

# Q1

Quarterly Market Review

First Quarter 2017

# Quarterly Market Review

First Quarter 2017

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

Quarterly Topic: Investment Shock Absorbers

# Market Summary

## Index Returns

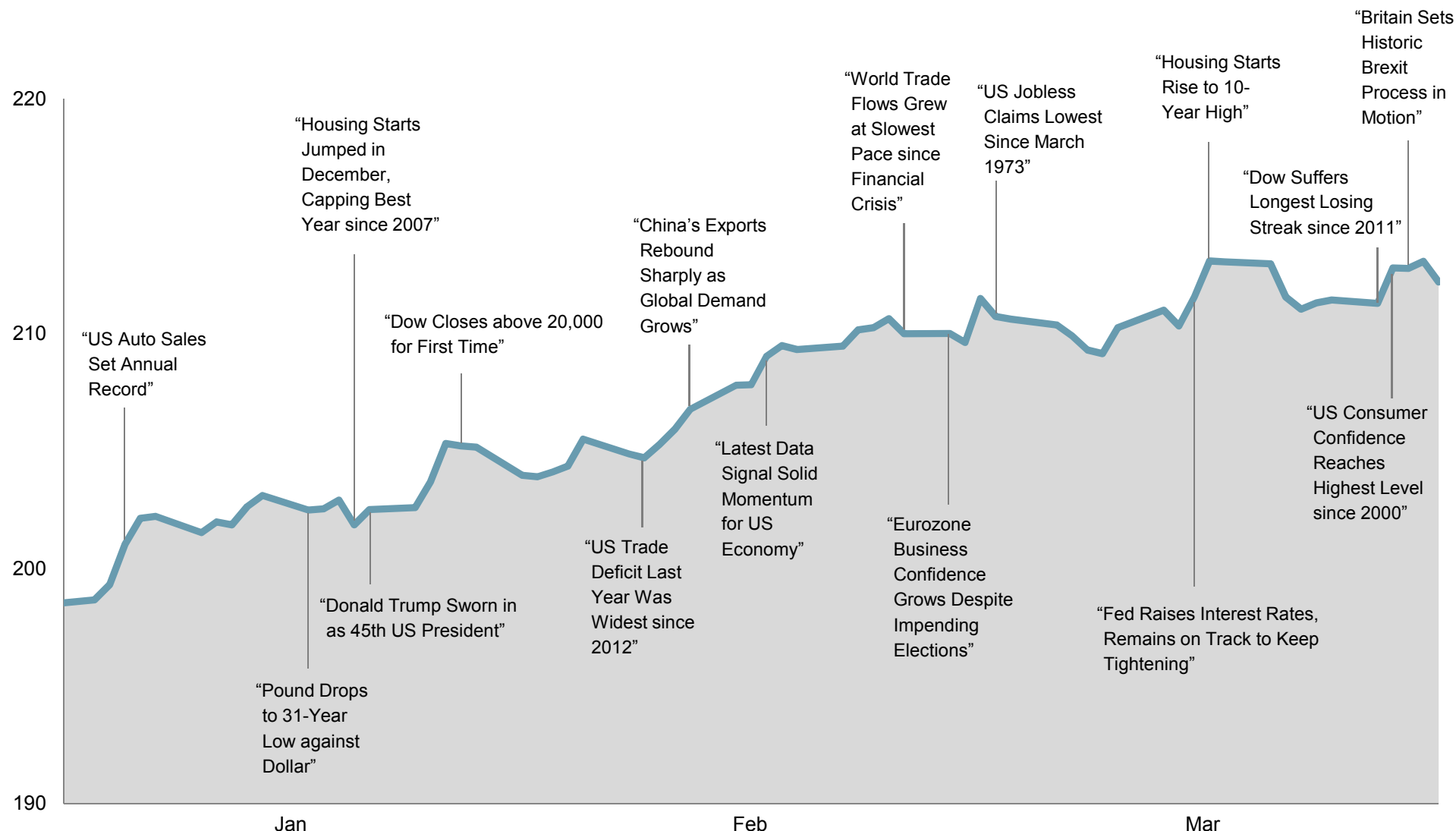
	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate		US Bond Market	Global Bond Market ex US
1Q 2017	STOCKS					BONDS	
	5.74%	6.81%	11.44%	1.44%		0.82%	-0.35%
							

Since Jan. 2001							
Avg. Quarterly Return	1.9%	1.4%	3.0%	2.7%		1.2%	1.1%
Best Quarter	16.8% Q2 2009	25.9% Q2 2009	34.7% Q2 2009	32.3% Q3 2009		4.6% Q3 2001	5.5% Q4 2008
Worst Quarter	-22.8% Q4 2008	-21.2% Q4 2008	-27.6% Q4 2008	-36.1% Q4 2008		-3.0% Q4 2016	-3.2% Q2 2015

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 exUSA 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.

# World Stock Market Performance

MSCI All Country World Index with selected headlines from Q1 2017



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.

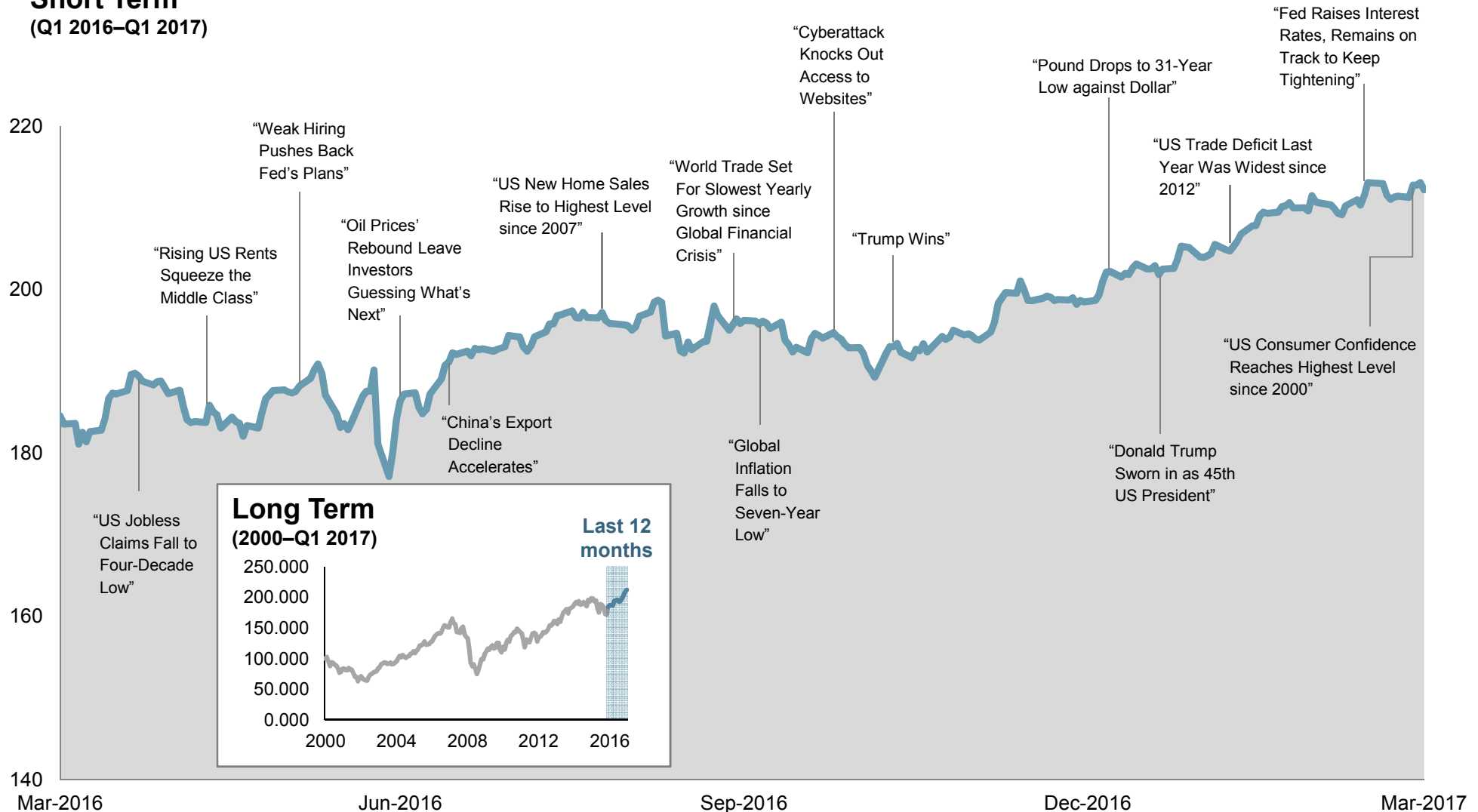
Graph Source: MSCI ACWI Index [net div.]. MSCI data © MSCI 2017, all rights reserved.

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.

# World Stock Market Performance

MSCI All Country World Index with selected headlines from past 12 months

## Short Term (Q1 2016–Q1 2017)



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.

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

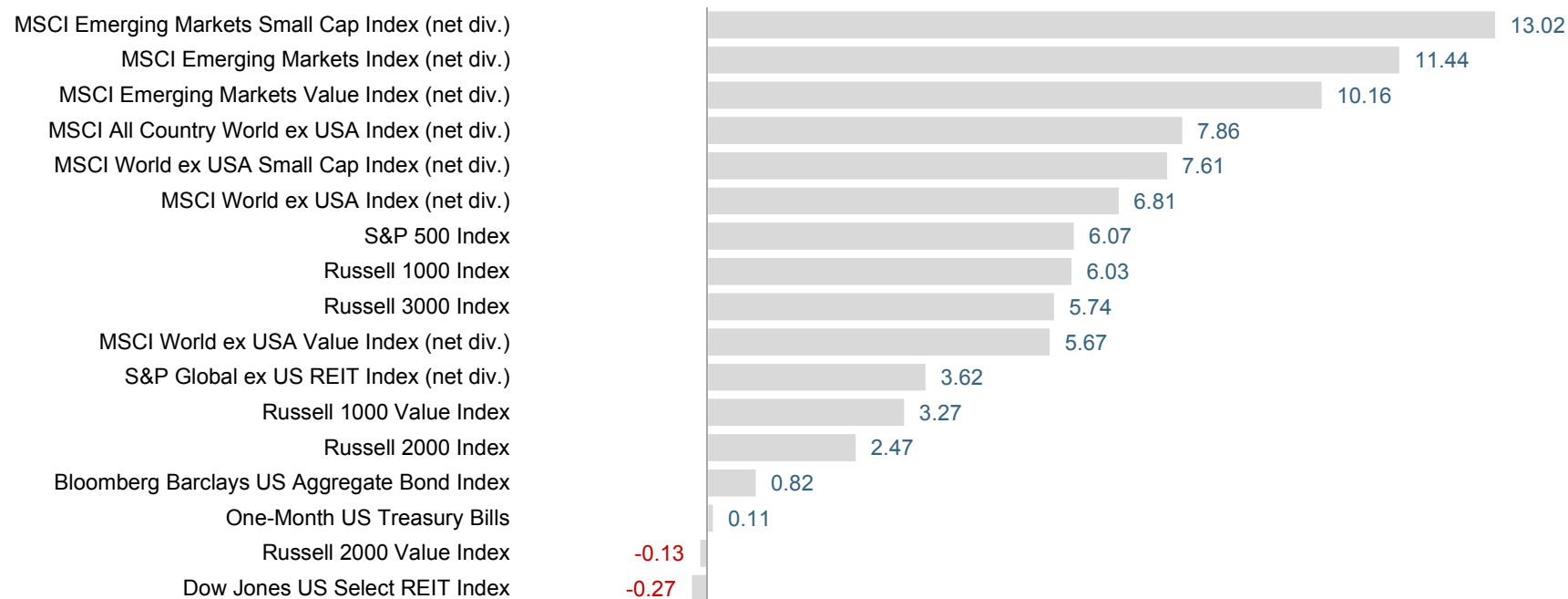
It is not possible to invest directly in an index. Performance does not reflect the expenses associated with management of an actual portfolio. **Past performance is not a guarantee of future results.**

# World Asset Classes

## First Quarter 2017 Index Returns (%)

Looking at broad market indices, emerging markets outperformed both US and non-US developed markets during the quarter. Real estate investment trusts (REITs) lagged their equity market counterparts.

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



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. The S&P data is 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. Dow Jones data (formerly Dow Jones Wilshire) provided by Dow Jones Indices. Bloomberg Barclays data provided by Bloomberg. Treasury bills © Stocks, Bonds, Bills, and Inflation Yearbook™, Ibbotson Associates, Chicago (annually updated work by Roger G. Ibbotson and Rex A. Sinquefeld).

# US Stocks

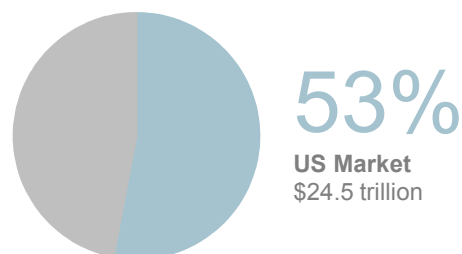
## First Quarter 2017 Index Returns

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

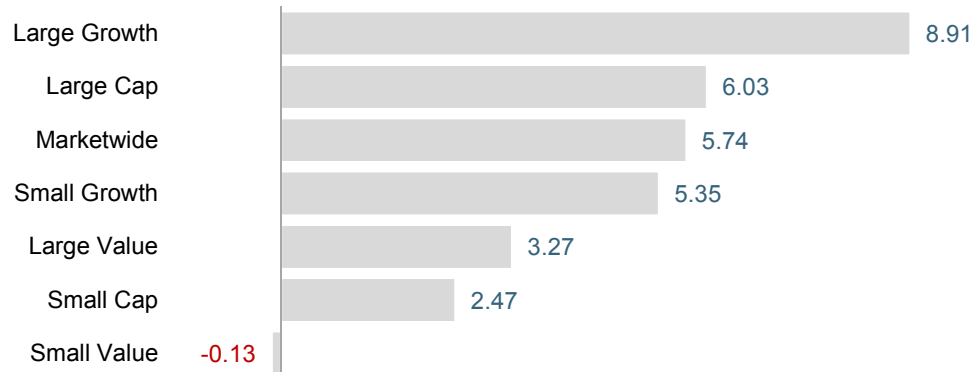
Value underperformed growth indices across all size ranges.

Small caps underperformed large caps.

## World Market Capitalization—US



## Ranked Returns for the Quarter (%)



## Period Returns (%)

*\* Annualized*

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Marketwide	18.07	9.76	13.18	7.54
Large Cap	17.43	9.99	13.26	7.58
Large Cap Value	19.22	8.67	13.13	5.93
Large Cap Growth	15.76	11.27	13.32	9.13
Small Cap	26.22	7.22	12.35	7.12
Small Cap Value	29.37	7.62	12.54	6.09
Small Cap Growth	23.03	6.72	12.10	8.05

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.

# International Developed Stocks

## First Quarter 2017 Index Returns

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

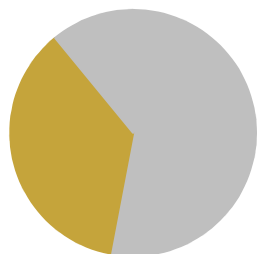
Small caps outperformed large caps in non-US developed markets.

The value effect was negative across all size ranges in non-US developed markets.

## World Market Capitalization—International Developed

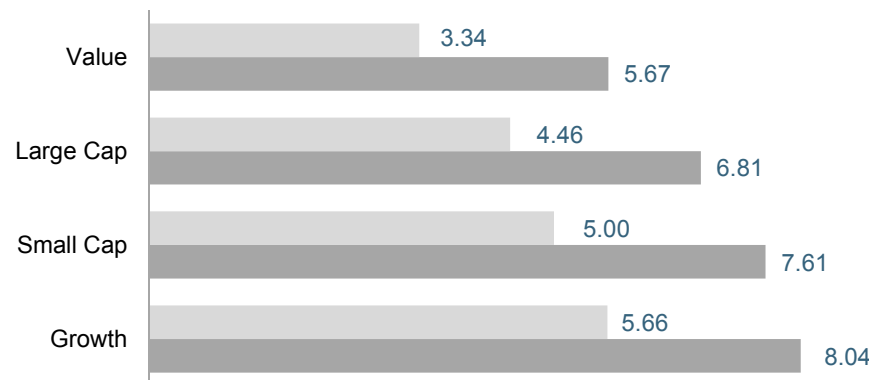
36%

International  
Developed  
Market  
\$16.7 trillion



## Ranked Returns (%)

■ Local currency ■ US currency



## Period Returns (%)

\* Annualized

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Large Cap	11.93	0.35	5.38	1.13
Small Cap	11.58	2.70	7.78	2.72
Value	16.46	-0.67	5.19	0.31
Growth	7.47	1.27	5.48	1.87

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: Large Cap (MSCI World ex USA Index), Small Cap (MSCI World ex USA Small Cap Index), Value (MSCI World ex USA Value Index), and Growth (MSCI World ex USA Growth). All index returns are net of withholding tax on dividends. World Market Cap represented by Russell 3000 Index, MSCI World ex USA IMI Index, and MSCI Emerging Markets IMI Index. MSCI World ex USA IMI Index is used as the proxy for the International Developed market. MSCI data © MSCI 2017, all rights reserved.



# Emerging Markets Stocks

## First Quarter 2017 Index Returns

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

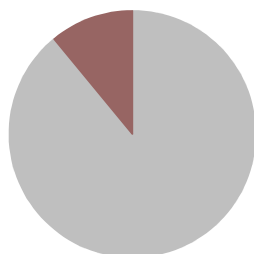
The value effect was negative among large cap stocks in emerging markets but positive among small cap stocks.

Small caps outperformed large caps.

### World Market Capitalization—Emerging Markets

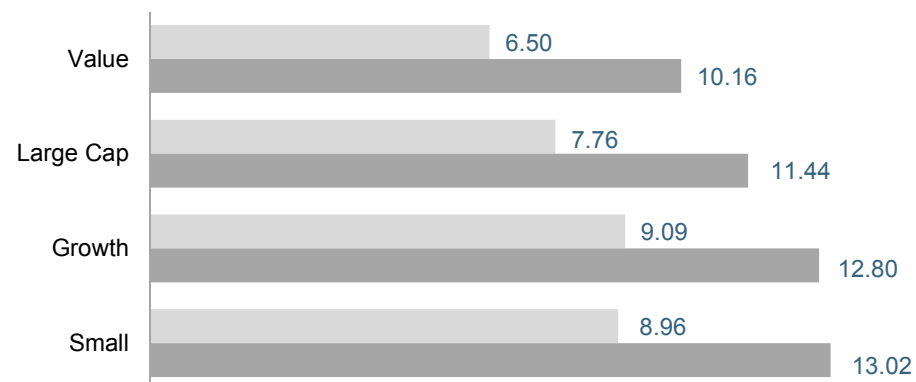
**11%**

Emerging  
Markets  
\$5.1 trillion



### Ranked Returns (%)

■ Local currency ■ US currency



### Period Returns (%)

\* Annualized

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Large Cap	17.21	1.18	0.81	2.72
Small Cap	14.49	1.66	2.87	3.92
Value	17.43	-0.10	-1.01	2.67
Growth	17.08	2.37	2.54	2.69

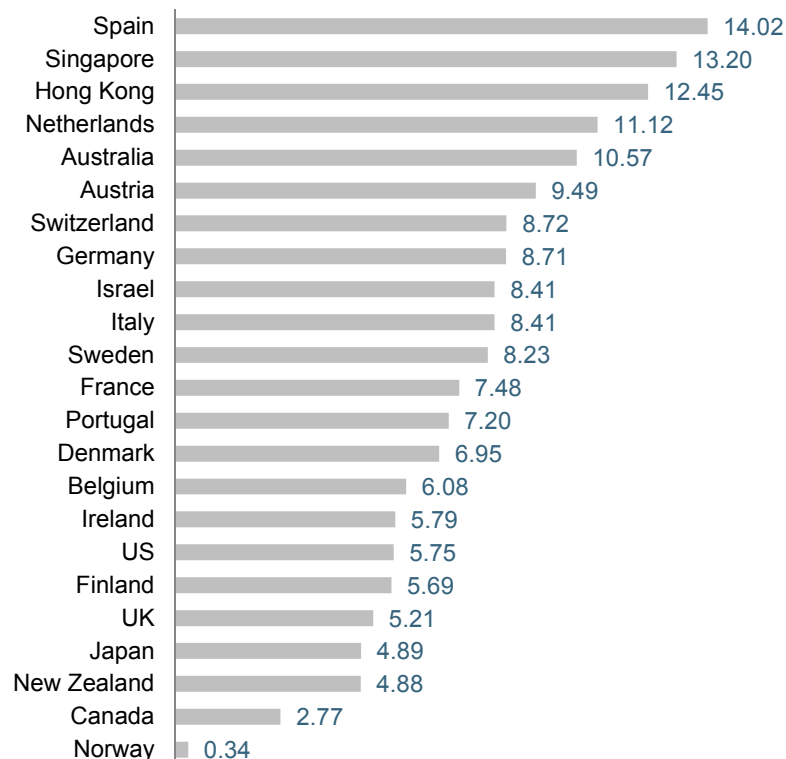
Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: Large Cap (MSCI Emerging Markets Index), Small Cap (MSCI Emerging Markets Small Cap Index), Value (MSCI Emerging Markets Value Index), and Growth (MSCI Emerging Markets Growth Index). All index returns are net of withholding tax on dividends. World Market Cap represented by Russell 3000 Index, MSCI World ex USA IMI Index, and MSCI Emerging Markets IMI Index. MSCI Emerging Markets IMI Index used as the proxy for the emerging market portion of the market. MSCI data © MSCI 2017, all rights reserved.

# Select Country Performance

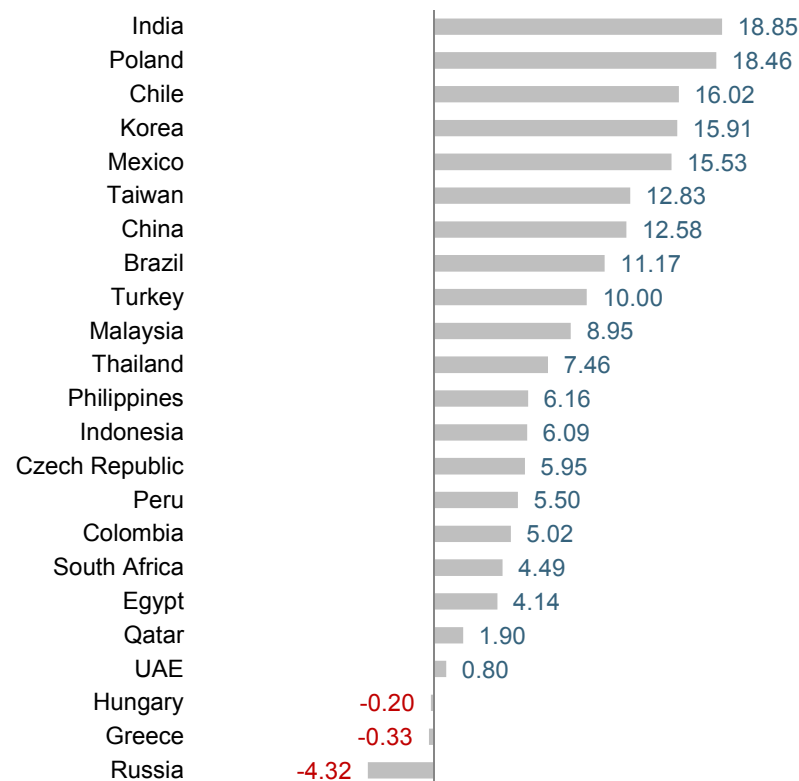
## First Quarter 2017 Index Returns

In US dollar terms, Spain and Singapore recorded the highest country performance in developed markets, while Canada and Norway returned the lowest performance for the quarter. In emerging markets, India and Poland posted the highest country returns, while Greece and Russia returned the lowest performance.

### Ranked Developed Markets Returns (%)



### Ranked Emerging Markets Returns (%)



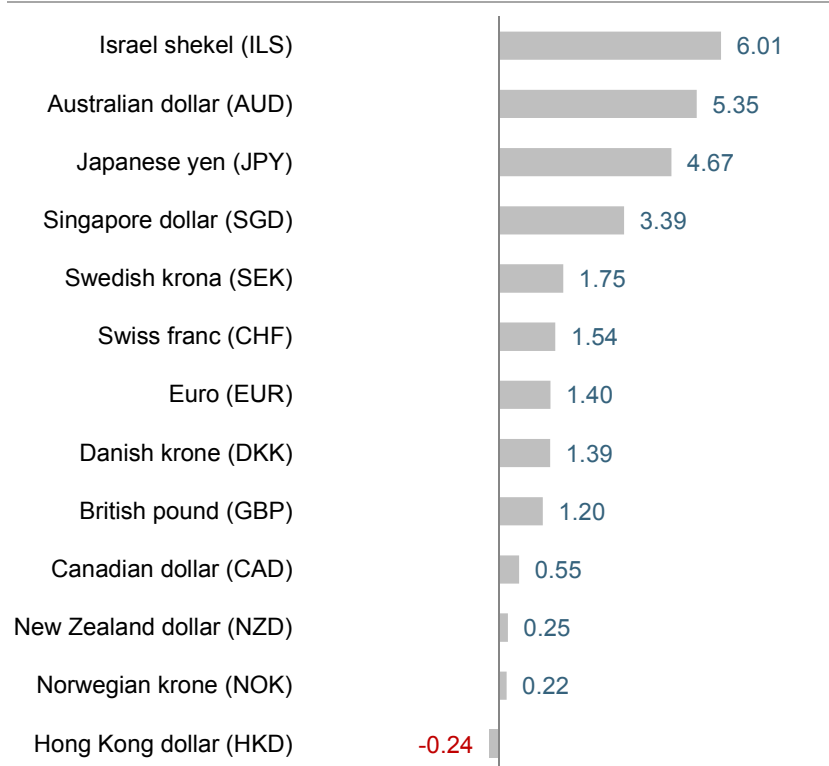
Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Country performance based on respective indices in the MSCI World ex US IMI Index (for developed 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.

# Select Currency Performance vs. US Dollar

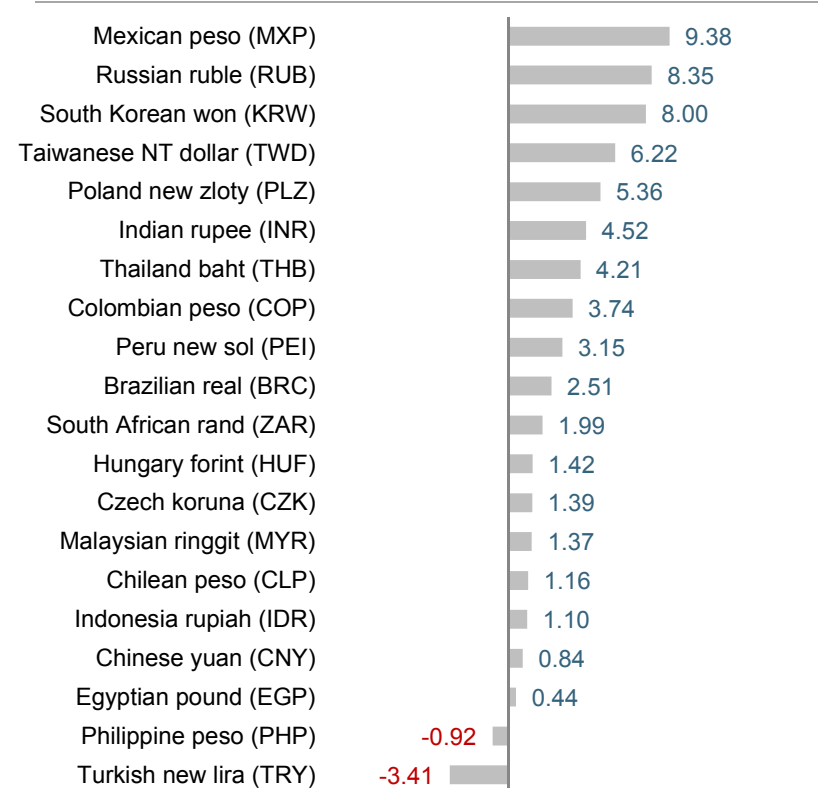
First Quarter 2017

Most non-US developed markets currencies appreciated against the US dollar during the quarter, with the Israeli shekel and the Australian dollar experiencing the greatest appreciation. In emerging markets, the Mexican peso appreciated nearly 10%, while the Turkish lira depreciated almost 4%.

## Ranked Developed Markets (%)



## Ranked Emerging Markets (%)

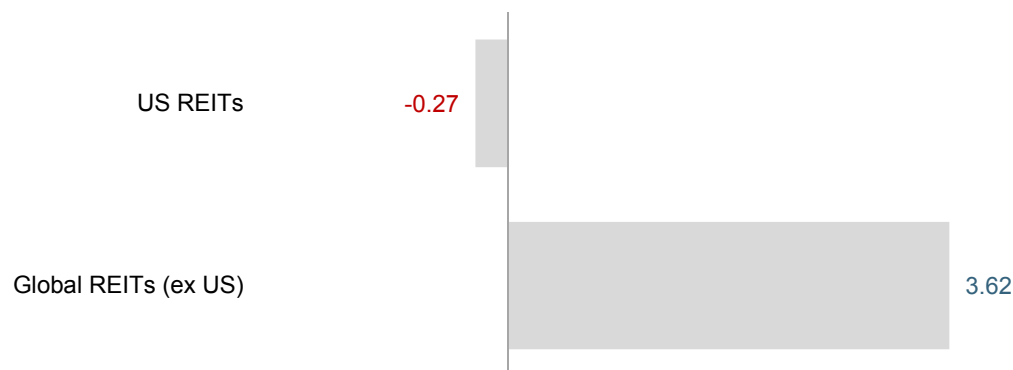


# Real Estate Investment Trusts (REITs)

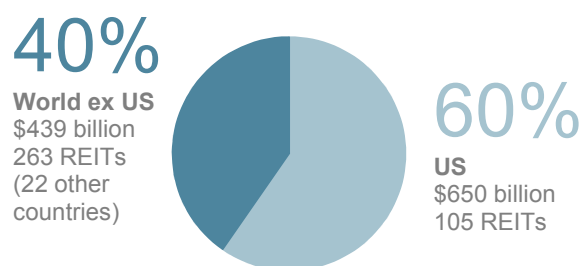
## First Quarter 2017 Index Returns

Real estate investment trusts (REITs) lagged their equity market counterparts.

### Ranked Returns (%)



### Total Value of REIT Stocks



### Period Returns (%)

\* Annualized

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
US REITs	1.21	9.96	9.45	4.22
Global REITs (ex US)	-1.61	3.46	6.79	-0.39

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.

# Commodities

## First Quarter 2017 Index Returns

The Bloomberg Commodity Index Total Return declined 2.33% during the first quarter of 2017.

The industrial and precious metals complexes were the top performers. Aluminum gained 15.21%, silver rose 13.75%, and gold climbed 8.06%.

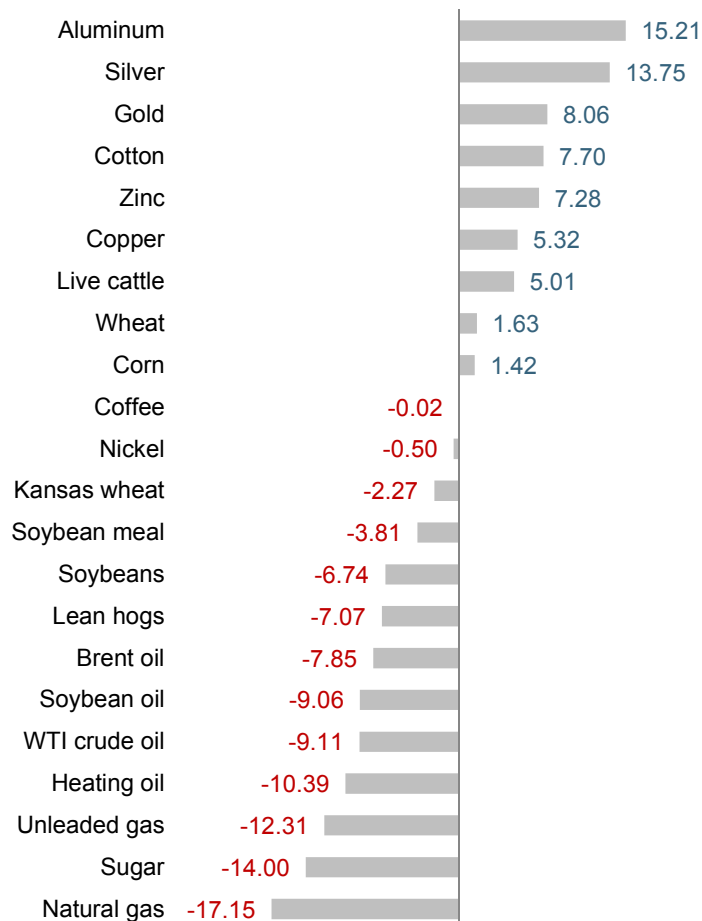
Energy was the worst-performing complex. Natural gas declined 17.15%, while unleaded gas fell 12.31%. Heating oil declined 10.39%, and WTI crude oil fell 9.11%.

### Period Returns (%)

\* Annualized

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Commodities	8.71	-13.91	-9.54	-6.22

### Ranked Returns for Individual Commodities (%)



# Fixed Income

## First Quarter 2017 Index Returns

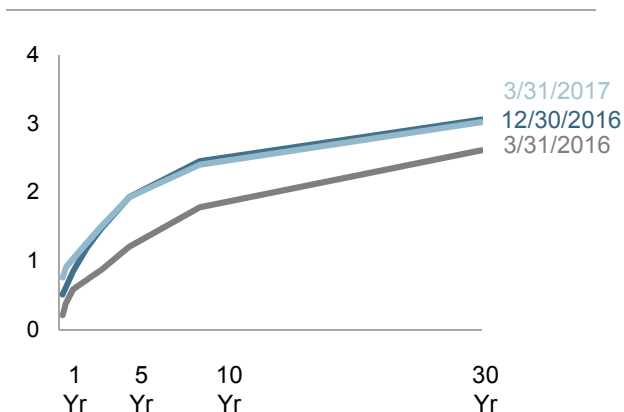
Interest rates were mixed across the US fixed income market during the first quarter of 2017. The yield on the 5-year Treasury note was unchanged, ending at 1.93%. The yield on the 10-year Treasury note decreased 5 basis points (bps) to 2.40%. The 30-year Treasury bond yield decreased 4 bps to 3.02%.

The yield on the 1-year Treasury bill rose 18 bps to 1.03%, and the 2-year T-note yield increased 7 bps to 1.27%. The yield on the 3-month T-bill increased 25 bps to 0.76%, while the 6-month T-bill yield rose 29 bps to 0.91%.

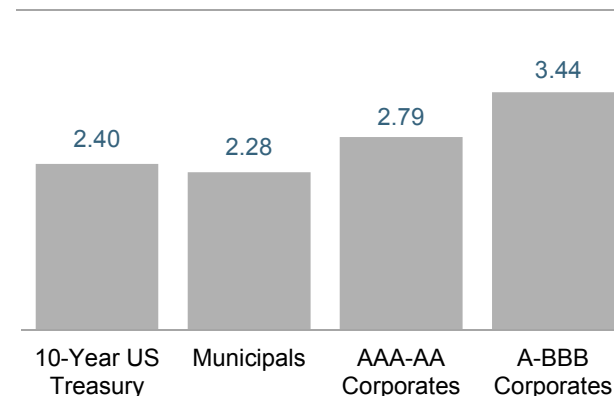
Looking at total returns, short-term corporate bonds gained 0.69% and intermediate-term corporate bonds gained 1.16%.

Short-term municipal bonds generated a total return of 1.20%, while intermediate-term municipal bonds returned 1.91%. Revenue bonds performed in line with general obligation bonds.

US Treasury Yield Curve (%)



Bond Yields across Issuers (%)



Period Returns (%)

Asset Class	* Annualized			
	1 Year	3 Years*	5 Years*	10 Years*
Bloomberg Barclays Long US Govt. Bond Index	-4.78	5.81	4.05	6.65
Bloomberg Barclays Municipal Bond Index	0.15	3.55	3.24	4.33
Bloomberg Barclays US Aggregate Bond Index	0.44	2.68	2.34	4.27
Bloomberg Barclays US Corporate High Yield Index	16.39	4.56	6.82	7.46
Bloomberg Barclays US TIPS Index	1.48	2.03	0.97	4.24
BofA Merrill Lynch 1-Year US Treasury Note Index	0.56	0.39	0.35	1.31
BofA Merrill Lynch Three-Month US Treasury Bill Index	0.36	0.17	0.14	0.68
Citi World Govt. Bond Index 1–5 Years (hedged to USD)	0.64	1.38	1.38	2.54

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.

# Impact of Diversification

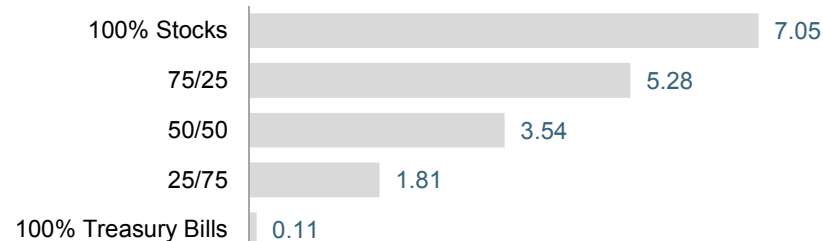
## First Quarter 2017 Index Returns

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.

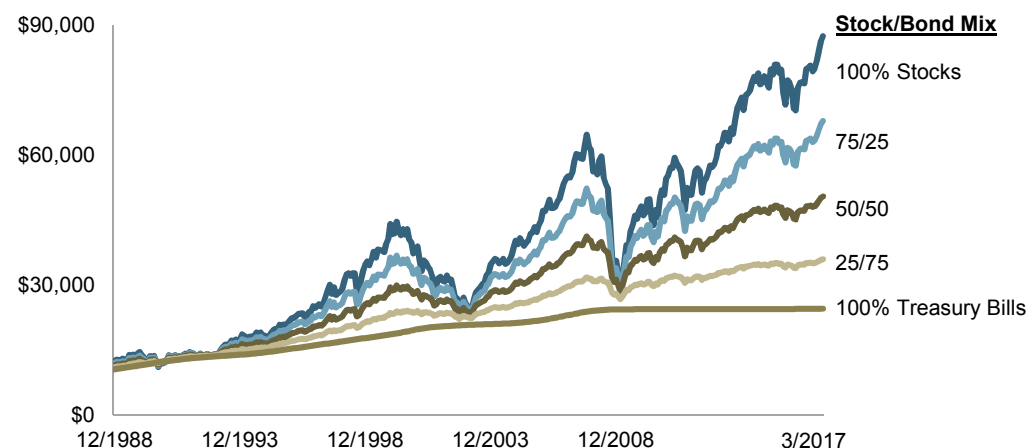
### Period Returns (%)

Asset Class	* Annualized				
	1 Year	3 Years*	5 Years*	10 Years*	10-Year STDEV <sup>1</sup>
100% Stocks	15.69	5.65	8.97	4.56	17.01
75/25	11.67	4.35	6.80	3.84	12.75
50/50	7.76	2.99	4.60	2.93	8.50
25/75	3.96	1.58	2.36	1.83	4.24
100% Treasury Bills	0.26	0.11	0.08	0.56	0.36

### Ranked Returns (%)



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



1. 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).

# Investment Shock Absorbers

First Quarter 2017

Ever ridden in a car with worn-out shock absorbers? Every bump is jarring, every corner stomach-churning, and every red light an excuse to assume the brace position. Owning an undiversified portfolio can trigger similar reactions.

You can drive a car with a broken suspension system, but it will be an extremely uncomfortable ride and the vehicle will be much harder to control, particularly in difficult conditions. Throw in the risk of a breakdown or running off the road altogether, and there's a real chance you may not reach your destination.

In the world of investment, a similarly bumpy and unpredictable ride can await those with concentrated and undiversified portfolios or those who constantly tinker with their allocation.

Of course, everyone feels in control when the surface is straight and smooth, but it's harder to stay on the road during sudden turns and ups and downs in the

market. For that reason, the smart thing to do is to diversify, spreading your portfolio across different securities, sectors, and countries. That also means identifying the right mix of investments (e.g., stocks, bonds, real estate) that aligns with your risk tolerance.

Using this approach, your returns from year to year may not match the top performing portfolio, but neither are they likely to match the worst. More importantly, this is a ride you are likelier to stick with.

Here's an example. Among developed markets, Denmark was number one in US dollar terms in 2015 with a return of more than 23%. But a big bet on that country the following year would have backfired, as Denmark slid to bottom of the table with a loss of nearly 16%.<sup>1</sup>

It's true that the US stock market (by far the world's biggest) has been a strong performer in recent years. But a decade before, in 2004 and 2006, it was the second worst-performing developed market in the world.<sup>1</sup>

Predicting which part of a market will do best over a given period is tough. US small cap stocks were

among the top performers in 2016 with a return of more than 21%. A year before, their results looked relatively disappointing with a loss of more than 4%. International small cap stocks had their turn in the sun in 2015, topping the performance tables with a return of just below 6%. But the year before that, they were the second worst with a loss of 5%.<sup>2</sup>

If you've ever taken a long road trip, you'll know that conditions along the way can change quickly and unpredictably, which is why you need a vehicle that's ready for the worst roads as well as the best. While diversification can never completely eliminate the impact of bumps along your particular investment road, it does help reduce the potential outsized impact that any individual investment can have on your journey.

With sufficient diversification, the jarring effects of performance extremes level out. That, in turn, helps you stay in your chosen lane and on the road to your investment destination.

Happy motoring and happy investing.

1. In US dollars. MSCI developed markets country indices (net dividends). MSCI data © MSCI 2017, all rights reserved.

2. In US dollars. US Small Cap is the Russell 2000 Index. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. International Small Cap is the MSCI World ex USA Small Cap Index (gross dividends). MSCI data copyright MSCI 2017, all rights reserved.

Adapted from "Investment Shock Absorbers," Outside the Flags, February 2017. Dimensional Fund Advisors LP is an investment advisor registered with the Securities and Exchange Commission. All expressions of opinion are subject to change. This information is intended for educational purposes, and it is not to be construed as an offer, solicitation, recommendation, or endorsement of any particular security, products, or services.