i>	<i>-0.5</i>	<i>-0.7</i>	<i>-0.5</i>	--	--	--	<i>-0.7</i>	<i>Oct-14</i>
<b>GTAA/Opportunistic</b>	--	--	--	--	--	--	--	--	--	--	
<b>Cash</b>	<b>183,712,082</b>	<b>9.0</b>									

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Cash includes the cash account, cash equitized in the Russell Investments Overlay program, cash from private manager distributions, and residuals from the Terminated Manager Account.

## Total Fund Aggregate

As of September 30, 2016

## Trailing Net Performance

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
<b>Total Global Equity</b>	<b>535,096,877</b>	<b>26.1</b>	<b>5.3</b>	<b>5.3</b>	<b>5.0</b>	<b>8.9</b>	<b>5.2</b>	<b>10.4</b>	<b>--</b>	<b>7.5</b>	<b>May-10</b>
MSCI ACWI IMI Net USD			5.6	5.6	7.0	12.3	5.2	10.9	--	7.4	May-10
<b>Global Equity</b>	<b>142,697,328</b>	<b>7.0</b>	<b>7.1</b>	<b>7.1</b>	<b>7.6</b>	<b>12.7</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>3.6</b>	<b>Jul-15</b>
MSCI ACWI IMI Net USD			5.6	5.6	7.0	12.3	--	--	--	1.2	Jul-15
Artisan Global Value	142,756,179	7.0	7.1	7.1	8.4	13.3	6.9	14.7	--	10.8	Mar-11
MSCI ACWI Value Net USD			5.3	5.3	7.5	11.8	3.6	9.4	--	4.5	Mar-11
Russell Currency Hedge	-58,850	0.0									
<b>US Equity</b>	<b>89,675,156</b>	<b>4.4</b>	<b>5.9</b>	<b>5.9</b>	<b>10.2</b>	<b>16.3</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>5.3</b>	<b>Jul-15</b>
Russell 3000			4.4	4.4	8.2	15.0	--	--	--	5.3	Jul-15
Cove Street Small Cap Value	30,517,526	1.5	9.0	9.0	14.4	19.1	--	--	--	5.0	May-14
Russell 2000 Value			8.9	8.9	15.5	18.8	--	--	--	4.9	May-14
Northern Trust Russell 3000 Index	59,157,631	2.9	4.4	4.4	8.2	15.1	10.5	16.4	7.5	5.6	Sep-99
Russell 3000			4.4	4.4	8.2	15.0	10.4	16.4	7.4	5.5	Sep-99
<b>International Equity</b>	<b>167,148,181</b>	<b>8.2</b>	<b>6.1</b>	<b>6.1</b>	<b>2.3</b>	<b>7.6</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>-2.3</b>	<b>Jul-15</b>
MSCI EAFE			6.4	6.4	1.7	6.5	--	--	--	-3.5	Jul-15
Oberweis International Opportunities	30,717,082	1.5	4.7	4.7	3.5	--	--	--	--	7.8	Nov-15
MSCI World ex USA Small Cap			8.0	8.0	7.3	--	--	--	--	7.1	Nov-15

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Returns for the Equity Aggregate are gross of fees through June 2015 and net of fees thereafter.<sup>3</sup> Total Global Equity includes <\$0.1 million of residuals from terminated managers or previous transitions. Global Equity includes a partial currency hedge initiated on August 21, 2015 of the following currencies: Australian Dollar, Canadian Dollar, Swiss Franc, Euro, British Pound Sterling, and Japanese Yen. As of the date of this report, the unrealized profit or loss was -\$0.2 mm and the total net exposure of the hedge was \$27.6 mm.

## Total Fund Aggregate

As of September 30, 2016

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Northern Trust MSCI EAFE Index-NL	136,430,098	6.7	6.5	6.5	2.1	6.9	0.8	--	--	6.1	Nov-12
MSCI EAFE			6.4	6.4	1.7	6.5	0.5	--	--	5.8	Nov-12
<b>Emerging Markets Equity</b>	<b>17,902,877</b>	<b>0.9</b>	<b>5.0</b>	<b>5.0</b>	<b>3.6</b>	<b>4.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>-4.6</b>	<b>Jul-15</b>
MSCI Emerging Markets			9.0	9.0	16.0	16.8	--	--	--	-3.3	Jul-15
Aberdeen Frontier Markets	17,902,877	0.9	5.0	5.0	1.6	0.6	--	--	--	-4.4	Dec-13
MSCI Frontier Markets			2.6	2.6	2.2	0.9	--	--	--	-1.6	Dec-13
MSCI Frontier Markets ex GCC NR USD			2.9	2.9	4.5	4.9	--	--	--	-4.7	Dec-13
<b>Marketable Alternative Equity</b>	<b>117,673,335</b>	<b>5.7</b>	<b>1.6</b>	<b>1.6</b>	<b>0.7</b>	<b>1.4</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>4.3</b>	<b>Oct-14</b>
HFRI Equity Hedge (Total) Index			4.6	4.6	4.2	6.0	--	--	--	1.5	Oct-14
Senator Global Opportunity Offshore Fund	36,460,131	1.8	5.4	5.4	3.1	3.7	4.8	--	--	6.5	Apr-13
HFRI Event-Driven (Total) Index			4.5	4.5	6.8	6.3	2.6	--	--	3.5	Apr-13
Horizon Portfolio I	31,382,802	1.5	-2.6	-2.6	-0.5	1.1	5.5	--	--	5.9	Jul-13
HFRI Equity Hedge (Total) Index			4.6	4.6	4.2	6.0	3.2	--	--	4.2	Jul-13
Sandler Plus Offshore Fund Ltd	25,583,279	1.2	1.1	1.1	1.1	5.1	7.5	--	--	7.5	May-13
HFRI Equity Hedge (Total) Index			4.6	4.6	4.2	6.0	3.2	--	--	3.9	May-13
Marshall Wace Eureka Fund	24,247,123	1.2	2.6	2.6	-0.4	1.5	--	--	--	7.4	Apr-14
HFRI Equity Hedge (Total) Index			4.6	4.6	4.2	6.0	--	--	--	1.5	Apr-14
<b>Private Equity</b>	<b>68,513,047</b>	<b>3.3</b>	<b>1.2</b>	<b>1.2</b>	<b>2.9</b>	<b>0.7</b>	<b>10.8</b>	<b>9.8</b>	<b>7.3</b>	<b>6.4</b>	<b>Jan-06</b>
Cambridge Associates Private Equity Composite			0.3	0.3	1.4	2.0	9.5	10.1	9.5	10.2	Jan-06
Pantheon USA Fund VII	27,787,559	1.4	2.2	2.2	4.1	2.6	13.4	12.1	--	--	Jan-07
Cambridge Associates Private Equity Composite			0.3	0.3	1.4	2.0	9.5	10.1	--	--	Jan-07

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Cambridge Associates Private Equity Composite (40% Secondary and 60% Fund of Funds) used since 1Q14. Data for the Venture Economics Private Equity Index was used through 4Q13, but the index was discontinued in early 2014.



## Total Fund Aggregate

As of September 30, 2016

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Partners Group Secondary 2011, L.P. <i>Cambridge Associates Private Equity Composite</i>	12,629,437	0.6	0.7 0.3	0.7 0.3	5.1 1.4	6.7 2.0	17.3 9.5	-- --	-- --	26.3 11.5	Nov-12 Nov-12
Pathway Private Equity Fund VIII <i>Cambridge Associates Private Equity Composite</i>	10,319,984	0.5	-0.3 0.3	-0.3 0.3	-2.7 1.4	-5.6 2.0	9.3 9.5	10.2 10.1	-- --	-- --	Aug-04 Aug-04
Pantheon Global Secondary Fund III 'B' <i>Cambridge Associates Private Equity Composite</i>	9,336,480	0.5	-1.3 0.3	-1.3 0.3	-3.1 1.4	-6.0 2.0	0.8 9.5	0.3 10.1	-- --	-- --	Jan-07 Jan-07
Partners Group Secondary 2008, L.P. <i>Cambridge Associates Private Equity Composite</i>	4,420,106	0.2	1.2 0.3	1.2 0.3	11.3 1.4	-1.6 2.0	5.8 9.5	5.5 10.1	-- --	-- --	Dec-08 Dec-08
Great Hill Equity Partners IV, LP <i>Cambridge Associates Private Equity Composite</i>	4,019,480	0.2	6.0 0.3	6.0 0.3	12.4 1.4	11.6 2.0	26.7 9.5	31.4 10.1	-- --	-- --	Oct-08 Oct-08
<b>Global Fixed Income</b>	<b>404,877,286</b>	<b>19.8</b>	<b>1.0</b>	<b>1.0</b>	<b>4.9</b>	<b>4.0</b>	<b>2.0</b>	<b>--</b>	<b>--</b>	<b>2.9</b>	<b>Jan-12</b>
<i>Fixed Income Custom Benchmark</i>			1.4	1.4	10.5	10.0	2.5	--	--	2.0	Jan-12
<b>Global Core</b>	<b>310,790,442</b>	<b>15.2</b>	<b>0.6</b>	<b>0.6</b>	<b>4.1</b>	<b>3.6</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>3.1</b>	<b>Jul-15</b>
<i>BBgBarc Global Aggregate TR</i>			0.8	0.8	9.9	8.8	--	--	--	7.7	Jul-15
Northern Trust Intermediate Gov't 1-10 Year <i>BBgBarc US Govt Int TR</i>	99,483,900	4.9	-0.2 -0.2	-0.2 -0.2	3.3 3.3	2.4 2.4	2.1 2.2	-- --	-- --	1.4 1.4	Oct-12 Oct-12
Northern Trust TIPS 0-5 Years <i>BBgBarc US Treasury Tips 0-5 Yr TR</i>	111,534,479	5.4	0.3 0.3	0.3 0.3	3.0 3.0	2.7 2.6	-- --	-- --	-- --	0.0 0.0	Jul-14 Jul-14
Voya Securitized Credit <i>BBgBarc Global Aggregate Securitized TR</i>	58,452,461	2.9	2.9 0.8	2.9 0.8	6.2 4.2	6.2 3.6	-- --	-- --	-- --	5.0 3.8	Jul-15 Jul-15

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Cambridge Associates Private Equity Composite (40% Secondary and 60% Fund of Funds) used since 1Q14. Data for the Venture Economics Private Equity Index was used through 4Q13, but the index was discontinued in early 2014.<sup>3</sup> Returns for the Fixed Income Aggregate are gross of fees through June 2015 and net of fees thereafter.<sup>4</sup> Prior to 7/1/2015, Fixed Income Custom Benchmark was 100% Barclays Global Aggregate. After 7/1/2015, Fixed Income Custom Benchmark consists of 80% Barclays Global Aggregate, 5% JPM GBI-EM GD, 5% JPM EMBI GD, 5% S&P Global Leveraged Loan, and 5% BAML Global HY Index.

## Total Fund Aggregate

As of September 30, 2016

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
BlackRock Long Government Index	41,319,602	2.0	-0.2	-0.2	--	--	--	--	--	5.9	Jun-16
BBgBarc US Govt Long TR			-0.3	-0.3	--	--	--	--	--	5.7	Jun-16
<b>Non-Investment Grade Credit</b>	<b>41,162,671</b>	<b>2.0</b>	<b>0.5</b>	<b>0.5</b>	<b>1.5</b>	<b>-1.9</b>	<b>-2.2</b>	<b>--</b>	<b>--</b>	<b>-0.4</b>	<b>Feb-13</b>
50% BAML Global HY / 50% S&P Global Leveraged Loan			4.3	4.3	10.2	11.9	5.2	--	--	6.0	Feb-13
Davidson Kempner Institutional Partners, L.P.	35,865,078	1.8	1.8	1.8	4.3	4.3	3.9	--	--	4.9	Feb-13
HFRI Event-Driven (Total) Index			4.5	4.5	6.8	6.3	2.6	--	--	3.8	Feb-13
Claren Road Credit Fund	5,297,593	0.3	-7.1	-7.1	-9.1	-16.4	-10.4	--	--	-10.4	Jul-13
HFRI RV: Fixed Income-Corporate Index			4.0	4.0	8.7	8.1	3.5	--	--	3.7	Jul-13
<b>Emerging Markets</b>	<b>52,924,173</b>	<b>2.6</b>	<b>3.6</b>	<b>3.6</b>	<b>13.6</b>	<b>13.7</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>Jul-15</b>
50% JPM EMBI GD / 50% JPM GBI-EM			3.4	3.4	16.0	16.7	--	--	--	--	Jul-15
BlueBay Emerging Market Select Debt	52,924,173	2.6	3.6	3.6	13.6	13.7	--	--	--	4.7	Jul-15
50% JPM EMBI GD / 50% JPM GBI-EM			3.4	3.4	16.0	16.7	--	--	--	7.5	Jul-15
<b>Private Debt</b>	<b>92,516,642</b>	<b>4.5</b>	<b>1.6</b>	<b>1.6</b>	<b>2.8</b>	<b>3.4</b>	<b>5.7</b>	<b>7.9</b>	<b>--</b>	<b>6.3</b>	<b>Dec-10</b>
S&P Global Leveraged Loan +2%			3.7	3.7	8.9	7.2	4.3	6.9	--	6.2	Dec-10
Medley Opportunity Fund II	44,209,154	2.2	1.2	1.2	0.6	2.6	6.3	7.8	--	6.7	Jun-11
3-Month LIBOR + 5%			1.4	1.4	4.2	5.6	5.4	5.4	--	5.4	Jun-11
White Oak Direct Lending Account	29,154,951	1.4	-1.3	-1.3	10.6	11.3	8.3	7.2	--	6.2	Feb-11
3-Month LIBOR + 5%			1.4	1.4	4.2	5.6	5.4	5.4	--	5.4	Feb-11
GSO Direct Lending Account	16,019,886	0.8	9.1	9.1	-4.1	-7.2	0.5	8.2	--	7.9	Mar-11
3-Month LIBOR + 5%			1.4	1.4	4.2	5.6	5.4	5.4	--	5.4	Mar-11
Cross Ocean USD ESS II	3,132,651	0.2	--	--	--	--	--	--	--	4.2	Aug-16
S&P Global Leveraged Loan +2%			--	--	--	--	--	--	--	1.8	Aug-16

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Returns for the Private Debt Aggregate are gross of fees through June 2015 and net of fees thereafter.

## Total Fund Aggregate

As of September 30, 2016

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
<b>Real Assets</b>	<b>494,117,139</b>	<b>24.1</b>	<b>1.5</b>	<b>1.5</b>	<b>13.0</b>	<b>11.1</b>	<b>0.4</b>	<b>-1.6</b>	<b>--</b>	<b>-0.1</b>	<b>May-10</b>
<b>Real Estate</b>	<b>113,864,981</b>	<b>5.6</b>	<b>2.8</b>	<b>2.8</b>	<b>9.6</b>	<b>13.8</b>	<b>16.5</b>	<b>14.0</b>	<b>5.8</b>	<b>9.3</b>	<b>Jan-94</b>
<i>NCREIF Property Index</i>			1.8	1.8	6.1	9.2	11.3	11.2	7.2	9.6	Jan-94
PRISA	38,995,473	1.9	1.7	1.7	6.9	11.9	12.5	11.9	4.7	7.0	Jul-04
<i>NCREIF ODCE Equal Weighted (net)</i>			1.9	1.9	6.2	9.7	11.6	11.4	4.9	6.9	Jul-04
American Realty	38,795,470	1.9	1.1	1.1	6.5	9.7	11.5	11.2	--	4.7	Jan-07
<i>NCREIF ODCE Equal Weighted (net)</i>			1.9	1.9	6.2	9.7	11.6	11.4	--	4.6	Jan-07
DRA Growth and Income Fund VII	14,349,658	0.7	4.2	4.2	20.1	25.5	18.7	--	--	17.5	Apr-12
<i>NCREIF Property Index</i>			1.8	1.8	6.1	9.2	11.3	--	--	11.1	Apr-12
DRA Growth & Income Fund VIII	12,744,068	0.6	2.3	2.3	6.0	9.9	--	--	--	10.3	Jan-15
<i>NCREIF Property Index</i>			1.8	1.8	6.1	9.2	--	--	--	11.1	Jan-15
DRA Growth and Income Fund VI	2,969,331	0.1	0.9	0.9	11.9	16.9	24.2	20.9	--	10.4	Jan-08
<i>NCREIF Property Index</i>			1.8	1.8	6.1	9.2	11.3	11.2	--	6.0	Jan-08
Fidelity Real Estate Growth Fund III	2,394,105	0.1	-2.4	-2.4	3.7	4.9	20.9	18.6	--	-7.3	Jan-08
<i>NCREIF Property Index</i>			1.8	1.8	6.1	9.2	11.3	11.2	--	6.0	Jan-08
DRA Growth and Income Fund V	1,797,343	0.1	25.6	25.6	33.2	40.9	27.1	17.6	8.3	8.1	Jan-06
<i>NCREIF Property Index</i>			1.8	1.8	6.1	9.2	11.3	11.2	7.2	7.8	Jan-06
Tristan Capital Partners	1,819,533	0.1	1.2	1.2	10.5	--	--	--	--	10.5	Jan-16
<i>NCREIF Property Index</i>			1.8	1.8	6.1	--	--	--	--	6.1	Jan-16

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Returns for the Real Assets Aggregate are gross of fees through June 2015 and net of fees thereafter.

## Total Fund Aggregate

As of September 30, 2016

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
<b>Commodities</b>	<b>126,441,591</b>	<b>6.2</b>	<b>-3.1</b>	<b>-3.1</b>	<b>1.5</b>	<b>-4.9</b>	<b>-10.9</b>	<b>-9.3</b>	<b>--</b>	<b>-5.7</b>	<b>May-10</b>
Bloomberg Commodity Index TR USD			-3.9	-3.9	8.9	-2.6	-12.3	-9.4	--	-6.8	May-10
Credit Suisse Risk Parity Commodity Index	88,593,711	4.3	-3.3	-3.3	5.5	-2.3	-9.0	-6.9	--	-8.3	Apr-11
Custom Risk Parity Commodity Benchmark			-3.5	-3.5	4.7	-3.1	-9.2	-7.1	--	-8.4	Apr-11
Bloomberg Commodity Index TR USD			-3.9	-3.9	8.9	-2.6	-12.3	-9.4	--	-11.7	Apr-11
Pinnacle Natural Resources, L.P.	37,847,880	1.8	-3.3	-3.3	-5.4	--	--	--	--	-5.4	Jan-16
Bloomberg Commodity Index TR USD			-3.9	-3.9	8.9	--	--	--	--	8.9	Jan-16
<b>Infrastructure</b>	<b>148,717,151</b>	<b>7.3</b>	<b>2.3</b>	<b>2.3</b>	<b>19.1</b>	<b>15.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>6.1</b>	<b>Mar-14</b>
DJ Brookfield Global Infrastructure Net TR USD			2.2	2.2	18.8	15.3	--	--	--	5.3	Mar-14
Rhumblin DJ Brookfield Global Infrastructure	143,955,248	7.0	2.3	2.3	19.1	15.8	--	--	--	1.5	Jun-15
DJ Brookfield Global Infrastructure Net TR USD			2.2	2.2	18.8	15.3	--	--	--	0.9	Jun-15
Global Infrastructure Partners III	4,752,175	0.2	--	--	--	--	--	--	--	0.0	Sep-16
DJ Brookfield Global Infrastructure Net TR USD			--	--	--	--	--	--	--	2.9	Sep-16
SSgA DJ Brookfield Infrastructure Index	9,728	0.0									
<b>Natural Resources</b>	<b>105,093,417</b>	<b>5.1</b>	<b>4.7</b>	<b>4.7</b>	<b>24.7</b>	<b>23.0</b>	<b>-4.9</b>	<b>--</b>	<b>--</b>	<b>-5.0</b>	<b>Nov-12</b>
S&P Global Natural Resources Index TR USD			6.0	6.0	24.0	24.7	-3.8	--	--	-3.1	Nov-12
Rhumblin S&P Global Large MidCap Commodity & NR	105,012,817	5.1	4.7	4.7	24.7	23.0	--	--	--	-7.8	Jun-15
S&P Global LargeMidCap Commodity and Resources GR USD			4.8	4.8	25.7	23.8	--	--	--	-7.5	Jun-15
Northern Trust Global LargeMid Natural Resources	80,600	0.0									

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Custom Risk Parity Commodity Benchmark returns provided by Credit Suisse.<sup>3</sup> Rhumblin's tracking error due to cash positions that resulted from a delay in the ability to invest in certain markets.

## Total Fund Aggregate

As of September 30, 2016

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
<b>Absolute Return</b>	<b>268,754,091</b>	<b>13.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.3</b>	<b>-0.5</b>	<b>3.1</b>	<b>--</b>	<b>--</b>	<b>3.4</b>	<b>Nov-12</b>
<i>HFRI Macro (Total) Index</i>			-1.0	-1.0	1.7	1.5	2.6	--	--	1.6	Nov-12
<b>Relative Value</b>	<b>116,176,150</b>	<b>5.7</b>	<b>1.6</b>	<b>1.6</b>	<b>2.6</b>	<b>2.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>3.3</b>	<b>Oct-14</b>
<i>HFRI Relative Value (Total) Index</i>			2.9	2.9	5.7	5.4	--	--	--	2.2	Oct-14
DE Shaw	46,507,992	2.3	2.6	2.6	6.9	8.7	13.2	--	--	12.8	Apr-13
<i>HFRI Fund Weighted Composite Index</i>			3.0	3.0	4.2	4.9	3.2	--	--	3.2	Apr-13
Pine River Fund Ltd	33,189,725	1.6	0.0	0.0	-1.9	-5.8	0.0	--	--	2.5	Jan-13
<i>HFRI Relative Value (Total) Index</i>			2.9	2.9	5.7	5.4	3.9	--	--	--	Jan-13
Arrowgrass International Fund Ltd	18,795,584	0.9	1.9	1.9	0.6	2.8	4.2	--	--	5.4	Nov-12
<i>HFRI Relative Value (Total) Index</i>			2.9	2.9	5.7	5.4	3.9	--	--	4.6	Nov-12
JD Capital	10,000,000	0.5	--	--	--	--	--	--	--	--	Oct-16
Hudson Bay Fund	7,682,849	0.4	1.1	1.1	2.6	-0.1	0.6	--	--	0.6	Aug-13
<i>HFRI Relative Value (Total) Index</i>			2.9	2.9	5.7	5.4	3.9	--	--	4.0	Aug-13
<b>Macro</b>	<b>152,577,941</b>	<b>7.5</b>	<b>-1.0</b>	<b>-1.0</b>	<b>-1.0</b>	<b>-2.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>0.5</b>	<b>Oct-14</b>
<i>HFRI Macro: Discretionary Thematic Index</i>			-0.5	-0.5	-0.7	-0.5	--	--	--	-0.7	Oct-14
Brevan Howard Fund, Limited	29,975,362	1.5	-0.7	-0.7	-3.7	-5.2	--	--	--	-5.0	Aug-15
<i>HFRI Macro (Total) Index</i>			-1.0	-1.0	1.7	1.5	--	--	--	-0.1	Aug-15
Dymon Asia Macro	24,814,850	1.2	-1.5	-1.5	0.4	-0.3	--	--	--	-0.5	Sep-15
<i>HFRI Macro (Total) Index</i>			-1.0	-1.0	1.7	1.5	--	--	--	1.4	Sep-15
Pharo Macro Fund, Ltd.	21,541,650	1.1	2.5	2.5	--	--	--	--	--	7.7	Apr-16
<i>HFRI Macro (Total) Index</i>			-1.0	-1.0	--	--	--	--	--	0.1	Apr-16

<sup>1</sup> Fiscal Year begins July 1.

## Total Fund Aggregate

As of September 30, 2016

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Keynes Leveraged Quantitative Strategies Fund	19,590,000	1.0	0.6	0.6	-2.1	--	--	--	--	-2.1	Jan-16
<i>HFRI Macro (Total) Index</i>			-1.0	-1.0	1.7	--	--	--	--	1.7	Jan-16
Kepos Alpha Fund	18,850,706	0.9	-0.9	-0.9	-0.8	-2.9	4.0	--	--	1.3	Mar-13
<i>HFRI Macro: Systematic Diversified Index</i>			-2.8	-2.8	1.0	-0.1	3.9	--	--	2.1	Mar-13
BlueTrend Fund Limited	18,237,814	0.9	-7.2	-7.2	-7.1	-9.3	3.0	--	--	-2.6	Apr-13
<i>Barclay BTOP50 Index TR USD</i>			-2.4	-2.4	-1.9	-1.9	4.0	--	--	2.2	Apr-13
AHL Frontier Fund	10,107,800	0.5	1.1	1.1	--	--	--	--	--	1.1	Jun-16
<i>Barclay BTOP50 Index TR USD</i>			-2.4	-2.4	--	--	--	--	--	-2.4	Jun-16
MKP Opportunity Offshore, L.P.	9,459,759	0.5	-0.6	-0.6	-4.3	-5.7	--	--	--	-5.3	Jul-15
<i>HFRI Macro: Discretionary Thematic Index</i>			-0.5	-0.5	-0.7	-0.5	--	--	--	-1.6	Jul-15
<b>GTAA/Opportunistic</b>	--	--	--	--	--	--	--	--	--	--	
<b>Cash</b>	<b>183,712,082</b>	<b>9.0</b>									
Internal Cash Account	154,377,883	7.5									
Russell Investments Overlay	29,330,409	1.4									

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Cash includes the cash account, cash equitized in the Russell Investments Overlay program, cash from private manager distributions, and residuals from the Terminated Manager Account.<sup>3</sup> Overlay returns provided by Russell Investments.

## Total Fund Aggregate

As of September 30, 2016

## Fiscal Year Performance

	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)	Fiscal 2009 (%)	Fiscal 2008 (%)	Fiscal 2007 (%)
<b>Total Fund Aggregate</b>	<b>-0.7</b>	<b>-1.0</b>	<b>14.2</b>	<b>8.0</b>	<b>-3.3</b>	<b>18.9</b>	<b>13.7</b>	<b>-17.0</b>	<b>-3.4</b>	<b>15.9</b>
<i>Total Fund Ex Overlay (net)</i>	-0.9	-0.8	14.0	7.1	-2.6	18.9	13.7	-17.0	-3.4	15.9
<i>Consumer Price Index</i>	1.0	0.1	2.1	1.8	1.7	3.6	1.1	-1.4	5.0	2.7
<i>San Jose FCERS Policy Benchmark</i>	1.3	-3.3	17.0	8.3	-2.4	22.0	12.1	-15.3	-3.0	15.7
<i>San Jose FCERS Custom Benchmark</i>	0.7	-1.8	13.2	8.9	-3.2	18.6	11.4	-15.3	-2.8	18.3
<b>Total Global Equity</b>	<b>-4.3</b>	<b>0.8</b>	<b>22.6</b>	<b>17.8</b>	<b>-7.1</b>	<b>31.7</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>MSCI ACWI IMI Net USD</i>	-3.9	0.8	23.4	17.1	-6.9	31.0	--	--	--	--
<b>Global Equity</b>	<b>-2.3</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>MSCI ACWI IMI Net USD</i>	-3.9	--	--	--	--	--	--	--	--	--
<i>Artisan Global Value</i>	-2.0	0.6	24.4	27.7	2.8	--	--	--	--	--
<i>MSCI ACWI Value Net USD</i>	-4.8	-3.4	22.8	17.8	-7.8	--	--	--	--	--
<i>Russell Currency Hedge</i>										
<b>US Equity</b>	<b>0.6</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>Russell 3000</i>	2.1	--	--	--	--	--	--	--	--	--
<i>Cove Street Small Cap Value</i>	-2.3	-1.6	--	--	--	--	--	--	--	--
<i>Russell 2000 Value</i>	-2.6	0.8	--	--	--	--	--	--	--	--
<i>Northern Trust Russell 3000 Index</i>	2.2	7.4	25.2	21.6	3.9	32.5	16.3	-26.5	-12.6	20.2
<i>Russell 3000</i>	2.1	7.3	25.2	21.5	3.8	32.4	15.7	-26.6	-12.7	20.1

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Beginning in July 2012, fees are accounted for on a cash basis. Previously, fees were accounted for on an accrual basis.<sup>3</sup> Please see the Appendix for composition of the San Jose FCERS Policy Benchmark.<sup>4</sup> San Jose FCERS Custom Benchmark consists of the individual benchmarks that comprise the San Jose FCERS Policy Benchmark weighted accordingly to actual allocations and re-adjusted monthly.<sup>5</sup> Global Equity includes <\$0.1 million of residuals from terminated managers or previous transitions.<sup>5</sup> Returns for the Equity Aggregate are gross of fees through June 2015 and net of fees thereafter.<sup>6</sup> Global Equity includes a partial currency hedge initiated on August 21, 2015 of the following currencies: Australian Dollar, Canadian Dollar, Swiss Franc, Euro, British Pound Sterling, and Japanese Yen. As of the date of this report, the unrealized profit or loss was -\$0.2 mm and the total net exposure of the hedge was \$27.6 mm.

## Total Fund Aggregate

As of September 30, 2016

	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)	Fiscal 2009 (%)	Fiscal 2008 (%)	Fiscal 2007 (%)
<b>International Equity</b>	<b>-8.5</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>MSCI EAFE</i>	-10.2	--	--	--	--	--	--	--	--	--
Oberweis International Opportunities	--	--	--	--	--	--	--	--	--	--
<i>MSCI World ex USA Small Cap</i>	--	--	--	--	--	--	--	--	--	--
Northern Trust MSCI EAFE Index-NL	-9.9	-4.0	23.9	--	--	--	--	--	--	--
<i>MSCI EAFE</i>	-10.2	-4.2	23.6	--	--	--	--	--	--	--
<b>Emerging Markets Equity</b>	<b>-10.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>MSCI Emerging Markets</i>	-12.1	--	--	--	--	--	--	--	--	--
Aberdeen Frontier Markets	-12.0	-9.4	--	--	--	--	--	--	--	--
<i>MSCI Frontier Markets</i>	-12.1	-13.9	--	--	--	--	--	--	--	--
<i>MSCI Frontier Markets ex GCC NR USD</i>	-9.8	-13.9	--	--	--	--	--	--	--	--
<b>Marketable Alternative Equity</b>	<b>-2.1</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>HFRI Equity Hedge (Total) Index</i>	-5.0	--	--	--	--	--	--	--	--	--
Senator Global Opportunity Offshore Fund	-9.3	9.0	15.6	--	--	--	--	--	--	--
<i>HFRI Event-Driven (Total) Index</i>	-3.8	-0.8	11.2	--	--	--	--	--	--	--
Horizon Portfolio I	5.2	7.0	9.8	--	--	--	--	--	--	--
<i>HFRI Equity Hedge (Total) Index</i>	-5.0	2.4	12.5	--	--	--	--	--	--	--
Sandler Plus Offshore Fund Ltd	6.8	16.6	2.9	--	--	--	--	--	--	--
<i>HFRI Equity Hedge (Total) Index</i>	-5.0	2.4	12.5	--	--	--	--	--	--	--

<sup>1</sup> Fiscal Year begins July 1.



## Total Fund Aggregate

As of September 30, 2016

	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)	Fiscal 2009 (%)	Fiscal 2008 (%)	Fiscal 2007 (%)
Marshall Wace Eureka Fund	0.4	15.7	--	--	--	--	--	--	--	--
<i>HFRI Equity Hedge (Total) Index</i>	-5.0	2.4	--	--	--	--	--	--	--	--
<b>Private Equity</b>	<b>2.4</b>	<b>13.5</b>	<b>19.3</b>	<b>9.6</b>	<b>9.7</b>	<b>17.4</b>	<b>12.6</b>	<b>-23.8</b>	<b>14.0</b>	<b>2.9</b>
<i>Cambridge Associates Private Equity Composite</i>	6.9	5.8	19.6	13.2	9.6	19.1	23.1	-22.9	9.8	22.4
Pantheon USA Fund VII	4.4	16.6	21.7	10.2	12.1	13.0	11.0	--	--	--
<i>Cambridge Associates Private Equity Composite</i>	6.9	5.8	19.6	13.2	9.6	19.1	23.1	--	--	--
Partners Group Secondary 2011, L.P.	9.4	24.8	21.6	--	--	--	--	--	--	--
<i>Cambridge Associates Private Equity Composite</i>	6.9	5.8	19.6	--	--	--	--	--	--	--
Pathway Private Equity Fund VIII	-3.7	14.5	22.2	10.9	14.0	21.2	16.2	--	--	--
<i>Cambridge Associates Private Equity Composite</i>	6.9	5.8	19.6	13.2	9.6	19.1	23.1	--	--	--
Pantheon Global Secondary Fund III 'B'	-2.9	0.1	9.4	2.0	-0.1	14.0	10.3	--	--	--
<i>Cambridge Associates Private Equity Composite</i>	6.9	5.8	19.6	13.2	9.6	19.1	23.1	--	--	--
Partners Group Secondary 2008, L.P.	-2.4	0.5	22.6	7.5	8.8	36.3	3.6	--	--	--
<i>Cambridge Associates Private Equity Composite</i>	6.9	5.8	19.6	13.2	9.6	19.1	23.1	--	--	--
Great Hill Equity Partners IV, LP	11.6	41.9	26.4	29.0	69.1	-10.1	7.0	--	--	--
<i>Cambridge Associates Private Equity Composite</i>	6.9	5.8	19.6	13.2	9.6	19.1	23.1	--	--	--
<b>Global Fixed Income</b>	<b>2.2</b>	<b>-0.7</b>	<b>4.5</b>	<b>3.6</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>Fixed Income Custom Benchmark</i>	9.4	-7.1	7.4	-2.2	--	--	--	--	--	--
<b>Global Core</b>	<b>3.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>BBgBarc Global Aggregate TR</i>	8.9	--	--	--	--	--	--	--	--	--

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Cambridge Associates Private Equity Composite (40% Secondary and 60% Fund of Funds) used since 1Q14. Data for the Venture Economics Private Equity Index was used through 4Q13, but the index was discontinued in early 2014. Not available at the time of this report.<sup>3</sup> Returns for the Fixed Income Aggregate are gross of fees through June 2015 and net of fees thereafter.<sup>4</sup> Prior to 7/1/2015, Fixed Income Custom Benchmark was 100% Barclays Global Aggregate. After 7/1/2015, Fixed Income Custom Benchmark consists of 80% Barclays Global Aggregate, 5% JPM GBI-EM GD, 5% JPM EMBI GD, 5% S&P Global Leveraged Loan, and 5% BAML Global HY Index.

## Total Fund Aggregate

As of September 30, 2016

	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)	Fiscal 2009 (%)	Fiscal 2008 (%)	Fiscal 2007 (%)
Northern Trust Intermediate Gov't 1-10 Year <i>BBgBarc US Govt Int TR</i>	3.9 3.9	1.7 1.8	1.5 1.5	-- --	-- --	-- --	-- --	-- --	-- --	-- --
Northern Trust TIPS 0-5 Years <i>BBgBarc US Treasury Tips 0-5 Yr TR</i>	1.6 1.7	-1.9 -1.9	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
Voya Securitized Credit <i>BBgBarc Global Aggregate Securitized TR</i>	3.2 3.9	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
BlackRock Long Government Index <i>BBgBarc US Govt Long TR</i>	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
<b>Non-Investment Grade Credit</b>	<b>-2.9</b>	<b>-9.8</b>	<b>7.6</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>50% BAML Global HY / 50% S&amp;P Global Leveraged Loan</i>	0.9	-0.8	17.1	--	--	--	--	--	--	--
Davidson Kempner Institutional Partners, L.P. <i>HFRI Event-Driven (Total) Index</i>	2.0 -3.8	0.3 -0.8	9.9 11.2	-- --	-- --	-- --	-- --	-- --	-- --	-- --
Claren Road Credit Fund <i>HFRI RV: Fixed Income-Corporate Index</i>	-10.4 0.6	-16.9 -1.4	1.2 9.0	-- --	-- --	-- --	-- --	-- --	-- --	-- --
<b>Emerging Markets</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>	--	--	--	--	--	--	--	--	--	--
BlueBay Emerging Market Select Debt <i>50% JPM EMBI GD / 50% JPM GBI-EM</i>	2.1 6.0	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
<b>Private Debt</b>	<b>3.6</b>	<b>4.0</b>	<b>10.2</b>	<b>11.5</b>	<b>9.3</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>S&amp;P Global Leveraged Loan +2%</i>	3.0	-0.2	10.0	9.1	5.6	--	--	--	--	--
Medley Opportunity Fund II <i>3-Month LIBOR + 5%</i>	2.6 5.5	7.9 5.3	10.2 5.3	9.7 5.4	4.6 5.5	-- --	-- --	-- --	-- --	-- --

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Returns for the Private Debt Aggregate are gross of fees through June 2015 and net of fees thereafter.

## Total Fund Aggregate

As of September 30, 2016

	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)	Fiscal 2009 (%)	Fiscal 2008 (%)	Fiscal 2007 (%)
White Oak Direct Lending Account	17.5	-1.4	12.2	15.0	-2.0	--	--	--	--	--
3-Month LIBOR + 5%	5.5	5.3	5.3	5.4	5.5	--	--	--	--	--
GSO Direct Lending Account	-15.5	3.8	7.9	14.0	27.4	--	--	--	--	--
3-Month LIBOR + 5%	5.5	5.3	5.3	5.4	5.5	--	--	--	--	--
Cross Ocean USD ESS II	--	--	--	--	--	--	--	--	--	--
S&P Global Leveraged Loan +2%	--	--	--	--	--	--	--	--	--	--
<b>Real Assets</b>	<b>-1.9</b>	<b>-10.4</b>	<b>19.4</b>	<b>-10.1</b>	<b>-10.9</b>	<b>27.7</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>Real Estate</b>	<b>14.8</b>	<b>22.0</b>	<b>13.4</b>	<b>9.7</b>	<b>12.2</b>	<b>15.3</b>	<b>-23.3</b>	<b>-24.2</b>	<b>10.7</b>	<b>21.7</b>
NCREIF Property Index	10.6	13.0	11.2	10.7	12.0	16.7	-1.5	-19.6	9.2	17.2
PRISA	13.3	13.3	12.7	9.7	12.6	20.5	-4.5	-37.7	7.0	17.6
NCREIF ODCE Equal Weighted (net)	11.2	13.6	11.4	10.8	11.5	19.3	-8.5	-31.4	7.5	16.0
American Realty	12.3	12.9	11.5	10.3	11.0	16.5	-12.1	-26.2	9.4	--
NCREIF ODCE Equal Weighted (net)	11.2	13.6	11.4	10.8	11.5	19.3	-8.5	-31.4	7.5	--
DRA Growth and Income Fund VII	23.3	17.3	15.2	16.6	--	--	--	--	--	--
NCREIF Property Index	10.6	13.0	11.2	10.7	--	--	--	--	--	--
DRA Growth & Income Fund VIII	10.9	--	--	--	--	--	--	--	--	--
NCREIF Property Index	10.6	--	--	--	--	--	--	--	--	--
DRA Growth and Income Fund VI	21.5	36.8	16.6	5.1	28.4	11.4	-15.1	-8.4	--	--
NCREIF Property Index	10.6	13.0	11.2	10.7	12.0	16.7	-1.5	-19.6	--	--
Fidelity Real Estate Growth Fund III	12.8	41.5	17.9	13.6	13.4	34.8	-68.4	-31.7	--	--
NCREIF Property Index	10.6	13.0	11.2	10.7	12.0	16.7	-1.5	-19.6	--	--

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Returns for the Real Assets Aggregate are gross of fees through June 2015 and net of fees thereafter.

## Total Fund Aggregate

As of September 30, 2016

	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)	Fiscal 2009 (%)	Fiscal 2008 (%)	Fiscal 2007 (%)
DRA Growth and Income Fund V	22.4	27.0	7.8	3.7	4.6	8.4	-20.1	-10.6	17.2	9.1
<i>NCREIF Property Index</i>	10.6	13.0	11.2	10.7	12.0	16.7	-1.5	-19.6	9.2	17.2
Tristan Capital Partners	--	--	--	--	--	--	--	--	--	--
<i>NCREIF Property Index</i>	--	--	--	--	--	--	--	--	--	--
<b>Commodities</b>	<b>-15.5</b>	<b>-22.4</b>	<b>16.0</b>	<b>-10.9</b>	<b>-11.8</b>	<b>27.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>Bloomberg Commodity Index TR USD</i>	-13.3	-23.7	8.2	-8.0	-14.3	25.9	--	--	--	--
Credit Suisse Risk Parity Commodity Index	-11.4	-19.7	13.9	-7.4	-10.0	--	--	--	--	--
<i>Custom Risk Parity Commodity Benchmark</i>	-11.6	-20.1	14.3	-7.8	-9.5	--	--	--	--	--
<i>Bloomberg Commodity Index TR USD</i>	-13.3	-23.7	8.2	-8.0	-14.3	--	--	--	--	--
Pinnacle Natural Resources, L.P.	--	--	--	--	--	--	--	--	--	--
<i>Bloomberg Commodity Index TR USD</i>	--	--	--	--	--	--	--	--	--	--
<b>Infrastructure</b>	<b>3.9</b>	<b>-2.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>DJ Brookfield Global Infrastructure Net TR USD</i>	3.2	-3.7	--	--	--	--	--	--	--	--
Rhumblin DJ Brookfield Global Infrastructure	3.9	--	--	--	--	--	--	--	--	--
<i>DJ Brookfield Global Infrastructure Net TR USD</i>	3.2	--	--	--	--	--	--	--	--	--
Global Infrastructure Partners III	--	--	--	--	--	--	--	--	--	--
<i>DJ Brookfield Global Infrastructure Net TR USD</i>	--	--	--	--	--	--	--	--	--	--
SSgA DJ Brookfield Infrastructure Index	--	--	--	--	--	--	--	--	--	--
<b>Natural Resources</b>	<b>-9.5</b>	<b>-19.3</b>	<b>21.4</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>S&amp;P Global Natural Resources Index TR USD</i>	-8.9	-17.6	21.7	--	--	--	--	--	--	--
Rhumblin S&P Global Large MidCap Commodity & NR	-9.5	--	--	--	--	--	--	--	--	--
<i>S&amp;P Global LargeMidCap Commodity and Resources GR USD</i>	-9.2	--	--	--	--	--	--	--	--	--

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Rhumblin's tracking error due to cash position that resulted from a delay in the ability to invest in certain markets.

## Total Fund Aggregate

As of September 30, 2016

	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)	Fiscal 2009 (%)	Fiscal 2008 (%)	Fiscal 2007 (%)
Northern Trust Global LargeMid Natural Resources										
<b>Absolute Return</b>	<b>0.0</b>	<b>5.0</b>	<b>4.9</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>HFRI Macro (Total) Index</i>	1.8	4.1	1.5	--	--	--	--	--	--	--
<b>Relative Value</b>	<b>-0.3</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>HFRI Relative Value (Total) Index</i>	-0.2	--	--	--	--	--	--	--	--	--
DE Shaw	7.2	17.2	13.7	--	--	--	--	--	--	--
<i>HFRI Fund Weighted Composite Index</i>	-2.4	2.3	9.1	--	--	--	--	--	--	--
Pine River Fund Ltd	-8.8	7.5	4.4	--	--	--	--	--	--	--
<i>HFRI Relative Value (Total) Index</i>	-0.2	1.8	9.0	--	--	--	--	--	--	--
Arrowgrass International Fund Ltd	0.0	5.5	6.4	--	--	--	--	--	--	--
<i>HFRI Relative Value (Total) Index</i>	-0.2	1.8	9.0	--	--	--	--	--	--	--
JD Capital	--	--	--	--	--	--	--	--	--	--
Hudson Bay Fund	-2.0	-2.9	--	--	--	--	--	--	--	--
<i>HFRI Relative Value (Total) Index</i>	-0.2	1.8	--	--	--	--	--	--	--	--
<b>Macro</b>	<b>1.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>HFRI Macro: Discretionary Thematic Index</i>	-1.5	--	--	--	--	--	--	--	--	--
Brevan Howard Fund, Limited	--	--	--	--	--	--	--	--	--	--
<i>HFRI Macro (Total) Index</i>	--	--	--	--	--	--	--	--	--	--
Dymon Asia Macro	--	--	--	--	--	--	--	--	--	--
<i>HFRI Macro (Total) Index</i>	--	--	--	--	--	--	--	--	--	--

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Tracking error due to a cash position resulting from a delay in the ability to invest in certain markets.

## Total Fund Aggregate

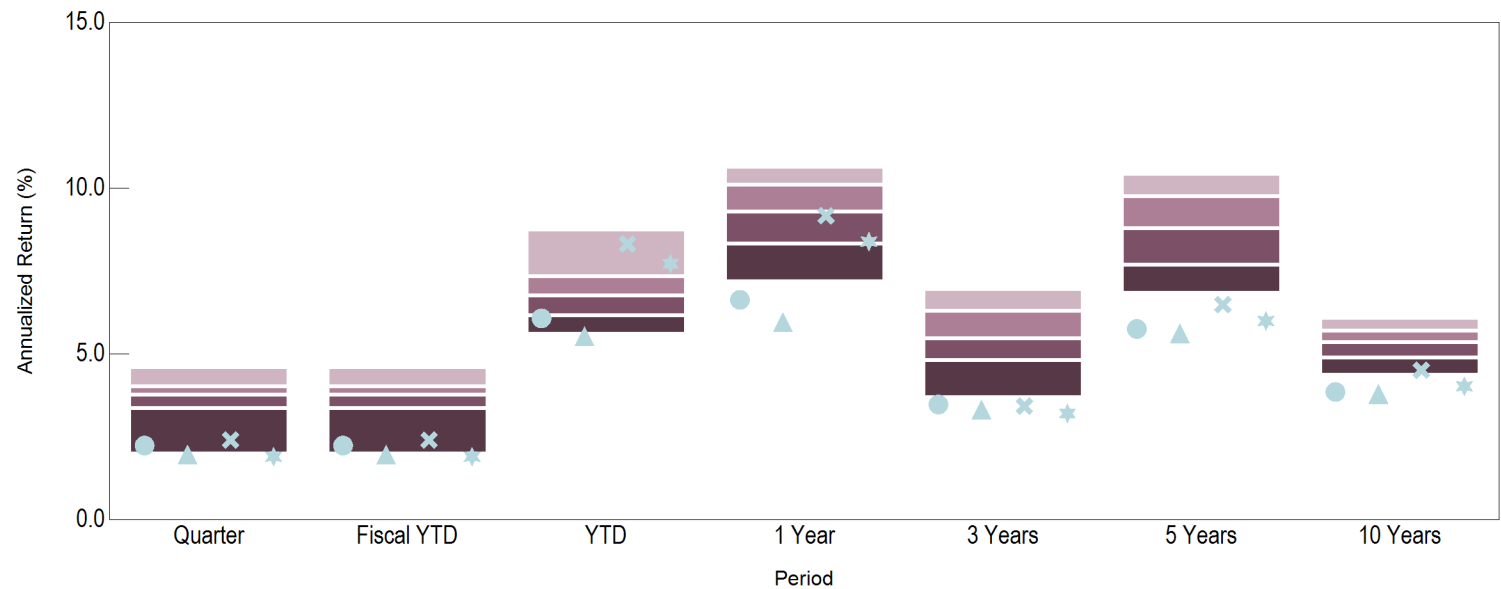
As of September 30, 2016

	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)	Fiscal 2009 (%)	Fiscal 2008 (%)	Fiscal 2007 (%)
Pharo Macro Fund, Ltd. <i>HFRI Macro (Total) Index</i>	--	--	--	--	--	--	--	--	--	--
Keynes Leveraged Quantitative Strategies Fund <i>HFRI Macro (Total) Index</i>	--	--	--	--	--	--	--	--	--	--
Kepos Alpha Fund <i>HFRI Macro: Systematic Diversified Index</i>	6.6 3.1	4.7 8.6	4.9 0.2	--	--	--	--	--	--	--
BlueTrend Fund Limited <i>Barclay BTOP50 Index TR USD</i>	6.7 2.8	3.0 8.2	4.9 0.8	--	--	--	--	--	--	--
AHL Frontier Fund <i>Barclay BTOP50 Index TR USD</i>	--	--	--	--	--	--	--	--	--	--
MKP Opportunity Offshore, L.P. <i>HFRI Macro: Discretionary Thematic Index</i>	-6.0 -1.5	--	--	--	--	--	--	--	--	--
<b>GTAA/Opportunistic</b>	--	--	--	--	--	--	--	--	--	--
<b>Cash</b>										
Internal Cash Account										
Russell Investments Overlay										

<sup>1</sup> Fiscal Year begins July 1.<sup>2</sup> Overlay returns provided by Russell Investments.

As of September 30, 2016

## InvestorForce Public DB &gt; \$1B Net Accounts

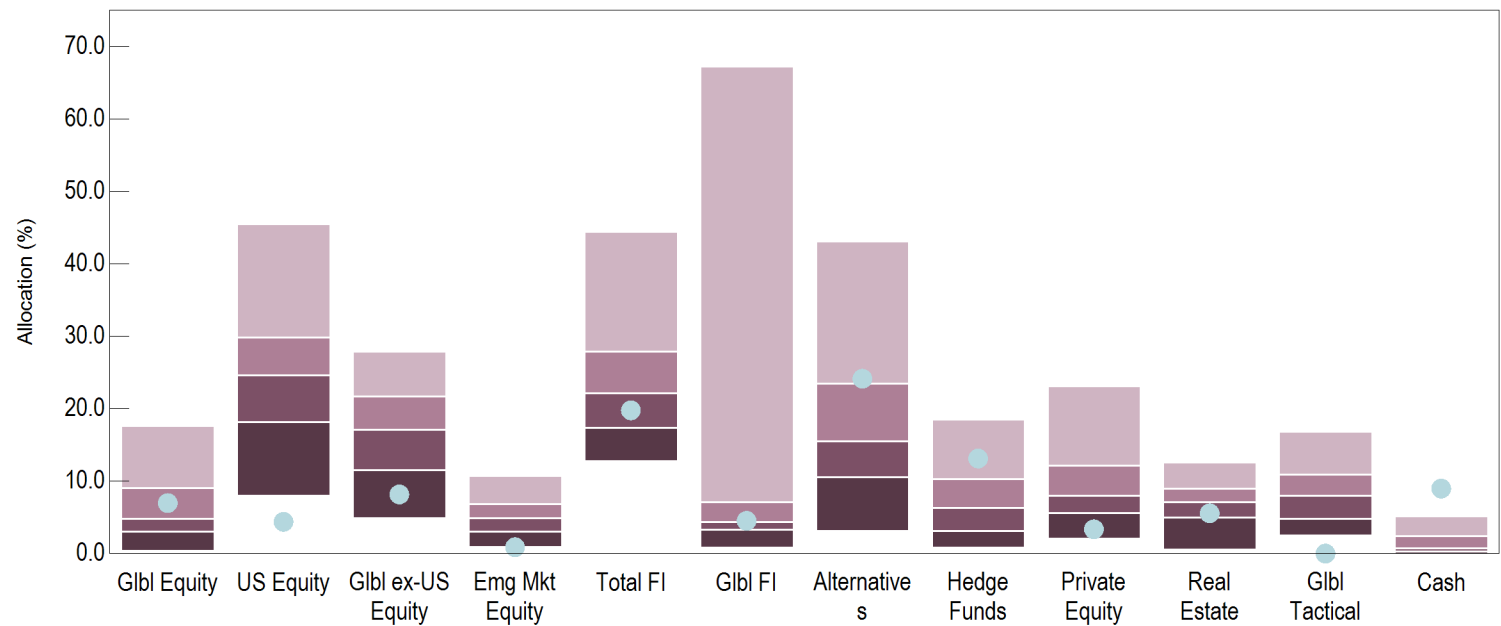


## Return (Rank)

5th Percentile	4.6	4.6	8.7	10.6	7.0	10.4	6.1
25th Percentile	4.0	4.0	7.4	10.1	6.3	9.8	5.7
Median	3.8	3.8	6.8	9.3	5.5	8.8	5.4
75th Percentile	3.4	3.4	6.2	8.3	4.8	7.7	4.9
95th Percentile	2.0	2.0	5.6	7.2	3.7	6.9	4.4
# of Portfolios	57	57	57	57	54	54	47
● Total Fund Aggregate	2.2 (95)	2.2 (95)	6.1 (80)	6.6 (98)	3.5 (97)	5.8 (99)	3.9 (99)
▲ Total Fund Ex Overlay (net)	2.0 (96)	2.0 (96)	5.5 (96)	6.0 (99)	3.3 (98)	5.6 (99)	3.8 (99)
✕ San Jose FCERS Policy Benchmark	2.4 (94)	2.4 (94)	8.3 (8)	9.2 (57)	3.4 (97)	6.5 (98)	4.5 (88)
★ San Jose FCERS Custom Benchmark	1.9 (96)	1.9 (96)	7.7 (11)	8.4 (75)	3.2 (98)	6.0 (99)	4.0 (99)

As of September 30, 2016

**Total Plan Allocation vs. InvestorForce Public DB > \$1B Net**  
As of September 30, 2016



	Allocation (Rank)												
5th Percentile	17.6	45.5	27.9	10.8	44.4	67.3	43.1	18.5	23.1	12.6	16.8	5.2	--
25th Percentile	9.1	29.9	21.8	6.9	27.9	7.2	23.6	10.4	12.2	9.1	11.0	2.5	--
Median	4.9	24.7	17.2	5.0	22.2	4.4	15.6	6.4	8.0	7.2	8.1	0.9	--
75th Percentile	3.1	18.2	11.6	3.1	17.4	3.4	10.7	3.2	5.7	5.1	4.9	0.3	--
95th Percentile	0.5	8.0	5.0	1.0	12.8	0.9	3.2	0.9	2.2	0.6	2.6	0.1	--
# of Portfolios	22	47	48	40	55	26	50	36	47	45	21	48	--
● Total Fund Aggregate	7.0 (39)	4.4 (99)	8.2 (86)	0.9 (96)	19.8 (62)	4.5 (49)	24.1 (25)	13.1 (16)	3.3 (86)	5.6 (66)	0.0 (99)	9.0 (1)	--



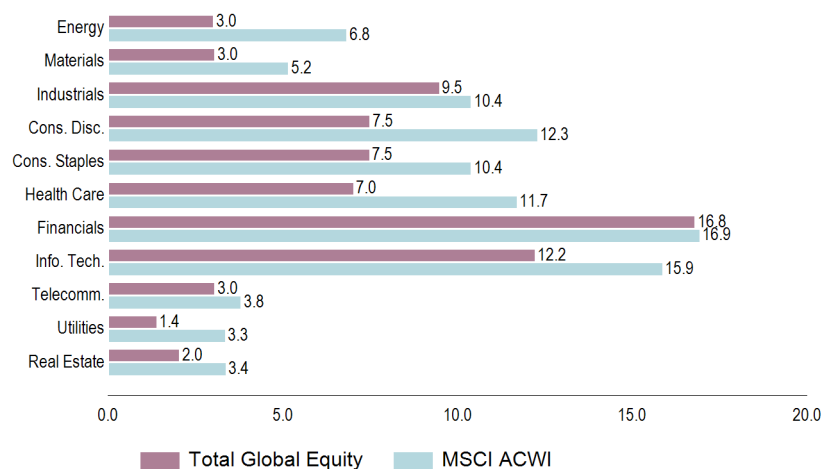
## Total Global Equity

As of September 30, 2016

## Asset Allocation on September 30, 2016

	Actual (\$)	Actual %
Aberdeen Frontier Markets	\$17,902,877	3.3%
Artisan Global Value	\$142,756,179	26.7%
Cove Street Small Cap Value	\$30,517,526	5.7%
Horizon Portfolio I	\$31,382,802	5.9%
Marshall Wace Eureka Fund	\$24,247,123	4.5%
Northern Trust MSCI EAFE Index-NL	\$136,430,098	25.5%
Northern Trust Russell 3000 Index	\$59,157,631	11.1%
Oberweis International Opportunities	\$30,717,082	5.7%
Russell Currency Hedge	-\$58,850	0.0%
Russell EAFE Small Cap	\$1,002	0.0%
Sandler Plus Offshore Fund Ltd	\$25,583,279	4.8%
Senator Global Opportunity Offshore Fund	\$36,460,131	6.8%
<b>Total</b>	<b>\$535,096,877</b>	<b>100.0%</b>

## Sector Allocation (%) vs MSCI ACWI



## Total Equity Characteristics

	Portfolio Q3-16	Index Q3-16	Portfolio Q2-16
<b>Market Value</b>			
Market Value (Mil)	535.10	--	508.70
Number Of Holdings	3593	2470	3684
<b>Characteristics</b>			
Wtg. Avg. Market Cap. (Bil)	69.48	91.89	62.40
Median Market Cap (Bil)	3.48	8.48	3.26
P/E Ratio	20.39	21.57	21.14
Yield	2.51	2.53	2.53
EPS Growth - 5 Yrs.	6.91	7.89	7.25
Price to Book	3.35	3.32	3.45
Beta (holdings; domestic)	1.09	1.01	1.06

## Top 10 Holdings

CASH - USD	27.0%
ORACLE	1.3%
MICROSOFT	1.2%
SAMSUNG ELECTRONICS	1.2%
ARCH CAP.GP.	1.1%
BANK OF NEW YORK MELLON	1.1%
MEDTRONIC	1.1%
QUALCOMM	1.1%
ABB LTD N	1.1%
CITIGROUP	1.0%
<b>Total</b>	<b>37.1%</b>

<sup>1</sup> Characteristics exclude Marketable Alternatives Equity.

As of September 30, 2016

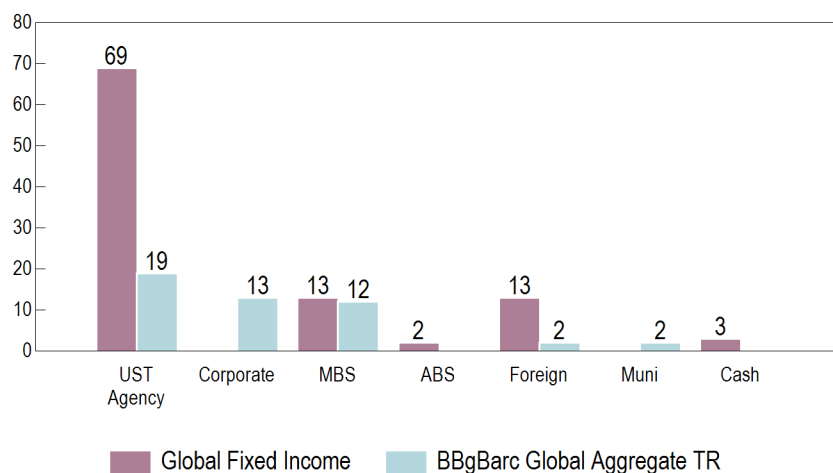
## Asset Allocation on September 30, 2016

	Actual (\$)	Actual %
BlackRock Long Government Index	\$41,319,602	10.2%
BlueBay Emerging Market Select Debt	\$52,924,173	13.1%
Claren Road Credit Fund	\$5,297,593	1.3%
Davidson Kempner Institutional Partners, L.P.	\$35,865,078	8.9%
Northern Trust Intermediate Gov't 1-10 Year	\$99,483,900	24.6%
Northern Trust TIPS 0-5 Years	\$111,534,479	27.5%
Voya Securitized Credit	\$58,452,461	14.4%
<b>Total</b>	<b>\$404,877,286</b>	<b>100.0%</b>

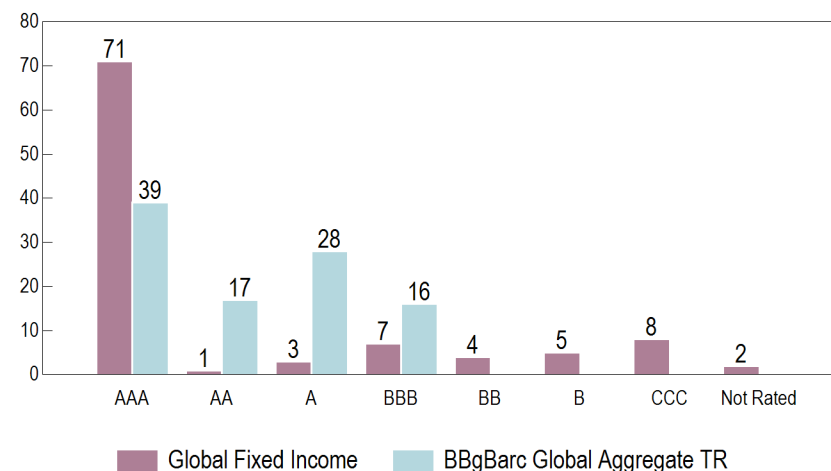
Fixed Income Assets Characteristics  
vs. BBgBarc Global Aggregate TR

	Portfolio Q3-16	Index Q3-16	Portfolio Q2-16
Fixed Income Characteristics			
Yield to Maturity	2.4	1.1	2.4
Average Duration	5.0	6.9	4.5
Average Quality	AA	AA	AA

## Sector Allocation



## Credit Quality Allocation

<sup>1</sup> Characteristics exclude Non-Investment Grade Credit.

## Artisan Global Value

As of September 30, 2016

## Account Information

Account Name	Artisan Global Value
Account Structure	Separate Account
Investment Style	Active
Inception Date	3/01/11
Account Type	Global Equity
Benchmark	MSCI ACWI Value Net USD
Universe	eA Global Value Equity Net

## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Artisan Global Value	7.1	7.1	13.3	6.9	14.7	--	10.8	Mar-11
MSCI ACWI Value Net USD	5.3	5.3	11.8	3.6	9.4	3.0	4.5	Mar-11
eA Global Value Equity Net Median	5.5	5.5	10.7	4.5	10.8	4.4	6.3	Mar-11
eA Global Value Equity Net Rank	30	30	31	18	1	--	3	Mar-11

## Top 10 Holdings

CASH - USD	11.0%
ORACLE	4.4%
SAMSUNG ELECTRONICS	4.3%
ARCH CAP.GP.	3.8%
BANK OF NEW YORK MELLON	3.7%
MEDTRONIC	3.6%
MICROSOFT	3.6%
QUALCOMM	3.6%
ABB LTD N	3.4%
CITIGROUP	3.4%
<b>Total</b>	<b>44.6%</b>

## Artisan Global Value Characteristics

	Portfolio Q3-16	Index Q3-16	Portfolio Q2-16
<b>Market Value</b>			
Market Value (Mil)	142.8	--	133.3
Number Of Holdings	52	2470	51
<b>Characteristics</b>			
Wtg. Avg. Market Cap. (Bil)	91.3	91.9	87.9
Median Market Cap (Bil)	31.9	8.5	31.2
P/E Ratio	17.9	21.6	21.0
Yield	2.2	2.5	2.3
EPS Growth - 5 Yrs.	8.8	7.9	6.3
Price to Book	2.8	3.3	2.7
Beta (holdings; domestic)	1.1	1.0	1.1
<b>Sector Distribution</b>			
Energy	2.4	6.8	2.5
Materials	0.0	5.2	0.0
Industrials	10.0	10.4	10.3
Consumer Discretionary	3.7	12.3	4.7
Consumer Staples	6.8	10.4	6.9
Health Care	6.2	11.7	7.4
Financials	31.3	16.9	30.9
Information Technology	25.1	15.9	24.0
Telecommunication Services	3.3	3.8	3.3
Utilities	0.0	3.3	0.0
Real Estate	0.0	3.4	0.0

## Cove Street Small Cap Value

As of September 30, 2016

## Account Information

Account Name	Cove Street Small Cap Value
Account Structure	Separate Account
Investment Style	Active
Inception Date	5/01/14
Account Type	US Stock Small Cap Value
Benchmark	Russell 2000 Value
Universe	eA US Small Cap Value Equity Net

## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Cove Street Small Cap Value	9.0	9.0	19.1	--	--	--	5.0	May-14
Russell 2000 Value	8.9	8.9	18.8	6.8	15.4	5.8	4.9	May-14
eA US Small Cap Value Equity Net Median	7.3	7.3	15.0	6.8	15.7	7.4	5.0	May-14
eA US Small Cap Value Equity Net Rank	21	21	18	--	--	--	51	May-14

## Top 10 Holdings

CASH - USD	8.8%
VIASAT	5.0%
FMC	4.8%
LIBERTY MEDIA SR.A	4.8%
LIBERTY GLOBAL LILAC CLASS A	4.6%
HERITAGE CRYSTAL CLEAN	4.4%
FORESTAR GROUP	3.9%
CARROLS RESTAURANT GP.	3.7%
HALYARD HEALTH	3.6%
GP STRATEGIES	3.4%
<b>Total</b>	<b>47.2%</b>

## Cove Street Small Cap Value Characteristics

	Portfolio Q3-16	Index Q3-16	Portfolio Q2-16
<b>Market Value</b>			
Market Value (Mil)	30.5	--	28.0
Number Of Holdings	35	1338	36
<b>Characteristics</b>			
Wtg. Avg. Market Cap. (Bil)	1.8	1.7	1.7
Median Market Cap (Bil)	0.8	0.6	0.7
P/E Ratio	22.3	17.9	17.9
Yield	0.5	1.9	0.6
EPS Growth - 5 Yrs.	-11.7	7.8	-9.3
Price to Book	2.9	1.6	2.5
Beta (holdings; domestic)	1.5	1.2	1.5
<b>Sector Distribution</b>			
Energy	1.3	5.3	1.8
Materials	8.1	4.5	8.5
Industrials	21.3	12.6	21.5
Consumer Discretionary	26.6	10.5	23.2
Consumer Staples	0.0	2.9	0.0
Health Care	3.6	4.9	3.8
Financials	6.1	30.7	14.5
Information Technology	16.0	10.6	17.2
Telecommunication Services	1.8	0.7	1.0
Utilities	0.0	6.8	0.0
Real Estate	6.4	10.4	0.0

## Northern Trust Russell 3000 Index

As of September 30, 2016

## Account Information

Account Name	Northern Trust Russell 3000 Index
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	9/01/99
Account Type	US All Cap
Benchmark	Russell 3000
Universe	

## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Northern Trust Russell 3000 Index	4.4	4.4	15.1	10.5	16.4	7.5	5.6	Sep-99
Russell 3000	4.4	4.4	15.0	10.4	16.4	7.4	5.5	Sep-99

## Top 10 Holdings

APPLE	2.7%
MICROSOFT	1.9%
EXXON MOBIL	1.6%
AMAZON.COM	1.4%
JOHNSON & JOHNSON	1.4%
FACEBOOK CLASS A	1.3%
GENERAL ELECTRIC	1.2%
BERKSHIRE HATHAWAY 'B'	1.2%
AT&T	1.1%
JP MORGAN CHASE & CO.	1.1%
<b>Total</b>	<b>15.0%</b>

## Northern Trust Russell 3000 Index Characteristics

	Portfolio Q3-16	Index Q3-16	Portfolio Q2-16
<b>Market Value</b>			
Market Value (Mil)	59.2	--	56.7
Number Of Holdings	2538	2955	2562
<b>Characteristics</b>			
Wtg. Avg. Market Cap. (Bil)	112.5	112.3	106.5
Median Market Cap (Bil)	2.0	1.4	1.8
P/E Ratio	23.4	22.9	23.9
Yield	2.0	2.0	2.1
EPS Growth - 5 Yrs.	9.5	9.3	8.5
Price to Book	4.5	3.8	4.3
Beta (holdings; domestic)	1.0	1.0	1.0
<b>Sector Distribution</b>			
Energy	6.7	6.7	6.8
Materials	3.3	3.3	3.2
Industrials	10.5	10.3	10.6
Consumer Discretionary	12.6	12.8	13.0
Consumer Staples	8.8	8.8	9.4
Health Care	14.1	14.1	14.1
Financials	13.3	13.4	17.2
Information Technology	20.6	20.6	19.2
Telecommunication Services	2.4	2.4	2.6
Utilities	3.3	3.3	3.7
Real Estate	4.3	4.3	0.0



## Oberweis International Opportunities

As of September 30, 2016

## Account Information

Account Name	<b>Oberweis International Opportunities</b>
Account Structure	<b>Separate Account</b>
Investment Style	<b>Active</b>
Inception Date	<b>11/01/15</b>
Account Type	<b>International Small Stocks</b>
Benchmark	<b>MSCI World ex USA Small Cap</b>
Universe	<b>eA ACWI ex-US All Cap Equity Net</b>

## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Oberweis International Opportunities	4.7	4.7	--	--	--	--	7.8	Nov-15
MSCI World ex USA Small Cap	8.0	8.0	13.5	4.2	9.7	4.1	7.1	Nov-15
eA ACWI ex-US All Cap Equity Net Median	6.6	6.6	9.0	2.8	8.6	3.4	2.0	Nov-15
eA ACWI ex-US All Cap Equity Net Rank	84	84	--	--	--	--	10	Nov-15

## Top 10 Holdings

ADMIRAL GROUP	14.3%
MICRO FOCUS INTL.	12.2%
IG GROUP HOLDINGS	6.5%
MITSUI CHEMICALS	4.9%
KYUDENKO	4.9%
WEIR GROUP	4.3%
LOGITECH 'R'	4.0%
OPEN HOUSE	3.5%
SHIMAMURA	3.2%
KAJIMA	3.0%
<b>Total</b>	<b>60.8%</b>

## Oberweis International Opportunities Characteristics

	Portfolio Q3-16	Index Q3-16	Portfolio Q2-16
<b>Market Value</b>			
Market Value (Mil)	30.7	--	29.3
Number Of Holdings	37	2441	100
<b>Characteristics</b>			
Wtg. Avg. Market Cap. (Bil)	5.3	2.2	4.0
Median Market Cap (Bil)	3.6	1.0	2.9
P/E Ratio	23.0	19.8	26.4
Yield	2.2	2.3	1.4
EPS Growth - 5 Yrs.	13.8	10.3	18.0
Price to Book	4.7	2.3	5.4
Beta (holdings; domestic)	0.8	0.9	0.8
<b>Sector Distribution</b>			
Energy	0.0	4.2	2.2
Materials	7.9	11.0	6.3
Industrials	29.7	21.0	19.9
Consumer Discretionary	12.0	15.2	21.9
Consumer Staples	3.6	6.8	11.2
Health Care	0.0	7.3	9.9
Financials	23.5	10.2	11.7
Information Technology	17.9	10.1	11.9
Telecommunication Services	0.0	1.1	1.0
Utilities	0.0	2.1	0.0
Real Estate	5.2	10.9	0.0

## Northern Trust MSCI EAFE Index-NL

As of September 30, 2016

## Account Information

Account Name	Northern Trust MSCI EAFE Index-NL
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	11/01/12
Account Type	Non-US Stock Developed
Benchmark	MSCI EAFE
Universe	

## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Northern Trust MSCI EAFE Index-NL	6.5	6.5	6.9	0.8	--	--	6.1	Nov-12
MSCI EAFE	6.4	6.4	6.5	0.5	7.4	1.8	5.8	Nov-12

## Top 10 Holdings

NESTLE 'R'	2.1%
NOVARTIS 'R'	1.5%
ROCHE HOLDING	1.4%
TOYOTA MOTOR	1.2%
HSBC HDG. (ORD \$0.50)	1.2%
BRITISH AMERICAN TOBACCO	1.0%
ANHEUSER-BUSCH INBEV	0.9%
BP	0.9%
TOTAL	0.9%
ROYAL DUTCH SHELL A(LON)	0.9%
<b>Total</b>	<b>11.8%</b>

## Northern Trust MSCI EAFE Index-NL Characteristics

	Portfolio Q3-16	Index Q3-16	Portfolio Q2-16
<b>Market Value</b>			
Market Value (Mil)	136.4	--	128.1
Number Of Holdings	959	927	962
<b>Characteristics</b>			
Wtg. Avg. Market Cap. (Bil)	52.5	52.2	51.6
Median Market Cap (Bil)	8.7	8.9	8.3
P/E Ratio	21.0	20.5	19.7
Yield	3.3	3.2	3.4
EPS Growth - 5 Yrs.	6.0	5.8	6.6
Price to Book	3.2	2.4	3.3
Beta (holdings; domestic)	1.0	1.0	1.0
<b>Sector Distribution</b>			
Energy	4.8	4.8	5.2
Materials	7.5	7.5	6.8
Industrials	14.0	14.0	13.4
Consumer Discretionary	12.2	12.2	12.1
Consumer Staples	12.9	12.8	13.3
Health Care	11.5	11.4	12.4
Financials	19.2	19.2	21.9
Information Technology	5.5	5.5	5.4
Telecommunication Services	4.8	4.8	5.1
Utilities	3.7	3.7	3.9
Real Estate	4.0	4.0	0.0

## Aberdeen Frontier Markets

As of September 30, 2016

## Account Information

Account Name	Aberdeen Frontier Markets
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	12/01/13
Account Type	International Emerging Stocks
Benchmark	MSCI Frontier Markets
Universe	

## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Aberdeen Frontier Markets	5.0	5.0	0.6	--	--	--	-4.4	Dec-13
MSCI Frontier Markets	2.6	2.6	0.9	-0.2	4.6	-0.3	-1.6	Dec-13
MSCI Frontier Markets ex GCC NR USD	2.9	2.9	4.9	-2.0	3.6	-0.9	-4.7	Dec-13

## Top 10 Holdings

VIETNAM DAIRY PRODUCTS	6.9%
SAFARICOM	5.4%
JOHN KEELLS HOLDINGS	5.4%
EPAM SYSTEMS	4.7%
BRD GROUPE SOCIETE GL.	4.1%
COCA COLA ICECEK	4.0%
EAST AFRICAN BREWERIES	3.7%
HABIB BANK	3.5%
BANK OF GEORGIA HDG.	3.4%
KRKA	3.3%
<b>Total</b>	<b>44.3%</b>

## Aberdeen Frontier Markets Characteristics

	Portfolio Q3-16	Index Q3-16	Portfolio Q2-16
<b>Market Value</b>			
Market Value (Mil)	17.9	--	17.0
Number Of Holdings	46	118	47
<b>Characteristics</b>			
Wtg. Avg. Market Cap. (Bil)	3.7	4.2	3.8
Median Market Cap (Bil)	1.7	1.5	1.7
P/E Ratio	22.0	15.9	19.9
Yield	3.5	4.2	3.6
EPS Growth - 5 Yrs.	11.7	8.8	12.2
Price to Book	5.0	2.8	5.1
Beta (holdings; domestic)	1.1	1.1	1.1
<b>Sector Distribution</b>			
Energy	4.5	8.8	4.2
Materials	4.0	7.2	3.2
Industrials	8.7	2.6	7.0
Consumer Discretionary	1.5	1.2	1.3
Consumer Staples	30.0	11.5	32.9
Health Care	7.9	3.0	9.2
Financials	22.7	45.3	24.0
Information Technology	6.3	1.1	4.8
Telecommunication Services	12.3	13.1	13.3
Utilities	0.0	1.6	0.0
Real Estate	2.2	4.6	0.0



## Senator Global Opportunity Offshore Fund

As of September 30, 2016

## Account Information

Account Name	Senator Global Opportunity Offshore Fund
Account Structure	Hedge Fund
Investment Style	Active
Inception Date	4/01/13
Account Type	Long/Short Equity
Benchmark	HFRI Event-Driven (Total) Index
Universe	

## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Senator Global Opportunity Offshore Fund	5.4	5.4	3.7	4.8	--	--	6.5	Apr-13
<i>HFRI Event-Driven (Total) Index</i>	4.5	4.5	6.3	2.6	5.3	4.3	3.5	<i>Apr-13</i>

## Account Information

Account Name	Horizon Portfolio I
Account Structure	Hedge Fund
Investment Style	Active
Inception Date	7/01/13
Account Type	Long/Short Equity
Benchmark	HFRI Equity Hedge (Total) Index
Universe	

## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Horizon Portfolio I	-2.6	-2.6	1.1	5.5	--	--	5.9	Jul-13
<i>HFRI Equity Hedge (Total) Index</i>	4.6	4.6	6.0	3.2	5.6	3.3	4.2	<i>Jul-13</i>

## Account Information

Account Name	Sandler Plus Offshore Fund Ltd
Account Structure	Hedge Fund
Investment Style	Active
Inception Date	5/01/13
Account Type	Long/Short Equity
Benchmark	HFRI Equity Hedge (Total) Index
Universe	

## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Sandler Plus Offshore Fund Ltd	1.1	1.1	5.1	7.5	--	--	7.5	May-13
HFRI Equity Hedge (Total) Index	4.6	4.6	6.0	3.2	5.6	3.3	3.9	May-13

As of September 30, 2016

## Account Information

Account Name	Marshall Wace Eureka Fund
Account Structure	Hedge Fund
Investment Style	Active
Inception Date	4/01/14
Account Type	Long/Short Equity
Benchmark	HFRI Equity Hedge (Total) Index
Universe	

## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Marshall Wace Eureka Fund	2.6	2.6	1.5	--	--	--	7.4	Apr-14
<i>HFRI Equity Hedge (Total) Index</i>	4.6	4.6	6.0	3.2	5.6	3.3	1.5	Apr-14

## Northern Trust Intermediate Gov't 1-10 Year

As of September 30, 2016

## Account Information

Account Name	Northern Trust Intermediate Gov't 1-10 Year
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	10/01/12
Account Type	US Fixed Income
Benchmark	BBgBarc US Govt Int TR
Universe	

## Portfolio Performance Summary

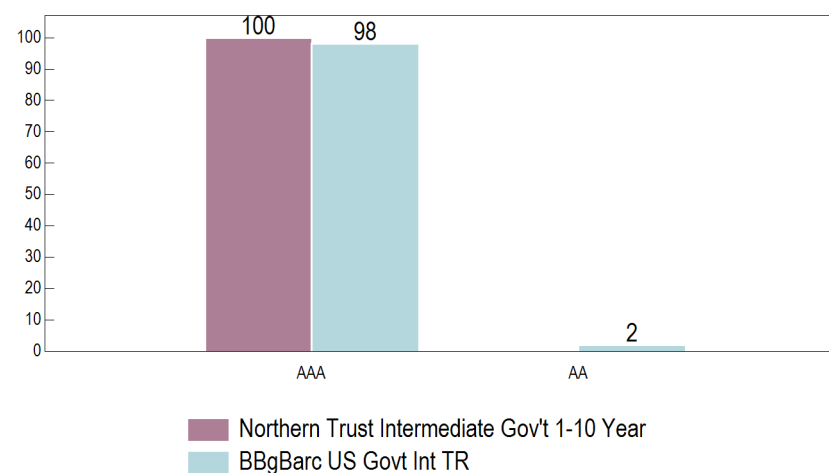
	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Northern Trust Intermediate Gov't 1-10 Year	-0.2	-0.2	2.4	2.1	--	--	1.4	Oct-12
BBgBarc US Govt Int TR	-0.2	-0.2	2.4	2.2	1.6	3.7	1.4	Oct-12

## Northern Trust Intermediate Gov't 1-10 Year Characteristics

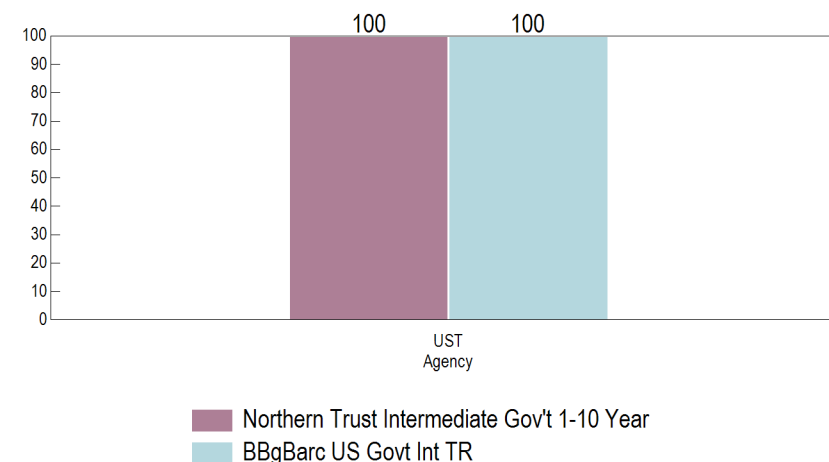
vs. BBgBarc US Govt Int TR

	Portfolio Q3-16	Index Q3-16	Portfolio Q2-16
Fixed Income Characteristics			
Yield to Maturity	1.1	1.1	0.9
Average Duration	3.9	3.9	3.9
Average Quality	AAA	AAA	AAA

## Credit Quality Allocation



## Sector Allocation



## Northern Trust TIPS 0-5 Years

As of September 30, 2016

## Account Information

Account Name	Northern Trust TIPS 0-5 Years
Account Structure	Separate Account
Investment Style	Passive
Inception Date	7/01/14
Account Type	US Inflation Protected Fixed
Benchmark	BBgBarc US Treasury Tips 0-5 Yr TR
Universe	

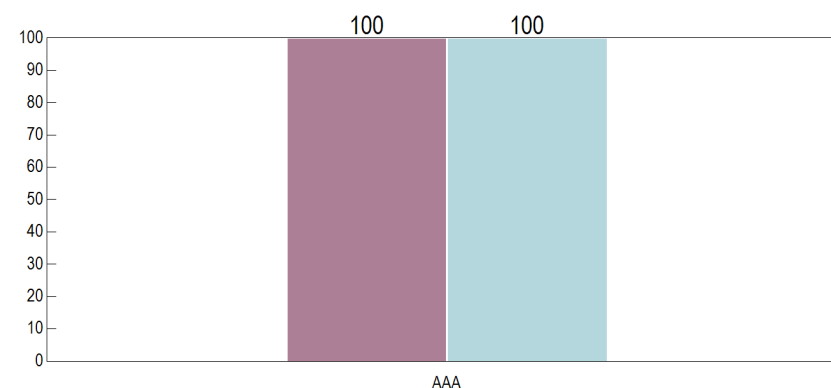
## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Northern Trust TIPS 0-5 Years	0.3	0.3	2.7	--	--	--	0.0	Jul-14
BBgBarc US Treasury Tips 0-5 Yr TR	0.3	0.3	2.6	0.5	0.7	2.8	0.0	Jul-14

Northern Trust TIPS 0-5 Years Characteristics  
vs. BBgBarc US Treasury Tips 0-5 Yr TR

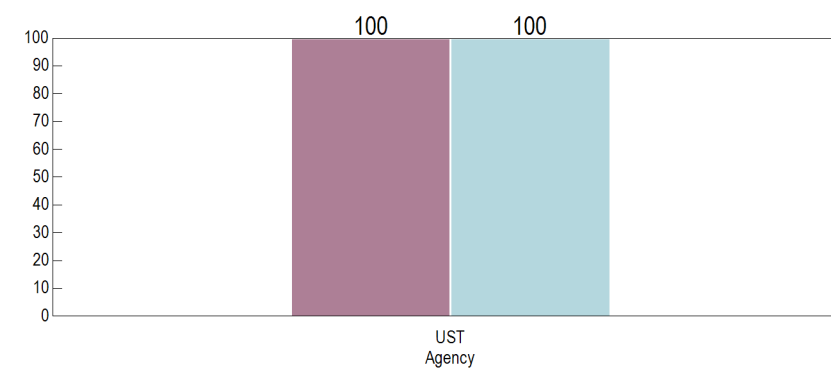
	Portfolio Q3-16	Index Q3-16	Portfolio Q2-16
Fixed Income Characteristics			
Yield to Maturity	0.8	0.9	0.7
Average Duration	2.2	1.9	1.4
Average Quality	AAA	AAA	AAA

## Credit Quality Allocation



■ Northern Trust TIPS 0-5 Years  
■ BBgBarc US Treasury Tips 0-5 Yr TR

## Sector Allocation



■ Northern Trust TIPS 0-5 Years  
■ BBgBarc US Treasury Tips 0-5 Yr TR

## Voya Securitized Credit

As of September 30, 2016

## Account Information

Account Name	Voya Securitized Credit
Account Structure	Separate Account
Investment Style	Active
Inception Date	7/01/15
Account Type	Global Fixed Income
Benchmark	BBgBarc Global Aggregate Securitized TR
Universe	

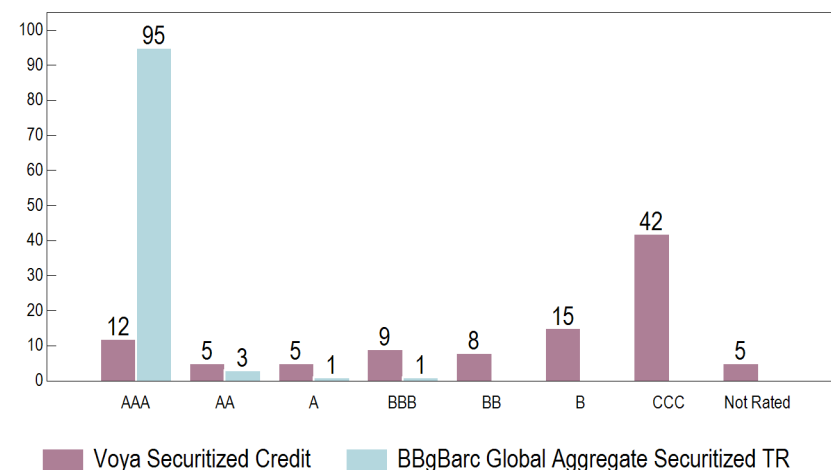
## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Voya Securitized Credit	2.9	2.9	6.2	--	--	--	5.0	Jul-15
BBgBarc Global Aggregate Securitized TR	0.8	0.8	3.6	2.4	2.5	4.4	3.8	Jul-15

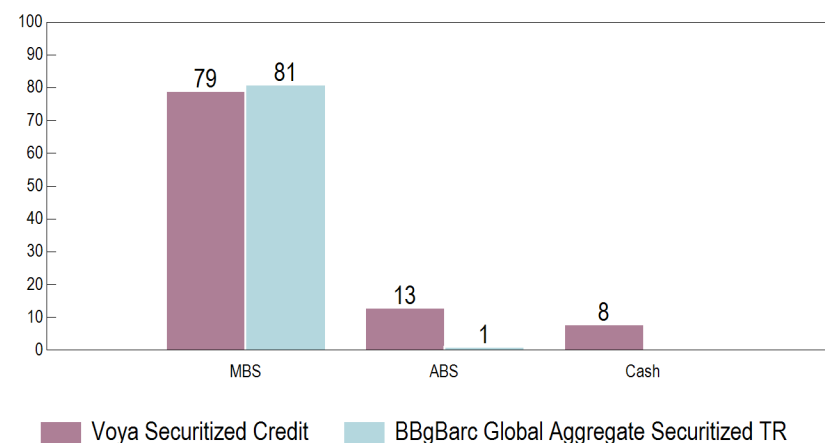
Voya Securitized Credit Characteristics  
vs. BBgBarc Global Aggregate Securitized TR

	Portfolio Q3-16	Index Q3-16	Portfolio Q2-16
Fixed Income Characteristics			
Yield to Maturity	5.0	1.6	6.0
Average Duration	2.2	3.1	2.6
Average Quality	CCC	AAA	CCC

## Credit Quality Allocation



## Sector Allocation



## BlackRock Long Government Index

As of September 30, 2016

## Account Information

Account Name	BlackRock Long Government Index
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	6/01/16
Account Type	US Fixed Income Investment Grade
Benchmark	BBgBarc US Govt Long TR
Universe	

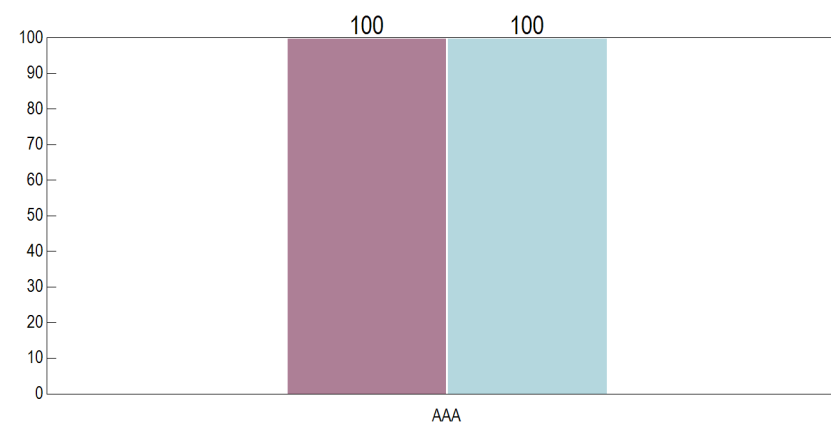
## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
BlackRock Long Government Index	-0.2	-0.2	--	--	--	--	5.9	Jun-16
BBgBarc US Govt Long TR	-0.3	-0.3	13.0	11.1	5.5	8.0	5.7	Jun-16

BlackRock Long Government Index Characteristics  
vs. BBgBarc US Govt Long TR

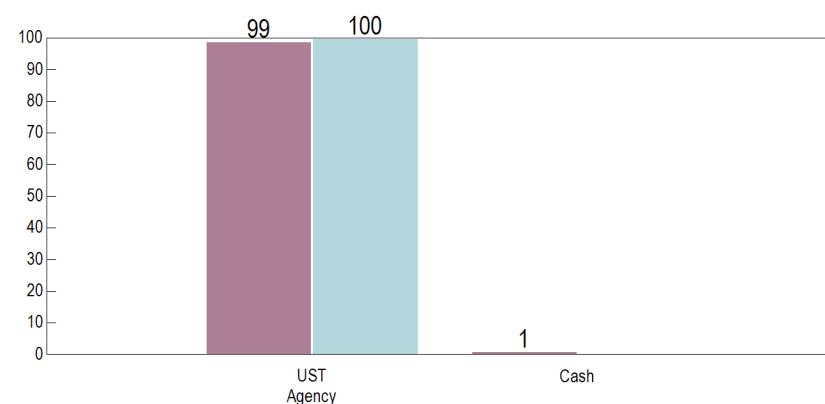
	Portfolio Q3-16	Index Q3-16
Fixed Income Characteristics		
Yield to Maturity	2.2	2.2
Average Duration	17.0	17.9
Average Quality	AAA	AAA

## Credit Quality Allocation



BlackRock Long Government Index BBgBarc US Govt Long TR

## Sector Allocation



BlackRock Long Government Index BBgBarc US Govt Long TR



As of September 30, 2016

## Account Information

Account Name	Claren Road Credit Fund
Account Structure	Other
Investment Style	Active
Inception Date	7/01/13
Account Type	Hedge Fund
Benchmark	HFRI RV: Fixed Income-Corporate Index
Universe	

## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Claren Road Credit Fund	-7.1	-7.1	-16.4	-10.4	--	--	-10.4	Jul-13
HFRI RV: Fixed Income-Corporate Index	4.0	4.0	8.1	3.5	5.3	3.8	3.7	Jul-13

## Account Information

Account Name	Davidson Kempner Institutional Partners, L.P.
Account Structure	Other
Investment Style	Active
Inception Date	2/01/13
Account Type	Hedge Fund
Benchmark	HFRI Event-Driven (Total) Index
Universe	

## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Davidson Kempner Institutional Partners, L.P.	1.8	1.8	4.3	3.9	--	--	4.9	Feb-13
<i>HFRI Event-Driven (Total) Index</i>	4.5	4.5	6.3	2.6	5.3	4.3	3.8	<i>Feb-13</i>

## BlueBay Emerging Market Select Debt

As of September 30, 2016

## Account Information

Account Name	BlueBay Emerging Market Select Debt
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	7/01/15
Account Type	International Emerging Market Debt
Benchmark	50% JPM EMBI GD / 50% JPM GBI-EM
Universe	

## Portfolio Performance Summary

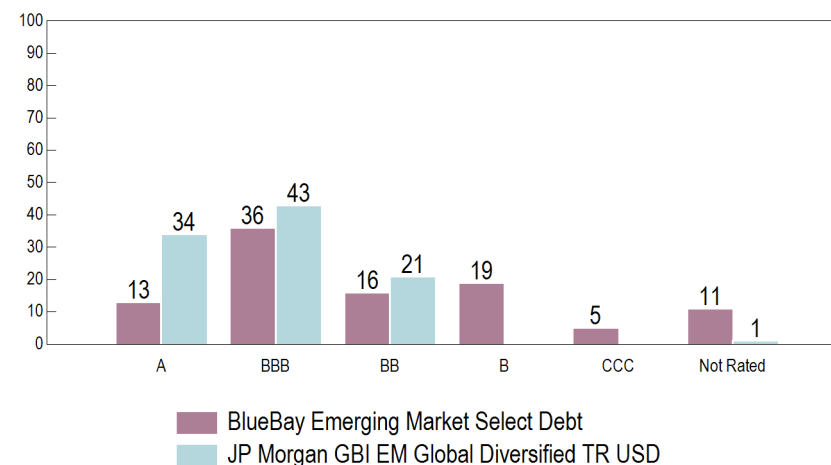
	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
BlueBay Emerging Market Select Debt	3.6	3.6	13.7	--	--	--	4.7	Jul-15
50% JPM EMBI GD / 50% JPM GBI-EM	3.4	3.4	16.7	2.8	3.9	6.7	7.5	Jul-15

## BlueBay Emerging Market Select Debt Characteristics

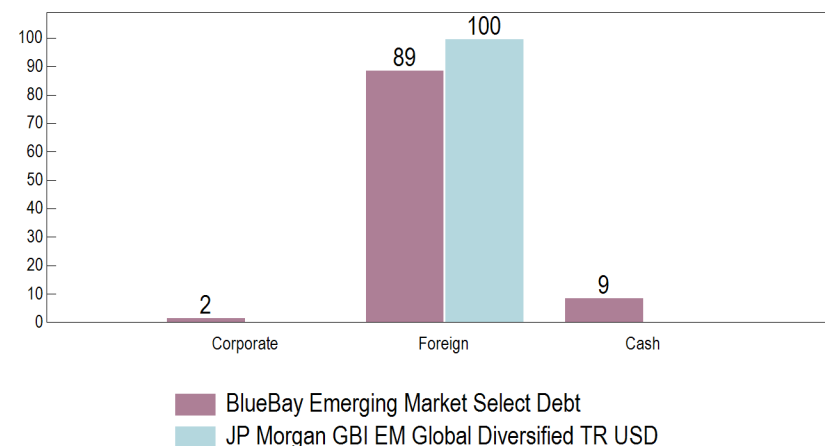
vs.

	Portfolio Q3-16	Portfolio Q2-16
<b>Fixed Income Characteristics</b>		
Yield to Maturity	5.7	5.6
Average Duration	6.7	6.9
Average Quality	BBB	BBB

## Credit Quality Allocation



## Sector Allocation



## Credit Suisse Risk Parity Commodity Index

As of September 30, 2016

## Account Information

Account Name	Credit Suisse Risk Parity Commodity Index
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	4/01/11
Account Type	Real Assets
Benchmark	Custom Risk Parity Commodity Benchmark
Universe	

## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Credit Suisse Risk Parity Commodity Index	-3.3	-3.3	-2.3	-9.0	-6.9	--	-8.3	Apr-11
Custom Risk Parity Commodity Benchmark	-3.5	-3.5	-3.1	-9.2	-7.1	--	-8.4	Apr-11
Bloomberg Commodity Index TR USD	-3.9	-3.9	-2.6	-12.3	-9.4	-5.3	-11.7	Apr-11

## Account Information

Account Name	Pinnacle Natural Resources, L.P.
Account Structure	Other
Investment Style	Active
Inception Date	1/01/16
Account Type	Real Assets
Benchmark	Bloomberg Commodity Index TR USD
Universe	

## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Pinnacle Natural Resources, L.P.	-3.3	-3.3	--	--	--	--	-5.4	Jan-16
Bloomberg Commodity Index TR USD	-3.9	-3.9	-2.6	-12.3	-9.4	-5.3	8.9	Jan-16

## Rhumbline DJ Brookfield Global Infrastructure

As of September 30, 2016

## Account Information

Account Name	Rhumbline DJ Brookfield Global Infrastructure
Account Structure	Separate Account
Investment Style	Passive
Inception Date	6/01/15
Account Type	Infrastructure
Benchmark	DJ Brookfield Global Infrastructure Net TR USD
Universe	

## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Rhumbline DJ Brookfield Global Infrastructure	2.3	2.3	15.8	--	--	--	1.5	Jun-15
DJ Brookfield Global Infrastructure Net TR USD	2.2	2.2	15.3	7.8	--	--	0.9	Jun-15

## Top 10 Holdings

NATIONAL GRID	6.6%
AMERICAN TOWER	5.7%
KINDER MORGAN	5.3%
ENBRIDGE	4.9%
TRANSCANADA	4.5%
CROWN CASTLE INTL.	3.8%
PG&E	3.6%
SPECTRA ENERGY	3.6%
SEMPRA EN.	3.2%
CONSOLIDATED EDISON	2.7%
<b>Total</b>	<b>43.9%</b>

## Rhumbline DJ Brookfield Global Infrastructure Characteristics

	Portfolio Q3-16	Portfolio Q2-16
<b>Market Value</b>		
Market Value (Mil)	144.0	140.7
Number Of Holdings	98	104
<b>Characteristics</b>		
Wt/ Avg. Market Cap. (Bil)	23.8	22.7
Median Market Cap (Bil)	6.3	6.1
P/E Ratio	34.5	27.8
Yield	3.3	3.5
EPS Growth - 5 Yrs.	2.5	3.4
Price to Book	3.0	3.0
Beta (holdings; domestic)	0.6	0.6

## Sector Distribution

Energy	28.8	24.8
Materials	0.0	0.0
Industrials	13.5	12.9
Consumer Discretionary	1.5	1.3
Consumer Staples	0.0	0.0
Health Care	0.0	0.0
Financials	0.4	10.3
Information Technology	0.0	0.1
Telecommunication Services	2.2	2.0
Utilities	43.7	46.9
Real Estate	9.5	0.0

## Rhumbline S&amp;P Global Large MidCap Commodity &amp; NR

As of September 30, 2016

## Account Information

Account Name	Rhumbline S&P Global Large MidCap Commodity & NR
Account Structure	Separate Account
Investment Style	Passive
Inception Date	6/01/15
Account Type	Infrastructure
Benchmark	S&P Global LargeMidCap Commodity and Resources GR USD
Universe	

## Portfolio Performance Summary

	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Rhumbline S&P Global Large MidCap Commodity & NR	4.7	4.7	23.0	--	--	--	-7.8	Jun-15
S&P Global LargeMidCap Commodity and Resources GR USD	4.8	4.8	23.8	-4.8	-1.3	3.2	-7.5	Jun-15

## Top 10 Holdings

MONSANTO	7.0%
EXXON MOBIL	6.6%
SYNGENTA	6.3%
BHP BILLITON	4.0%
ARCHER-DANLS.-MIDL.	3.9%
CHEVRON	3.5%
JULIUS BAER MULTISTOCK SWISS STOCK FUND C	2.9%
GLENORE	2.4%
TOTAL	2.2%
POTASH CORPORATION OF SASKATCHEWAN	2.1%
<b>Total</b>	<b>40.8%</b>

## Rhumbline S&amp;P Global Large MidCap Commodity &amp; NR Characteristics

	Portfolio Q3-16	Portfolio Q2-16
<b>Market Value</b>		
Market Value (Mil)	105.0	100.3
Number Of Holdings	181	185
<b>Characteristics</b>		
Wtg. Avg. Market Cap. (Bil)	58.7	62.3
Median Market Cap (Bil)	8.3	7.9
P/E Ratio	19.5	15.7
Yield	2.6	3.2
EPS Growth - 5 Yrs.	-7.7	-8.3
Price to Book	2.4	2.2
Beta (holdings; domestic)	1.3	1.3
<b>Sector Distribution</b>		
Energy	32.6	33.8
Materials	52.8	56.8
Industrials	1.0	0.9
Consumer Discretionary	0.0	0.0
Consumer Staples	13.0	8.3
Health Care	0.0	0.0
Financials	0.0	0.0
Information Technology	0.0	0.0
Telecommunication Services	0.0	0.0
Utilities	0.0	0.0
Real Estate	0.0	0.0

# **Global Macroeconomic Outlook September 2016**



## Global Economic Outlook<sup>1</sup>

**The IMF continues to downgrade growth expectations due to weaker growth in the U.S. and uncertainties related to the recent vote by the U.K. to leave the European Union.**

- Compared to their April report, 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 for 2016 fell from 1.9% to 1.6% and from 2.0% to 1.8% for 2017. Despite the subdued market reaction to the “Brexit” vote, risks to growth and investment remain, particularly for the U.K. Also weighing on advanced economy growth in 2016 is lower than expected economic activity in the U.S. during the first half of the year.
- Growth projections for emerging economies increased slightly in 2016 (4.2% versus 4.1%) and remained the same for 2017 (4.6%). Economic environments within emerging market countries remain uneven. Expectations for continued low interest rates have recently helped emerging markets, while low commodity prices, a slowdown in China, and low demand from developed economies remain headwinds.
- Inflation expectations have generally trended up, but remain below long-term averages.

	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	2.9	3.3	4.0
U.S.	1.6	2.2	1.4	1.2	2.3	2.0
European Union	1.9	1.7	1.1	0.3	1.3	1.9
Japan	0.5	0.6	0.5	-0.2	0.5	0.5
China	6.6	6.2	9.6	2.1	2.3	2.9
Emerging Markets (ex. China)	2.7	3.6	4.5	6.0	5.8	7.4

<sup>1</sup> Source: IMF, World Economic Outlook, October 2016 edition. “Actual 10 Year Average” represents data from 2006 to 2015. Data after 2015 is an estimate.

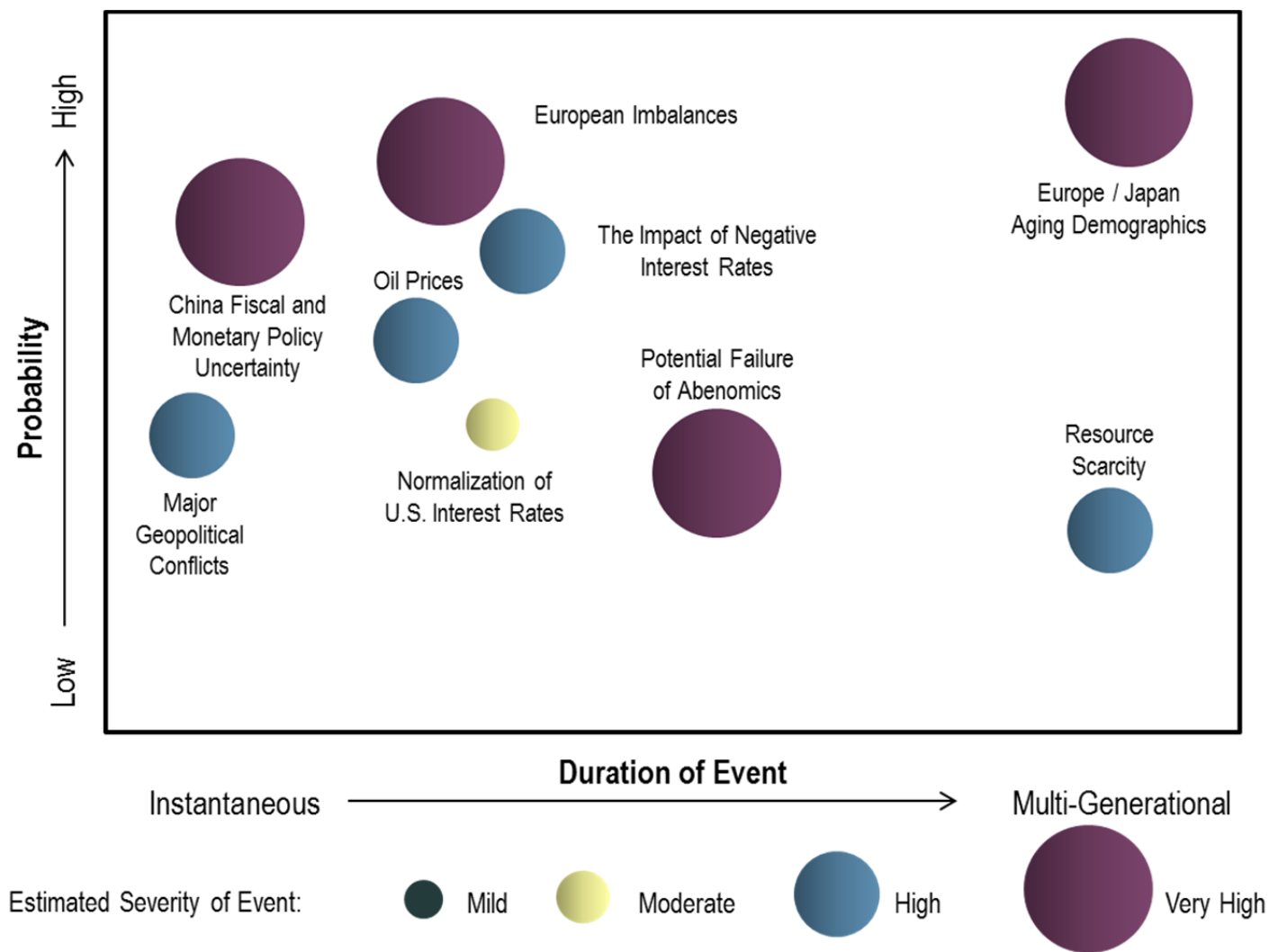
## Global Economic Outlook, Continued

**Given the length and breadth of historic monetary stimulus from major central banks, questions remain on how much longer they will continue these policies. There is the potential for increased fiscal stimulus globally.**

- Expectations for a rate increase by the Federal Reserve have varied widely this year. Going into the year expectations were for up to four increases in 2016 with none materializing thus far. After expectations for a rate increase fell post “Brexit” they have since increased in light of declining unemployment and signs of increased prices.
- The European Central Bank (ECB) continues to keep interest rates at record lows with the bank deposit rate at -0.4% and its key interest rate at close to 0%. The ECB’s bond-buying program is scheduled to start winding down next year. In recent comments, Mario Draghi, the ECB president, said that they would provide more clarity later this year on whether they would extend the program.
- The Bank of Japan (BOJ) recently shifted the focus of its stimulative efforts to influencing interest rates while keeping its asset purchases at the same level. To date, the impact of the BOJ’s policies has hurt banks as the spread between short- and long-term rates have narrowed. Their focus now will be on steepening the yield curve.
- Driven by government spending and a hot property market, China’s economy grew by 6.7% in the third quarter matching the prior quarter. Given that the economy appears to be on stable footing, it is likely that the government will turn to addressing the growing debt issues.

**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; 5) uncertainties related to global elections and referendums.**

## Macroeconomic Risk Matrix



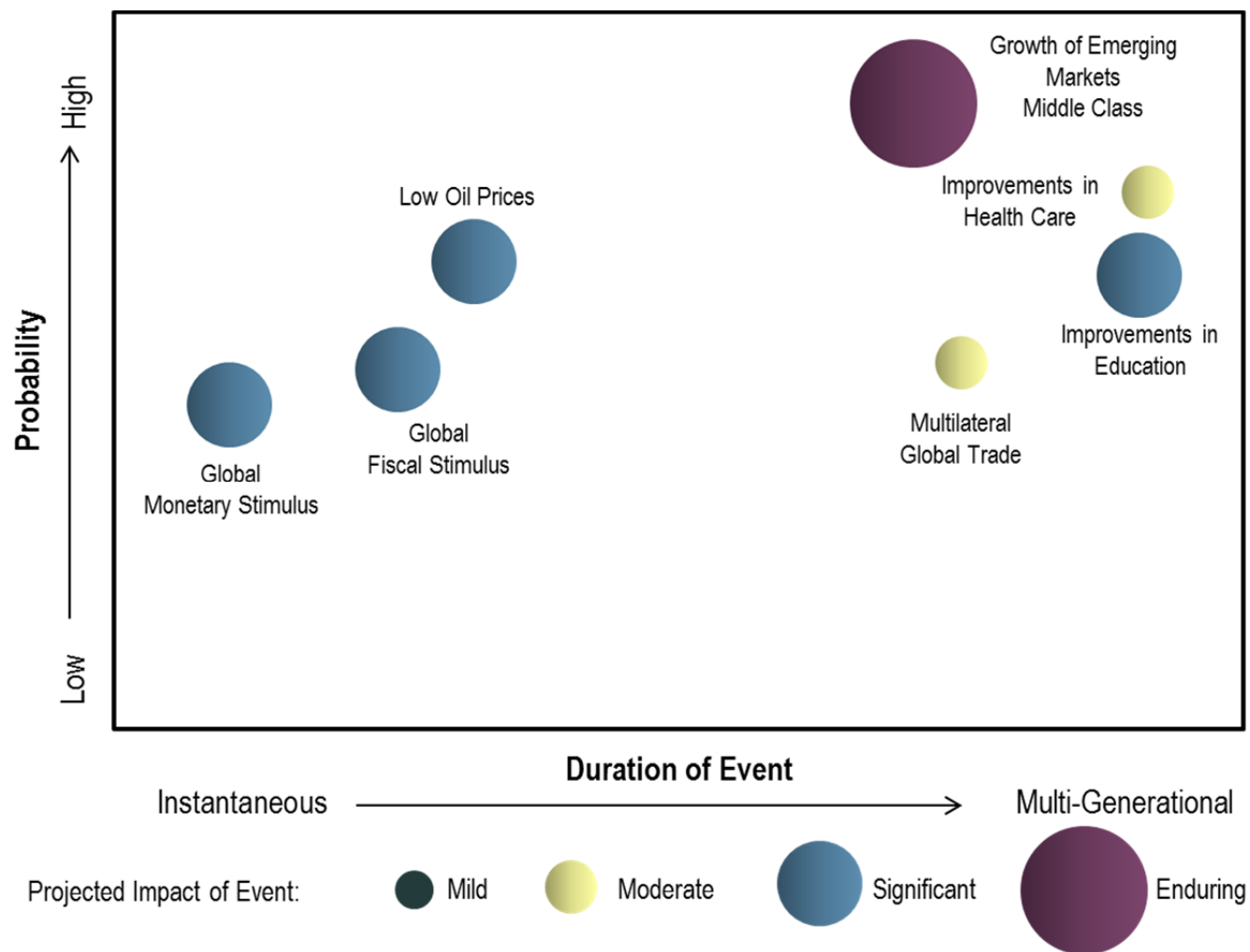
## Macroeconomic Risk Overviews

<b>Low Oil Prices</b>	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.
<b>European Imbalances</b>	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.
<b>Potential Failure of Abenomics</b>	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.
<b>Europe/Japan Aging Demographics</b>	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.
<b>Major Geopolitical Conflicts</b>	Recently Iraqi forces began to move into Mosul, the largest second city in the country, in an effort to retake it from ISIS control. It is likely that the battle will be hard fought with many casualties. 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

<b>China Fiscal and Monetary Policy Uncertainty</b>	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. The growing mountain of debt, particularly in the corporate sector, remains another key risk.
<b>Normalization of U.S. Interest Rates</b>	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. Expectations have recently increased for the Fed to resume interest rate hikes later this year. Once they resume tightening, this could weigh on growth globally, particularly in emerging economies.
<b>Resource Scarcity</b>	The growing 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.
<b>The Impact of Negative Interest Rates</b>	Recently monetary policies amongst major central banks have 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 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

<b>Low Oil Prices</b>	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.
<b>Growth of Emerging Markets Middle Class</b>	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.
<b>Multilateral Global Trade</b>	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. and elsewhere, could weigh on trade going forward.
<b>Improvements in Education/Healthcare</b>	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 for long-term investments in education and training, resulting in a more productive work force and ultimately more growth.
<b>Global Monetary Stimulus</b>	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 and Europe continue asset purchase programs, while the U.S. ended its program and increased interest rates once in December of 2015. Additionally, many emerging market central banks have reduced interest rates to stimulate growth. Given continued slow growth and low prices globally it is likely central banks will continue to maintain loose monetary policy. If central banks continue to provide liquidity and keep interest rates low, this should stimulate growth.
<b>Global Fiscal Stimulus</b>	Given the slow growth globally, and the limited room for additional monetary stimulus, there could be a shift to fiscal stimulus. With interest rates so low, borrowing for infrastructure investments is affordable. If productive investment options are not available, reducing taxes is an option. Increased fiscal stimulus could help growth while reducing the reliance on monetary policy.

### Global Nominal Gross Domestic Product (GDP) Growth<sup>1</sup>

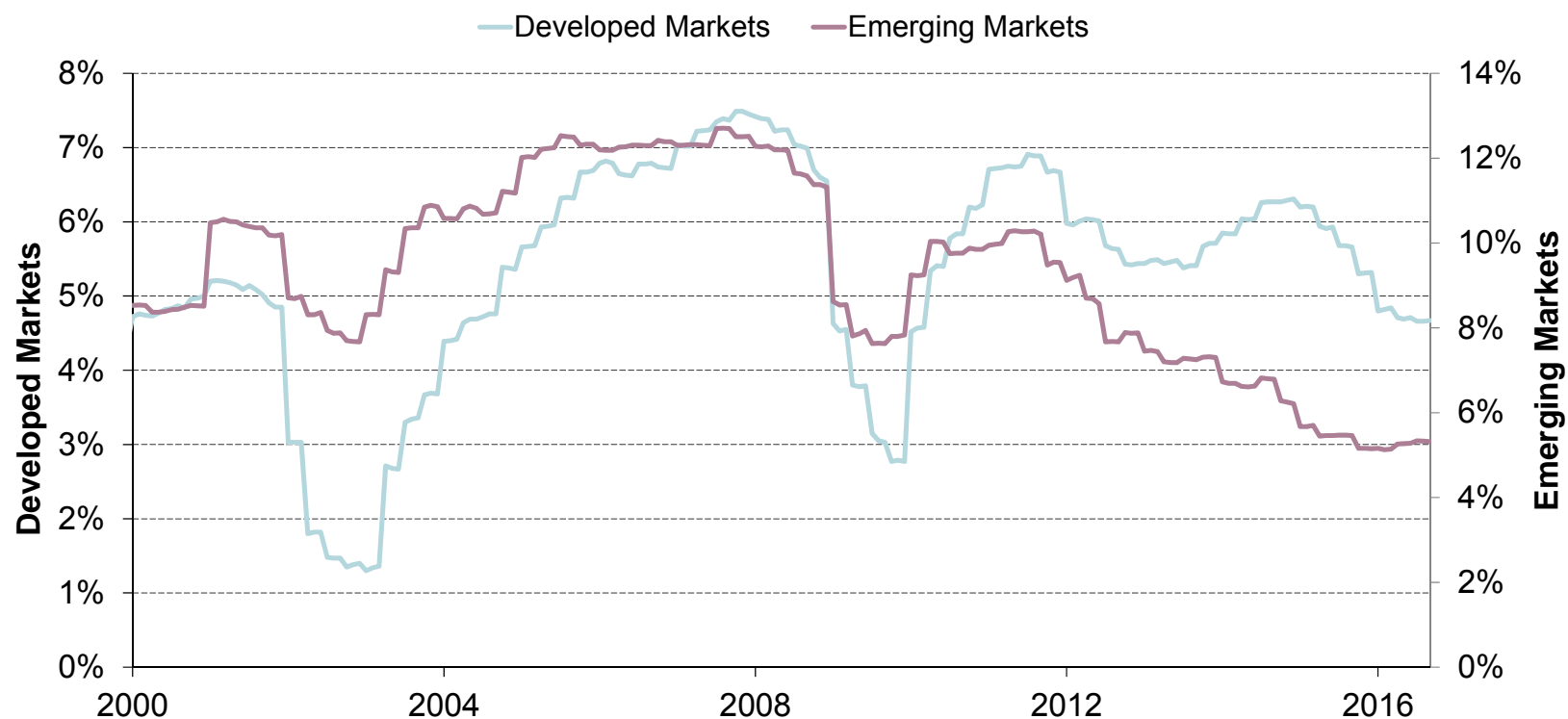


- Global growth prior to the Global Financial Crisis, and in the period immediately following it, was much higher than current levels.
- A sustained downward trend in growth will weigh on incomes and corporate profits and lead to continued low levels of inflation and interest rates.

<sup>1</sup> Source: Oxford Economics. Updated October 2016. GDP data after 2015 are estimates.



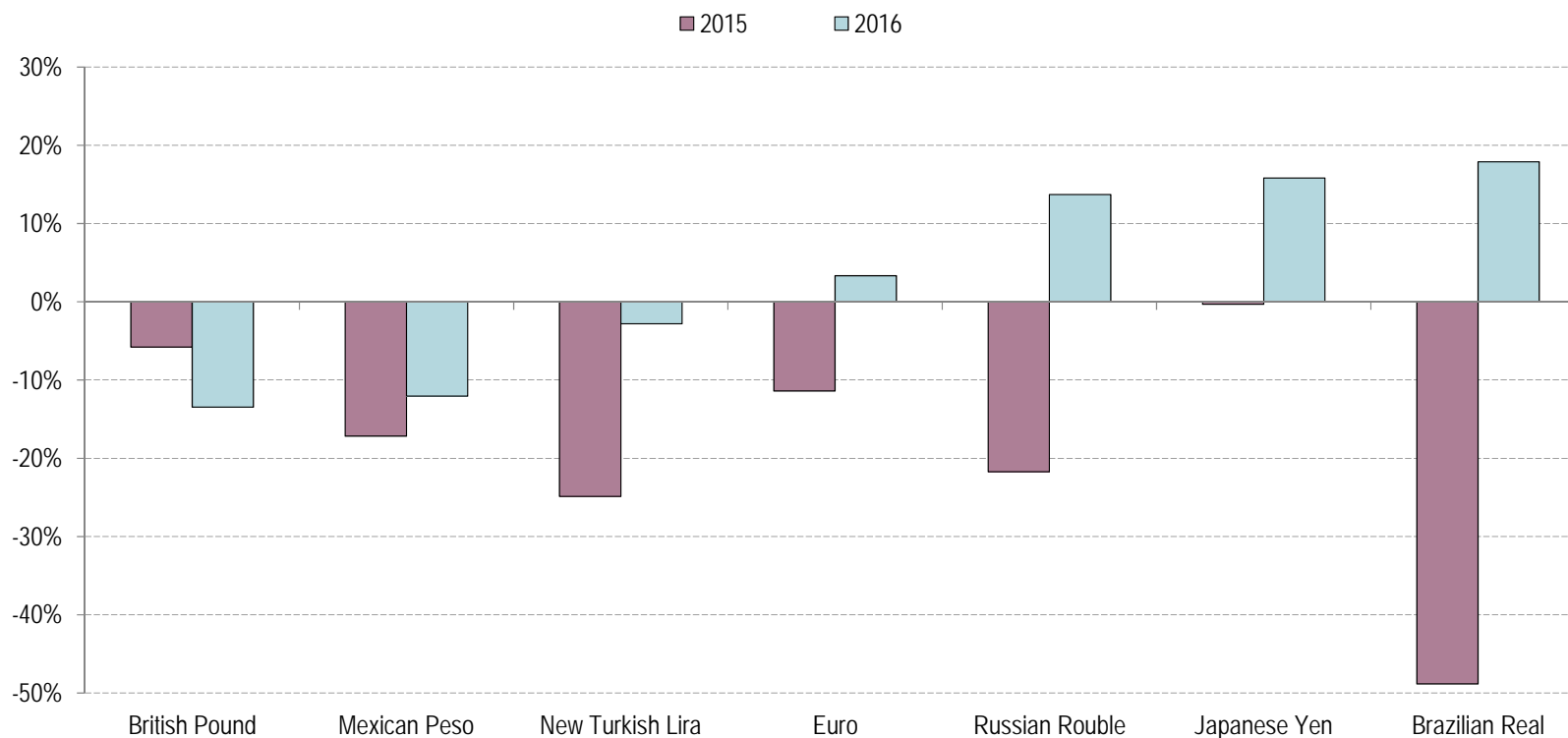
## Corporate Profits<sup>1</sup>



- Corporate profits rose from their lows in 2009 largely driven by cost cutting, but have recently started to decline.
- Continued weakness in corporate profits could result in lower investment by companies ultimately leading to lower employment, wages, and overall economic growth.

<sup>1</sup> Source: Oxford Economics.

### Major Currency Values versus the U.S. Dollar<sup>1</sup>



- The U.S. dollar remained overall weaker in 2016 through the end of the third quarter with varied results across currencies. If the Federal Reserve begins to increase interest rates, or there is increased demand for safe haven assets, the dollar could experience renewed strength.
- The British pound declined further recently to historic lows given fears of a so-called “hard exit” from the European Union.

<sup>1</sup> Source: Thomson Reuters. Data is as of September 30, 2016.

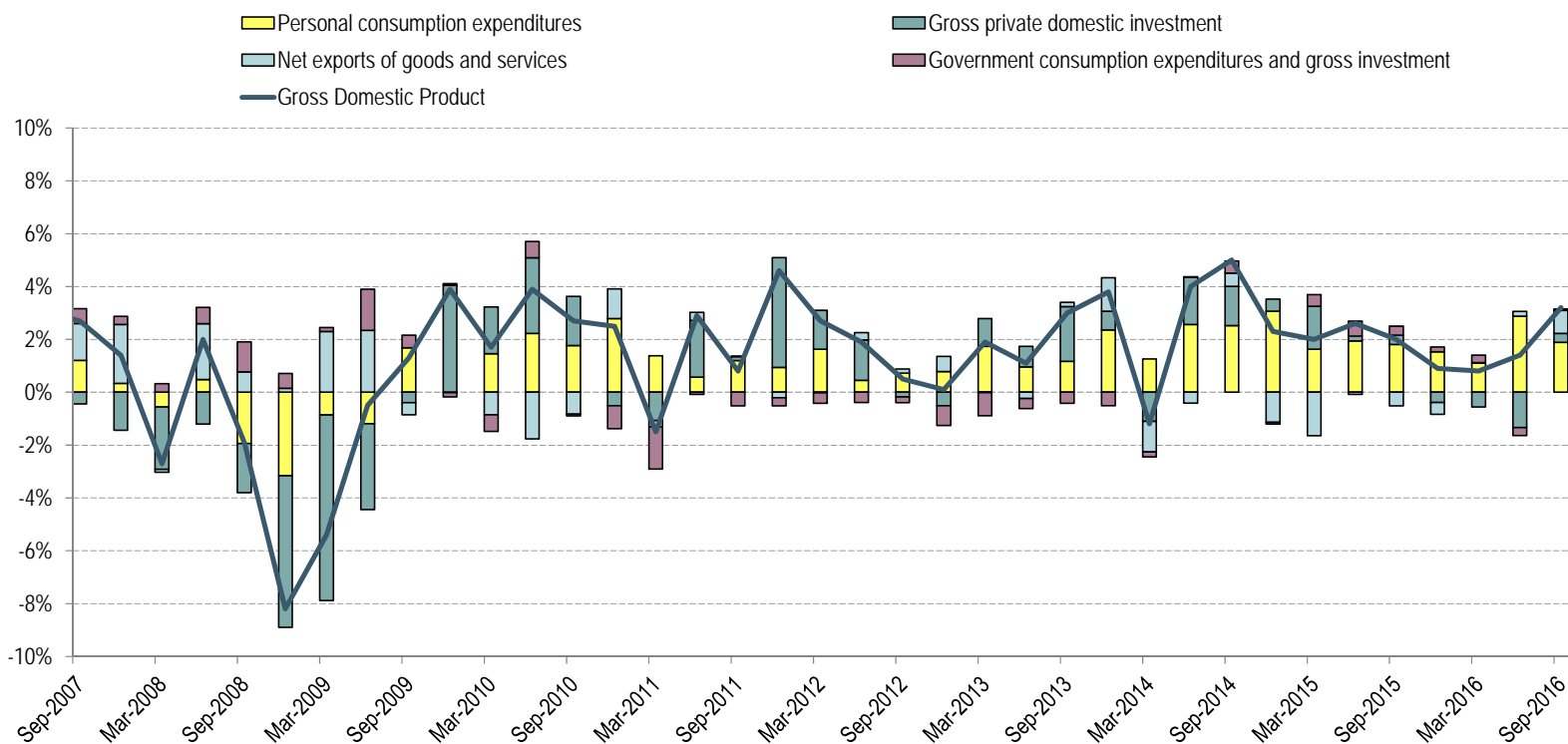
### Probability of Federal Funds Rate Increase<sup>1</sup>

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 (%)	Federal Reserve Meeting Date	Probability of Rate Increase As of 9/30/2016 (%)
1/27/2016	0	7/29/2016	0	11/2/2016	17
3/16/2016	51	9/21/2016	0	12/14/2016	59
4/27/2016	56	11/2/2016	0	2/1/2017	61
6/15/2016	75	12/14/2016	9	5/3/2017	66
7/29/2016	79	2/1/2017	9	3/15/2017	68
9/21/2016	87	5/3/2017	13	6/14/2017	72
11/2/2016	90	3/15/2017	14	7/26/2017	72
12/14/2016	93	6/14/2017	23	9/20/2017	75
2/1/2017	95	7/26/2017	22	11/1/2017	76
		9/20/2017	31	12/13/2017	79
		11/1/2017	32		
		12/13/2017	40		

- Market expectations for rate increases by the Federal Reserve have varied widely since the end of 2015.
- After the probability of a rate increase declined post “Brexit,” expectations have since increased with markets predicting an above 50% chance of an increase later this year.
- Once the Fed resumes its tightening it is likely they will take a gradual approach with a lower end trajectory than in prior cycles.

<sup>1</sup> Source: Bloomberg.

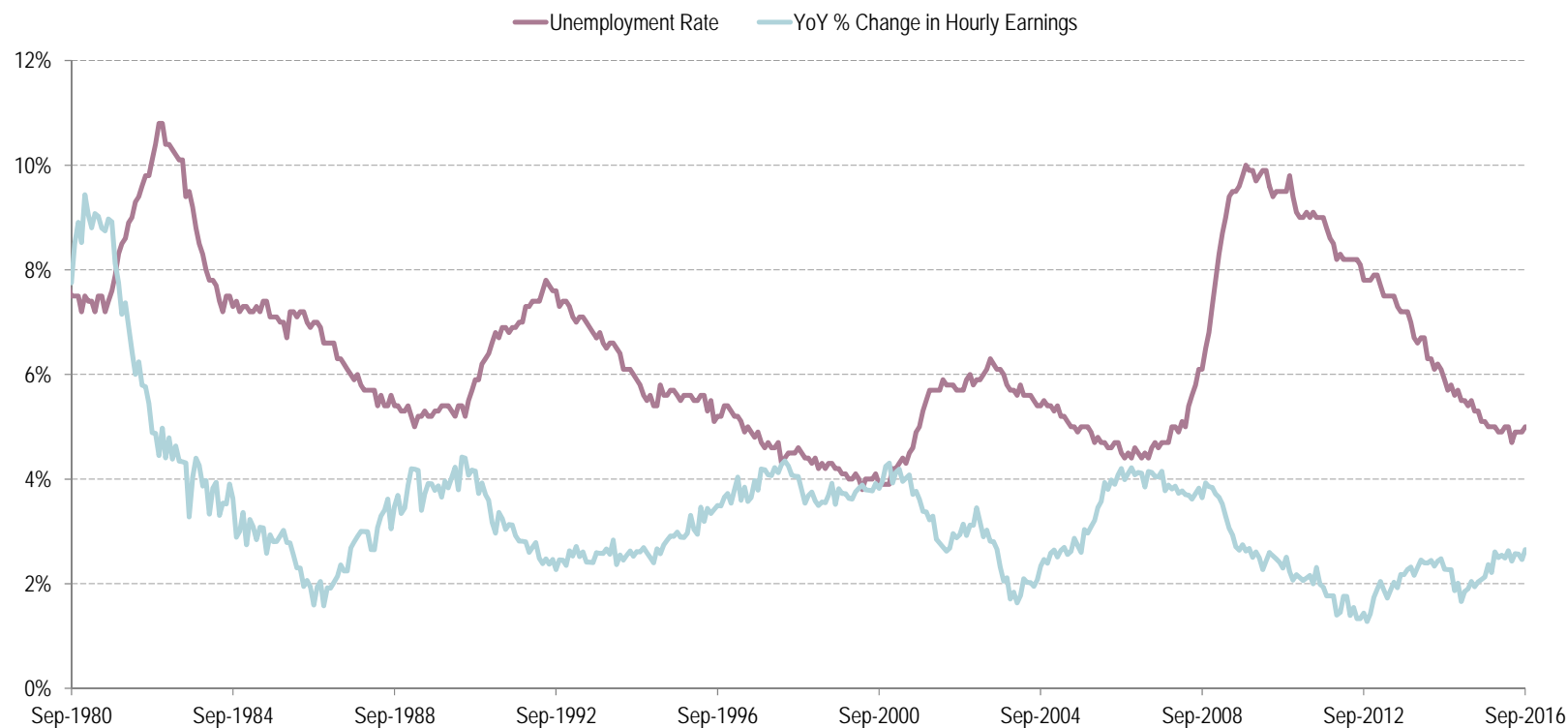
## U.S. Real Gross Domestic Product (GDP) Growth<sup>1</sup>



- In the third quarter, U.S. GDP grew at an annualized rate of 3.2% according to the second estimate, slightly higher than the first estimate of 2.9%. Over the trailing twelve months, GDP grew by 1.6%.
- A decline in consumer spending was offset by increases in inventory investment and exports.

<sup>1</sup> Source: U.S. Bureau of Economic Analysis. Data is as of the third quarter of 2016 and represents the second estimate.

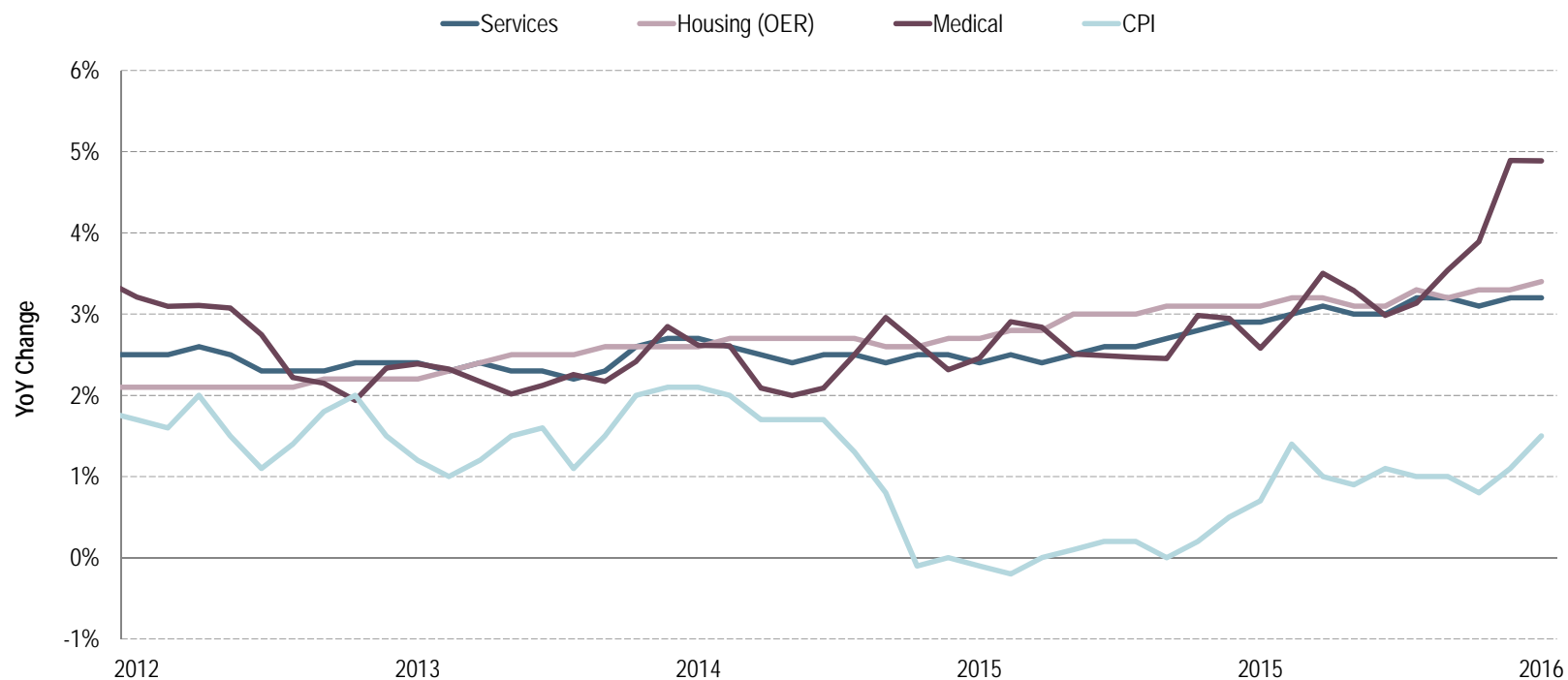
## U.S. Employment & Wages<sup>1</sup>



- Unemployment is now half the level of its 10% peak in 2009 and wages have recently increased.
- Despite the recent rise in wages, the increase is more subdued than in prior recoveries.
- Weak wage growth could continue to weigh on prices and growth.

<sup>1</sup> Source: Bureau of Labor Statistics. Data is as of September 30, 2016.

## U.S. Inflation Components<sup>1</sup>

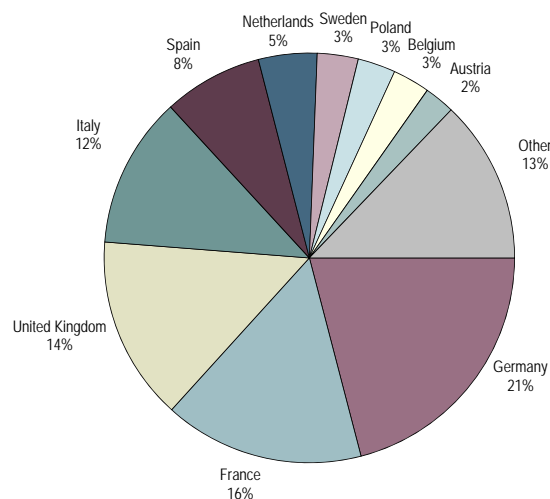


- Inflation in the U.S. increased recently, but remains low.
- The main driver of depressed prices has been the fall in oil, a trend that could reverse as the impact of oil's decline falls out of the inflation calculation and the recent rise is captured.
- Other components of inflation, including housing, medical, and services, are already tracking much higher.

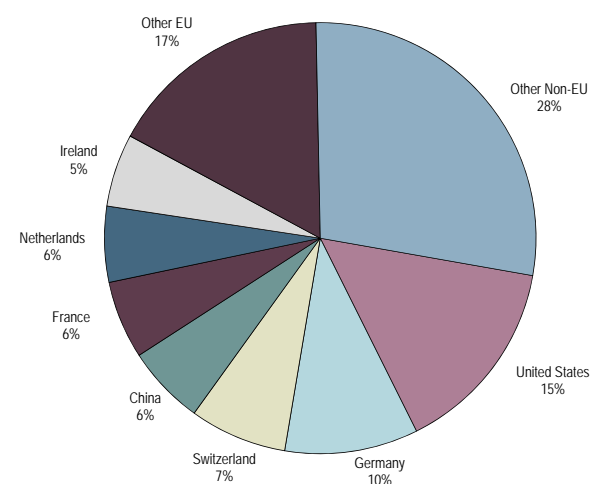
<sup>1</sup> Source: Bloomberg; Bureau of Labor Statistics. Data is as of September 30, 2016.

## European Union Overview

**Aggregate European Union GDP<sup>1</sup>**



**United Kingdom Export Destinations<sup>2</sup>**

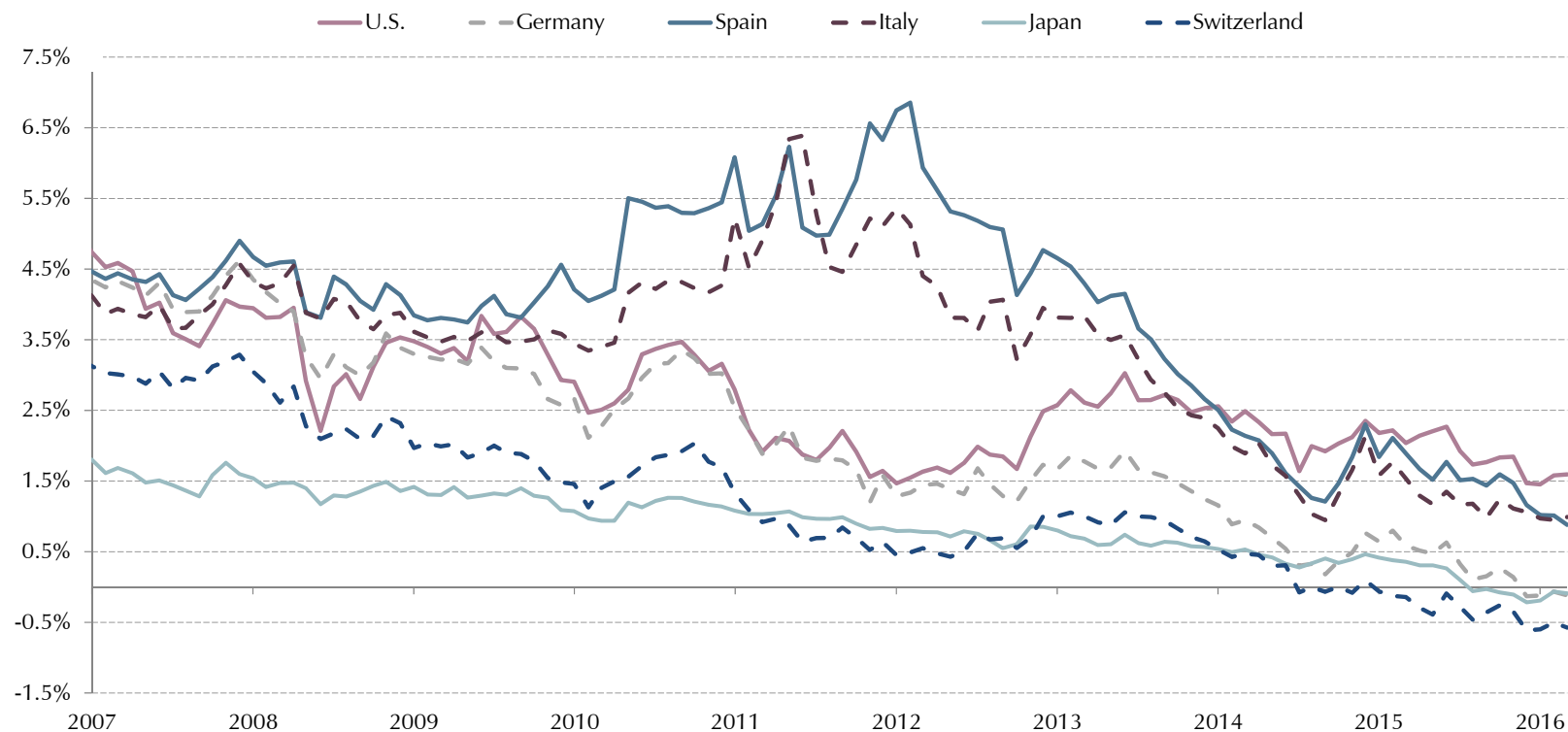


- The European Union is made up of 28 countries and is an economic/political union. The U.K. makes up approximately 14% of its GDP and exports a majority of its goods to other member countries.
- In late June, the U.K. held a referendum on whether or not to stay in the European Union. The result was a vote in favor of leaving.
- Recently, the new Prime Minister, Theresa May, stated that she plans to trigger the exit clause (Article 50 of the Lisbon Treaty) in March of next year, beginning the two years of formal exit negotiations.
- Concerns over a potentially “hard exit” from the European Union recently led to the pound declining further to historic lows. Persistent weakness in the currency could weigh on consumption and imports.

<sup>1</sup> Source: Eurostat. Represents 2013 data.

<sup>2</sup> HM Revenue and Customs, National Statistics. Represents 2015 data.

### 10-Year Government Bond Yields<sup>1</sup>

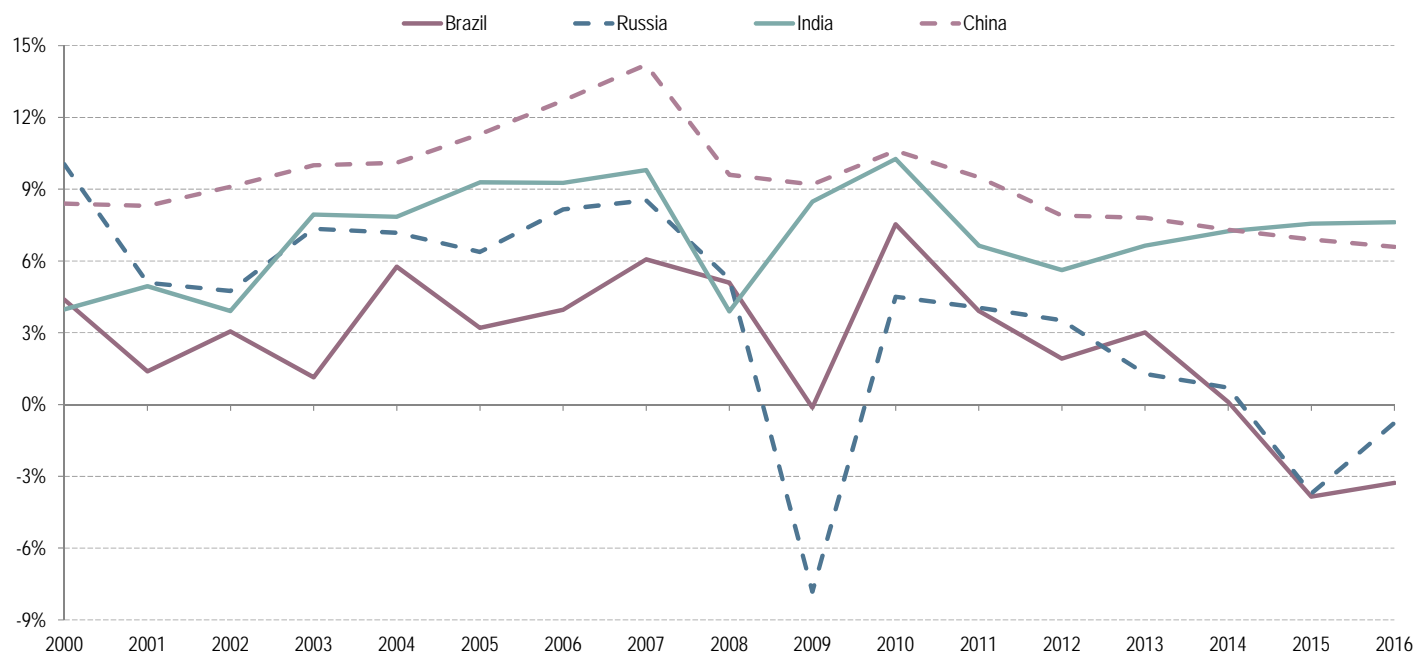


- In light of central banks' stimulative efforts, yields remain low, or negative, forcing investors into riskier, higher yielding, asset classes.
- Recently, the amount of negative yielding debt has declined as investors question how long central banks will continue with loose monetary policy.
- During the quarter, the entire U.S. yield curve increased as expectations grow for a Fed rate increase later this year.

<sup>1</sup> Source: Bloomberg. Data is as of September 30, 2016.



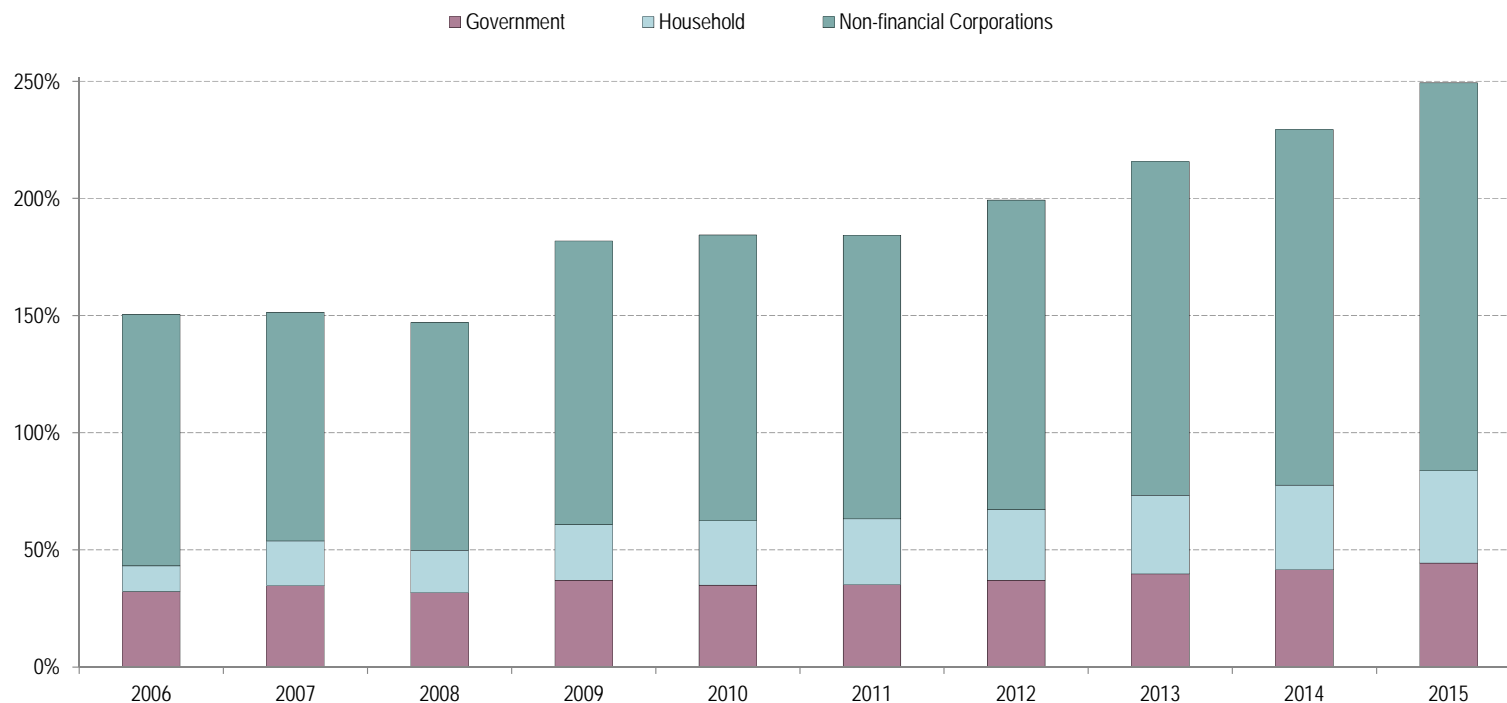
## Emerging Market GDP<sup>1</sup>



- 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.

<sup>1</sup> Source: IMF. World Economic Outlook. October 2016. GDP data estimates start after 2014.

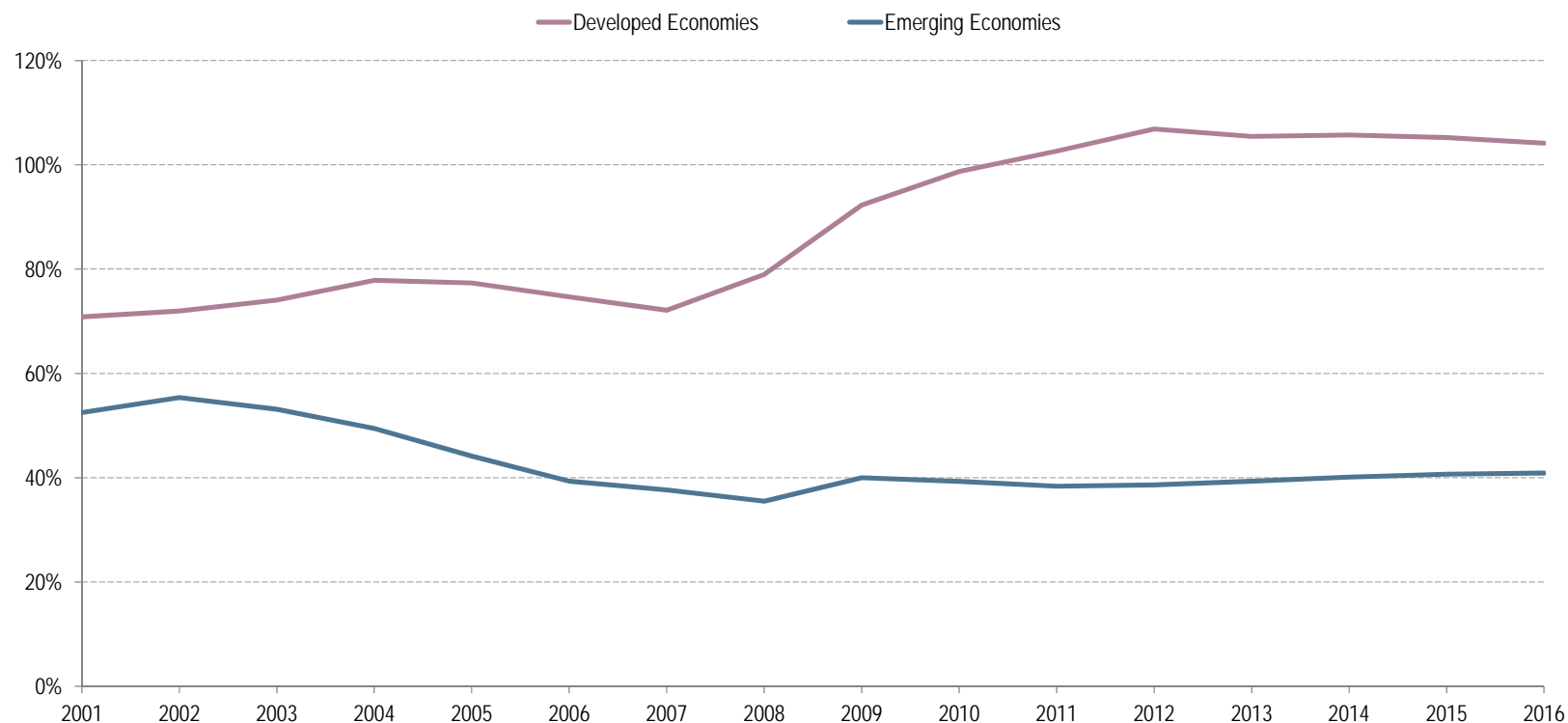
## China Debt to GDP<sup>1</sup>



- Debt in China has surged since the stimulus plan started in 2008 and reached 250% of GDP by the end of last year. This level is similar to developed market economies, but is much higher than other emerging economies.
- The dramatic rise in corporate debt has been the main driver of the increase.
- China's elevated debt levels could lead to slower growth, increased defaults, and in a worst-case scenario, a financial crisis.

<sup>1</sup> Source: Bank of International Settlements.

### Government Debt as a % of GDP<sup>1</sup>



- Emerging market equities have lagged U.S. equities, 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.

<sup>1</sup> Source: IMF, World Economic Outlook, October 2016.

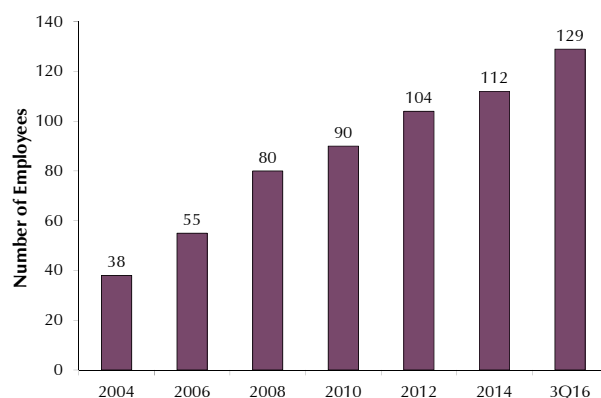
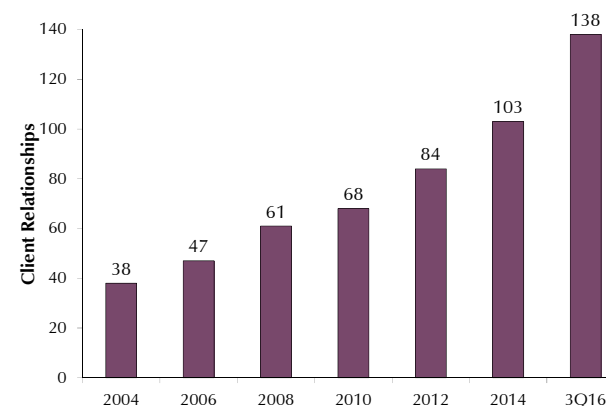
## Summary

**Five 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; 5) uncertainties related to global elections and referendums.**

- 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. The growing mountain of debt, particularly in the corporate sector, remains a key concern. Another unexpected devaluation of the yuan could prove 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 as revenues have declined and wages have increased. This pressure on margins could lead to lower investment and ultimately hurt wages, employment, and growth. Renewed dollar strength should weigh particularly 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.
- There are a variety of elections and referendums scheduled in the near-term. Uncertainties related to the outcomes have weighed on investment. Economic growth would be hurt by antitrade policies and likely lead to volatility in financial markets and lower business investment.

## **Meketa Investment Group Corporate Update**

- Staff of 129, including 81 investment professionals and 26 CFA Charterholders
- 138 clients, with over 235 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 \$870 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

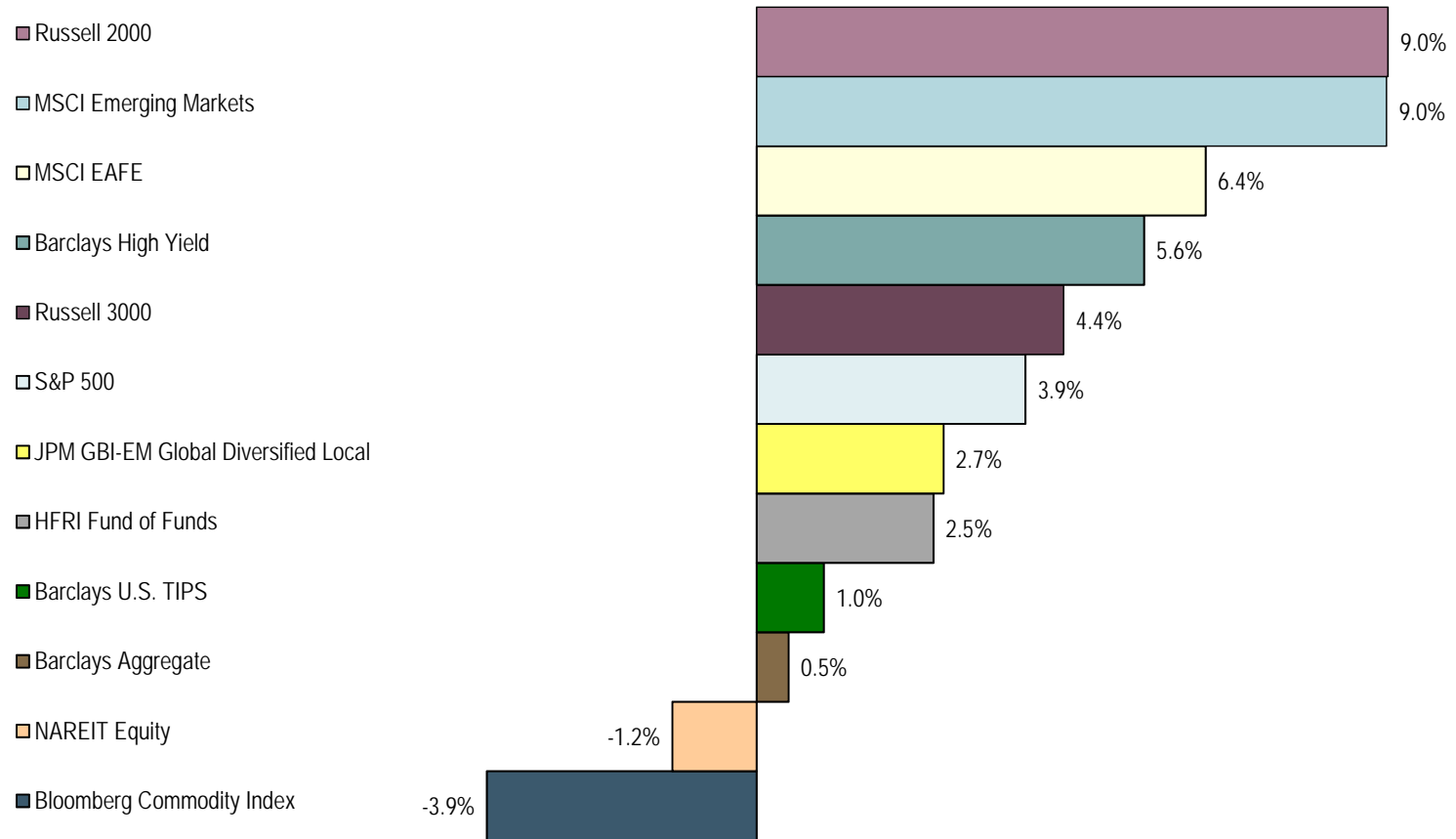
Domestic Equities	International Equities	Private Equity	Real Assets	Fixed Income	Hedge Funds
<ul style="list-style-type: none"> <li>- Passive</li> <li>- Enhanced Index</li> <li>- Large Cap</li> <li>- Midcap</li> <li>- Small Cap</li> <li>- Microcap</li> <li>- 130/30</li> </ul>	<ul style="list-style-type: none"> <li>- Large Cap Developed</li> <li>- Small Cap Developed</li> <li>- Emerging Markets</li> <li>- Frontier Markets</li> </ul>	<ul style="list-style-type: none"> <li>- Buyouts</li> <li>- Venture Capital</li> <li>- Private Debt</li> <li>- Special Situations</li> <li>- Secondaries</li> <li>- Fund of Funds</li> </ul>	<ul style="list-style-type: none"> <li>- Public REITs</li> <li>- Core Real Estate</li> <li>- Value Added Real Estate</li> <li>- Opportunistic Real Estate</li> <li>- Infrastructure</li> <li>- Timber</li> <li>- Natural Resources</li> <li>- Commodities</li> </ul>	<ul style="list-style-type: none"> <li>- Short-Term</li> <li>- Core</li> <li>- Core Plus</li> <li>- TIPS</li> <li>- High Yield</li> <li>- Bank Loans</li> <li>- Distressed</li> <li>- Global</li> <li>- Emerging Markets</li> </ul>	<ul style="list-style-type: none"> <li>- Long/Short Equity</li> <li>- Event Driven</li> <li>- Relative Value</li> <li>- Fixed Income Arbitrage</li> <li>- Multi Strategy</li> <li>- Market Neutral</li> <li>- Global Macro</li> <li>- Fund of Funds</li> <li>- Portable Alpha</li> </ul>

## Appendices



## **The World Markets Third Quarter of 2016**

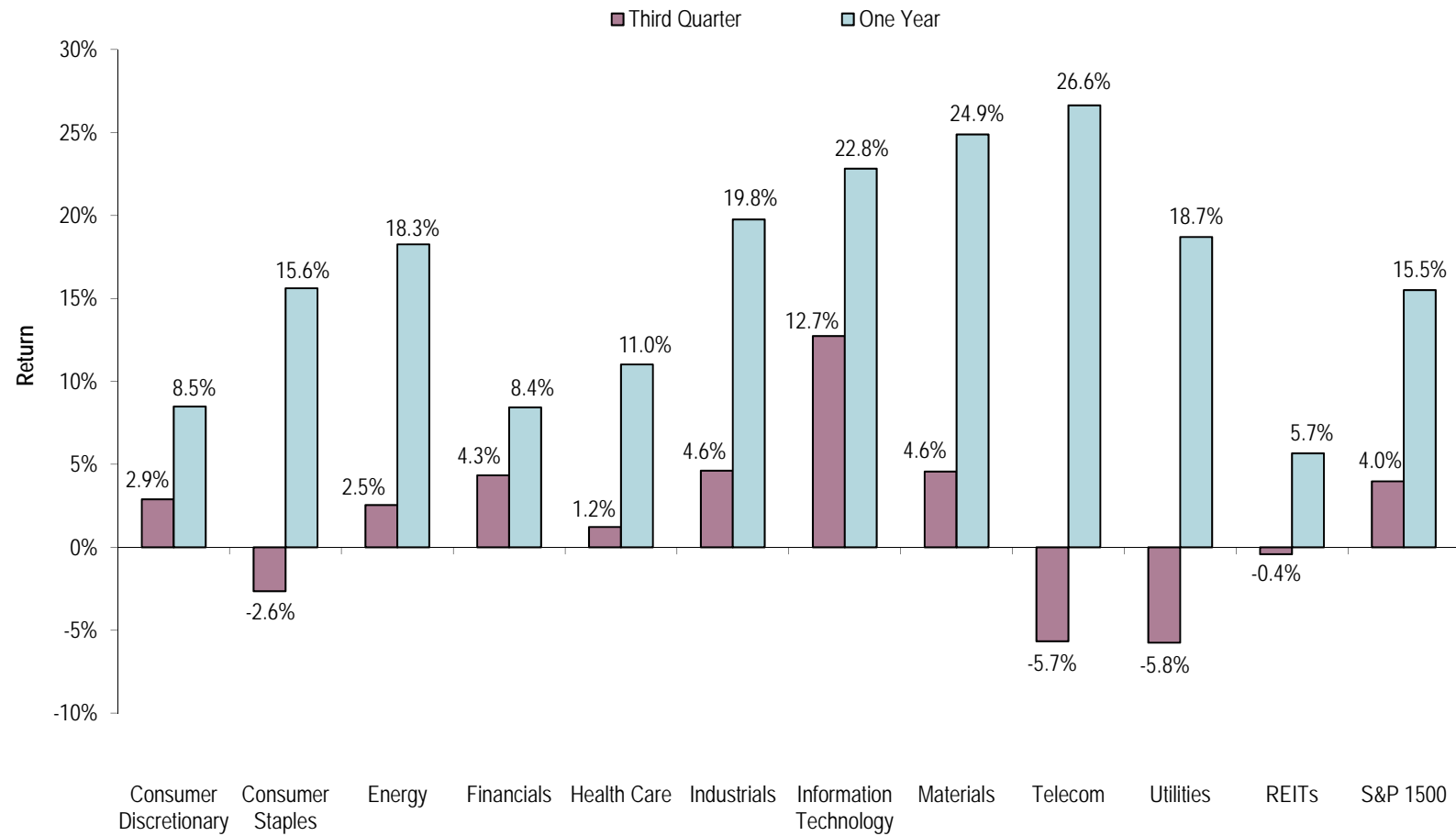
## The World Markets Third Quarter of 2016



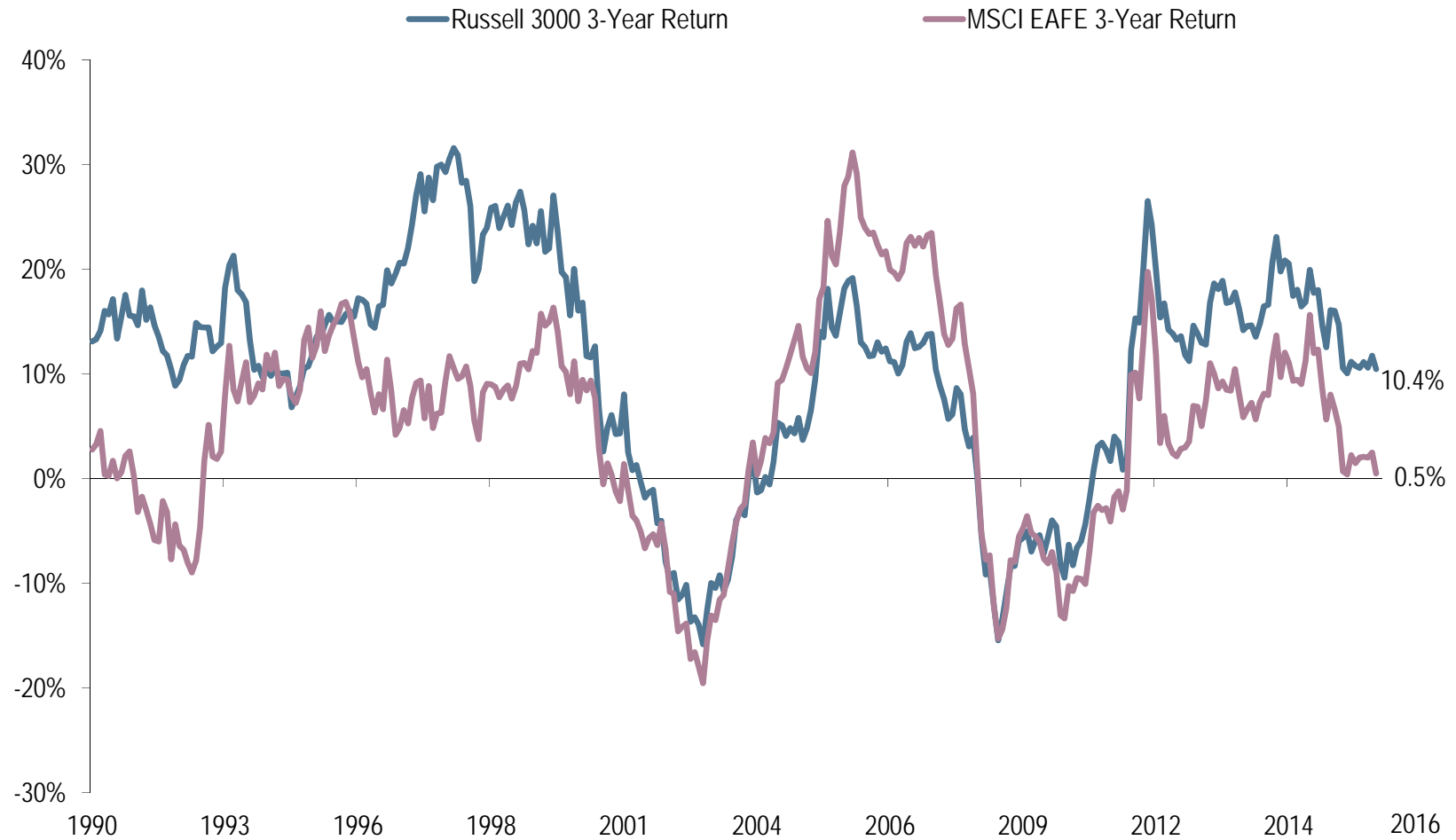
## Index Returns

	3Q16 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
<b>Domestic Equity</b>						
Russell 3000	4.4	8.2	15.0	10.4	16.4	7.4
Russell 1000	4.0	7.9	14.9	10.8	16.4	7.4
Russell 1000 Growth	4.6	6.0	13.8	11.8	16.6	8.8
Russell 1000 Value	3.5	10.0	16.2	9.7	16.2	5.9
Russell MidCap	4.5	10.3	14.2	9.7	16.7	8.3
Russell MidCap Growth	4.6	6.8	11.2	8.9	15.8	8.5
Russell MidCap Value	4.4	13.7	17.3	10.5	17.4	7.9
Russell 2000	9.0	11.5	15.5	6.7	15.8	7.1
Russell 2000 Growth	9.2	7.5	12.1	6.6	16.1	8.3
Russell 2000 Value	8.9	15.5	18.8	6.8	15.4	5.8
<b>Foreign Equity</b>						
MSCI ACWI (ex. U.S.)	6.9	5.8	9.3	0.2	6.0	2.2
MSCI EAFE	6.4	1.7	6.5	0.5	7.4	1.8
MSCI EAFE (local currency)	6.0	-1.6	4.6	5.3	11.2	2.2
MSCI EAFE Small Cap	8.6	5.2	12.3	5.1	11.1	4.4
MSCI Emerging Markets	9.0	16.0	16.8	-0.6	3.0	3.9
MSCI Emerging Markets (local currency)	7.6	11.3	13.0	4.3	7.0	5.9
<b>Fixed Income</b>						
Barclays Universal	1.0	6.7	6.1	4.3	3.6	5.0
Barclays Aggregate	0.5	5.8	5.2	4.0	3.1	4.8
Barclays U.S. TIPS	1.0	7.3	6.6	2.4	1.9	4.5
Barclays High Yield	5.6	15.1	12.7	5.3	8.3	7.7
JPMorgan GBI-EM Global Diversified (Local Currency)	2.7	17.1	17.1	-2.6	0.1	5.5
<b>Other</b>						
NAREIT Equity	-1.2	12.3	20.9	13.9	16.0	6.4
Bloomberg Commodity Index	-3.9	8.9	-2.6	-12.3	-9.4	-5.3
HFRI Fund of Funds	2.5	-0.1	0.6	2.2	3.2	1.8

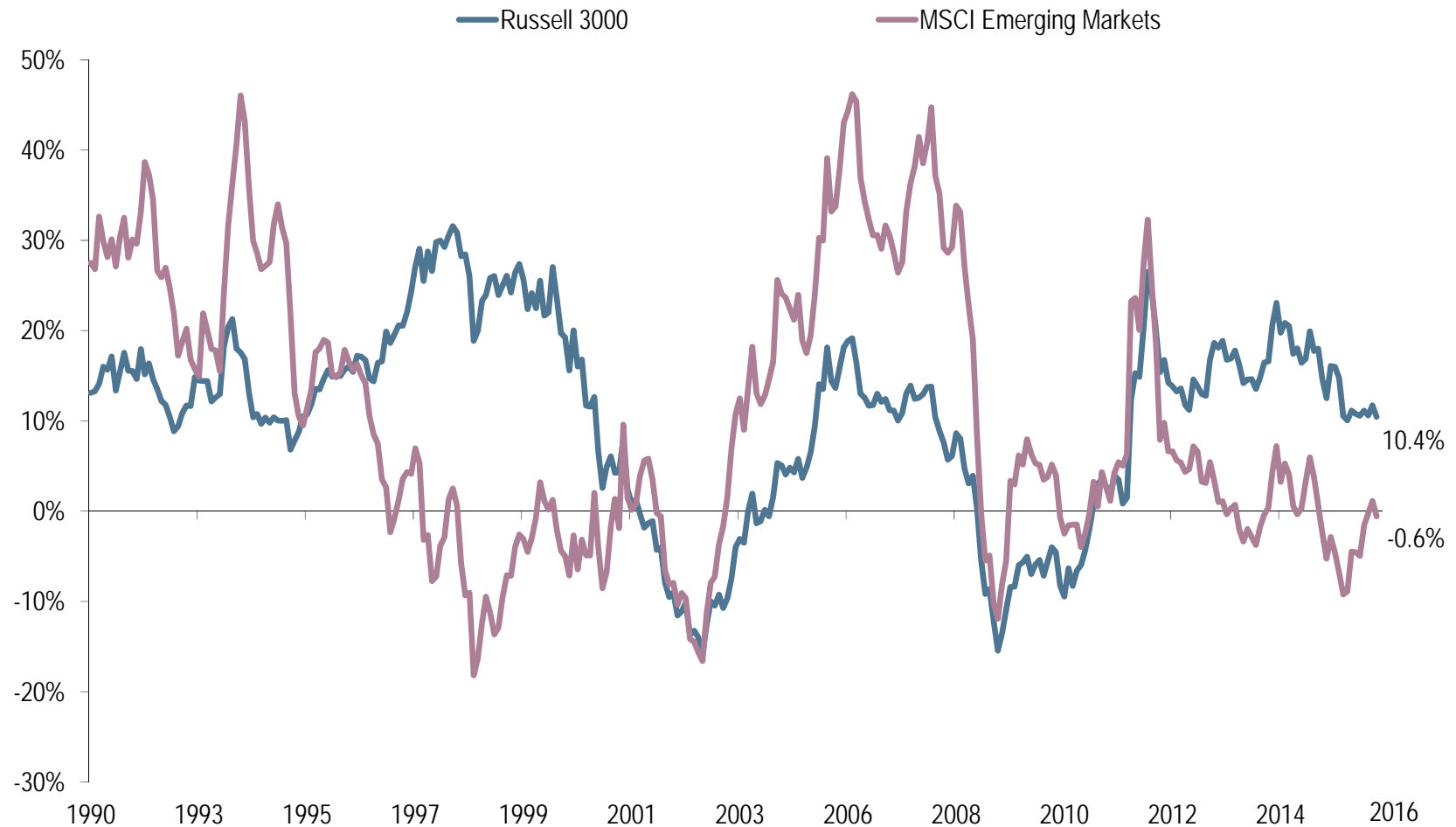
## S&P Sector Returns



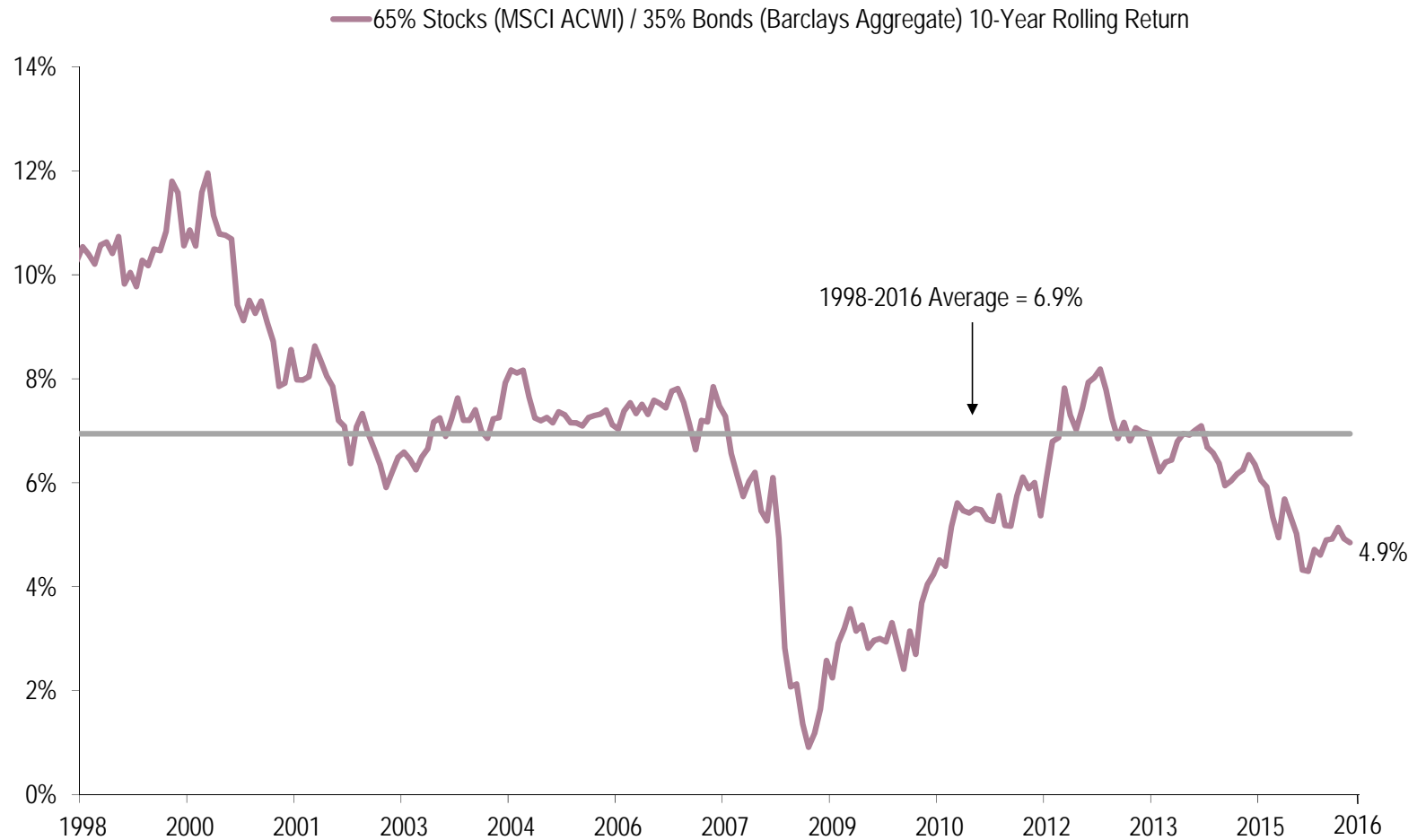
## U.S. and Developed Market Foreign Equity Rolling Three-Year Returns



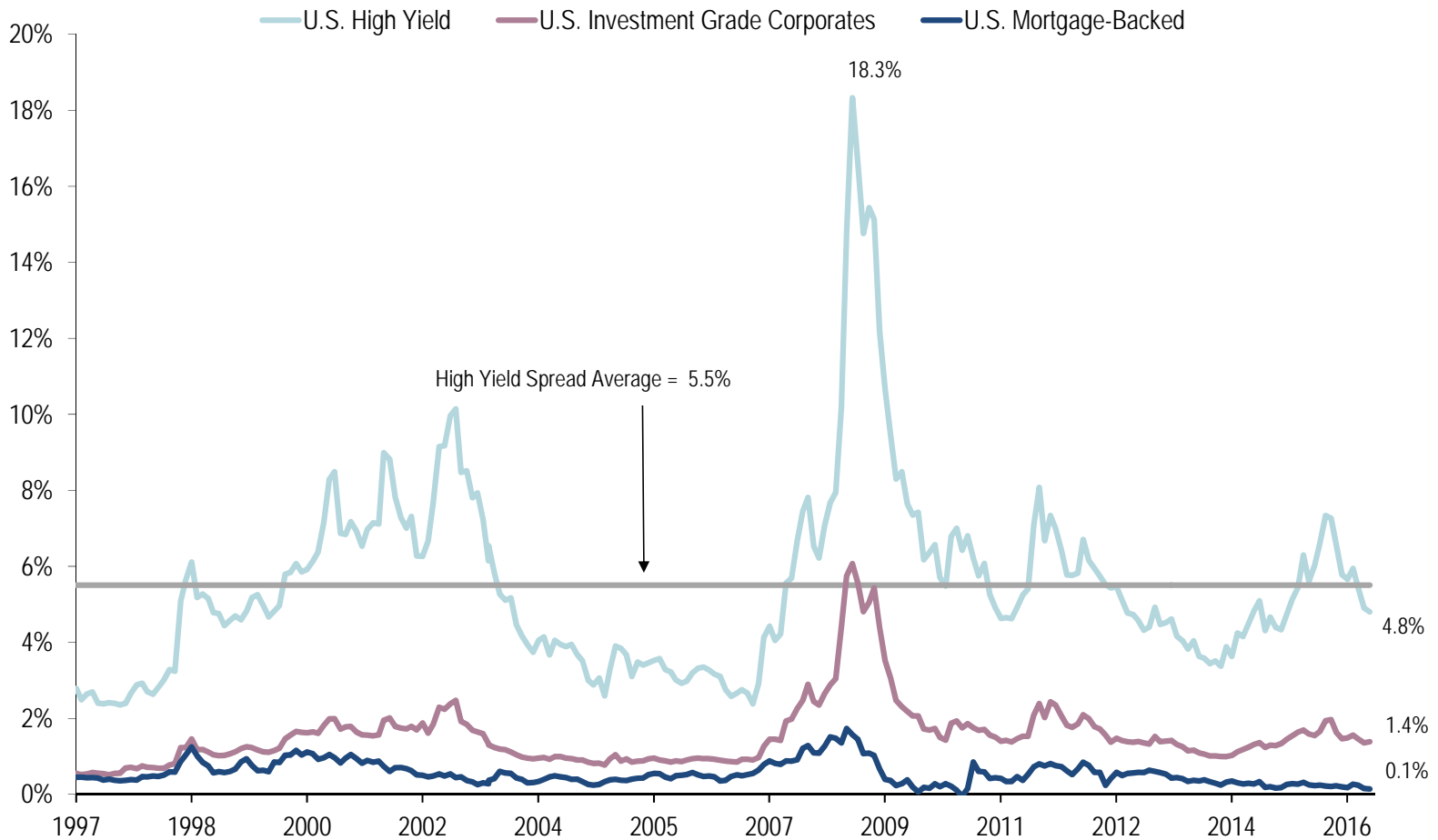
## U.S. and Emerging Market Equity Rolling Three-Year Returns



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



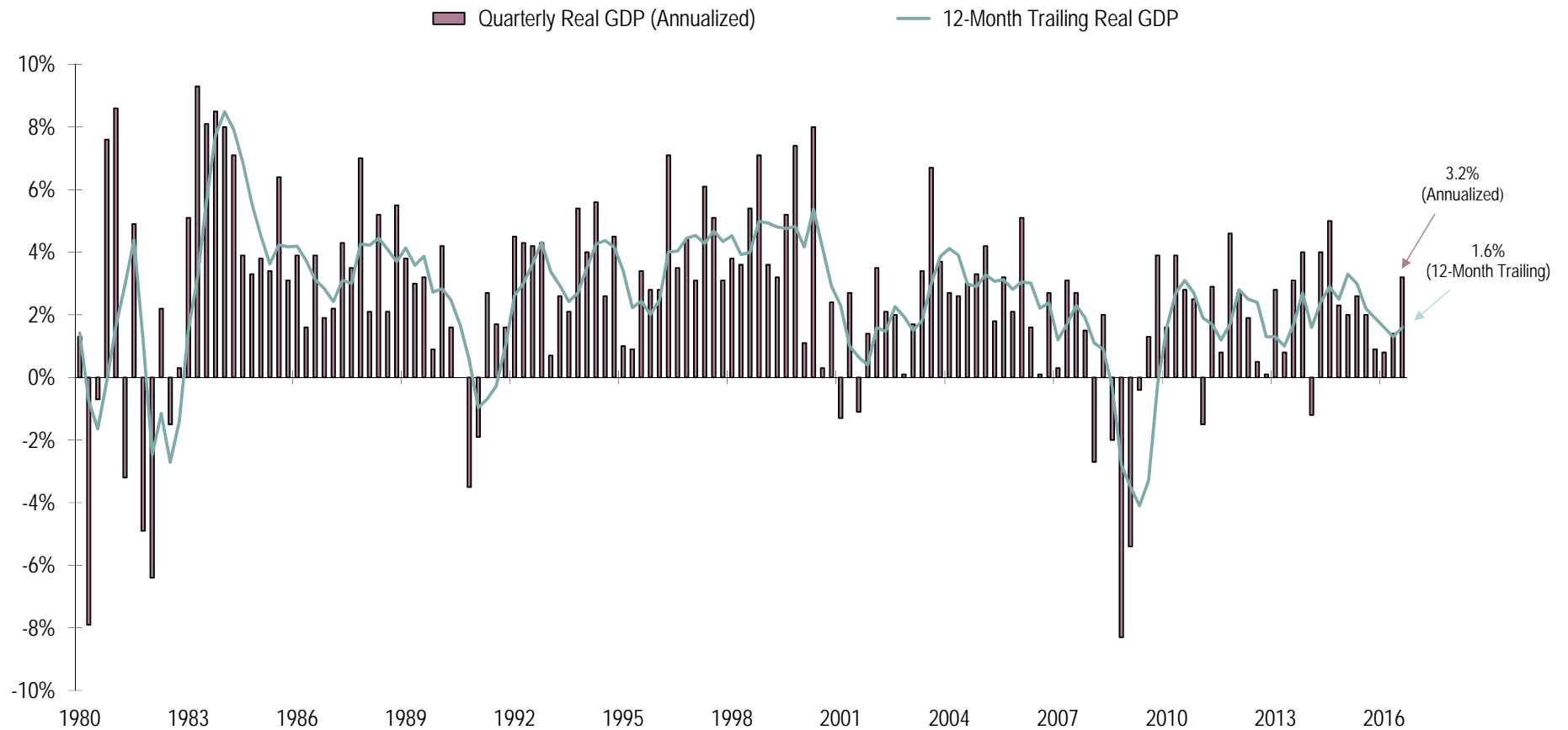
## Credit Spreads vs. U.S. Treasury Bonds



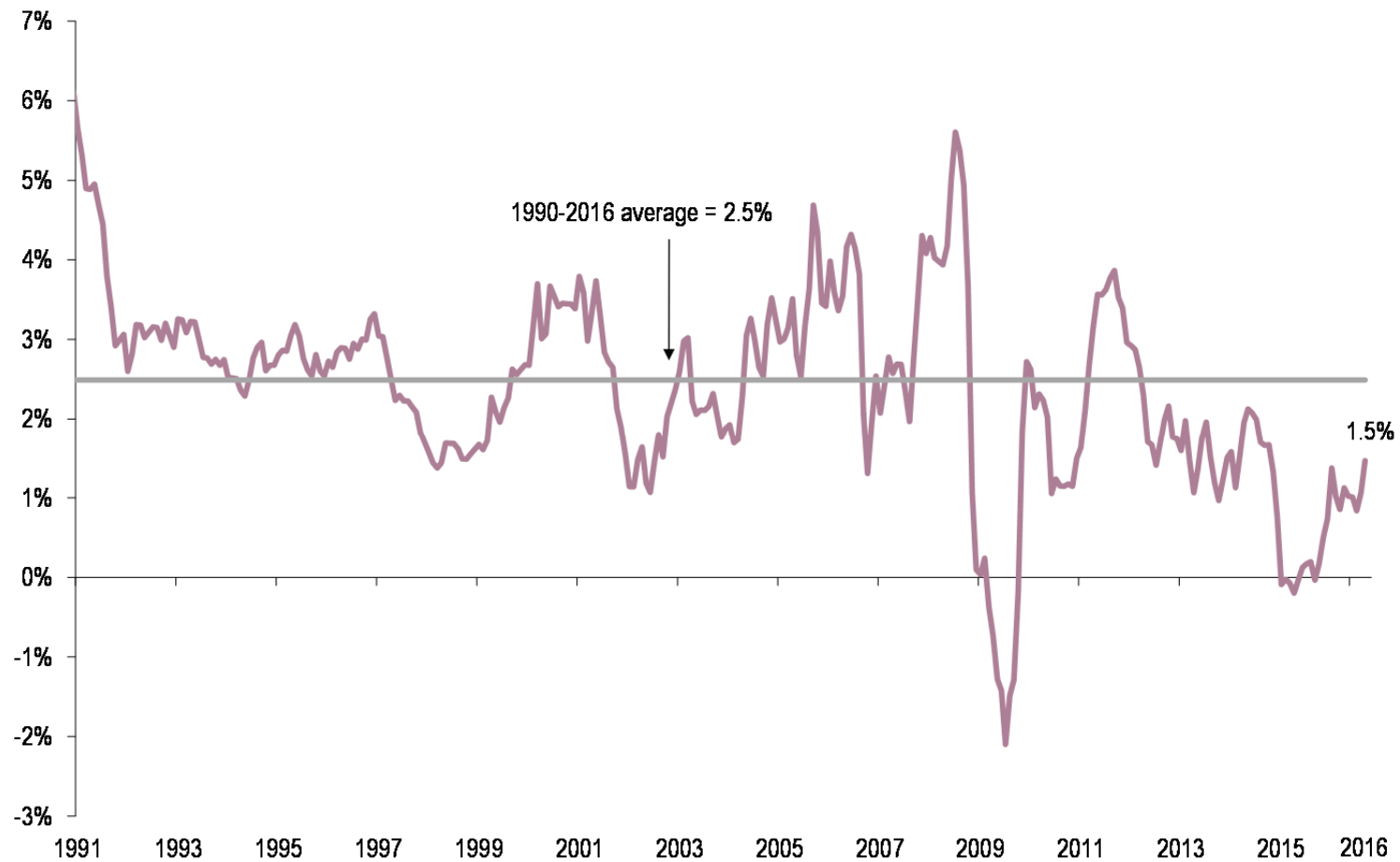
<sup>1</sup> The median high yield spread was 5.1% from 1997-2016.



## U.S. Real Gross Domestic Product (GDP) Growth

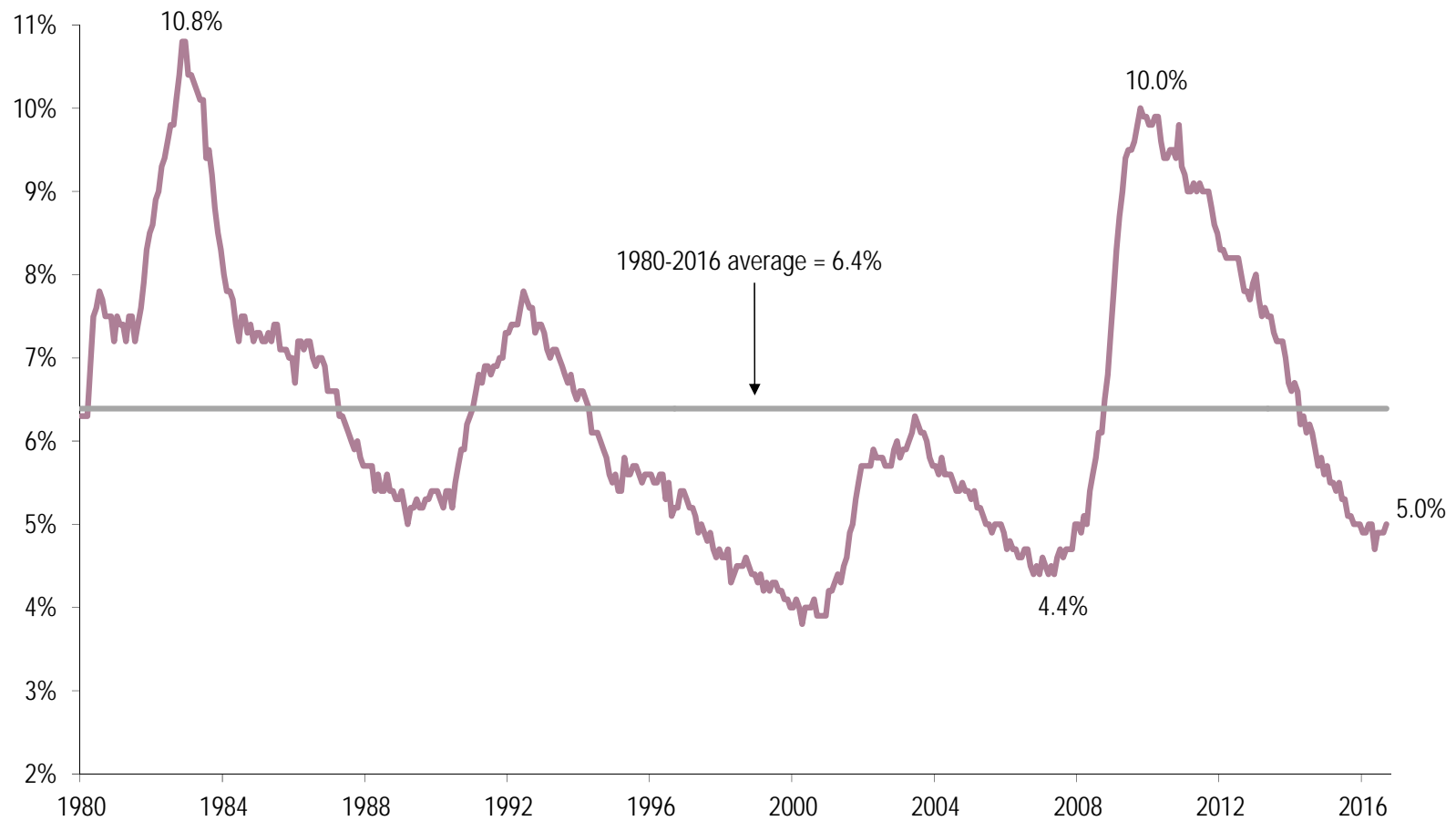


## U.S. Inflation (CPI) Trailing Twelve Months<sup>1</sup>



<sup>1</sup> Data is non-seasonally adjusted CPI, which may be volatile in the short-term. Data is as of September 30, 2016.

## U.S. Unemployment<sup>1</sup>



<sup>1</sup> Data is as of September 30, 2016.

## **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 its 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%.

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

Sources: Investment Terminology, International Foundation of Employee Benefit Plans, 1999.  
The Handbook of Fixed Income Securities, 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.