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# Q3

## Quarterly Market Review

Third Quarter 2017

# Quarterly Market Review

Third 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

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World Asset Classes

US Stocks

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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: Stop Monkeying Around!

# Market Summary

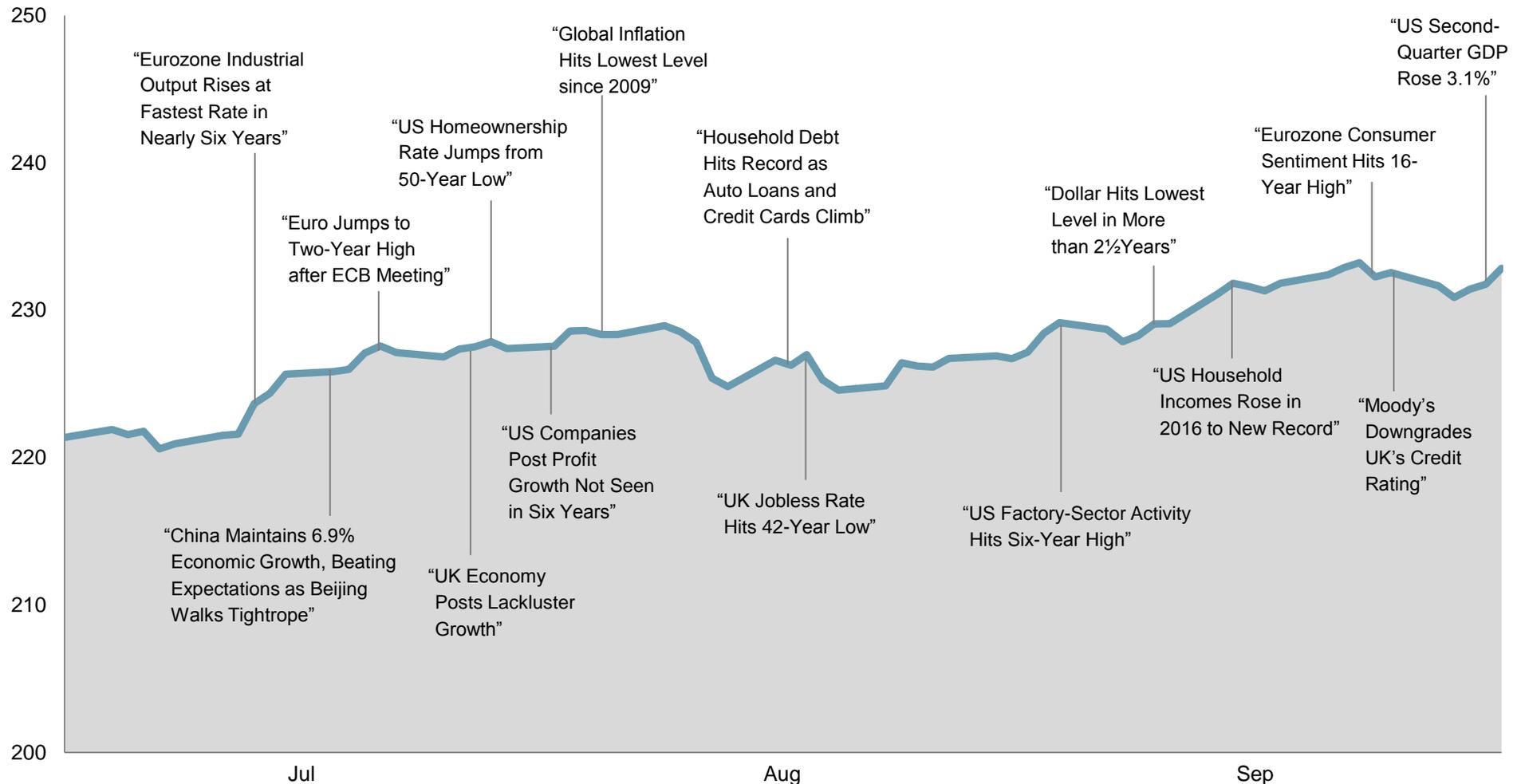
## Index Returns

	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate	US Bond Market	Global Bond Market ex US
<b>Q3 2017</b>	<b>STOCKS</b>				<b>BONDS</b>	
	4.57%	5.62%	7.89%	1.13%	0.85%	0.70%
						
<b>Since Jan. 2001</b>						
Avg. Quarterly Return	1.9%	1.6%	3.1%	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 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.

# World Stock Market Performance

MSCI All Country World Index with selected headlines from Q3 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.

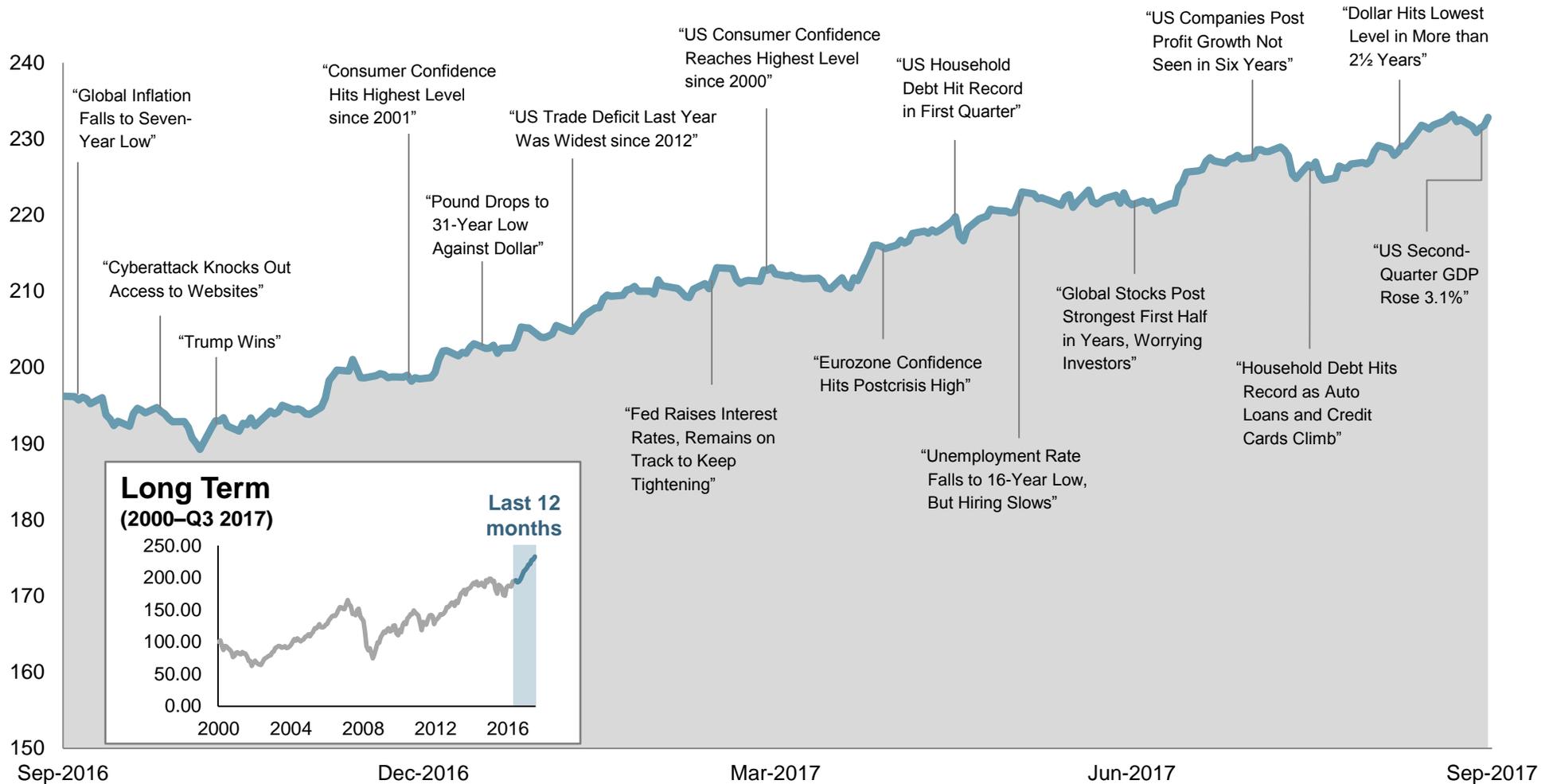
Graph Source: MSCI ACWI Index [net div.]. MSCI data © MSCI 2017, all rights reserved.

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 (Q4 2016–Q3 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.

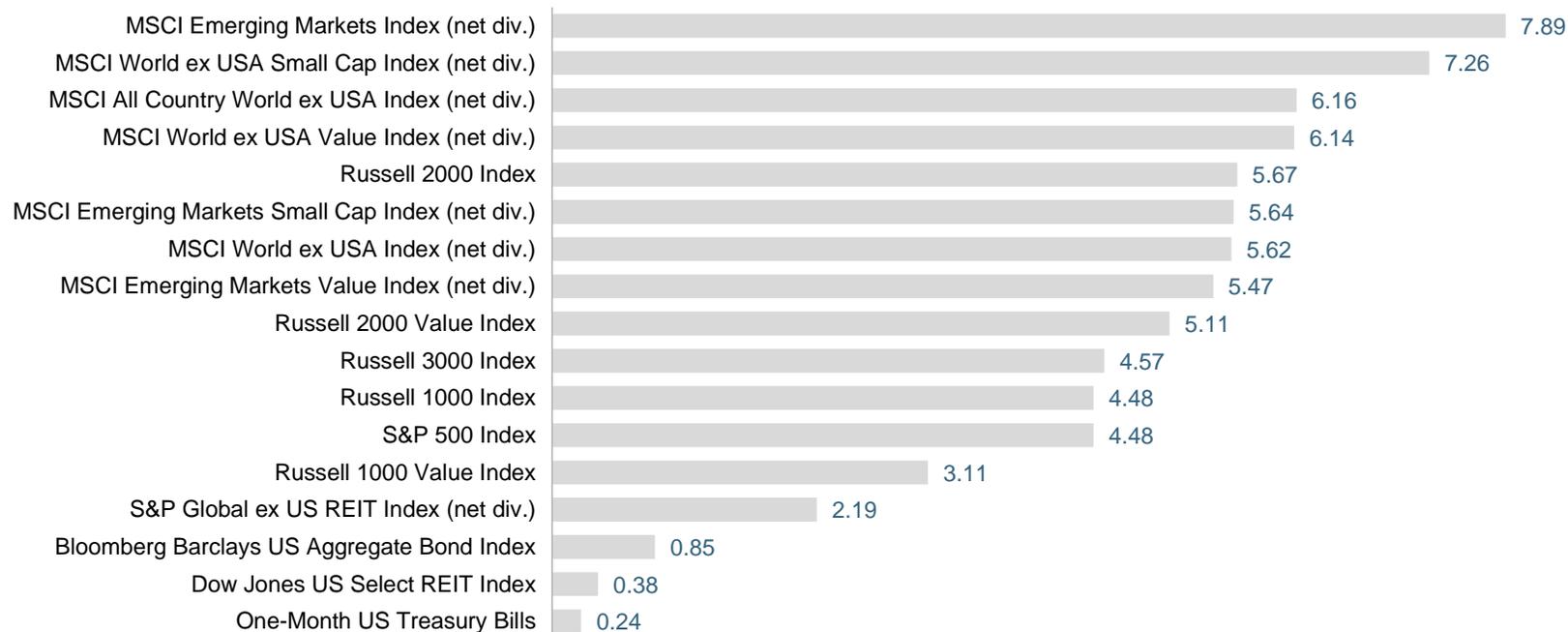
It is not possible to invest directly in an index. Performance does not reflect the expenses associated with management of an actual portfolio. **Past performance is not a guarantee of future results.**

# World Asset Classes

## Third Quarter 2017 Index Returns (%)

With broad market indices used as proxies, emerging markets outperformed developed markets, including the US, during the quarter.

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



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# US Stocks

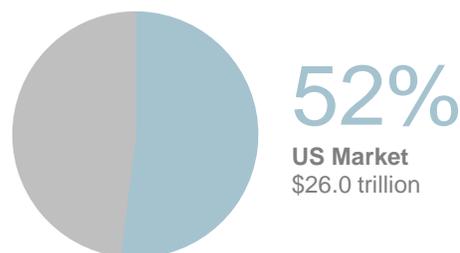
## Third Quarter 2017 Index Returns

The broad US equity market posted positive returns for the quarter but underperformed both non-US developed and emerging markets.

Value underperformed growth indices in the US across all size ranges.

Small caps in the US outperformed large caps.

### World Market Capitalization—US



### Ranked Returns for the Quarter (%)



### Period Returns (%)

Asset Class	* Annualized				
	YTD	1 Year	3 Years*	5 Years*	10 Years*
Marketwide	13.91	18.71	10.74	14.23	7.57
Large Cap	14.17	18.54	10.63	14.27	7.55
Large Value	7.92	15.12	8.53	13.20	5.92
Large Growth	20.72	21.94	12.69	15.26	9.08
Small Cap	10.94	20.74	12.18	13.79	7.85
Small Value	5.68	20.55	12.12	13.27	7.14
Small Growth	16.81	20.98	12.17	14.28	8.47

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

## Third Quarter 2017 Index Returns

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

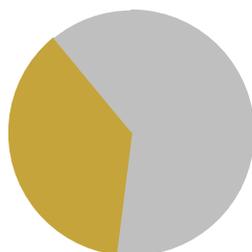
With broad market indices used as proxies, the value effect was positive. The value effect was positive in large caps but negative in mid and small caps.

Overall, small caps outperformed large caps in non-US developed markets.

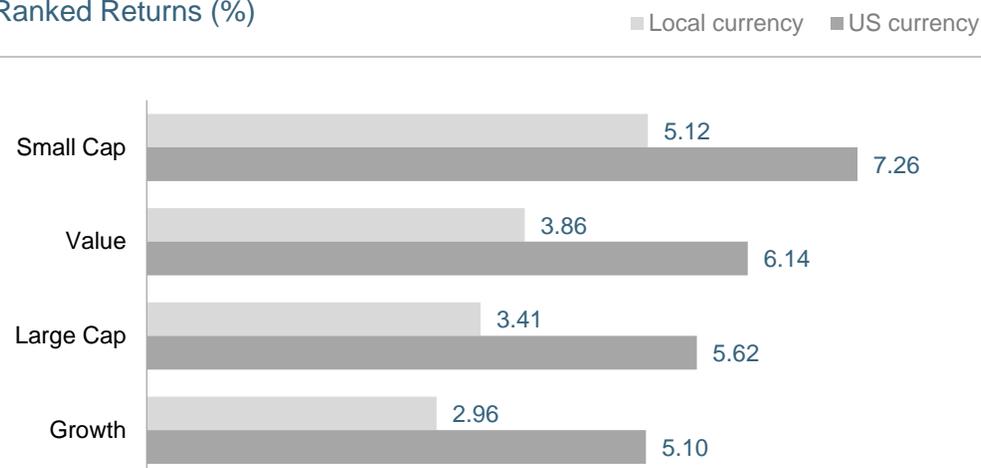
### World Market Capitalization—International Developed

**37%**

International  
Developed  
Market  
\$18.5 trillion



### Ranked Returns (%)



### Period Returns (%)

\* Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*	10 Years*
Large Cap	19.17	18.73	4.57	7.81	1.28
Small Cap	23.82	20.42	9.59	11.16	4.04
Value	17.05	22.46	3.24	7.36	0.64
Growth	21.47	15.04	5.82	8.19	1.86

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# Emerging Markets Stocks

## Third Quarter 2017 Index Returns

In US dollar terms, emerging markets indices outperformed developed market indices, including the US, during the quarter.

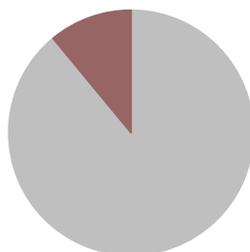
With broad market indices used as proxies, the value effect was negative. Across the size spectrum in the large and mid cap space, the value effect was negative; however, in the small cap space, the effect was positive.

Overall, small caps underperformed large caps in emerging markets.

### World Market Capitalization—Emerging Markets

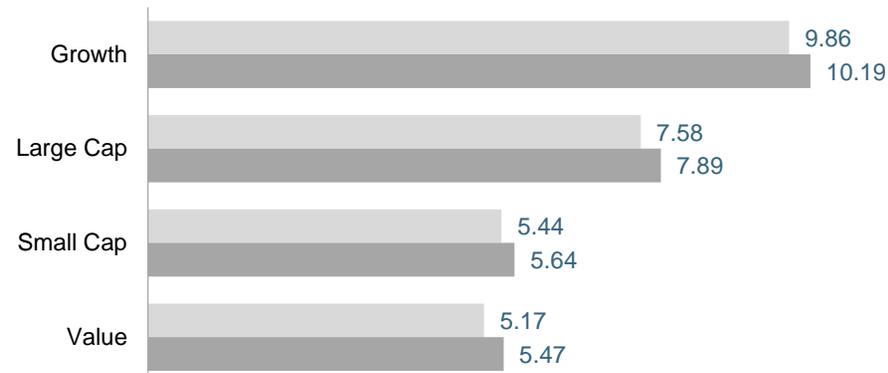
11%

Emerging Markets  
\$5.8 trillion



### Ranked Returns (%)

■ Local currency ■ US currency



### Period Returns (%)

\* Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*	10 Years*
Large Cap	27.78	22.46	4.90	3.99	1.32
Small Cap	22.53	14.89	3.14	4.60	1.74
Value	19.87	18.55	1.62	1.34	0.67
Growth	36.03	26.35	8.12	6.55	1.88

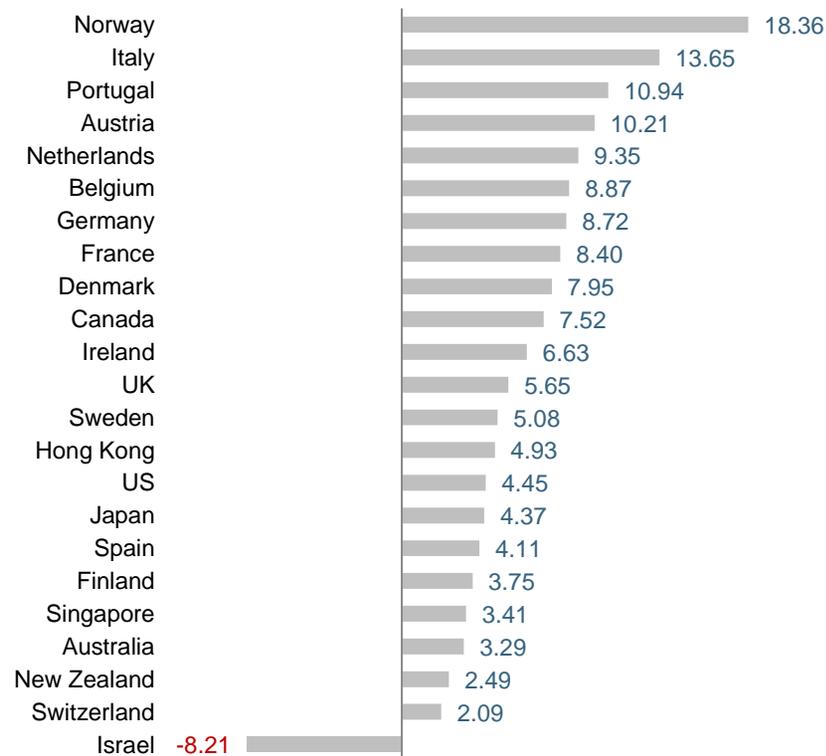
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# Select Country Performance

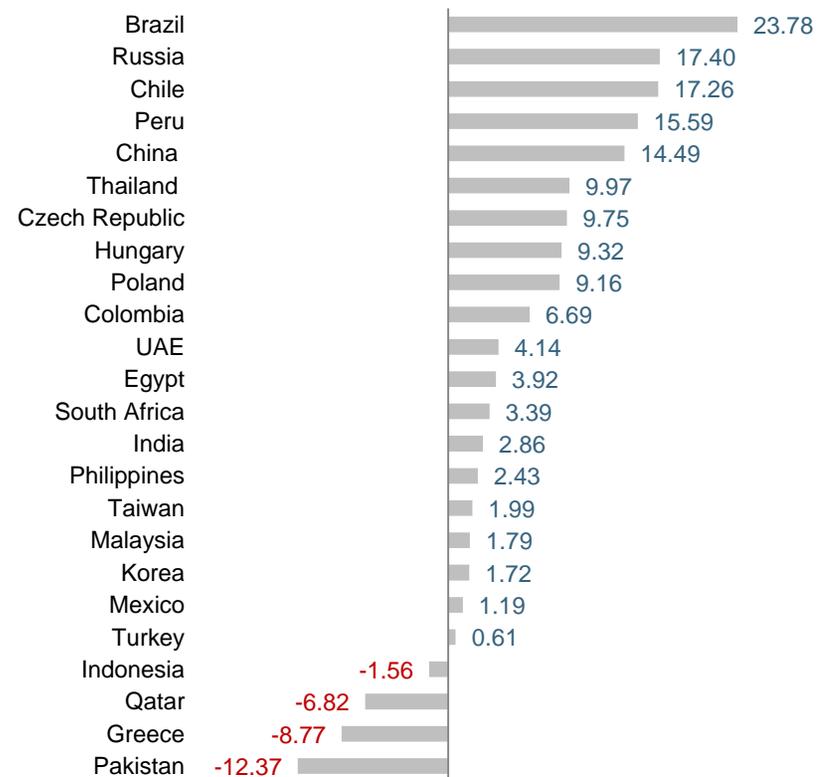
## Third Quarter 2017 Index Returns

In US dollar terms, Norway and Italy recorded the highest country performance in developed markets, while Israel posted the lowest—and only negative—return in developed markets. In emerging markets, Brazil, Russia, and Chile posted the highest country returns, while Pakistan and Greece had the lowest performance.

Ranked Developed Markets Returns (%)



Ranked Emerging Markets Returns (%)



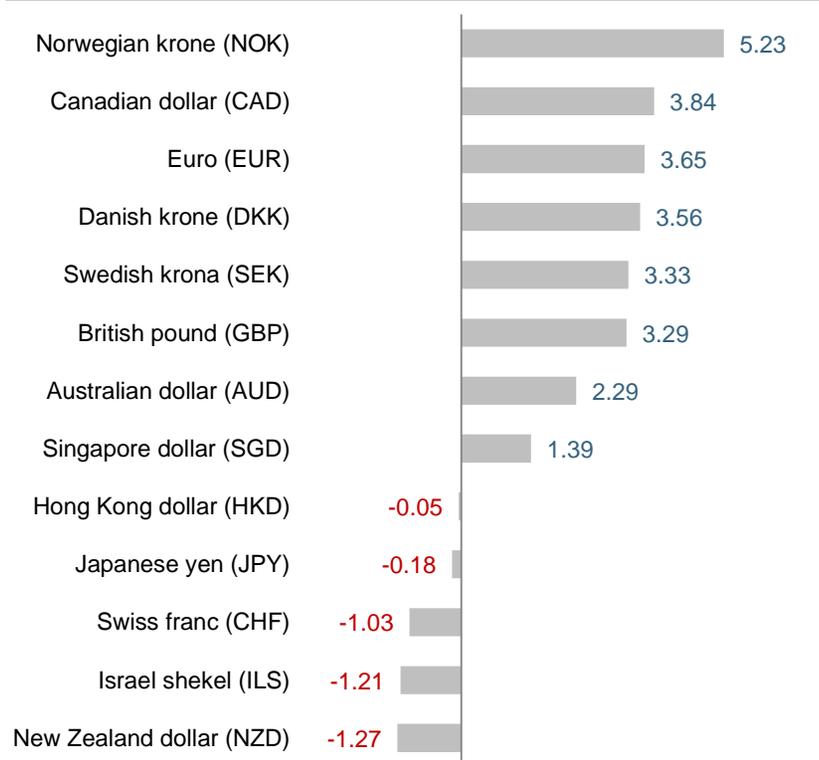
Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Country performance based on respective indices in the MSCI World ex US IMI Index (for developed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

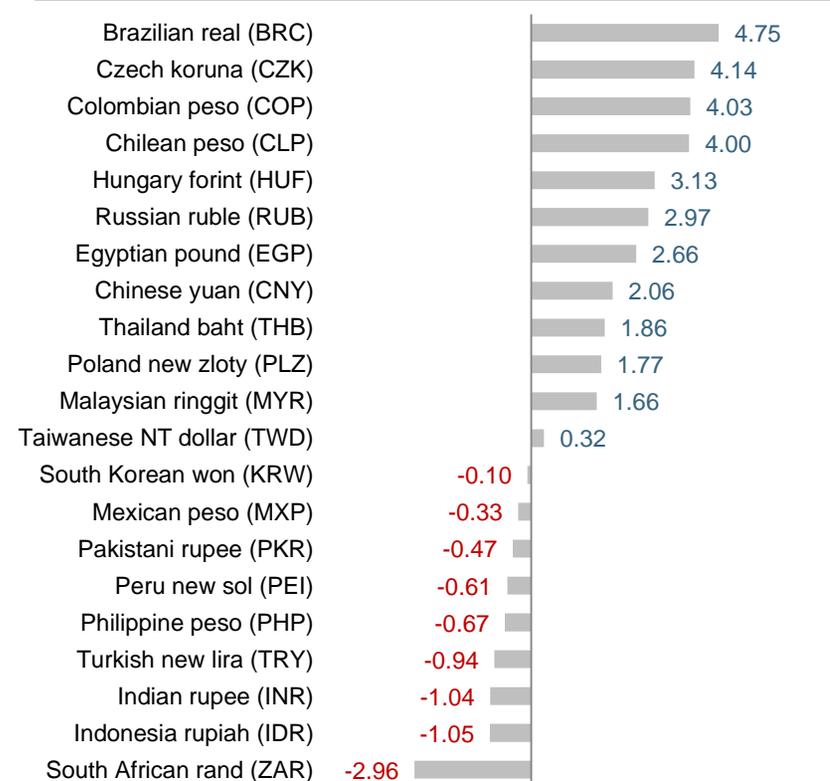
Third Quarter 2017

Currency performance was mixed in both developed and emerging markets. Among developed markets currencies, the Norwegian krone appreciated by 5%, while the Israeli shekel and the New Zealand dollar depreciated by approximately 1%. In emerging markets, the Brazilian real appreciated by almost 5%, while the South African rand depreciated by almost 3%.

## Ranked Developed Markets (%)



## Ranked Emerging Markets (%)

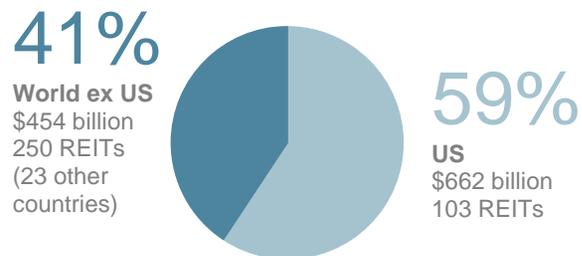


# Real Estate Investment Trusts (REITs)

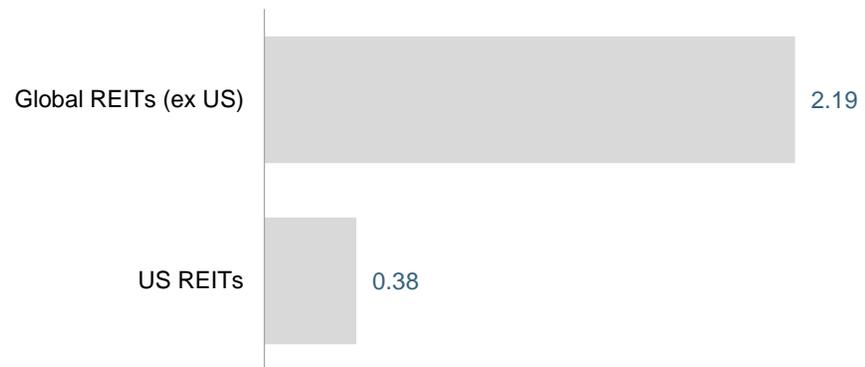
## Third Quarter 2017 Index Returns

Non-US real estate investment trusts outperformed US REITs.

### Total Value of REIT Stocks



### Ranked Returns (%)



### Period Returns (%)

Asset Class	YTD	1 Year	* Annualized		
			3 Years*	5 Years*	10 Years*
US REITs	1.75	-0.83	9.28	9.16	5.31
Global REITs (ex US)	8.63	-0.45	3.63	5.44	0.27

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

## Third Quarter 2017 Index Returns

The Bloomberg Commodity Index Total Return gained 2.52% during the third quarter.

The energy complex led advancing commodities, with heating oil returning 20.97%, Brent crude oil 15.32%, unleaded gas 14.49%, and WTI crude oil 10.90%.

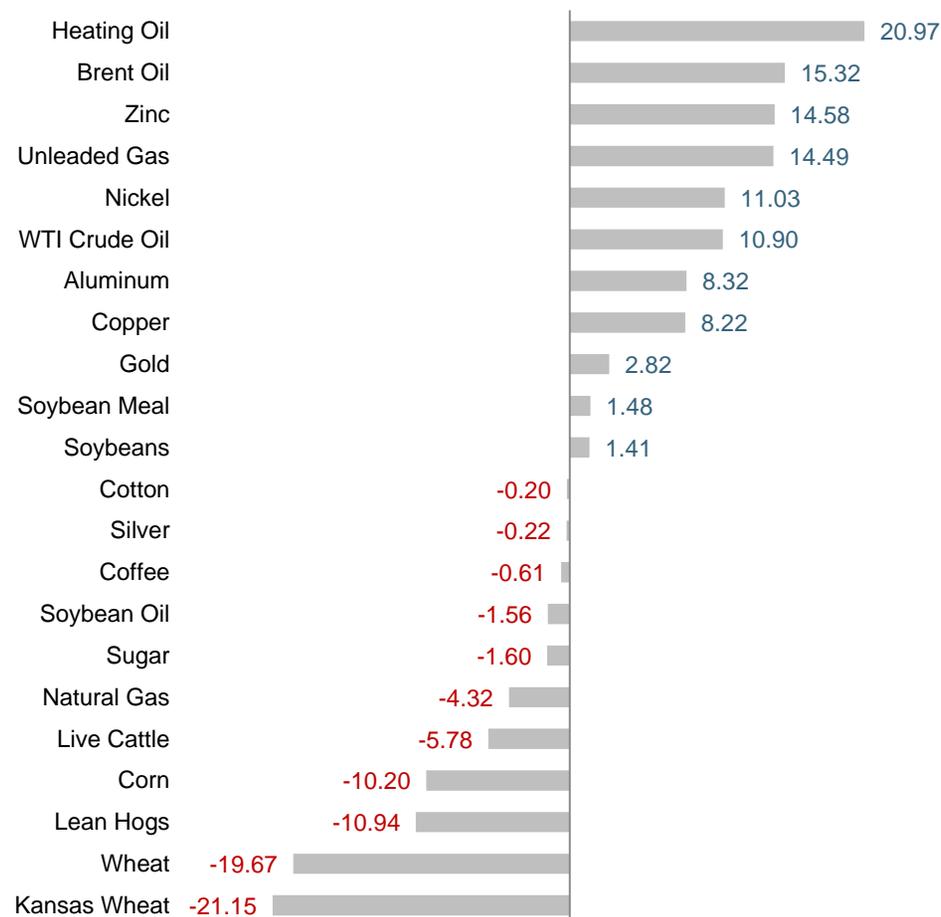
Grains was the worst-performing complex, with Kansas wheat and Chicago wheat declining 21.15% and 19.67%, respectively. Lean hogs also experienced a decline, decreasing by 10.94%.

### Period Returns (%)

\* Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*	10 Years*
Commodities	-2.87	-0.29	-10.41	-10.47	-6.83

### Ranked Returns for Individual Commodities (%)



# Fixed Income

## Third Quarter 2017 Index Returns

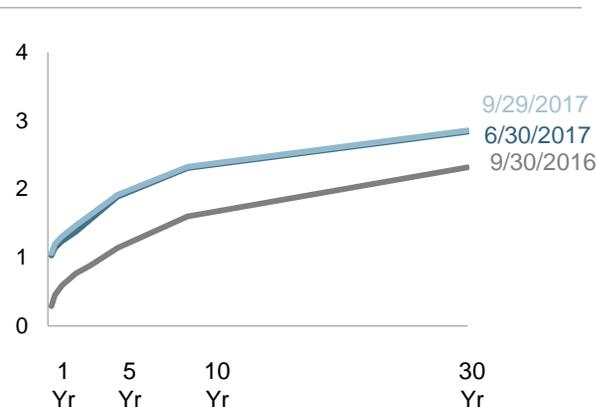
Interest rates increased across the US fixed income market for the quarter. The yield on the 5-year Treasury note increased by 3 basis points (bps) to 1.92%. The yield on the 10-year Treasury note increased by 2 bps to 2.33%. The 30-year Treasury bond yield increased by 2 bps to finish at 2.86%.

The yield on the 1-year T-bill rose 7 bps to 1.31%, and the 2-year Treasury note yield rose 9 bps to 1.47%. The yield on the 3-month Treasury bill increased 3 bps to 1.06%, while the 6-month Treasury bill yield increased 6 bps to 1.20%.

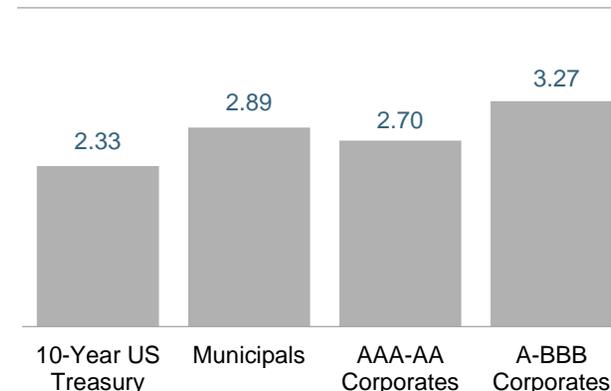
In terms of total returns, short-term corporate bonds gained 0.59%, and intermediate-term corporates gained 1.05%.

Short-term municipal bonds generated a total return of 0.49%, while intermediate-term municipal bonds returned 0.83%. General obligation bonds gained 1.14%, outperforming revenue bonds by 4 bps.

US Treasury Yield Curve (%)



Bond Yields across Issuers (%)



Period Returns (%)

\* Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*	10 Years*
Bloomberg Barclays Long US Government Bond Index	6.06	-6.14	4.84	2.87	6.83
Bloomberg Barclays Municipal Bond Index	4.66	0.87	3.19	3.01	4.52
Bloomberg Barclays US Aggregate Bond Index	3.14	0.07	2.71	2.06	4.27
Bloomberg Barclays US Corporate High Yield Index	7.00	8.88	5.83	6.36	7.84
Bloomberg Barclays US TIPS Index	1.72	-0.73	1.62	0.02	3.90
BofA Merrill Lynch 1-Year US Treasury Note Index	0.55	0.60	0.46	0.39	1.05
BofA Merrill Lynch Three-Month US Treasury Bill Index	0.57	0.66	0.32	0.22	0.47
Citi World Government Bond Index 1-5 Years (hedged to USD)	1.07	0.59	1.35	1.30	2.32

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 (S&BBI) 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.

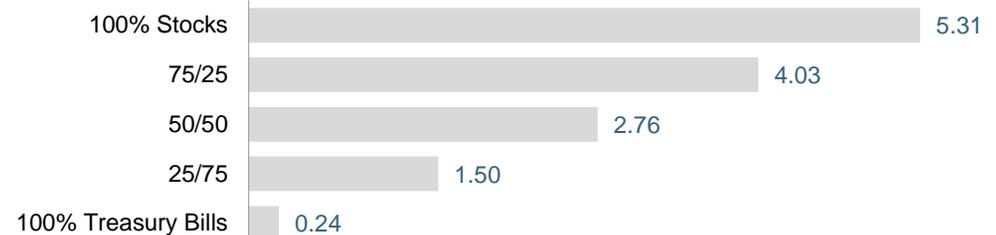
# Impact of Diversification

## Third Quarter 2017 Index Returns

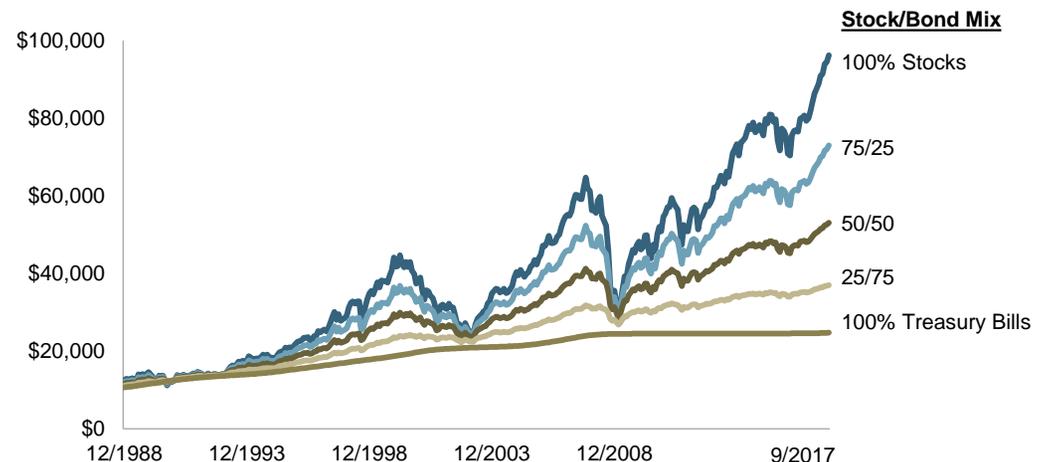
These portfolios illustrate the performance of different global stock/bond mixes. Mixes with larger allocations to stocks are considered riskier but have higher expected returns over time.

Asset Class	Period Returns (%)					* Annualized
	YTD	1 Year	3 Years*	5 Years*	10 Years*	10-Year STDEV <sup>1</sup>
100% Stocks	17.75	19.29	8.02	10.79	4.45	16.90
75/25	13.22	14.35	6.13	8.14	3.70	12.66
50/50	8.85	9.60	4.21	5.48	2.76	8.43
25/75	4.62	5.01	2.25	2.82	1.65	4.20
100% Treasury Bills	0.53	0.58	0.25	0.16	0.36	0.22

### 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).

# Quit Monkeying Around!

Third Quarter 2017

In the world of investment management there is an oft-discussed idea that blindfolded monkeys throwing darts at pages of stock listings can select portfolios that will do just as well, if not better, than both the market and the average portfolio constructed by professional money managers. If this is true, why might it be the case?

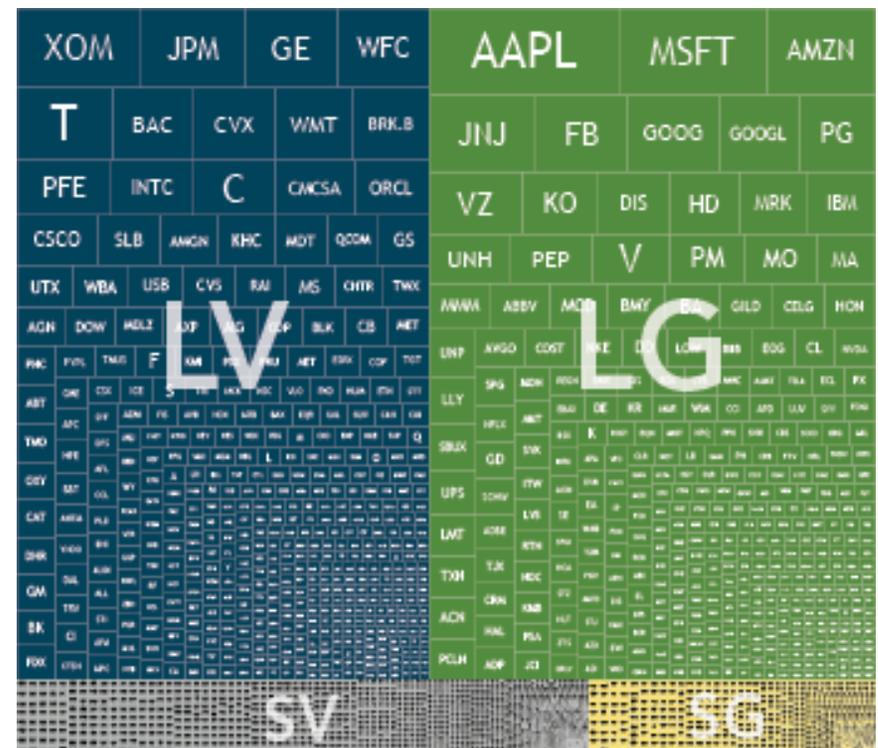
## The Dart Board

**Exhibit 1** shows the components of the Russell 3000 Index (regarded as a good proxy for the US stock market) as of December 31, 2016. Each stock in the index is represented by a box, and the size of each box represents the stock's market capitalization (share price multiplied by shares outstanding) or "market cap" in the index. For example, Apple (AAPL) is the largest box since it has the largest market cap in the index. The boxes get smaller as you move from the top to the bottom of the exhibit, from larger stocks to smaller stocks. The boxes are also color coded based on their market cap and whether they are value or growth stocks. Value stocks have lower relative prices (as measured by, for instance the price-to-book ratio) and growth stocks tend to have higher relative prices. In the exhibit, blue represents large cap value stocks (LV), green is large cap growth stocks (LG), gray is small cap value stocks (SV), and yellow is small cap growth stocks (SG).

For the purposes of this analogy you can think of Exhibit 1 as a proxy for the overall stock market and therefore similar to a portfolio that, in aggregate, professional money managers hold in their competition with their simian challengers. Because for every investor holding an overweight to a stock (relative to its market cap weighting) there must

also be an investor underweight that same stock, this means that, in aggregate, the average dollar invested holds a portfolio that looks like the overall market.<sup>1</sup>

**Exhibit 1. US Stocks Sized by Market Capitalization**



For illustrative purposes only. Illustration includes constituents of the Russell 3000 Index as of December 31, 2016, on a market-cap weighted basis segmented into Large Value, Large Growth, Small Value, and Small Growth. Source: Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. Please see Appendix for additional information.

1. For more on this concept, please see "The Arithmetic of Active Management" by William Sharpe.

# Quit Monkeying Around!

(continued from page 16)

**Exhibit 2**, on the other hand, represents the dart board the monkeys are using to play their game. Here, the boxes represent the same stocks shown in Exhibit 1, but instead of weighting each company by market cap, the companies are weighted equally. For example, in this case, Apple's box is the same size as every other company in the index regardless of its market cap. If one were to pin up pages of newspaper stock listings to throw darts at, Exhibit 2 would be much more representative of what the target would look like.

When looking at Exhibits 1 and 2, the significant differences between the two are clear. In Exhibit 1, the surface area is dominated by large value and large growth (blue and green) stocks. In Exhibit 2, however, small cap value stocks dominate (gray). Why does this matter? Research has shown that, historically over time, small company stocks have had excess returns relative to large company stocks. Research has also shown that, historically over time, value (or low relative price) stocks have had excess returns relative to growth (or high relative price) stocks. Because Exhibit 2 has a greater proportion of its surface area dedicated to small cap value stocks, it is more likely that a portfolio of stocks selected at random by throwing darts would end up being tilted towards stocks which research has shown to have had higher returns when compared to the market.

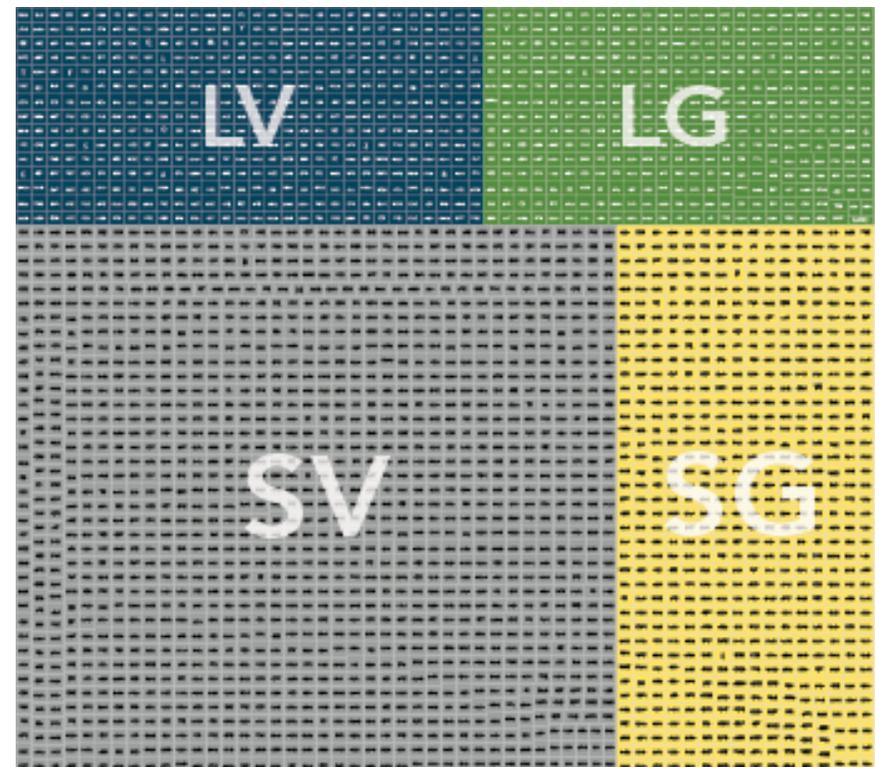
## So...Throw Away?

This does not mean, however, that haphazardly selecting stocks by the toss of a dart is an efficient or reliable way to invest. For one thing, it ignores the complexities that arise in competitive markets.

Consider as an example something seemingly as straightforward as a strategy that holds every stock in the Russell 3000 Index at an equal weight (the equivalent of buying the whole dart board in Exhibit 2). In order to maintain an equal weight in all 3,000 securities, an investor would have to rebalance frequently, buying shares of companies that have gone down in price and selling shares that have gone up. This is

because as prices change, so will each individual holding's respective weight in the portfolio. By not considering whether or not these frequent trades add value over and above the costs they generate, investors are opening themselves up to a potentially less than desirable outcome.

## Exhibit 2. US Stocks Sized Equally



For illustrative purposes only. Illustration includes the constituents of the Russell 3000 Index as of December 31, 2016 on an equal-weighted basis segmented into Large Value, Large Growth, Small Value, and Small Growth. Source: Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. Please see Appendix for additional information.

# Quit Monkeying Around!

(continued from page 17)

Instead, if there are well-known relationships that explain differences in expected returns across stocks, using a systematic and purposeful approach that takes into consideration real-world constraints is more likely to increase your chances for investment success. Considerations for such an approach include things like: understanding the drivers of returns and how to best design a portfolio to capture them, what a sufficient level of diversification is, how to appropriately rebalance, and last but not least, how to manage the costs associated with pursuing such a strategy.

## The Long Game

Finally, the importance of having an asset allocation well suited for your objectives and risk tolerance, as well as being able to remain focused on the long term, cannot be overemphasized. Even well-constructed portfolios pursuing higher expected returns will have periods of disappointing results. A financial advisor can help an investor decide on an appropriate asset allocation, stay the course during periods of disappointing results, and carefully weigh the considerations mentioned above to help investors decide if a given investment strategy is the right one for them.

## Conclusion

So what insights can investors glean from this analysis? First, by tilting a portfolio towards sources of higher expected returns, investors can potentially outperform the market without needing to outguess market prices. Second, implementation and patience are paramount. If one is going to pursue higher expected returns, it is important to do so in a cost-effective manner and to stay focused on the long term.

## Appendix

Large cap is defined as the top 90% of market cap (small cap is the bottom 10%), while value is defined as the 50% of market cap of the lowest relative price stocks (growth is the 50% of market cap of the highest relative price stocks). For educational and informational purposes only and does not constitute a recommendation of any security. The determinations of Large Value, Large Growth, Small Value, and Small Growth do not represent any determinations Dimensional Fund Advisors may make in assessing any of the securities shown.

# Disclosures



There is no guarantee that a diversified portfolio will enhance overall returns or outperform a non-diversified portfolio. Diversification does not protect against market risk.

Bonds are subject to market and interest rate risk if sold prior to maturity. Bond values will decline as interest rates rise and bonds are subject to availability and change in price. Bond yields are subject to change. Certain call or special redemption features may exist which could impact yield.

The price of equity securities may rise, or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk" meaning that stock prices in general may decline over short or extended periods of time.

Investments in emerging markets can be more volatile. As mentioned above, the normal risks of investing in foreign countries are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of liquidity, which leads to increased volatility. Also, emerging markets may not provide adequate legal protection for private or foreign investment or private property.

Investments in commodities may have greater volatility than investments in traditional securities, particularly if the instruments involve leverage. The value of commodity-linked derivative instruments may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Use of leveraged commodity-linked derivatives creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.

Real estate investments may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate investments may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower. Investing in Real Estate Investment Trusts (REITs) involves special risks such as potential illiquidity and may not be suitable for all investors. There is no assurance that the investment objectives of this program will be attained.

International investing involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Also, some overseas markets may not be as politically and economically stable as the United States and other nations.

# Disclosures (cont'd.)



Treasury inflation-protected securities (TIPS) help eliminate inflation risk to your portfolio as the principal is adjusted semiannually for inflation based on the Consumer Price Index – while providing a real rate of return guaranteed by the U.S. Government. Treasury Inflation-Protected Securities, or TIPS, are subject to market risk and significant interest rate risk as their longer duration makes them more sensitive to price declines associated with higher interest rates.

All indexes are unmanaged and an individual cannot invest directly in an index. Unmanaged index returns do not reflect fees, expenses, or sales charges. Index performance is not indicative of the performance of any investment. Past performance is no guarantee of future results.

The Russell 3000 Index® measures the performance of the 3,000 largest U.S. companies based on total market capitalization.

The Russell 1000 Index consists of the 1,000 largest securities in the Russell 3000 Index, which represents approximately 90% of the total market capitalization of the Russell 3000 Index. It is a large-cap, market-oriented index and is highly correlated with the S&P 500 Index.

The Russell 2000 Index® measures the performance of the 2,000 smallest companies in the Russell 3000 Index.

The Russell 2000 Value Index® measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

The MSCI World ex USA Index captures large and mid cap representation across 22 of 23 Developed Markets (DM) countries\*--excluding the United States. With 1,005 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

The MSCI World ex USA Small Cap Index captures small cap representation across 22 of 23 Developed Markets (DM) countries\* (excluding the United States). With 2,437 constituents, the index covers approximately 14% of the free float-adjusted market capitalization in each country.

The MSCI Emerging Markets Small Cap Index includes small cap representation across 23 Emerging Markets countries\*. With 1,792 constituents, the index covers approximately 14% of the free float-adjusted market capitalization in each country. The small cap segment tends to capture more local economic and sector characteristics relative to larger Emerging Markets capitalization segments.

The MSCI World ex USA Value Index captures large and mid cap securities exhibiting overall value style characteristics across 22 of 23 Developed Markets countries\*. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield. With 540 constituents, the index targets 50% coverage of the free float-adjusted market capitalization of the MSCI World ex USA Index.

## Disclosures (cont'd.)



The MSCI Emerging Markets Value Index captures large and mid cap securities exhibiting overall value style characteristics across 23 Emerging Markets (EM) countries\*. The value investment style

characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield. With 484 constituents, the index targets 50% coverage of the free float adjusted market capitalization of the MSCI EM Index.

The MSCI Emerging Markets Index<sup>SM</sup> is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets. As of June 2007, the MSCI Emerging Markets Index consisted of the following 25 emerging market country indices: Argentina, Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Israel, Jordan, Korea, Malaysia, Mexico, Morocco, Pakistan, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand, and Turkey.

The MSCI ACWI (All Country World Index) Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. As of June 2009 the MSCI ACWI consisted of 45 country indices comprising 23 developed and 22 emerging market country indices.

The S&P 500 Index is widely regarded as the best single gauge of the U.S. equities market. This world renowned index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. Although the S&P 500 Index focuses on the large-cap segment of the market, with approximately 75% coverage of U.S. equities, it is also an ideal proxy for the total market. An investor cannot invest directly in an index.

A member of the S&P Global Property Index Series, the S&P Global REIT Index serves as a comprehensive benchmark of publicly traded equity REITs listed in both developed and emerging markets.

The S&P Global ex-U.S. Property Index defines and measures the investable universe of publicly traded property companies domiciled in developed and emerging markets excluding the U.S. The companies included are engaged in real estate related activities such as property ownership, management, development, rental and investment.

The Barclays US Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS and CMBS (agency and non-agency). Provided the necessary inclusion rules are met, US Aggregate eligible securities also contribute to the multi-currency Global Aggregate Index and the US Universal Index, which includes high yield and emerging markets debt. The US Aggregate Index was created in 1986 with history backfilled to January 1, 1976.

## Disclosures (cont'd.)



The S&P/Citigroup International Treasury Bond Ex-U.S. 1-3 Years Index is designed to reflect the performance of bonds issues by non-U.S. developed market countries maturing in 1-3 years.

The Dow Jones U.S. Select REIT Index intends to measure the performance of publicly traded REITs and REIT-like securities. The index is a subset of the Dow Jones U.S. Select Real Estate Securities Index (RESI), which represents equity real estate investment trusts (REITs) and real estate operating companies (REOCs) traded in the U.S. The indices are designed to serve as proxies for direct real estate investment, in part by excluding companies whose performance may be driven by factors other than the value of real estate.

The Bloomberg Commodity Index is composed of futures contracts on physical commodities and represents twenty two separate commodities traded on U.S. exchanges, with the exception of aluminum, nickel, and zinc

This U.S. Treasury Index is a component of the U.S. Government index.

The BofA Merrill Lynch Three-Month US Treasury Bill Index is an unmanaged market index of U.S. Treasury securities maturing in 90 days that assumes reinvestment of all income.

The BofA Merrill Lynch 1-3 US Year Treasury Index is an unmanaged index that tracks the performance of the direct sovereign debt of the U.S. Government having a maturity of at least one year and less than three years. It is not possible to invest directly in an unmanaged index

The Citigroup WGBI 1-5 Years Index measures the performance of the short-term global government bond market.

The Barclays U.S. Government Index is comprised of the U.S. Treasury and U.S. Agency Indices. The U.S. Government Index includes Treasuries (public obligations of the U.S. Treasury that have remaining maturities of more than one year) and U.S. agency debentures (publicly issued debt of U.S. Government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the U.S. Government). The U.S. Government Index is a component of the U.S. Government/Credit Index and the U.S. Aggregate Index.

The Barclays US Corporate High Yield Bond Index measures the USD-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below. Bonds from issuers with an emerging markets country of risk, based on Barclays EM country definition, are excluded. The US Corporate High Yield Index is a component of the US Universal and Global High Yield Indices. The index was created in 1986, with history backfilled to July 1, 1983.

# Disclosures (cont'd.)



The Barclays U.S. Municipal Index covers the USD-denominated long-term tax exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and prerefunded bonds. Many of the subindices of the Municipal Index have historical data to January 1980. In addition, several subindices based on maturity and revenue source have been created, some with inception dates after January 1980 but no later than July 1, 1993. In January 1996, Barclays Capital also began publishing a noninvestment grade municipal bond index and "enhanced" state-specific indices for Arizona, Connecticut, Maryland, Massachusetts, Minnesota, and Ohio. These indices are published separately from the Barclays Capital Municipal Bond Index. In 2005, Barclays Capital began publishing Managed Money Municipal Indices and Insurance Mandate Municipal Indices.

The Barclays US Treasury Index measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury. Treasury bills are excluded by the maturity constraint, but are part of a separate Short Treasury Index. STRIPS are excluded from the index because their inclusion would result in double-counting. The US Treasury Index is a component of the US Aggregate, US Universal, Global Aggregate and Global Treasury Indices. The US Treasury Index was launched on January 1, 1973.

The Consumer Price Index is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care. The CPI is calculated by taking price changes for each item in the predetermined basket of goods and averaging them; the goods are weighted according to their importance. Changes in CPI are used to assess price changes associated with the cost of living.

The S&P 500 Total Return Index is a type of equity index that tracks both the capital gains of a group of stocks over time, and assumes that any cash distributions, such as dividends, are reinvested back into the index. It is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.