

Quarterly Market Review
Fourth Quarter 2017







Fourth 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

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## Market Summary

Index Returns

	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate	US Bond Market	Global Bond Market ex US
Q4 2017	BONDS					
	6.34%	4.23%	7.44%	2.97%	0.39%	1.10%

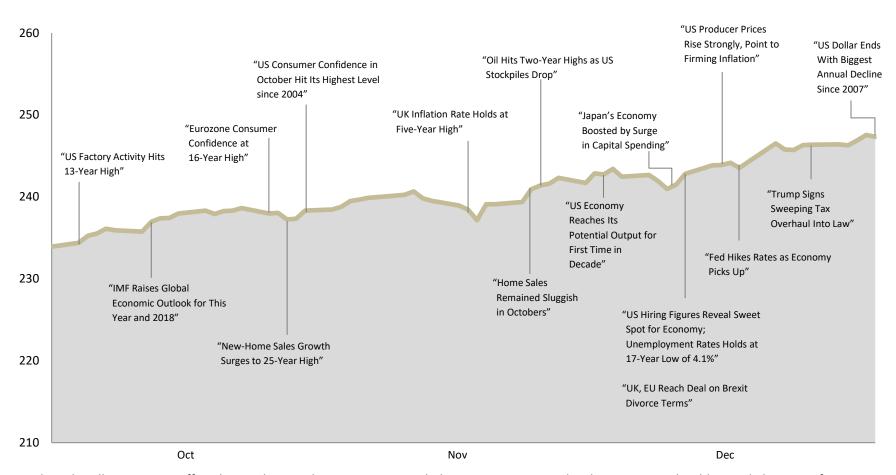
Since Jan. 2001						
Avg. Quarterly Return	2.0%	1.6%	3.2%	2.7%	1.2%	1.1%
Best	16.8%	25.9%	34.7%	32.3%	4.6%	5.5%
Quarter	Q2 2009	Q2 2009	Q2 2009	Q3 2009	Q3 2001	Q4 2008
Worst	-22.8%	-21.2%	-27.6%	-36.1%	-3.0%	-3.2%
Quarter	Q4 2008	Q4 2008	Q4 2008	Q4 2008	Q4 2016	Q2 2015

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## World Stock Market Performance

MSCI All Country World Index with selected headlines from Q4 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.

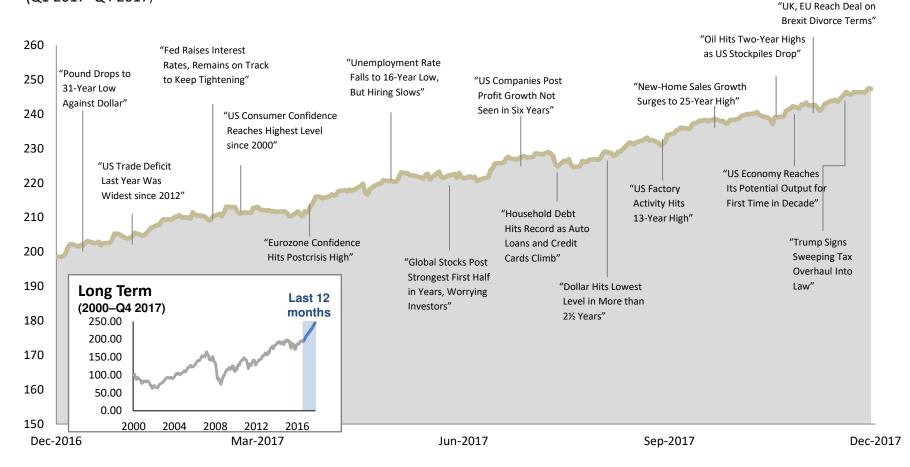


## World Stock Market Performance

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

#### **Short Term**

(Q1 2017-Q4 2017)



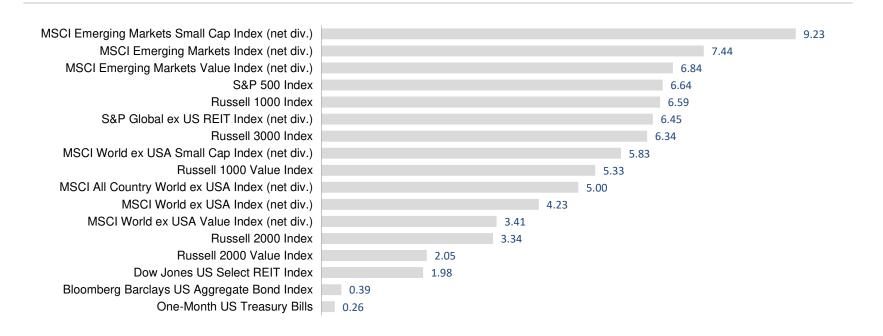
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## **World Asset Classes**

Fourth Quarter 2017 Index Returns (%)

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

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



## **US Stocks**



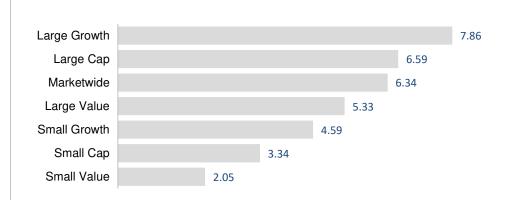
#### Fourth Quarter 2017 Index Returns

The US equity market posted a positive return for the quarter, outperforming non-US developed markets but underperforming emerging markets.

Value underperformed growth in the US across large and small cap indices.

Overall, small caps in the US underperformed large caps.

#### Ranked Returns for the Quarter (%)



#### World Market Capitalization—US



#### Period Returns (%)

*	Anı	nual	ized

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Large Growth	30.21	13.79	17.33	10.00
Small Growth	22.17	10.28	15.21	9.19
Large Cap	21.69	11.23	15.71	8.59
Marketwide	21.13	11.12	15.58	8.60
Small Cap	14.65	9.96	14.12	8.71
Large Value	13.66	8.65	14.04	7.10
Small Value	7.84	9.55	13.01	8.17

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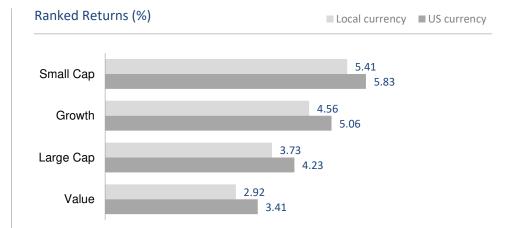
## **International Developed Stocks**

Fourth Quarter 2017 Index Returns

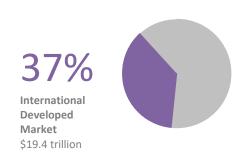
In US dollar terms, developed markets underperformed the US and emerging markets during the quarter.

Looking at market indices, the value effect was negative.

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



#### World Market Capitalization—International Developed



Period Returns (	%)		•	* Annualized
Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Small Cap	31.04	12.96	11.37	5.16
Growth	27.61	8.38	8.22	2.36
Large Cap	24.21	7.36	7.46	1.87
Value	21.04	6.26	6.64	1.32

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## **Emerging Markets Stocks**

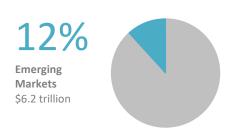
Fourth Quarter 2017 Index Returns

In US dollar terms, emerging markets outperformed the US and non-US developed markets during the quarter.

Looking at broad market indices, the value effect was negative.

Small caps outperformed large caps in emerging markets.

## World Market Capitalization—Emerging Markets



# Ranked Returns (%) Small Cap Growth T.92 Large Cap Value 5.13 6.84

Period Returns (%)			*	Annualized
Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Growth	46.80	11.88	6.85	2.35
Large Cap	37.28	9.10	4.35	1.68
Small Cap	33.84	8.44	5.41	2.78
Value	28.07	6.21	1.75	0.91

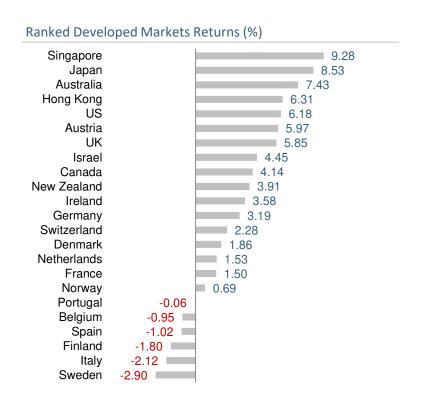
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## **Select Country Performance**

Fourth Quarter 2017 Index Returns

In US dollar terms, Singapore and Japan recorded the highest country performance in developed markets, while Sweden and Italy posted the lowest returns for the quarter. In emerging markets, South Africa and India posted the highest country returns, while Pakistan and Mexico had the lowest performance.





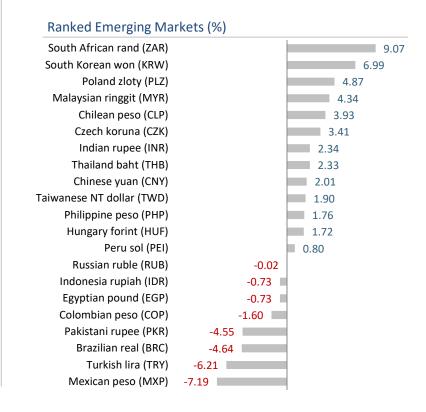


## Select Currency Performance vs. US Dollar

Fourth Quarter 2017

In developed markets, the Israeli shekel and the Singapore dollar both appreciated over 1.6%, while the Norwegian krone depreciated approximately 3% during the quarter. In emerging markets, the South African rand appreciated more than 9%, while the Mexican peso depreciated over 7%.



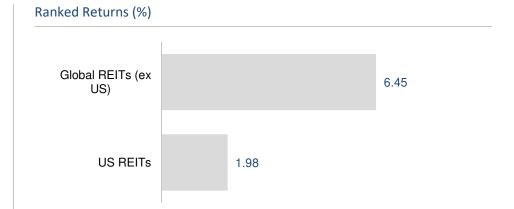




## Real Estate Investment Trusts (REITs)

Fourth Quarter 2017 Index Returns

Non-US real estate investment trusts outperformed US REITs.



#### **Total Value of REIT Stocks**



Period Returns (%)			,	* Annualized
Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Global REITs (ex US)	15.64	4.78	5.49	2.05
US REITs	3.76	4.97	9.09	7.07

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## **Commodities**

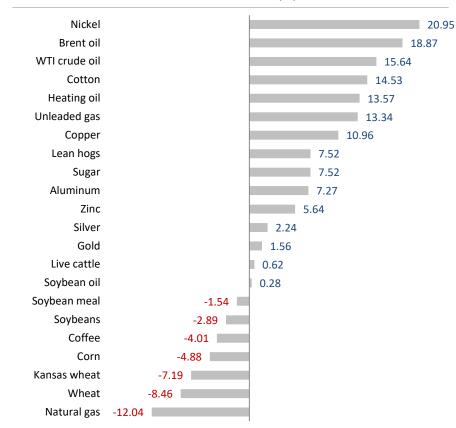
#### Fourth Quarter 2017 Index Returns

The Bloomberg Commodity Index Total Return gained 4.71% in the fourth quarter, bringing the 2017 total annual return to 1.70%.

Petroleum led quarterly performance. Brent crude oil returned 18.87%, and WTI crude oil gained 15.64%. Grains was the worst-performing complex, with Chicago wheat and Kansas wheat declining by 8.46% and 7.19%, respectively.

# Period Returns (%) \* Annualized Asset Class 1 Year 3 Years\* 5 Years\* 10 Years\* Commodities 1.70 -5.03 -8.45 -6.83

#### Ranked Returns for Individual Commodities (%)

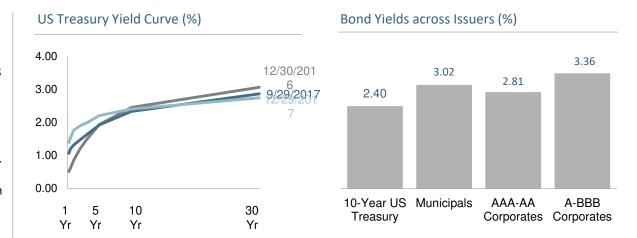




## Fixed Income

#### Fourth Quarter 2017 Index Returns

- Interest rate changes across the US fixed income market were mixed during the fourth quarter. The yield on the 5-year Treasury note rose 28 basis points (bps), ending at 2.20%. The yield on the 10-year Treasury note increased 7 bps to 2.40%. The 30-year Treasury bond yield decreased 12 bps to finish at 2.74%.
- In terms of total returns, short-term corporate bonds declined 0.04% during the quarter but increased 1.85% for the year. Intermediateterm corporate bonds gained 0.17% for the quarter and 3.92% for the year.
- The total returns for short-term municipal bonds were –0.65% for the quarter and 1.61% for the year. Intermediate-term municipal bonds fell 0.09% for the quarter but gained 4.70% for the year. Revenue bonds outperformed general obligation bonds for the year.



#### Period Returns (%)

\* Annualized

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Bloomberg Barclays Long US Government Bond Index	8.53	2.85	3.49	6.49
Bloomberg Barclays US Corporate High Yield Index	7.50	6.35	5.78	8.03
Bloomberg Barclays Municipal Bond Index	5.45	2.98	3.02	4.46
Bloomberg Barclays US Aggregate Bond Index	3.54	2.24	2.10	4.01
Bloomberg Barclays US TIPS Index	3.01	2.05	0.13	3.53
Citi World Government Bond Index 1-5 Years (hedged to USD)	1.13	1.21	1.23	2.13
ICE BofAML 3-Month US Treasury Bill Index	0.86	0.41	0.27	0.39
ICE BofAML 1-Year US Treasury Note Index	0.57	0.49	0.38	0.90

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<sup>IM</sup>, Ibbotson Associates, Chicago (annually updated work by Roger G. Ibbotson and Rex A. Sinquefield). Citi fixed income indices © 2018 by Citigroup. ICE BofAML index data © 2018 ICE Data Indices, LLC. The S&P data are provided by Standard & Poor's Index Services Group.

## Impact of Diversification



Fourth 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.

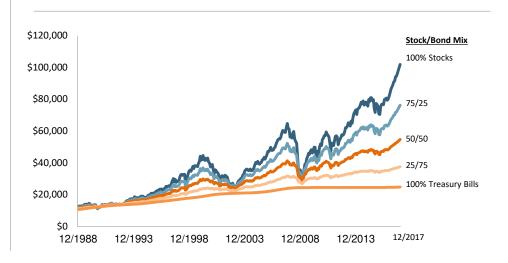
## Period Returns (%) \* Annualized

Asset Class	1 Year	3 Years*	5 Years*	10 Years*	10-Year STDEV <sup>1</sup>
100% Stocks	24.62	9.89	11.40	5.22	16.80
75/25	18.23	7.54	8.59	4.26	12.59
50/50	12.14	5.15	5.79	3.11	8.38
25/75	6.33	2.75	3.00	1.78	4.18
100% Treasury Bills	0.80	0.34	0.21	0.30	0.16

#### Ranked Returns (%)



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



## **Appendix**



# 2017 Annual Market Review





This report features world capital market performance for the past year.

#### Overview:

Market Summary

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



## **Market Summary**

Index Returns

	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate	US Bond Market	Global Bond Market ex US
2017		sто	CKS		ВО	NDS
	21.13%	24.21%	37.28%	7.41%	3.54%	2.06%

Since Jan. 2001						
Avg. Annual Return	8.4%	7.0%	14.8%	11.0%	4.8%	4.5%
Best	33.6%	39.4%	78.5%	37.4%	10.3%	9.8%
Year	<b>2013</b>	<b>2003</b>	<b>2009</b>	<b>2006</b>	<b>2002</b>	<b>2014</b>
Worst	-37.3%	-43.6%	-53.3%	-45.7%	-2.0%	1.4%
Year	<b>2008</b>	<b>2008</b>	<b>2008</b>	<b>2008</b>	<b>2013</b>	<b>2013</b>

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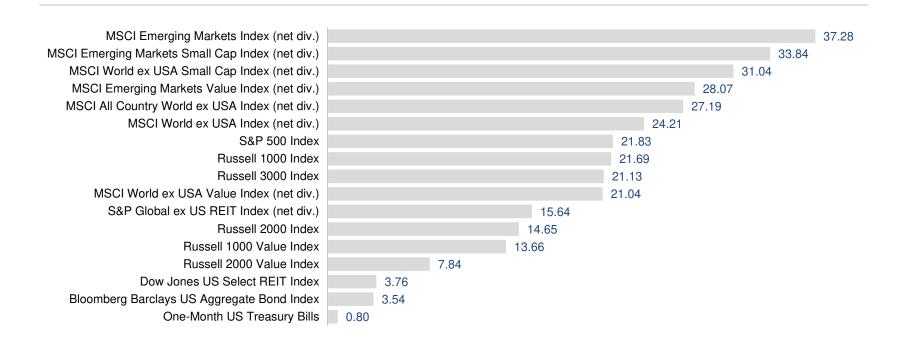


#### World Asset Classes

2017 Index Returns (%)

Looking at broad market indices, emerging markets outperformed US and non-US developed markets in 2017.

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



## **US Stocks**



#### 2017 Index Returns

The US equity market posted positive returns for 2017 but underperformed non-US developed and emerging markets.

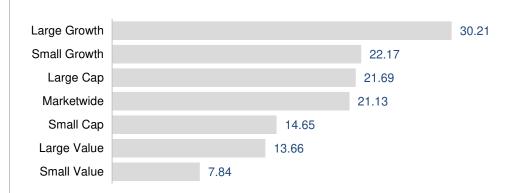
Value underperformed growth in the US across large and small cap indices.

Small caps underperformed large caps in the US.

#### World Market Capitalization—US



#### Ranked Returns for 2017 (%)



#### Period Returns (%)

\* Annualized

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Large Growth	30.21	13.79	17.33	10.00
Small Growth	22.17	10.28	15.21	9.19
Large Cap	21.69	11.23	15.71	8.59
Marketwide	21.13	11.12	15.58	8.60
Small Cap	14.65	9.96	14.12	8.71
Large Value	13.66	8.65	14.04	7.10
Small Value	7.84	9.55	13.01	8.17

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## **International Developed Stocks**



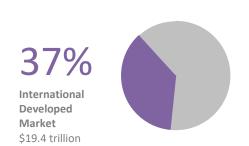
2017 Index Returns

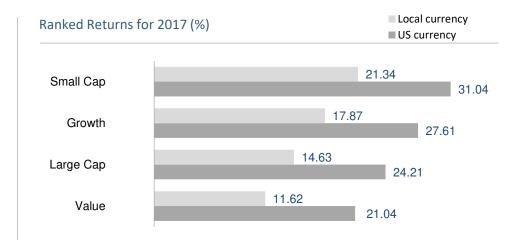
In US dollar terms, non-US developed markets outperformed the US market but underperformed emerging markets during 2017.

Looking at broad market indices, the value effect was negative.

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

#### World Market Capitalization—International Developed





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Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Small Cap	31.04	12.96	11.37	5.16
Growth	27.61	8.38	8.22	2.36
Large Cap	24.21	7.36	7.46	1.87
Value	21.04	6.26	6.64	1.32

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\* Appualized

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## **Emerging Markets Stocks**

2017 Index Returns

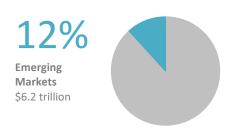
In US dollar terms, emerging markets outperformed the US and non-US developed markets for the year.

Across the large cap 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



Period Returns (%	)		*	Annualized
Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Growth	46.80	11.88	6.85	2.35
Large Cap	37.28	9.10	4.35	1.68
Small Cap	33.84	8.44	5.41	2.78
Value	28.07	6.21	1.75	0.91

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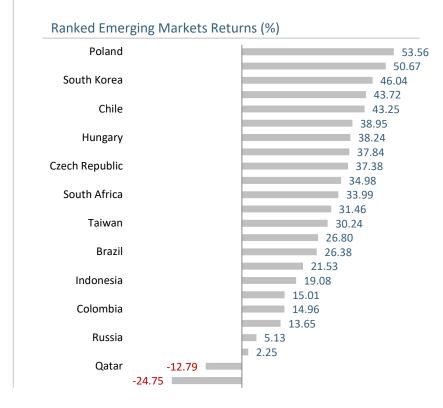


## **Select Country Performance**

2017 Index Returns

In US dollar terms, Austria recorded the highest country performance in developed markets with a gain of more than 50%, while Israel posted the lowest return for the year. In emerging markets, Poland and China posted the highest country returns, each returning over 50%, while Pakistan and Qatar had the lowest performance.



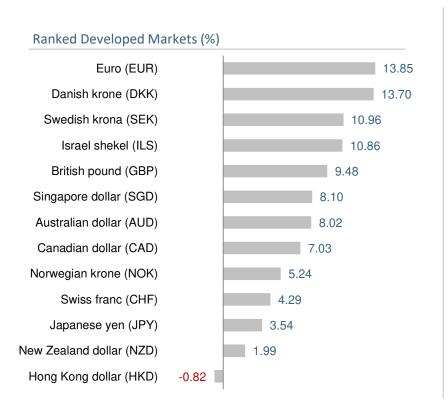


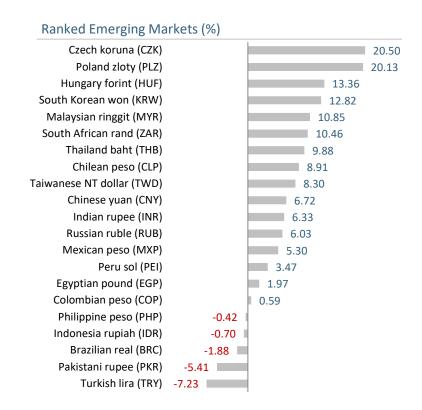


## Select Currency Performance vs. US Dollar

2017 Index Returns

Most developed market currencies appreciated against the US dollar in 2017. The euro and Danish krone appreciated the most with gains of almost 14%, while the Hong Kong dollar depreciated. In emerging markets, the Polish zloty and the Czech koruna appreciated more than 20%, while the Turkish lira depreciated over 7%.





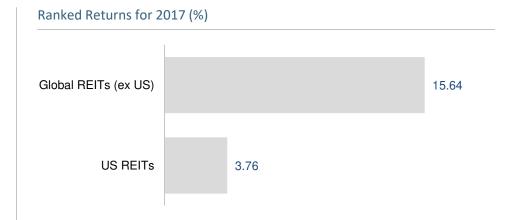
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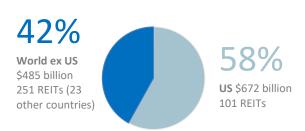
## Real Estate Investment Trusts (REITs)

2017 Index Returns

Non-US real estate investment trusts outperformed US REITs in 2017.



#### **Total Value of REIT Stocks**



Period Retur	ns (%)				* Annualized
Asset Class	3	1 Year	3 Years*	5 Years*	10 Years*
Global REIT	s (ex US)	15.64	4.78	5.49	2.05
US REITs		3.76	4.97	9.09	7.07

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## Commodities



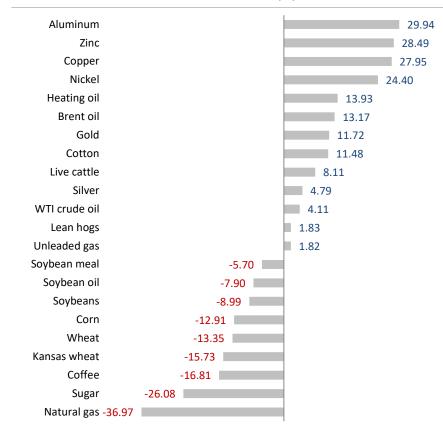
2017 Returns

The Bloomberg Commodity Index Total Return advanced 1.70% in 2017.

Aluminum was the strongest performer, posting a return of 29.94%. Zinc and copper followed with respective returns of 28.49% and 27.95%. Natural gas was the weakest performer, falling 36.97%.

# Period Returns (%) \* Annualized Asset Class 1 Year 3 Years\* 5 Years\* 10 Years\* Commodities 1.70 -5.03 -8.45 -6.83

#### Ranked Returns for Individual Commodities (%)

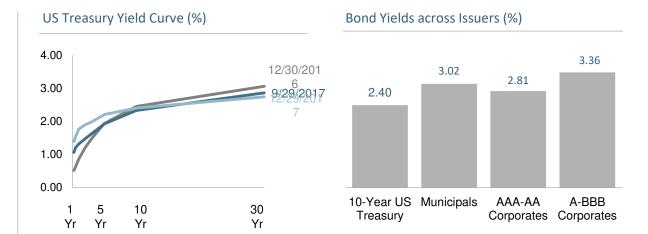




#### Fixed Income

#### 2017 Index Returns

- Interest rate changes across the US fixed income market were mixed during the fourth quarter. The yield on the 5-year Treasury note rose 28 basis points (bps), ending at 2.20%. The yield on the 10-year Treasury note increased 7 bps to 2.40%. The 30-year Treasury bond yield decreased 12 bps to finish at 2.74%.
- In terms of total returns, short-term corporate bonds declined 0.04% during the quarter but increased 1.85% for the year. Intermediateterm corporate bonds gained 0.17% for the quarter and 3.92% for the year.
- The total returns for short-term municipal bonds were -0.65% for the quarter and 1.61% for the year.
   Intermediate-term municipal bonds fell 0.09% for the quarter but gained 4.70% for the year. Revenue bonds outperformed general obligation bonds for the year.



Period Returns (%) \*Annualized

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Bloomberg Barclays Long US Government Bond Index	8.53	2.85	3.49	6.49
Bloomberg Barclays US Corporate High Yield Index	7.50	6.35	5.78	8.03
Bloomberg Barclays Municipal Bond Index	5.45	2.98	3.02	4.46
Bloomberg Barclays US Aggregate Bond Index	3.54	2.24	2.10	4.01
Bloomberg Barclays US TIPS Index	3.01	2.05	0.13	3.53
Citi World Government Bond Index 1-5 Years (hedged to USD)	1.13	1.21	1.23	2.13
ICE BofAML 3-Month US Treasury Bill Index	0.86	0.41	0.27	0.39
ICE BofAML 1-Year US Treasury Note Index	0.57	0.49	0.38	0.90

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. Sinquefield). Citi fixed income indices © 2018 by Citigroup. ICE BofAML index data © 2018 ICE Data Indices, LLC. The S&P data are provided by Standard & Poor's Index Services Group.

## **Impact of Diversification**



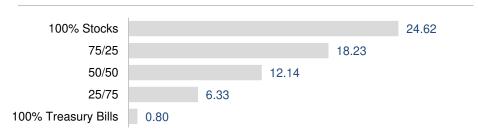
2017 Index Returns

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.

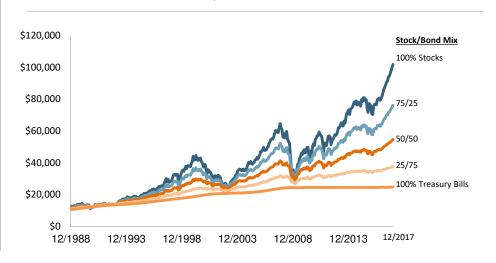
## Period Returns (%) \*Annualized

Asset Class	1 Year 3	3 Years*	5 Years*	10 Years*	10-Year STDEV <sup>1</sup>
100% Stocks	24.62	9.89	11.40	5.22	16.80
75/25	18.23	7.54	8.59	4.26	12.59
50/50	12.14	5.15	5.79	3.11	8.38
25/75	6.33	2.75	3.00	1.78	4.18
100% Treasury Bills	0.80	0.34	0.21	0.30	0.16

#### Ranked Returns for 2017 (%)



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



<sup>1.</sup> 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. Assat 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 2018, all rights reserved. Treasury bills © Stocks, Bonds, Bills, and Inflation Yearbook (b) by One-Month Treasury bills of the properties of