

Q3

Quarterly Market Review

Third Quarter 2019



Quarterly Market Review

Third Quarter 2019

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 Market Performance

Select Currency Performance
vs. US Dollar

Real Estate Investment Trusts (REITs)

Commodities

Fixed Income







Global Fixed Income

Impact of Diversification

Quarterly Topic: Timing Isn't Everything

Quarterly Market Summary



















Index Returns

	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate		US Bond Market	Global Bond Market ex US
3Q 2019	STOCKS					BONDS	
	1.16%	-0.93%	-4.25%	5.72%		2.27%	2.83%
							
Since Jan. 2001							
Avg. Quarterly Return	2.0%	1.4%	2.8%	2.6%		1.2%	1.2%
Best Quarter	16.8% 2009 Q2	25.9% 2009 Q2	34.7% 2009 Q2	32.3% 2009 Q3		4.6% 2001 Q3	4.6% 2008 Q4
Worst Quarter	-22.8% 2008 Q4	-21.1% 2008 Q4	-27.6% 2008 Q4	-36.1% 2008 Q4		-3.0% 2016 Q4	-2.7% 2015 Q2

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 Market ex US (Bloomberg Barclays Global Aggregate ex-USD Bond Index [hedged to USD]). S&P data © 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2019, all rights reserved. Bloomberg Barclays data provided by Bloomberg.

Long-Term Market Summary

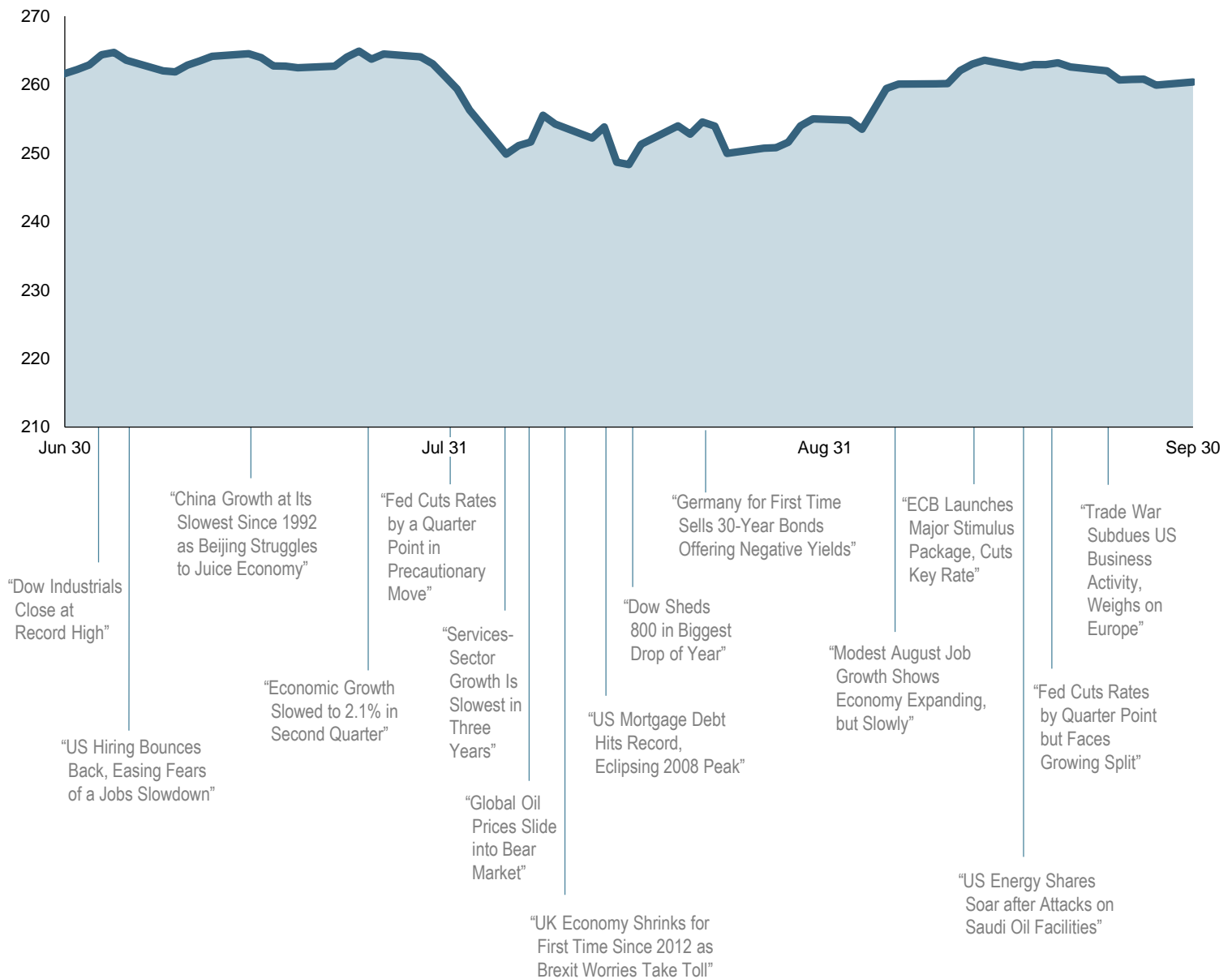
Index Returns

	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate	US Bond Market	Global Bond Market ex US
1 Year	STOCKS				BONDS	
	2.92% 	-0.95% 	-2.02% 	15.08% 	10.30% 	10.84% 
5 Years						
	10.44% 	3.06% 	2.33% 	7.36% 	3.38% 	4.64% 
10 Years						
	13.08% 	4.78% 	3.37% 	9.71% 	3.75% 	4.44% 

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 Market ex US (Bloomberg Barclays Global Aggregate ex-USD Bond Index [hedged to USD]). S&P data © 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2019, all rights reserved. Bloomberg Barclays data provided by Bloomberg.

World Stock Market Performance

MSCI All Country World Index with selected headlines from Q3 2019



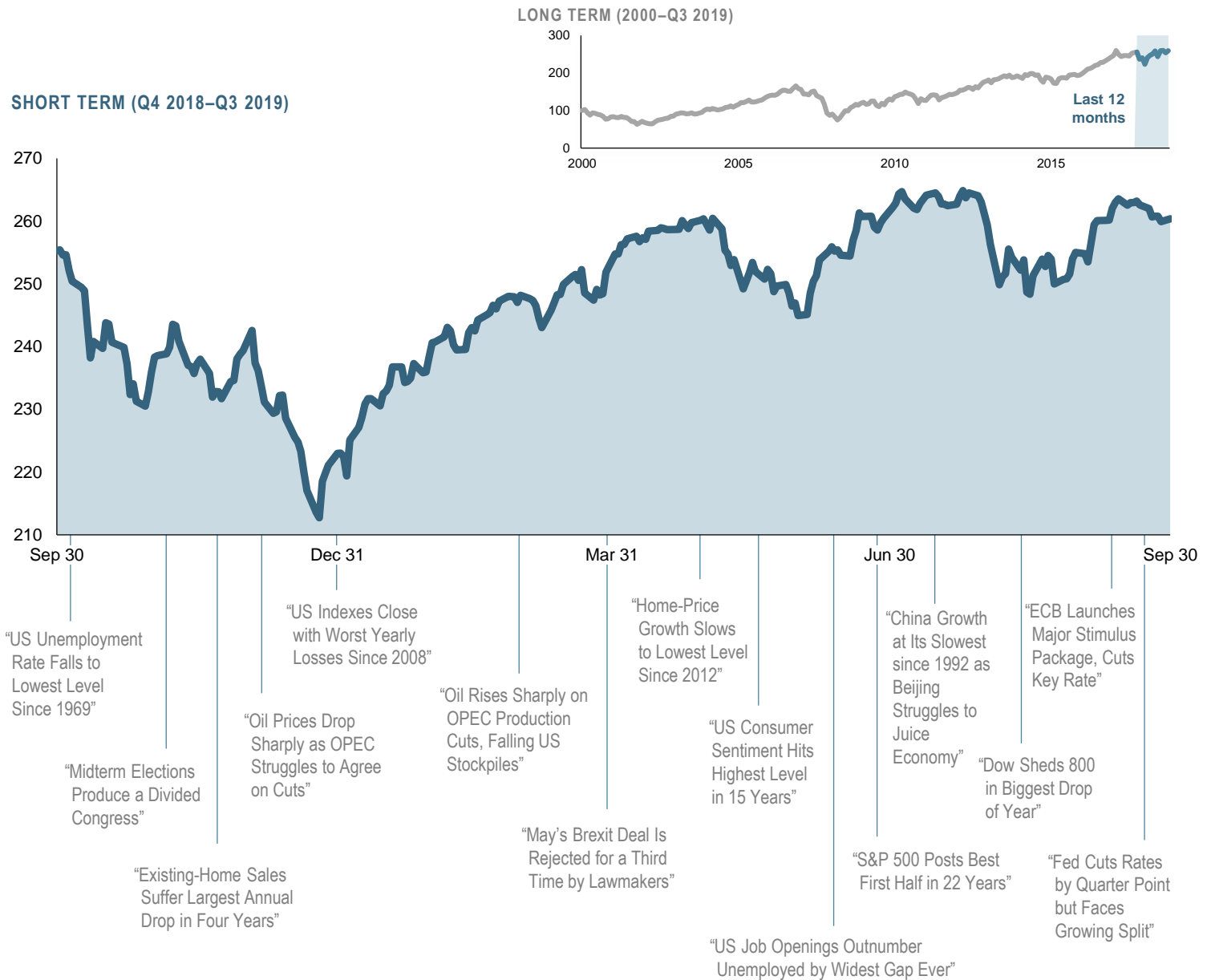
These headlines are not offered to explain market returns. Instead, they serve as a reminder that investors should view daily events from a long-term perspective and avoid making investment decisions based solely on the news.

Graph Source: MSCI ACWI Index [net div.]. MSCI data © MSCI 2019, 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



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 2019, 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.**

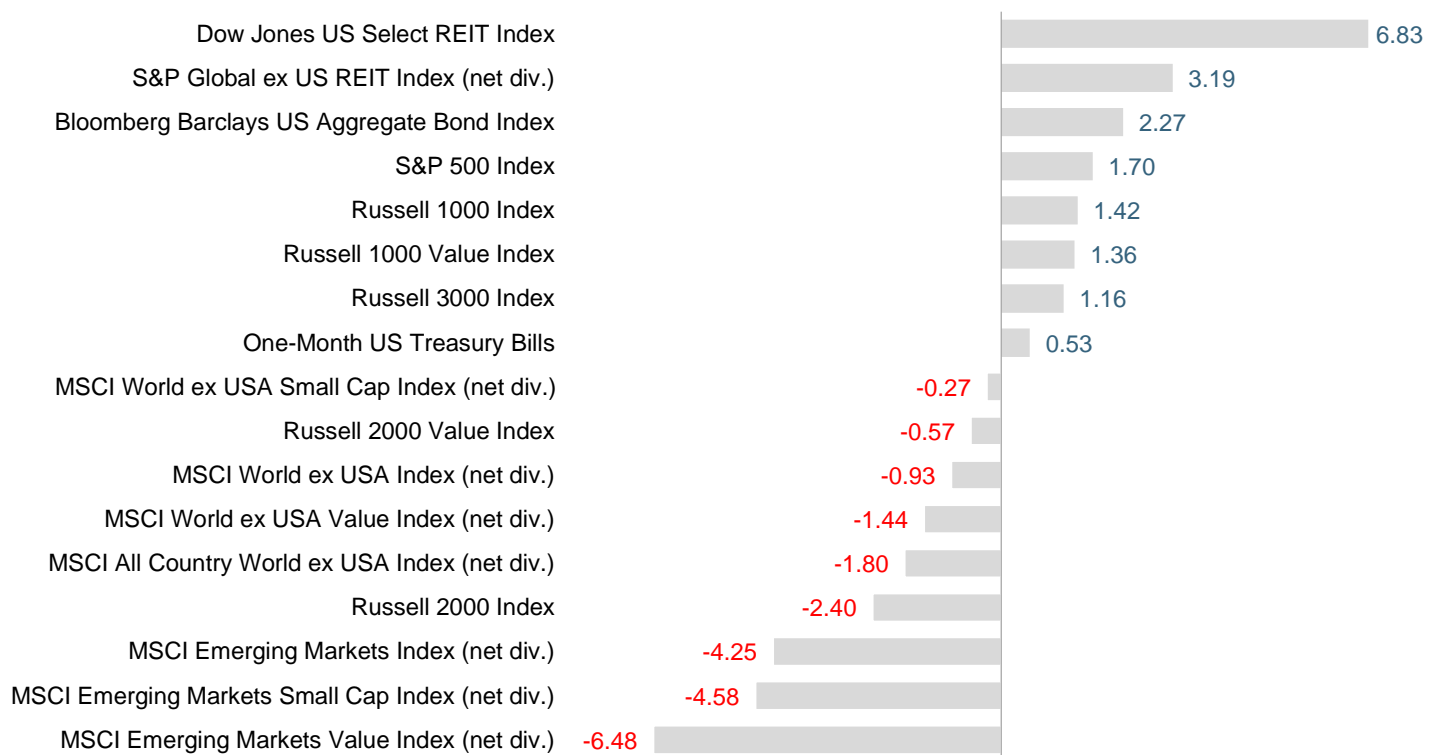
World Asset Classes

Third Quarter 2019 Index Returns (%)

Looking at broad market indices, US equities outperformed non-US developed and emerging markets during the third quarter.

Value stocks outperformed growth stocks in the US but underperformed in non-US and emerging markets. Small caps outperformed large caps in non-US markets but underperformed in the US and emerging markets.

REIT indices outperformed equity market indices in both the US and non-US developed markets.



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 2019, all rights reserved. Dow Jones data © 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. S&P data © 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. 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

Third Quarter 2019 Index Returns

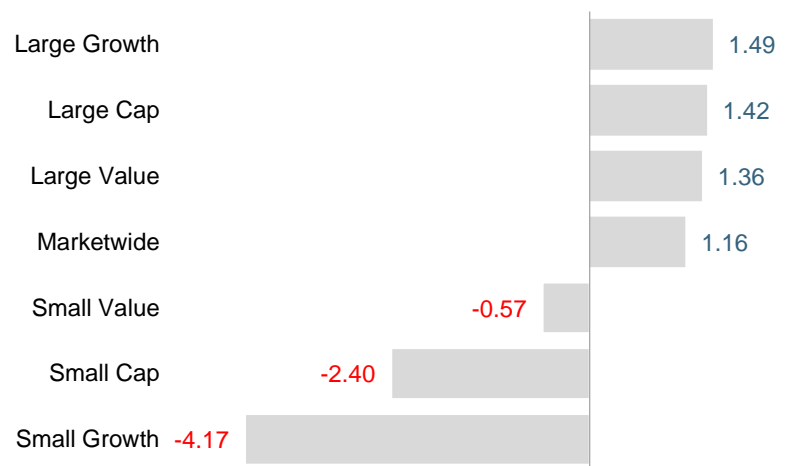
US equities outperformed both non-US developed and emerging markets in the third quarter.

Value outperformed growth on a marketwide basis in the US. However, value underperformed growth across large cap stocks but outperformed in small caps.

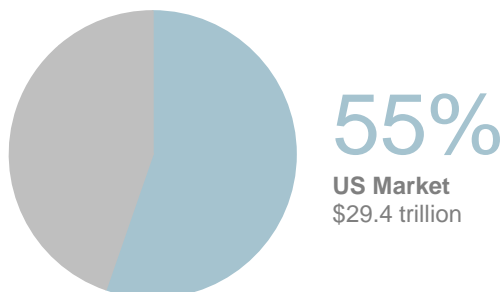
Small caps underperformed large caps in the US.

REIT indices outperformed equity market indices.

Ranked Returns (%)



World Market Capitalization—US



Period Returns (%)

* Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*	10 Years*
Large Growth	23.30	3.71	16.89	13.39	14.94
Large Cap	20.53	3.87	13.19	10.62	13.23
Marketwide	20.09	2.92	12.83	10.44	13.08
Large Value	17.81	4.00	9.43	7.79	11.46
Small Growth	15.34	-9.63	9.79	9.08	12.25
Small Cap	14.18	-8.89	8.23	8.19	11.19
Small Value	12.82	-8.24	6.54	7.17	10.06

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. Dow Jones US Select REIT Index used as proxy for the US REIT market. Frank Russell Company is source and owner of trademarks, service marks, and copyrights related to Russell Indexes. MSCI data © MSCI 2019, all rights reserved.

International Developed Stocks

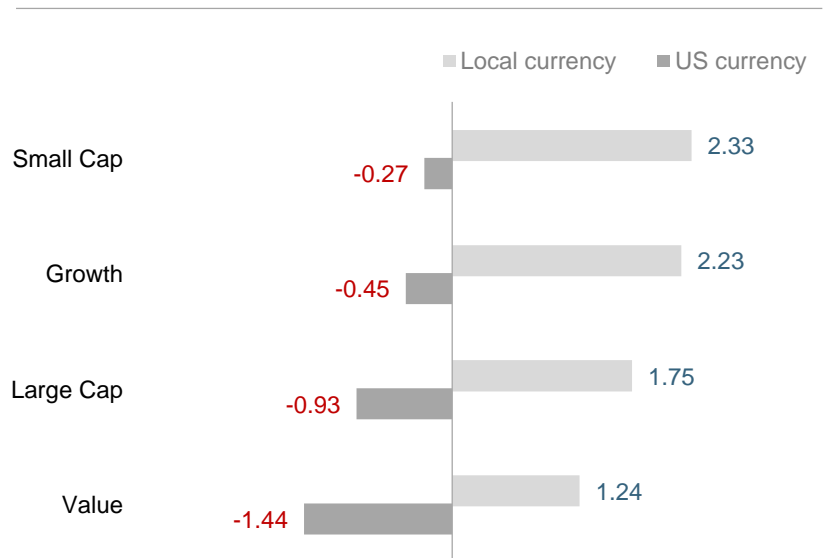
Third Quarter 2019 Index Returns

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

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

Value underperformed growth across large cap stocks but outperformed in small caps.

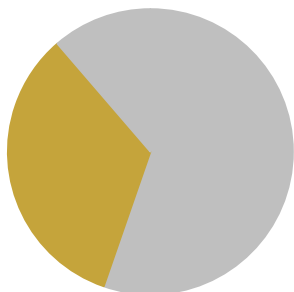
Ranked Returns (%)



World Market Capitalization— International Developed

33%

International
Developed Market
\$17.7 trillion



Period Returns (%)

* Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*	10 Years*
Growth	18.35	2.39	7.50	5.05	6.13
Large Cap	13.57	-0.95	6.49	3.06	4.78
Small Cap	12.58	-5.62	5.54	5.14	6.93
Value	8.79	-4.31	5.38	1.01	3.37

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 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 World ex USA IMI Index is used as the proxy for the International Developed market. MSCI data © MSCI 2019, all rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes.

Emerging Markets Stocks

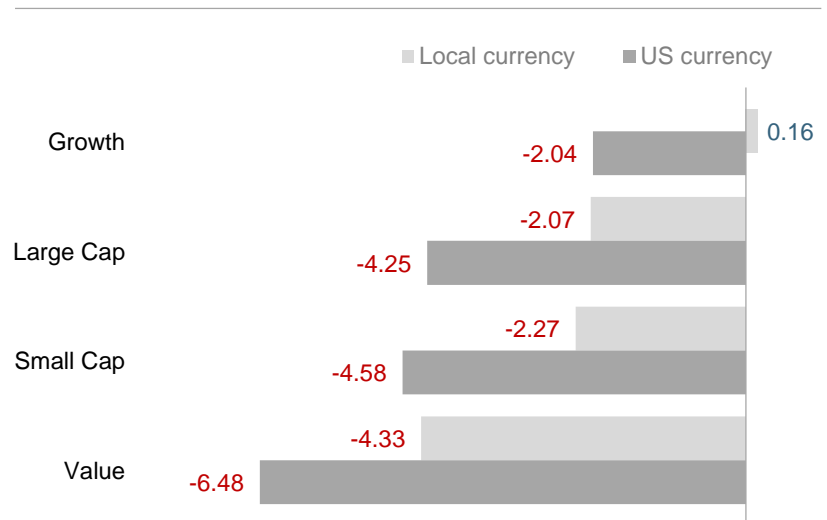
Third Quarter 2019 Index Returns

In US dollar terms, emerging markets underperformed developed markets, including the US, in the third quarter.

Value stocks underperformed growth stocks.

Small caps underperformed large caps.

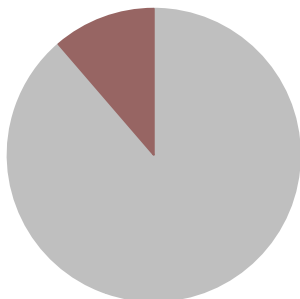
Ranked Returns (%)



World Market Capitalization— Emerging Markets

11%

Emerging Markets
\$6.0 trillion



Period Returns (%)

* Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*	10 Years*
Growth	10.04	1.01	7.04	4.17	4.75
Large Cap	5.89	-2.02	5.97	2.33	3.37
Value	1.82	-5.03	4.81	0.38	1.92
Small Cap	1.81	-5.49	1.32	-0.13	3.21

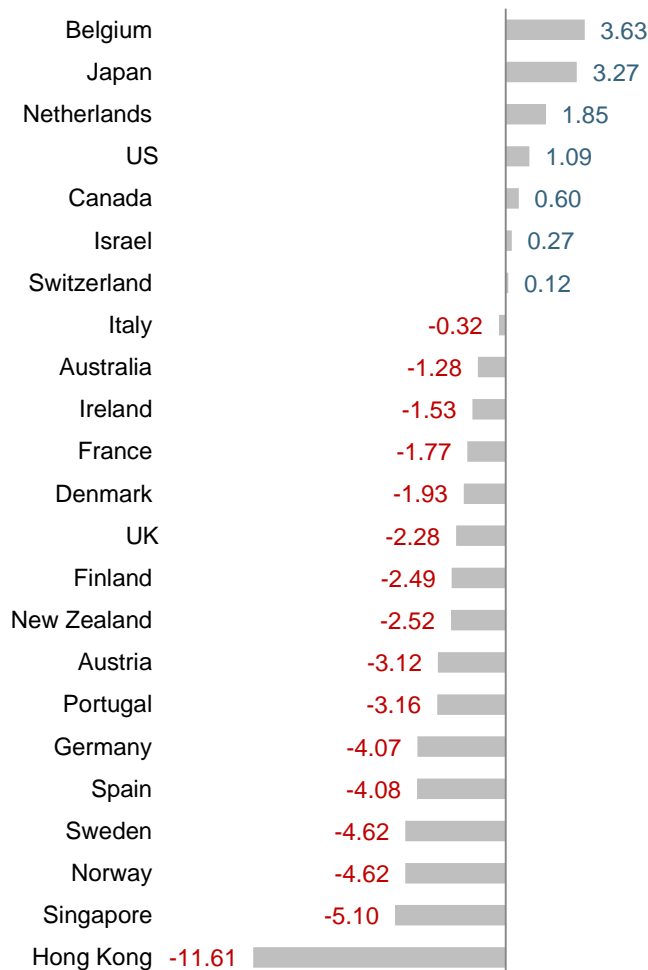
Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: Large Cap (MSCI Emerging Markets Index), Small 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 2019, all rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes.

Select Market Performance

Third Quarter 2019 Index Returns

In US dollar terms, Belgium and Japan recorded the highest country performance in developed markets, while Hong Kong and Singapore posted the lowest returns for the third quarter. In emerging markets, Turkey and Taiwan recorded the highest country performance, while Poland and South Africa posted the lowest performance.

Ranked Developed Markets Returns (%)



Ranked Emerging Markets Returns (%)



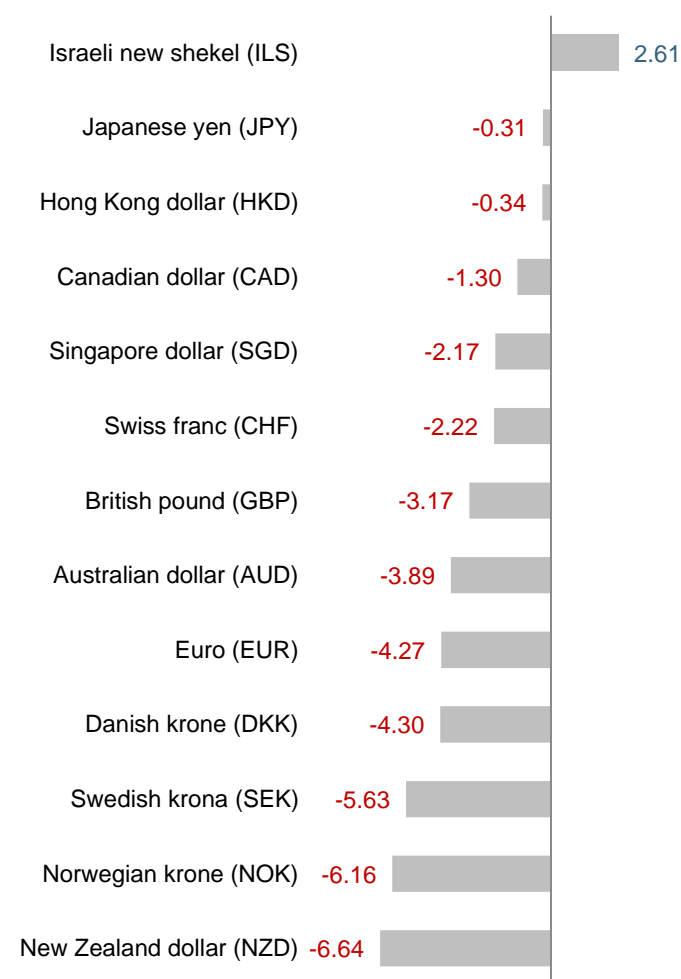
Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Country performance based on respective indices in the MSCI World ex US IMI Index (for developed 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 2019, all rights reserved. UAE and Qatar have been reclassified as emerging markets by MSCI, effective May 2014.

Select Currency Performance vs. US Dollar

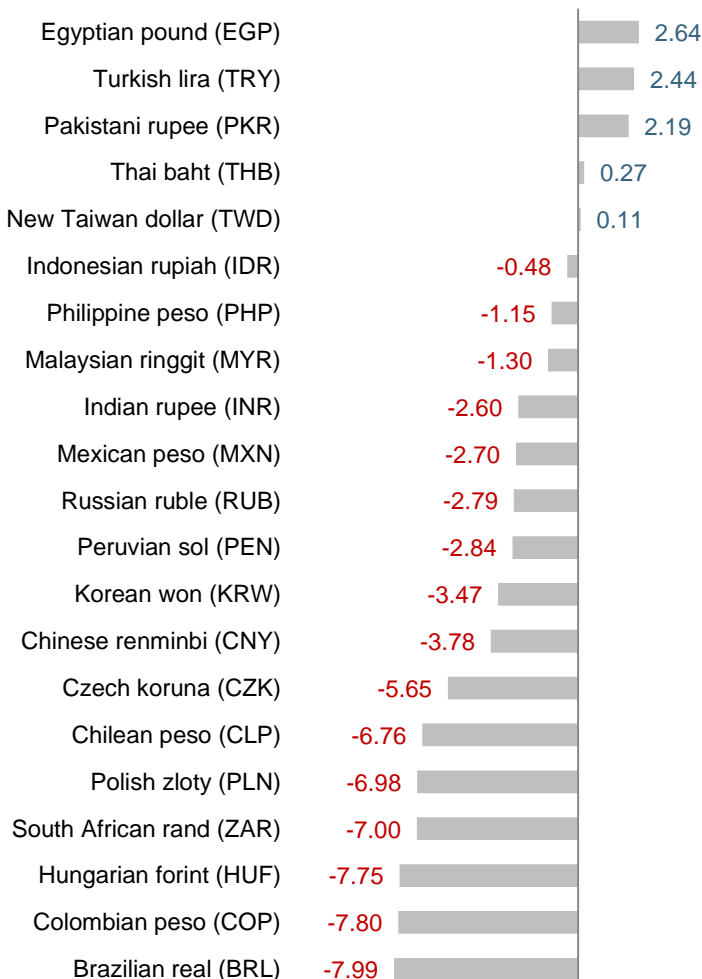
Third Quarter 2019

In developed and emerging markets, currencies mostly depreciated vs. the US dollar in the third quarter. The Israeli shekel and the Egyptian pound were among a few exceptions.

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.

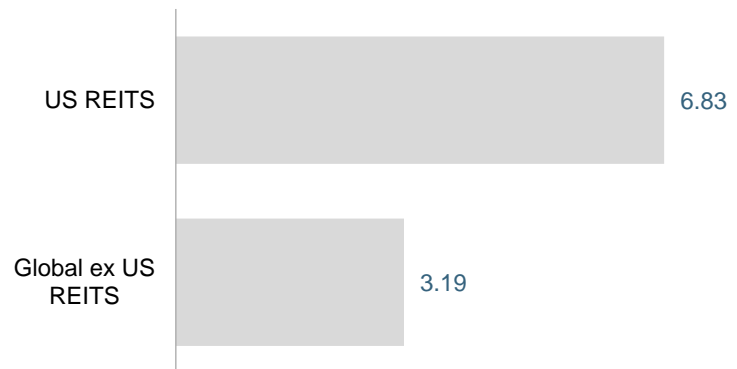
MSCI data © MSCI 2019, all rights reserved.

Real Estate Investment Trusts (REITs)

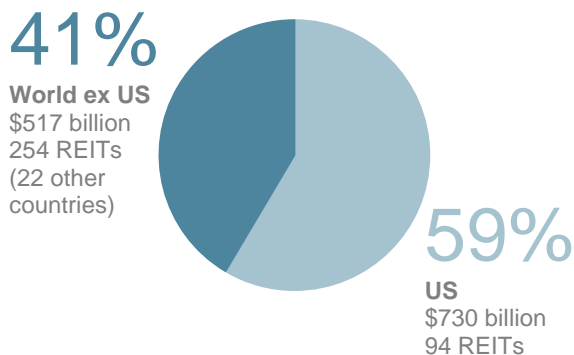
Third Quarter 2019 Index Returns

In the third quarter, US real estate investment trusts outperformed non-US REITs in US dollar terms.

Ranked Returns (%)



Total Value of REIT Stocks



Period Returns (%)

Asset Class	* Annualized				
	YTD	1 Year	3 Years*	5 Years*	10 Years*
US REITS	24.64	16.41	6.48	9.70	12.69
Global ex US REITS	18.34	12.80	5.10	5.35	7.29

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 and S&P data © 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

Commodities

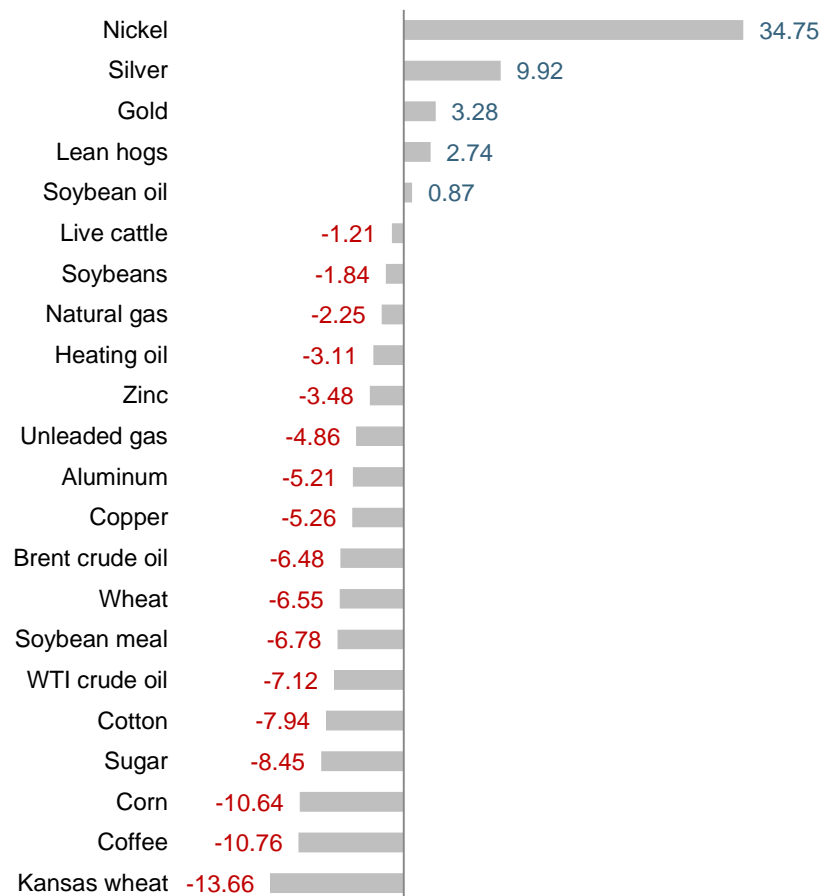
Third Quarter 2019 Index Returns

The Bloomberg Commodity Index Total Return declined by 1.84% in the third quarter.

Nickel and silver led quarterly performance, returning 34.75% and 9.92%, respectively.

Kansas wheat and coffee were the worst performers, declining by 13.66% and 10.76%, respectively.

Ranked Returns (%)



Period Returns (%)

* Annualized

Asset Class	QTR	YTD	1 Year	3 Years*	5 Years*	10 Years*
Commodities	-1.84	3.13	-6.57	-1.50	-7.18	-4.32

Fixed Income

Third Quarter 2019 Index Returns

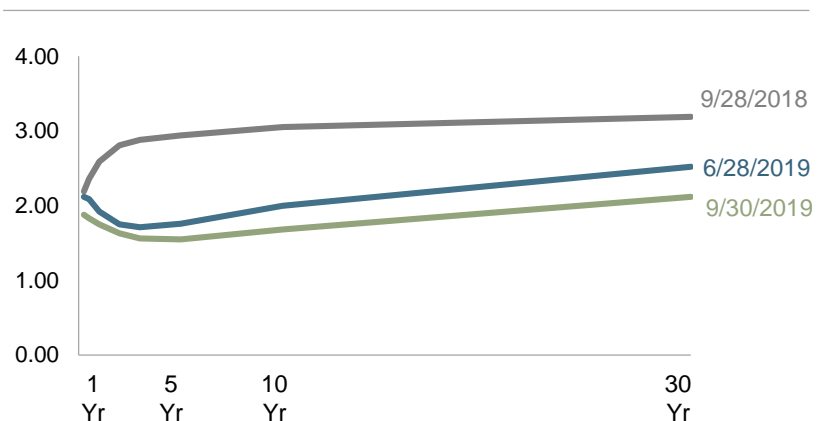
Interest rates in the US Treasury market decreased during the third quarter. The yield on the 5-year Treasury note declined by 21 basis points (bps), ending at 1.55%. The yield on the 10-year Treasury note decreased by 32 bps to 1.68%. The 30-year Treasury bond yield fell by 40 bps to 2.12%.

On the short end of the yield curve, the 1-month Treasury bill yield decreased to 1.91%, while the 1-year Treasury bill yield decreased by 17 bps to 1.75%. The 2-year Treasury note yield finished at 1.63% after a decrease of 12 bps.

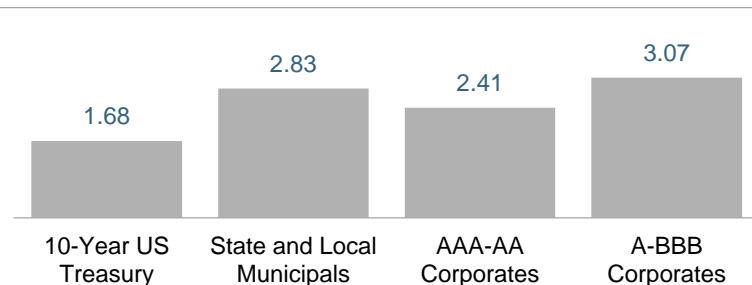
In terms of total returns, short-term corporate bonds gained 1.17%. Intermediate-term corporate bonds had a total return of 1.74%.

The total return for short-term municipal bonds was 0.33%, while intermediate-term munis returned 1.02%. Revenue bonds outperformed general obligation bonds.

US Treasury Yield Curve (%)



Bond Yields across Issuers (%)



Period Returns (%)

* Annualized

Asset Class	QTR	YTD	1 Year	3 Years*	5 Years*	10 Years*
Bloomberg Barclays US Government Bond Index Long	7.83	19.61	24.58	4.11	6.73	6.86
Bloomberg Barclays US Aggregate Bond Index	2.27	8.52	10.30	2.92	3.38	3.75
Bloomberg Barclays Municipal Bond Index	1.58	6.75	8.55	3.19	3.66	4.16
Bloomberg Barclays US TIPS Index	1.35	7.58	7.13	2.21	2.45	3.46
Bloomberg Barclays US High Yield Corporate Bond Index	1.33	11.41	6.36	6.07	5.37	7.94
FTSE World Government Bond Index 1-5 Years (hedged to USD)	0.96	3.68	5.26	2.14	1.98	1.86
ICE BofAML 1-Year US Treasury Note Index	0.56	2.33	3.13	1.60	1.12	0.79
ICE BofAML US 3-Month Treasury Bill Index	0.56	1.81	2.39	1.54	0.98	0.54
FTSE World Government Bond Index 1-5 Years	-0.84	1.41	2.36	0.25	-0.07	-0.05

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 ICE BofAML US Corporates, AA-AAA rated. A-BBB Corporates represent the ICE BofAML 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 (SBBBI) Yearbook™, Ibbotson Associates, Chicago (annually updated work by Roger G. Ibbotson and Rex A. Sinquefeld). FTSE fixed income indices © 2019 FTSE Fixed Income LLC, all rights reserved. ICE BofAML index data © 2019 ICE Data Indices, LLC. S&P data © 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

Global Fixed Income

Third Quarter 2019 Yield Curves

Interest rates in the global developed markets generally decreased during the third quarter.

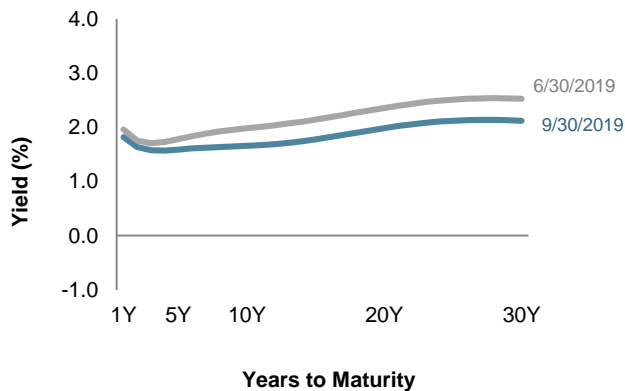
Longer-term bonds generally outperformed shorter-term bonds in the global developed markets.

Short- and Intermediate-term nominal interest rates are negative in Japan and entirely negative across the German government bond yield curve.

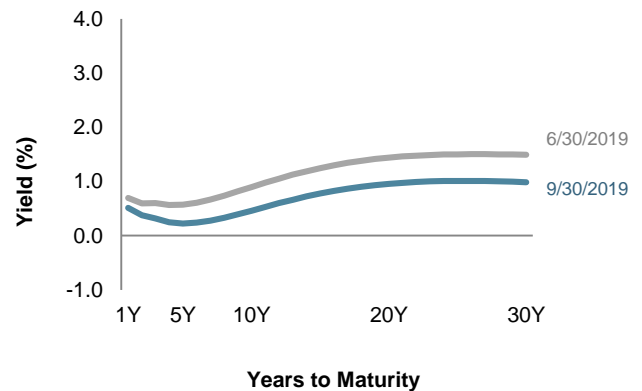
Changes in Yields (bps) since 6/30/2019

	1Y	5Y	10Y	20Y	30Y
US	-14.4	-19.2	-32.8	-37.3	-40.8
UK	-18.4	-34.6	-43.7	-48.3	-50.4
Germany	-5.9	-12.3	-26.6	-36.1	-36.8
Japan	-10.0	-10.4	-5.7	-3.1	0.2

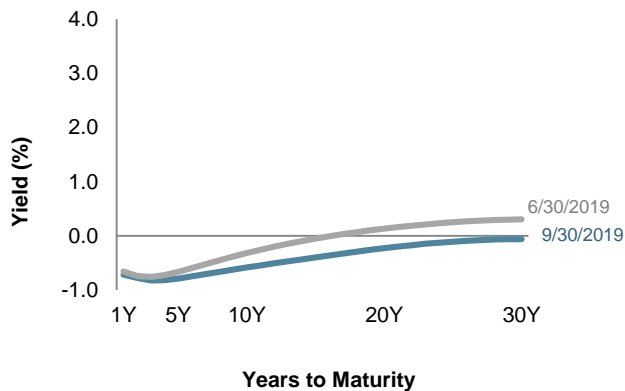
US



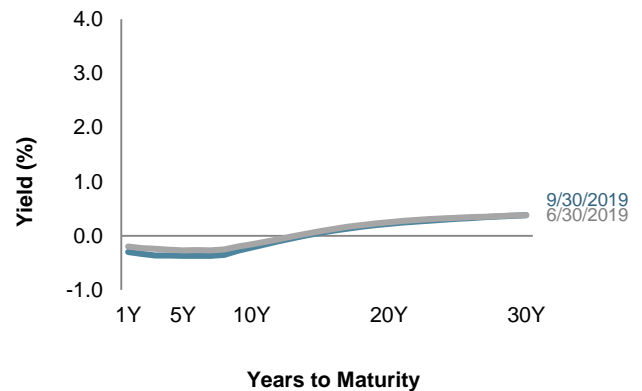
UK



Germany



Japan

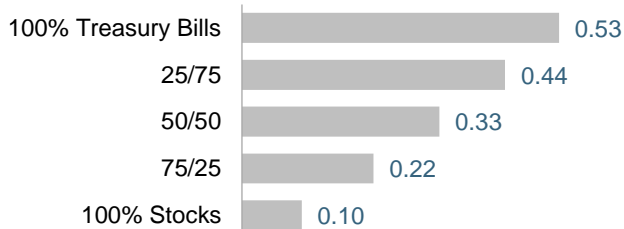


Impact of Diversification

Third Quarter 2019

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

Ranked Returns (%)

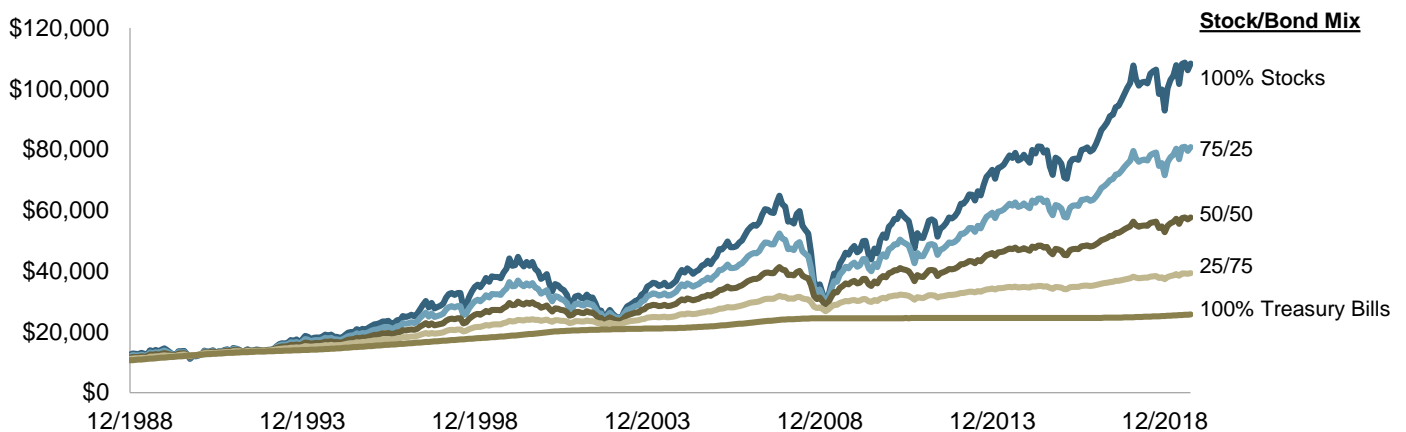


Period Returns (%)

* Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*	10 Years*	10-Year STDEV
100% Stocks	16.71	1.95	10.30	7.23	8.93	13.20
75/25	12.94	2.30	8.15	5.75	6.93	9.90
50/50	9.18	2.48	5.96	4.20	4.85	6.60
25/75	5.44	2.47	3.73	2.59	2.70	3.30
100% Treasury Bills	1.72	2.29	1.46	0.91	0.48	0.22

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 2019, 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).

Timing Isn't Everything

Third Quarter 2019

Over the course of a summer, it's not unusual for the stock market to be a topic of conversation at barbecues or other social gatherings.

A neighbor or relative might ask about which investments are good at the moment. The lure of getting in at the right time or avoiding the next downturn may tempt even disciplined, long-term investors. The reality of successfully timing markets, however, isn't as straightforward as it sounds.

OUTGUESSING THE MARKET IS DIFFICULT

Attempting to buy individual stocks or make tactical asset allocation changes at exactly the "right" time presents investors with substantial challenges. First and foremost, markets are fiercely competitive and adept at processing information. During 2018, a daily average of \$462.8 billion in equity trading took place around the world.¹ The combined effect of all this buying and selling is that available information, from economic data to investor preferences and so on, is quickly incorporated into market prices. Trying to time the market based on an article from this morning's newspaper or a segment from financial television? It's likely that information is already reflected in prices by the time an investor can react to it.

Dimensional recently studied the performance of actively managed US-based mutual funds and found that even professional investors have difficulty beating the market: over the last 20 years, 77% of equity funds and 92% of fixed income funds failed to survive and outperform their benchmarks after

costs.²

Further complicating matters, for investors to have a shot at successfully timing the market, they must make the call to buy or sell stocks correctly not just once, but twice. Professor Robert Merton, a Nobel laureate, said it well in a recent interview with Dimensional:

"Timing markets is the dream of everybody. Suppose I could verify that I'm a .700 hitter in calling market turns. That's pretty good; you'd hire me right away. But to be a good market timer, you've got to do it twice. What if the chances of me getting it right were independent each time? They're not. But if they were, that's 0.7 times 0.7. That's less than 50-50. So, market timing is horribly difficult to do."

TIME AND THE MARKET

The S&P 500 Index has logged an incredible decade. Should this result impact investors' allocations to equities? **Exhibit 1** suggests that new market highs have not been a harbinger of negative returns to come. The S&P 500 went on to provide positive average annualized returns over one, three, and five years following new market highs.

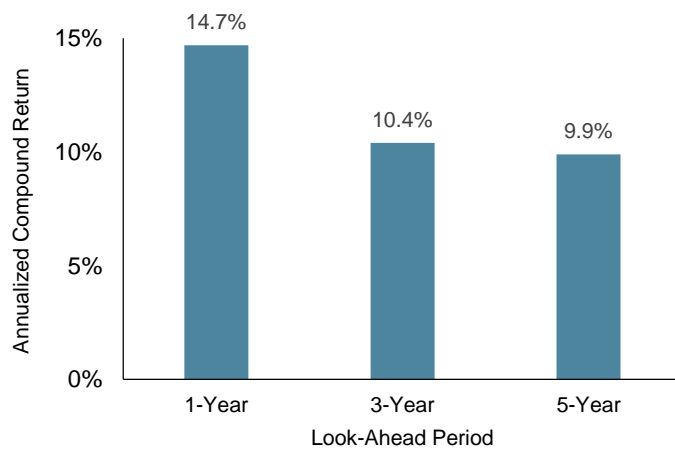
1. In US dollars. Source: Dimensional, using data from Bloomberg LP. Includes primary and secondary exchange trading volume globally for equities. ETFs and funds are excluded. Daily averages were computed by calculating the trading volume of each stock daily as the closing price multiplied by shares traded that day. All such trading volume is summed up and divided by 252 as an approximate number of annual trading days.

2. Past performance is no guarantee of future results. US-domiciled open-end mutual fund data is from Morningstar. The sample includes funds at the beginning of the 20-year period ending December 31, 2018. For further details, see the [Mutual Fund Landscape 2019](#).

Timing Isn't Everything

(continued from page 18)

Exhibit 1. Average Annualized Returns
After New Market Highs
S&P 500, January 1926–December 2018



In US dollars. Past performance is no guarantee of future results. New market highs are defined as months ending with the market above all previous levels for the sample period. Annualized compound returns are computed for the relevant time periods subsequent to new market highs and averaged across all new market high observations. There were 1,115 observation months in the sample. January 1990–December 2018: S&P 500 Total Returns Index. S&P data © 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. January 1926–December 1989: S&P 500 Total Return Index, Stocks, Bonds, Bills and Inflation Yearbook™, Ibbotson Associates, Chicago. For illustrative purposes only. Index is not available for direct investment; therefore, its performance does not reflect the expenses associated with the management of an actual portfolio. There is always a risk that an investor may lose money.

CONCLUSION

Outguessing markets is more difficult than many investors might think. While favorable timing is theoretically possible, there isn't much evidence that it can be done reliably, even by professional investors. The positive news is that investors don't need to be able to time markets to have a good investment experience. Over time, capital markets have rewarded investors who have taken a long-term perspective and remained disciplined in the face of short-term noise. By focusing on the things they can control (like having an appropriate asset allocation, diversification, and managing expenses, turnover, and taxes) investors can better position themselves to make the most of what capital markets have to offer.

Source: Dimensional Fund Advisors LP.

Indices are not available for direct investment. Their performance does not reflect the expenses associated with the management of an actual portfolio.

Past performance is not a guarantee of future results. Diversification does not eliminate the risk of market loss.

There is no guarantee investment strategies will be successful. Investing involves risks, including possible loss of principal. Investors should talk to their financial advisor prior to making any investment decision. There is always the risk that an investor may lose money. A long-term investment approach cannot guarantee a profit.

All expressions of opinion are subject to change. This article is distributed for informational purposes, and it is not to be construed as an offer, solicitation, recommendation, or endorsement of any particular security, products, or services.

Robert Merton provides consulting services to Dimensional Fund Advisors LP.