



**TDC**  
INVESTMENT ADVISORY

# QUARTERLY MARKET REVIEW

FOURTH QUARTER 2016



This report features world capital market performance and a timeline of events for the past quarter. It begins with a global overview, then features the returns of stock and bond asset classes in the US and international markets.

The report also illustrates the impact of globally diversified portfolios and features a quarterly topic.

Overview:

Market Summary

World Stock Market Performance

World Asset Classes

US Stocks

International Developed Stocks

Emerging Markets Stocks

Select Country Performance

Select Currency Performance vs. US Dollar







Real Estate Investment Trusts (REITs)

Commodities

Fixed Income

Impact of Diversification

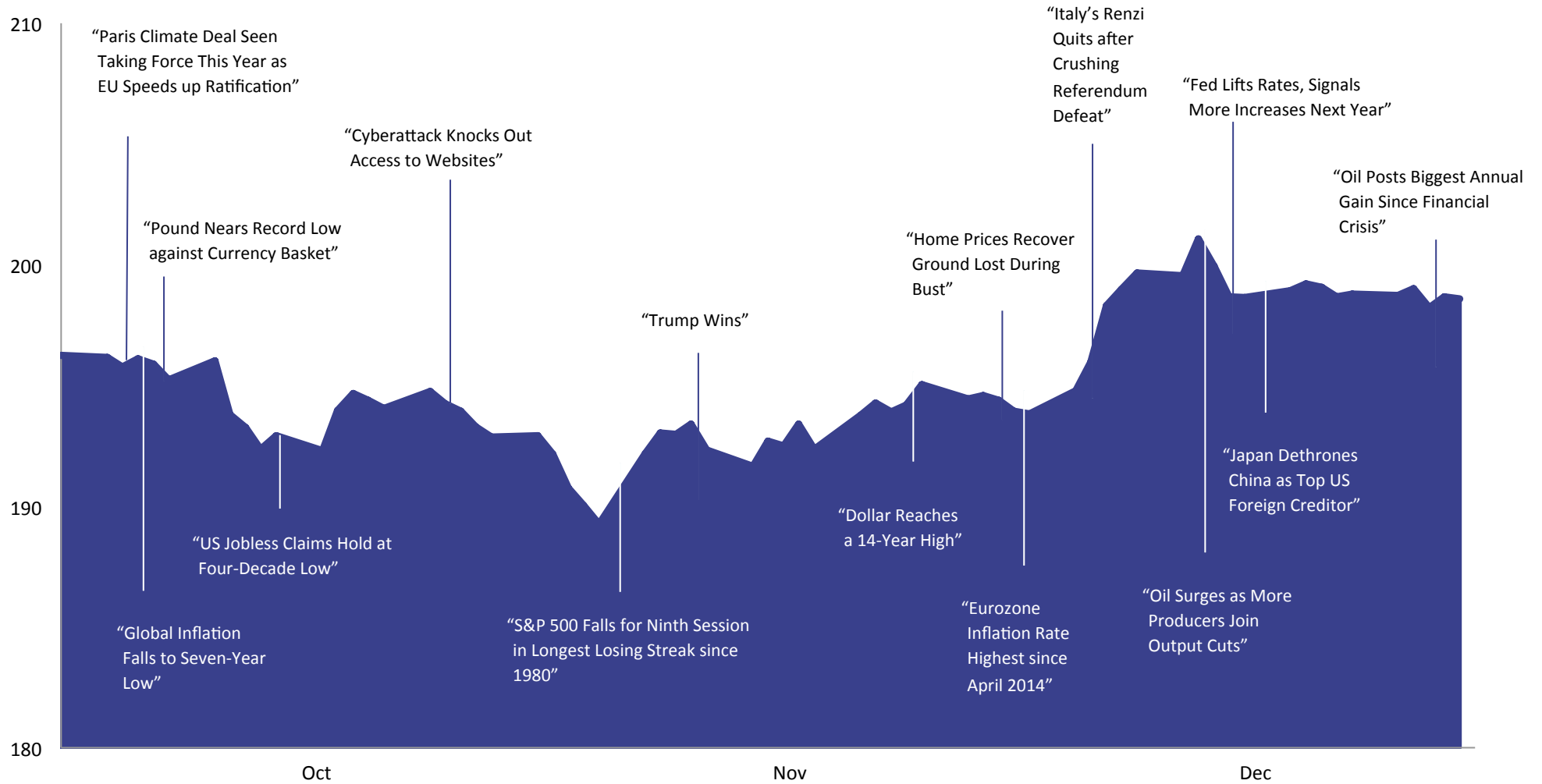


	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate		US Bond Market	Global Bond Market ex US
<b>4Q 2016</b>	<b>STOCKS</b>				<b>BONDS</b>		
	<b>4.21%</b> 	<b>-0.36%</b> 	<b>-4.16%</b> 	<b>-5.11%</b> 		<b>-2.98%</b> 	<b>-2.21%</b> 
<b>Since Jan. 2001</b>							
Avg. Quarterly Return	1.8%	1.3%	2.9%	2.7%		1.2%	1.1%
Best Quarter	16.8% <b>Q2 2009</b>	25.9% <b>Q2 2009</b>	34.7% <b>Q2 2009</b>	32.3% <b>Q3 2009</b>		4.6% <b>Q3 2001</b>	5.5% <b>Q4 2008</b>
Worst Quarter	-22.8% <b>Q4 2008</b>	-21.2% <b>Q4 2008</b>	-27.6% <b>Q4 2008</b>	-36.1% <b>Q4 2008</b>		-3.0% <b>Q4 2016</b>	-3.2% <b>Q2 2015</b>

Source: DFA. Information from sources deemed reliable, but accuracy cannot be guaranteed

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: US Stock Market (Russell 3000 Index), International Developed Stocks (MSCI World ex USA Index [net div.]), Emerging Markets (MSCI Emerging Markets Index [net div.]), Global Real Estate (S&P Global REIT Index [net div.]), US Bond Market (Bloomberg Barclays US Aggregate Bond Index), and Global Bond ex US Market (Citi WGBI ex USA 1-30 Years [Hedged to USD]). The S&P data are provided by Standard & Poor's Index Services Group. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2017, all rights reserved. Bloomberg Barclays data provided by Bloomberg. Citi fixed income indices copyright 2017 by Citigroup.





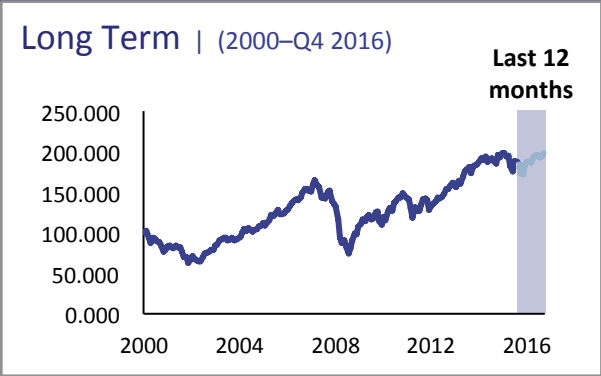
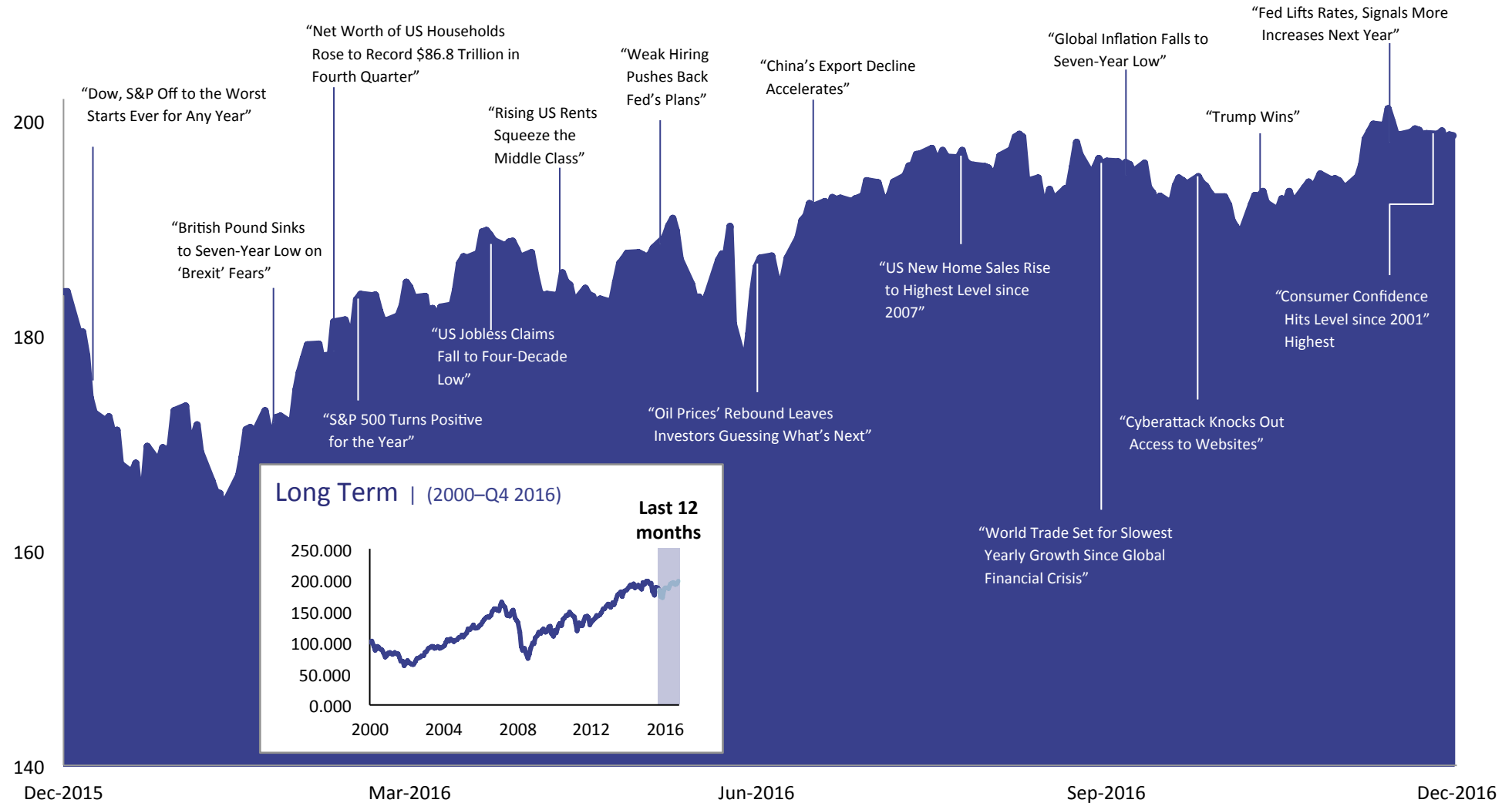
Graph Source: MSCI ACWI Index [net div.]. MSCI data © MSCI 2017, all rights reserved.

It is not possible to invest directly in an index. Performance does not reflect the expenses associated with management of an actual portfolio. Past performance is not a guarantee of future results.

These headlines are not offered to explain market returns. Instead, they serve as a reminder that investors should view daily events from a long-term perspective and avoid making investment decisions based solely on the news.



### Short Term | (Q4 2016–Q4 2016)



Source: DFA. Information from sources deemed reliable, but accuracy cannot be guaranteed.

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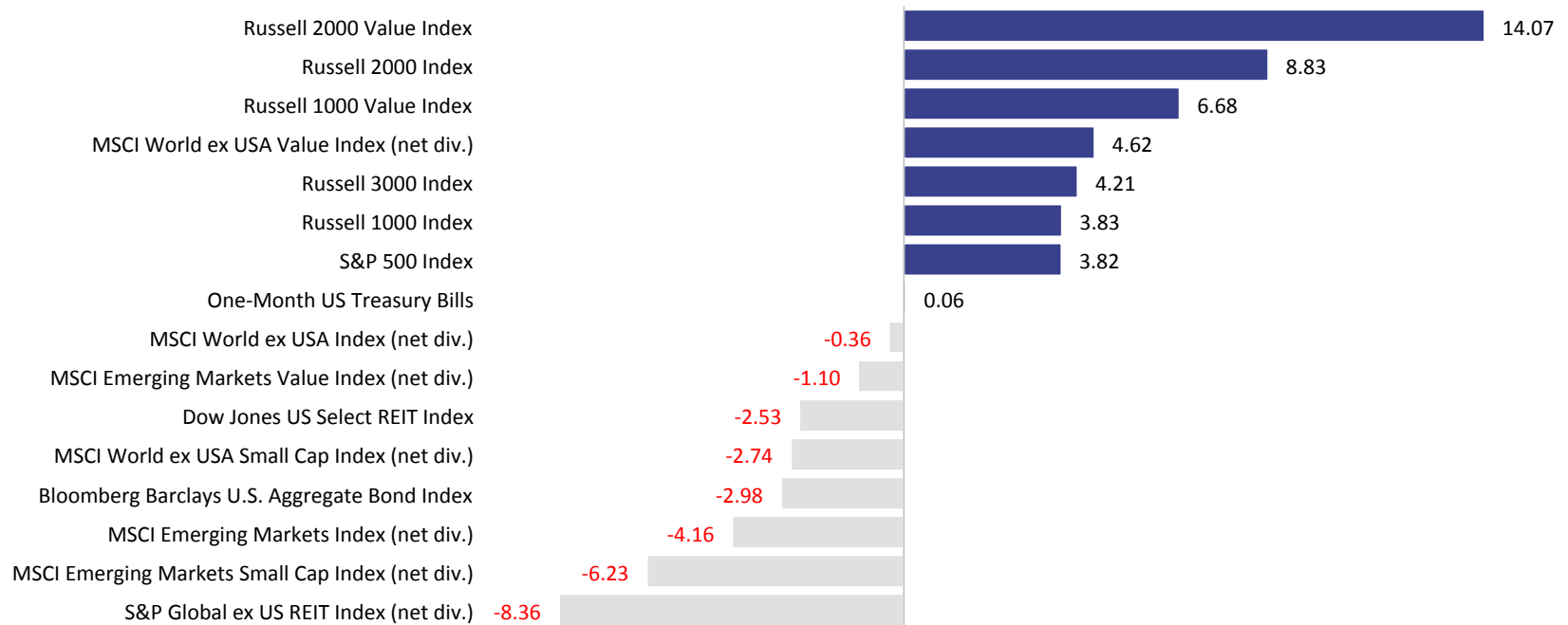
Graph Source: MSCI ACWI Index [net div.]. MSCI data © MSCI 2017, all rights reserved.

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Looking at broad market indices, the US outperformed both non-US developed and emerging markets during the quarter. US and non-US real estate investment trusts (REITs) recorded negative returns and lagged the US and non-US equity markets.

The value effect was positive in the US, non-US, and emerging markets. Small caps outperformed large caps in the US and developed markets outside the US but underperformed in emerging markets.



Source: DFA. Information from sources deemed reliable, but accuracy cannot be guaranteed

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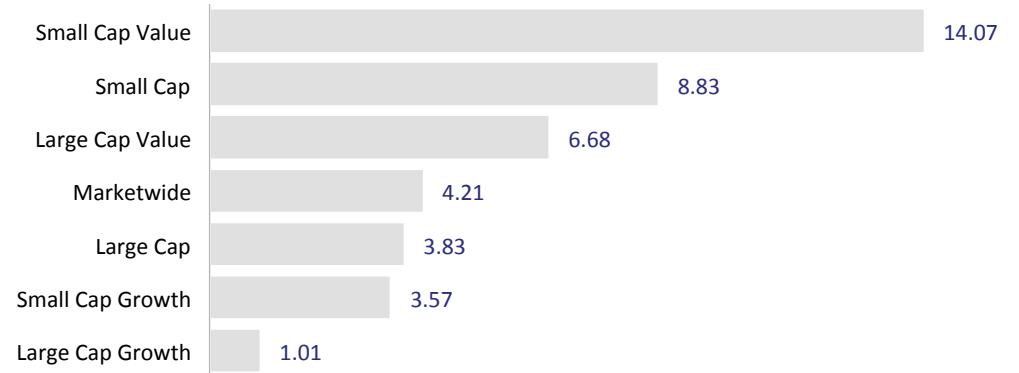


The broad US equity market recorded positive performance for the quarter.

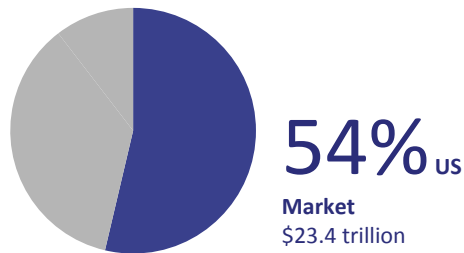
Value indices significantly outperformed growth indices in the US across all size ranges.

Small caps in the US outperformed large caps.

Ranked Returns for the Quarter (%)



World Market Capitalization—US



Period Returns (%)

	Asset Class	1 Year	3 Years*	5 Years*
1	Marketwide	12.74	8.43	14.67
2	Large Cap	12.05	8.59	14.69
3	Large Cap Value	17.34	8.59	14.80
4	Large Cap Growth	7.08	8.55	14.50
5	Small Cap	21.31	6.74	14.46
6	Small Cap Value	31.74	8.31	15.07
7	Small Cap Growth	11.32	5.05	13.74

Source: DFA. Information from sources deemed reliable, but accuracy cannot be guaranteed

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: Marketwide (Russell 3000 Index), Large Cap (Russell 1000 Index), Large Cap Value (Russell 1000 Value Index), Large Cap Growth (Russell 1000 Growth Index), Small Cap (Russell 2000 Index), Small Cap Value (Russell 2000 Value Index), and Small Cap Growth (Russell 2000 Growth Index). World Market Cap represented by Russell 3000 Index, MSCI World ex USA IMI Index, and MSCI Emerging Markets IMI Index. Russell 3000 Index is used as the proxy for the US market. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2017, all rights reserved.

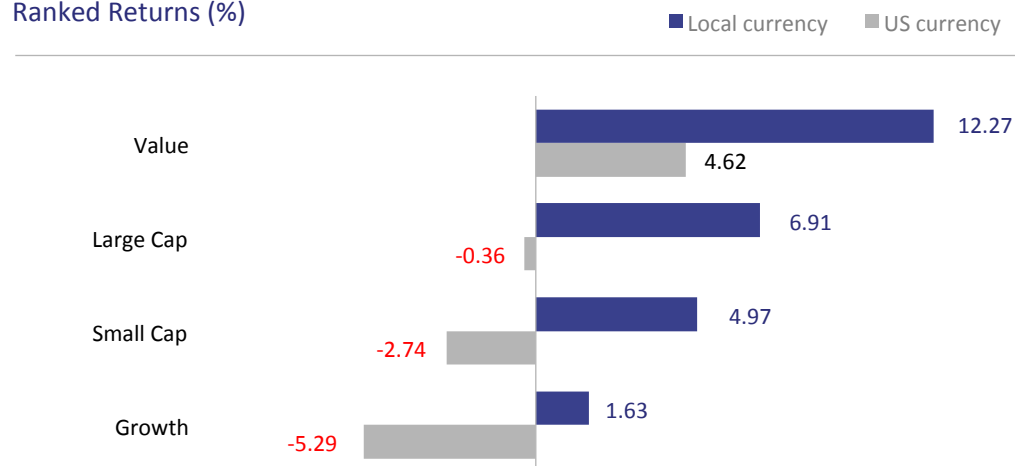


In US dollar terms, non-US developed markets lagged the US equity market but outperformed emerging markets indices during the quarter.

Small caps outperformed large caps.

Looking at broad market indices, the value effect was positive across all size ranges.

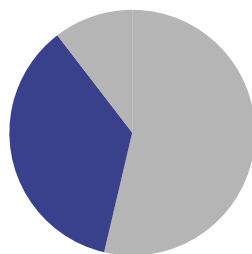
Ranked Returns (%)



World Market Capitalization—International Developed

36%

International  
Developed  
Market  
\$15.6 trillion



Period Returns (%)

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Large Cap	2.75	-1.59	6.07	0.86
Small Cap	4.32	1.36	8.96	2.69
Value	7.39	-2.12	5.96	0.08
Growth	-1.87	-1.18	6.08	1.56

\* Annualized

Source: DFA. Information from sources deemed reliable, but accuracy cannot be guaranteed

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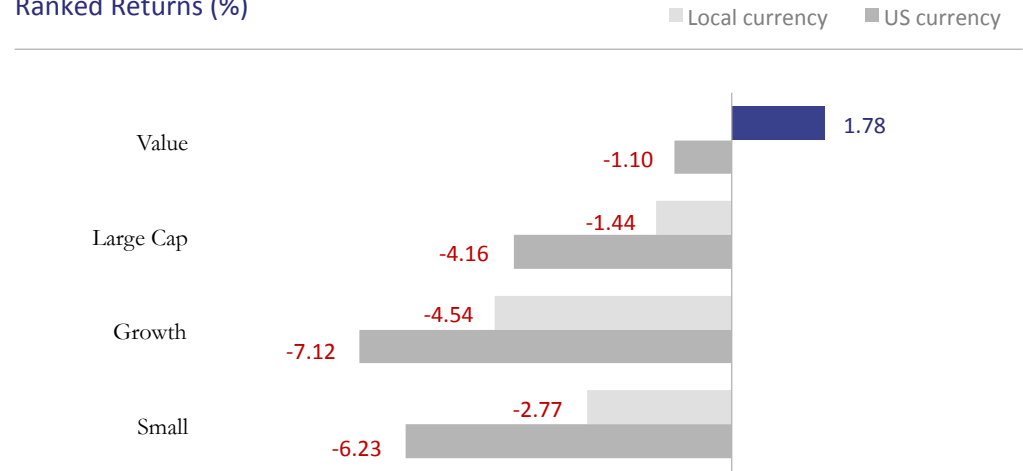


In US dollar terms, emerging markets indices underperformed both the US and developed markets outside the US.

Looking at broad market indices, the value effect was positive across all size ranges.

Small caps underperformed large caps.

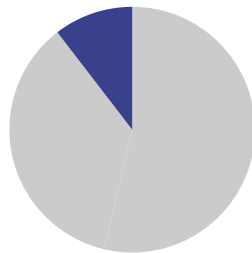
### Ranked Returns (%)



### World Market Capitalization—Emerging Markets

10%

Emerging Markets  
\$4.5 trillion



### Period Returns (%)

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Large Cap	11.19	-2.55	1.28	1.84
Small Cap	2.28	-1.27	3.51	3.41
Value	14.90	-3.54	-0.27	1.97
Growth	7.59	-1.67	2.73	1.63

\* Annualized

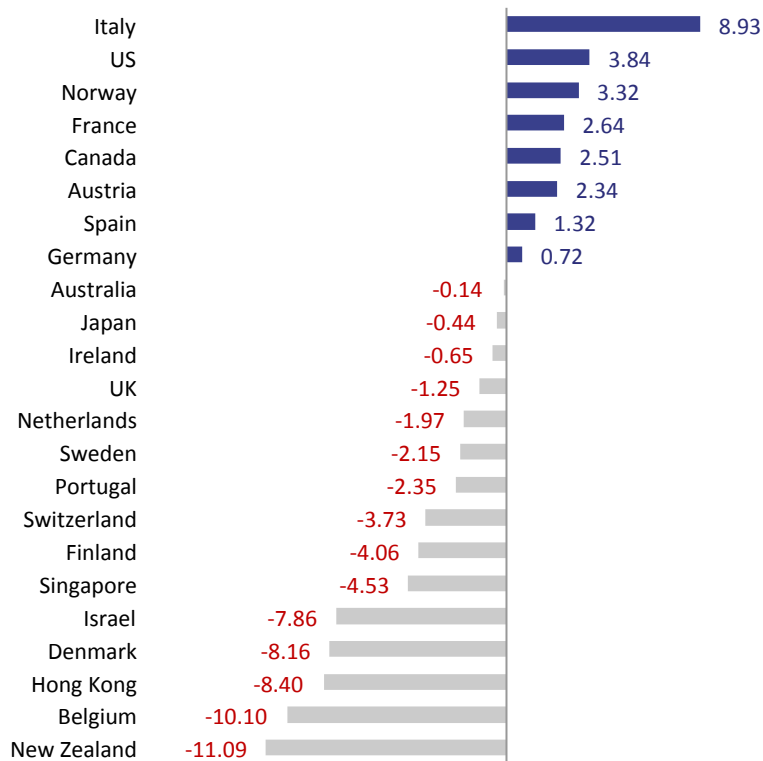
Source: DFA. Information from sources deemed reliable, but accuracy cannot be guaranteed

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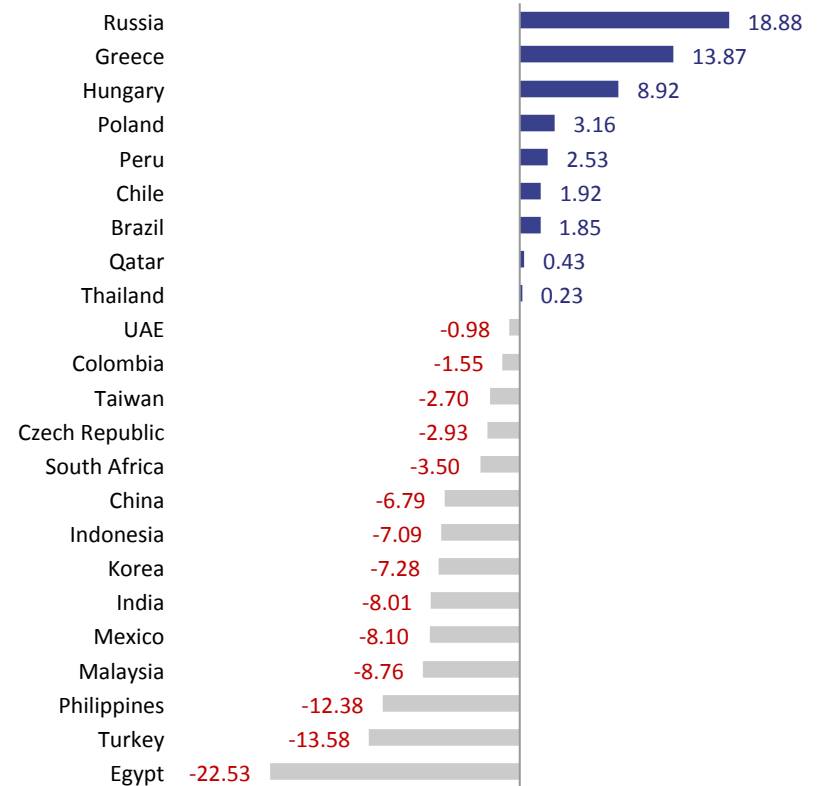


Italy and the US recorded the highest country performance in developed markets, while Belgium and New Zealand posted the lowest returns for the quarter. In emerging markets, Russia and Greece posted the highest country returns, while Turkey and Egypt recorded the lowest performance.

Ranked Developed Markets Returns (%)



Ranked Emerging Markets Returns (%)



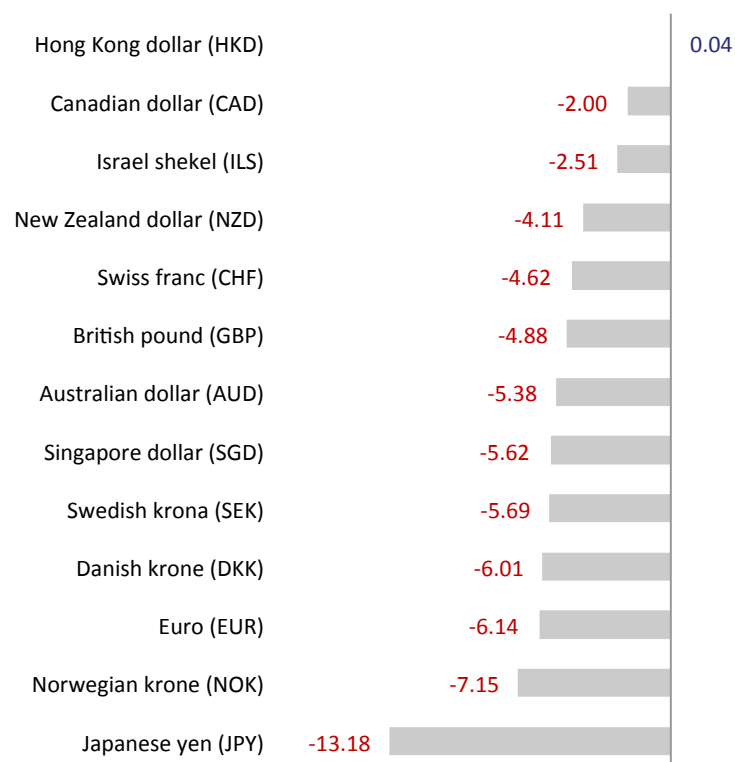
Source: DFA. Information from sources deemed reliable, but accuracy cannot be guaranteed

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Country performance based on respective indices in the MSCI World ex US IMI Index (for developed markets), MSCI USA IMI Index (for US), and MSCI Emerging Markets IMI Index. All returns in USD and net of withholding tax on dividends. MSCI data © MSCI 2017, all rights reserved. UAE and Qatar have been reclassified as emerging markets by MSCI, effective May 2014.

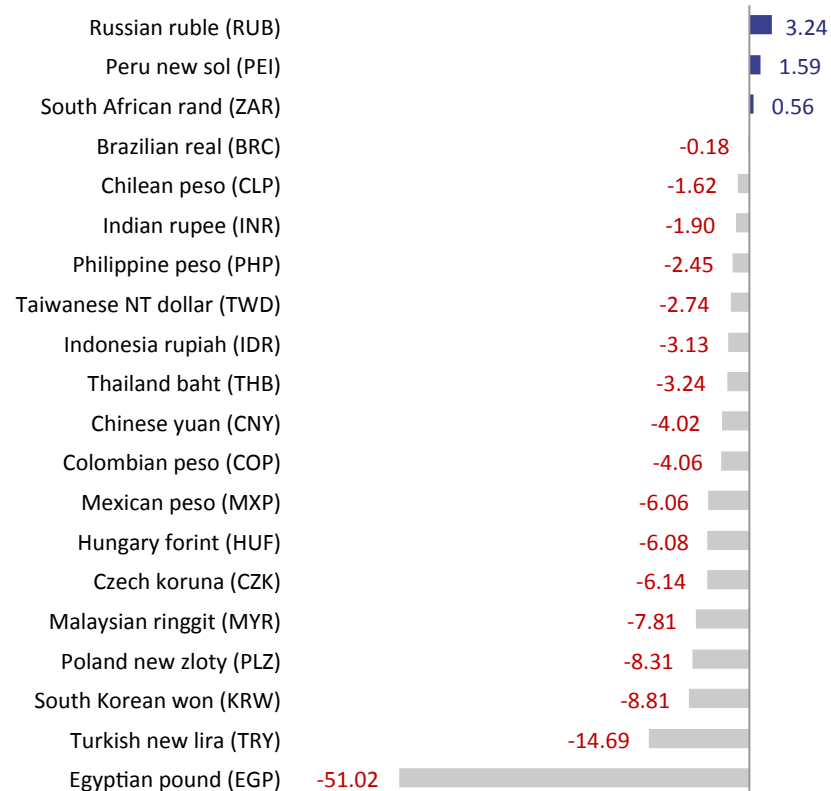


Most non-US developed markets currencies depreciated against the US dollar during the quarter, with the Japanese yen experiencing the most significant decline. In emerging markets, the Egyptian pound declined by nearly 50% relative to the US dollar.

### Ranked Developed Markets (%)



### Ranked Emerging Markets (%)



Source: DFA. Information from sources deemed reliable, but accuracy cannot be guaranteed

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US REITs posted negative absolute performance for the quarter, lagging the broad equity market. REITs in developed markets recorded positive absolute returns but underperformed broad developed markets equity indices.

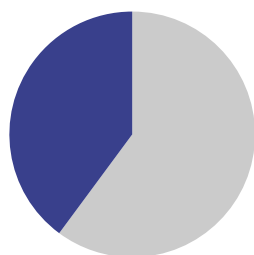
Ranked Returns (%)



Total Value of REIT Stocks

40%

World ex US \$421 billion  
258 REITs  
(22 other countries)



60%

US  
\$638 billion  
102 REITs

Period Returns (%)

\* Annualized

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
US REITs	6.68	13.73	11.77	4.63
Global REITs (ex US)	3.12	3.34	8.30	0.00

Source: DFA. Information from sources deemed reliable, but accuracy cannot be guaranteed

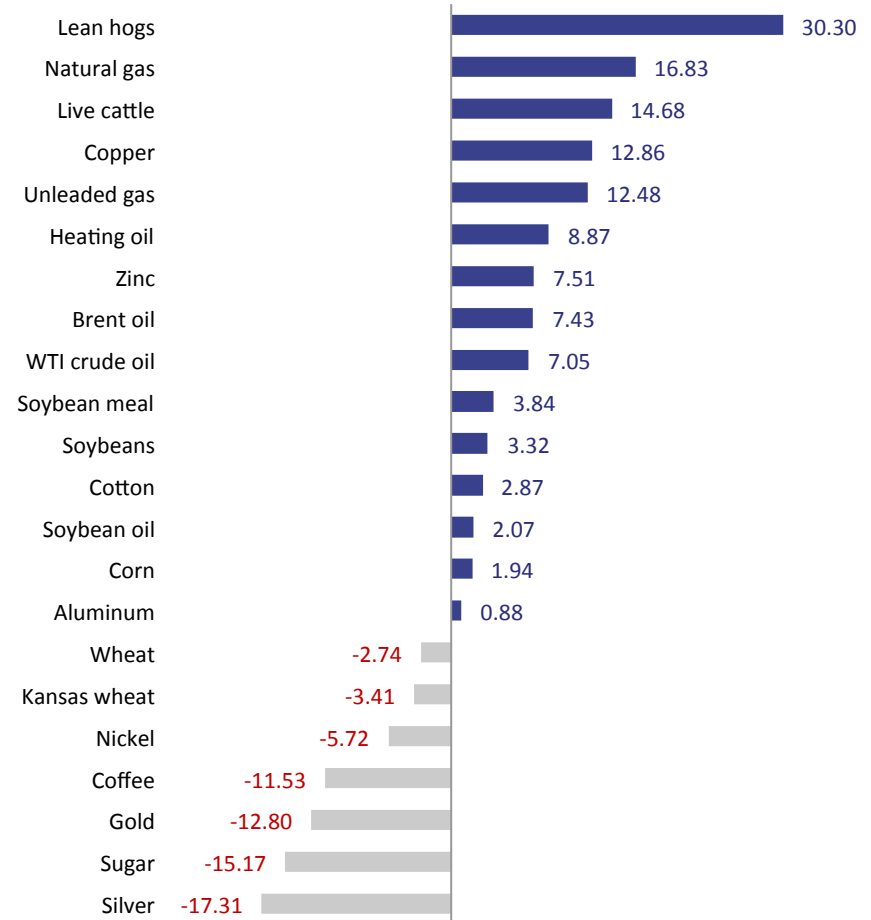
Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Number of REIT stocks and total value based on the two indices. All index returns are net of withholding tax on dividends. Total value of REIT stocks represented by Dow Jones US Select REIT Index and the S&P Global ex US REIT Index. Dow Jones US Select REIT Index used as proxy for the US market, and S&P Global ex US REIT Index used as proxy for the World ex US market. Dow Jones US Select REIT Index data provided by Dow Jones ©. S&P Global ex US REIT Index data provided by Standard and Poor's Index Services Group © 2017.



The Bloomberg Commodity Index Total Return gained 2.66% in the fourth quarter, bringing the total annual return to 11.77%.

The livestock complex led quarterly performance, with lean hogs returning 30.30% and live cattle following with a gain of 14.68%. Precious metals was the worst-performing complex, with silver and gold declining by 17.31% and 12.80%, respectively.

Ranked Returns for Individual Commodities (%)



Period Returns (%)

\* Annualized

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Commodities	11.77	-11.26	-8.95	-5.58

Sources: Morningstar, Parametric Portfolio Associates and Oppenheimer Funds. Information from sources deemed reliable, but accuracy cannot be guaranteed. Past performance is not a guarantee of future results. Index is not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. All index returns are net of withholding tax on dividends. Securities and commodities data provided by Bloomberg.



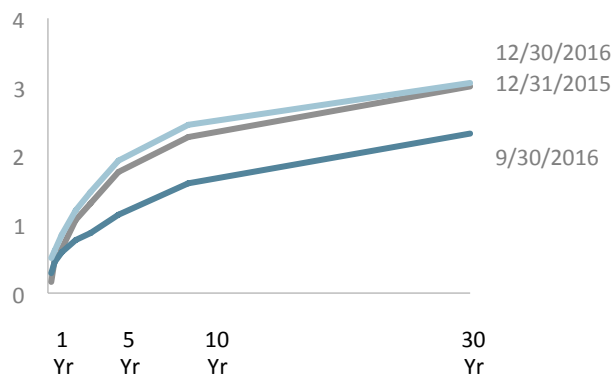
Interest rates increased in the fourth quarter. The yield on the 5-year Treasury note rose 79 basis points (bps), ending at 1.93%. The 10-year T-note yield climbed 85 bps to 2.45%. The 30-year Treasury bond yield added 74 bps to close at 3.06%.

In 2016, the short end of the yield curve saw the greatest rate increases. The 1-year T-bill gained 20 bps to 0.85%, while the 2-year T-note finished at 1.20% after an increase of 14 bps for the year.

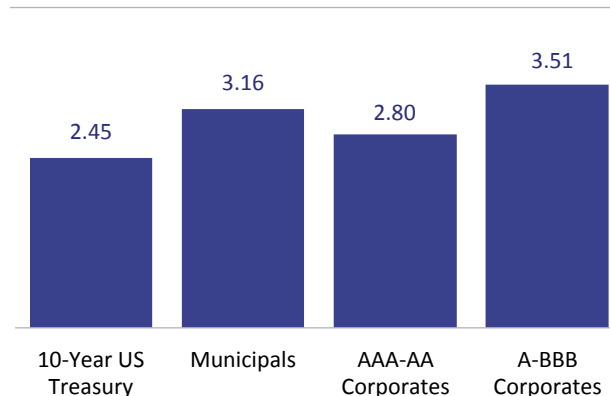
In terms of total returns, short-term corporate bonds declined 0.18% during the quarter but gained 2.36% for the year. Intermediate corporates fell 1.84% during the quarter but rose 4.04% in 2016.

Short-term municipal bonds declined 1.07% for the quarter but increased 0.07% for the year. Intermediate-term municipal bonds fell 3.74% for the quarter and 0.45% for the year. Revenue bonds outperformed general obligation bonds for the year.

US Treasury Yield Curve (%)



Bond Yields across Issuers (%)



Period Returns (%)

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
BofA Merrill Lynch 1-Year US Treasury Note Index	0.76	0.36	0.32	1.43
BofA Merrill Lynch Three-Month US Treasury Bill Index	0.33	0.14	0.12	0.80
Citi WGBI 1-5 Years (hedged to USD)	1.49	1.46	1.42	2.64
Bloomberg Barclays Long US Government Bond Index	1.43	7.71	2.57	6.60
Bloomberg Barclays Municipal Bond Index	0.25	4.14	3.28	4.25
Bloomberg Barclays US Aggregate Bond Index	2.65	3.03	2.23	4.34
Bloomberg Barclays US Corporate High Yield Index	17.13	4.66	7.36	7.45
Bloomberg Barclays US TIPS Index	4.68	2.26	0.89	4.36

Source: Dow Jones Indexes. Information from sources deemed reliable, but accuracy cannot be guaranteed.

One basis point equals 0.01%. Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Yield curve data from Federal Reserve. State and local bonds are from the S&P National AMT-Free Municipal Bond Index. AAA-AA Corporates represent the Bank of America Merrill Lynch US Corporates, AA-AAA rated. A-BBB Corporates represent the Bank of America Merrill Lynch US Corporates, BBB-A rated. Bloomberg Barclays data provided by Bloomberg. US long-term bonds, bills, inflation, and fixed income factor data © Stocks, Bonds, Bills, and Inflation (SBBI) Yearbook™, Ibbotson Associates, Chicago (annually updated work by Roger G. Ibbotson and Rex A. Sinquefeld). Citi fixed income indices copyright 2017 by Citigroup. The BofA Merrill Lynch Indices are used with permission; © 2017 Merrill Lynch, Pierce, Fenner & Smith Incorporated; all rights reserved. Merrill Lynch, Pierce, Fenner & Smith Incorporated is a wholly owned subsidiary of Bank of America Corporation. The S&P data are provided by Standard & Poor's Index Services Group.



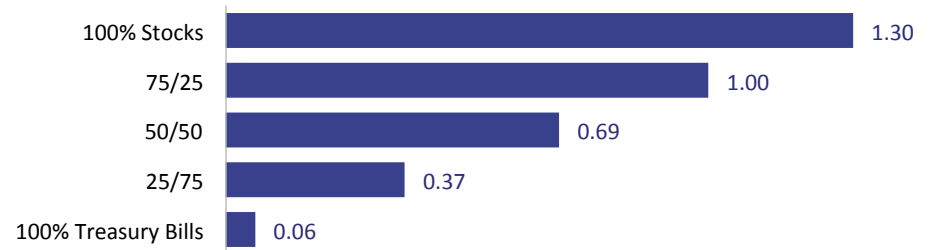
These portfolios illustrate the performance of different global stock/bond mixes. Mixes with larger allocations to stocks are considered riskier but have higher expected returns over time.

### Period Returns (%)

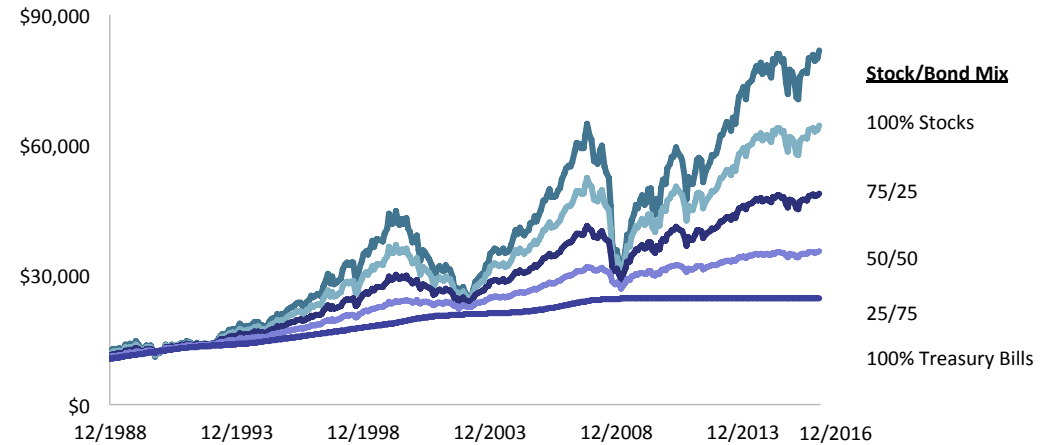
\* Annualized

Asset Class	1 Year	3 Years*	5 Years*	10 Years*	10-Year STDEV <sup>1</sup>
100% Stocks	8.48	3.69	9.96	4.12	16.99
75/25	6.47	2.90	7.53	3.54	12.74
50/50	4.42	2.03	5.07	2.77	8.49
25/75	2.33	1.09	2.58	1.81	4.24
100% Treasury Bills	0.20	0.08	0.06	0.67	0.41

### Ranked Returns (%)



### Growth of Wealth: The Relationship between Risk and Return



STDEV (standard deviation) is a measure of the variation or dispersion of a set of data points. Standard deviations are often used to quantify the historical return volatility of a security or portfolio. Diversification does not eliminate the risk of market loss. Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect expenses associated with the management of an actual portfolio. Asset allocations and the hypothetical index portfolio returns are for illustrative purposes only and do not represent actual performance. Global Stocks represented by MSCI All Country World Index (gross div.) and Treasury Bills represented by US One-Month Treasury Bills. Globally diversified allocations rebalanced monthly, no withdrawals. Data © MSCI 2017, all rights reserved. Treasury bills © Stocks, Bonds, Bills, and Inflation Yearbook™, Ibbotson Associates, Chicago (annually updated work by Roger G. Ibbotson and Rex A. Sinquefeld).



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