



# COMMENCEMENT FINANCIAL PLANNING LLC

Q4

Quarterly Market Review

Fourth Quarter 2015

# Quarterly Market Review

Fourth Quarter 2015

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 performance of globally diversified portfolios and features quarterly topics.

## Overview:

Market Summary

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Emerging Markets Stocks

Select Country Performance

Real Estate Investment Trusts (REITs)

Fixed Income







Global Diversification

Quarterly Topics: Where Have the Returns Gone?  
The Rise of Short-Term Rates

Vanguard®. *Bonds have never reached the depths of a bear market for stocks,*

# Market Summary

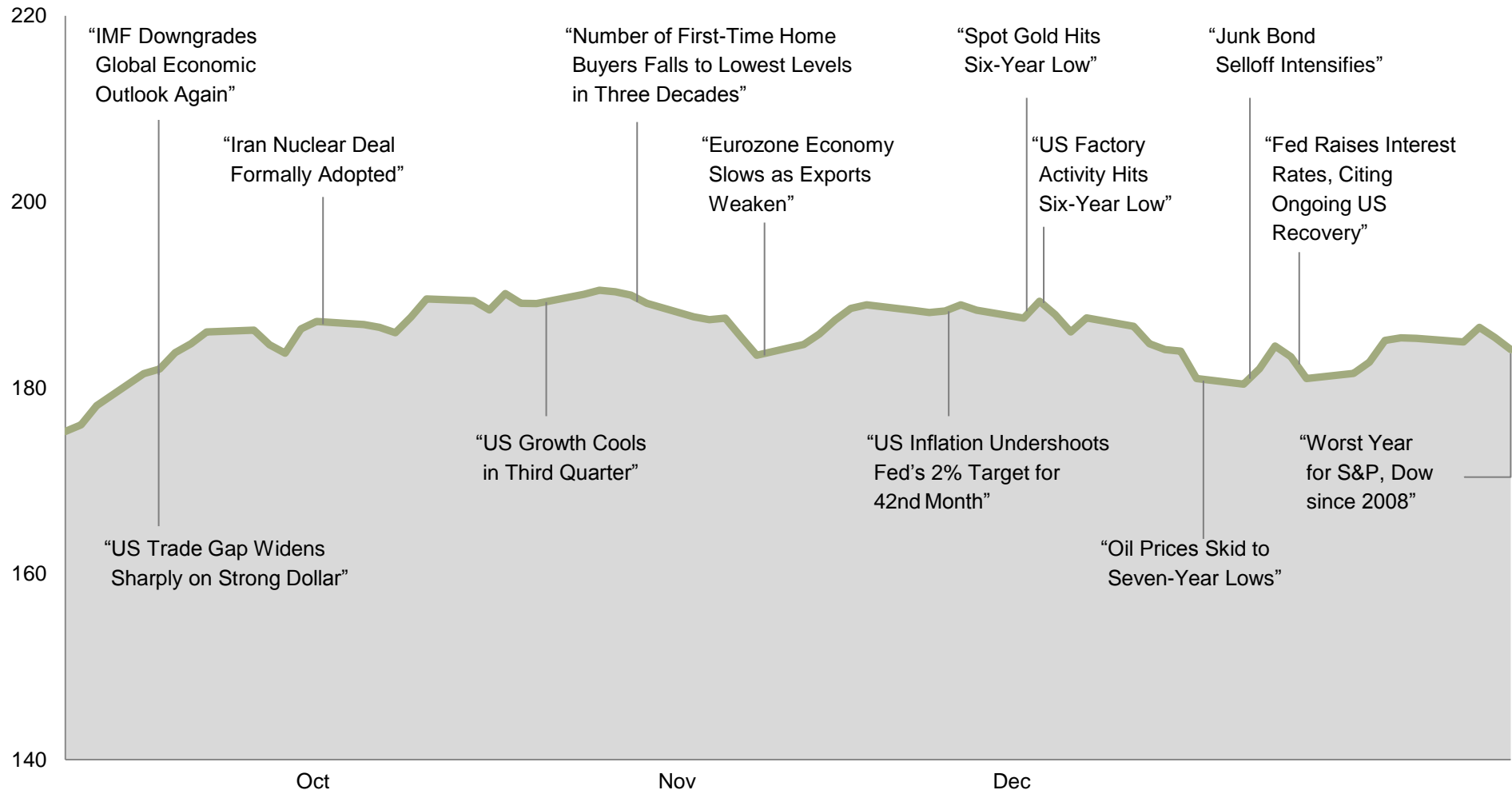
## Index Returns

	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate	US Bond Market	Global Bond Market ex US
<b>4Q 2015</b>	<b>STOCKS</b>				<b>BONDS</b>	
	<b>6.27%</b> 	<b>3.91%</b> 	<b>0.66%</b> 	<b>4.89%</b> 	<b>-0.57%</b> 	<b>0.58%</b> 
<b>Since Jan. 2001</b>						
Avg. Quarterly Return	1.7%	1.4%	2.9%	2.8%	1.2%	1.1%
Best Quarter	16.8% <b>Q2 2009</b>	25.9% <b>Q2 2009</b>	34.7% <b>Q2 2009</b>	32.3% <b>Q3 2009</b>	4.6% <b>Q3 2001</b>	5.5% <b>Q4 2008</b>
Worst Quarter	-22.8% <b>Q4 2008</b>	-21.2% <b>Q4 2008</b>	-27.6% <b>Q4 2008</b>	-36.1% <b>Q4 2008</b>	-2.4% <b>Q2 2004</b>	-3.2% <b>Q2 2015</b>

**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), US Bond Market (Barclays US Aggregate Bond Index), and Global Bond ex US Market (Citigroup WGBI ex USA 1-30 Years [Hedged to USD]). The S&P data are provided by Standard & Poor's Index Services Group. Russell data © Russell Investment Group 1995-2016, all rights reserved. MSCI data © MSCI 2016, all rights reserved. Barclays data provided by Barclays Bank PLC. Citigroup bond indices © 2016 by Citigroup.

# World Stock Market Performance

MSCI All Country World Index with selected headlines from Q4 2015



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. MSCI data © MSCI 2016, all rights reserved.

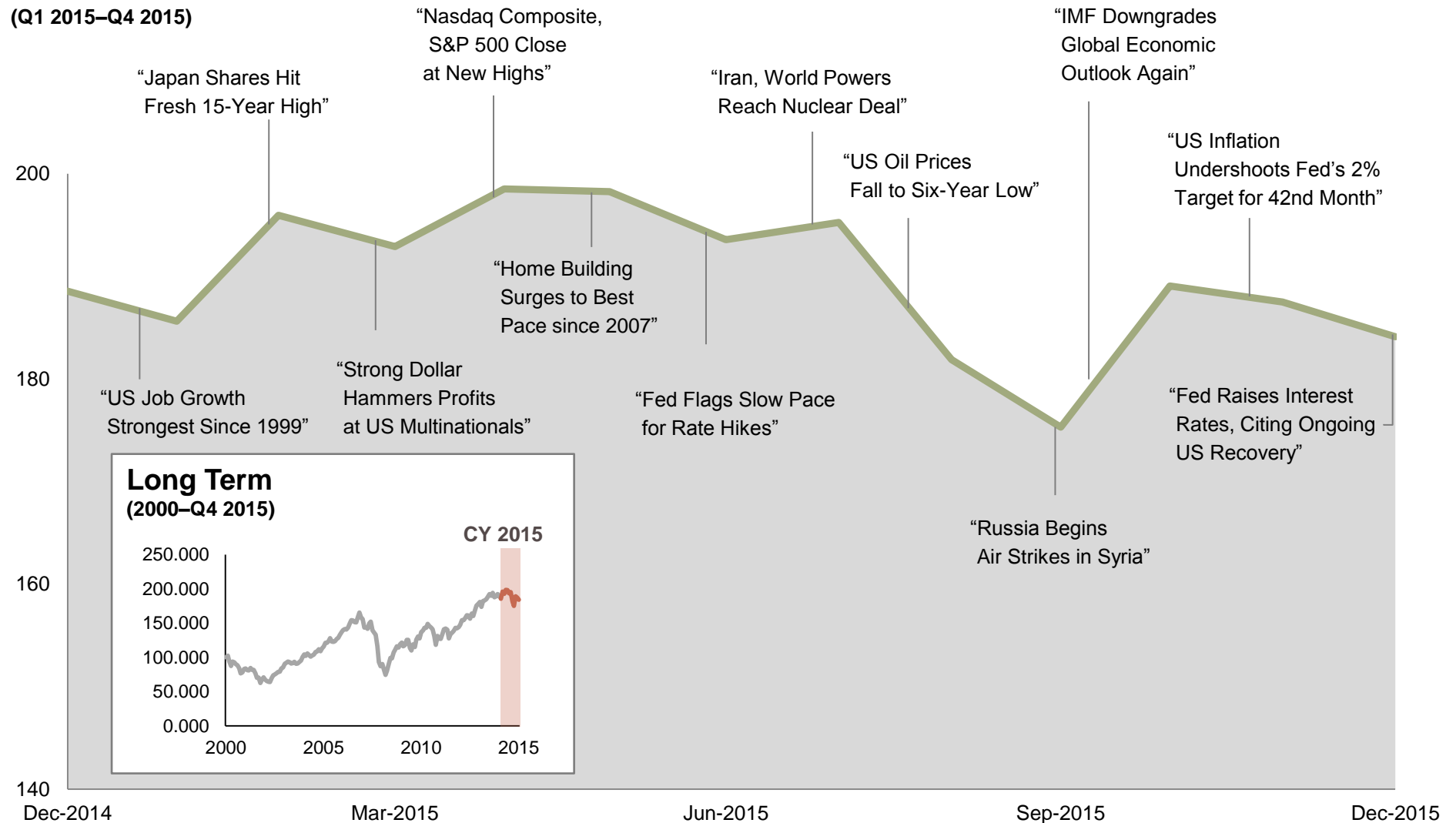
It is not possible to invest directly in an index. Performance does not reflect the expenses associated with management of an actual portfolio. Past performance is not a guarantee of future results.

# World Stock Market Performance

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

## Short Term

(Q1 2015–Q4 2015)



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. MSCI data © MSCI 2016, all rights reserved.

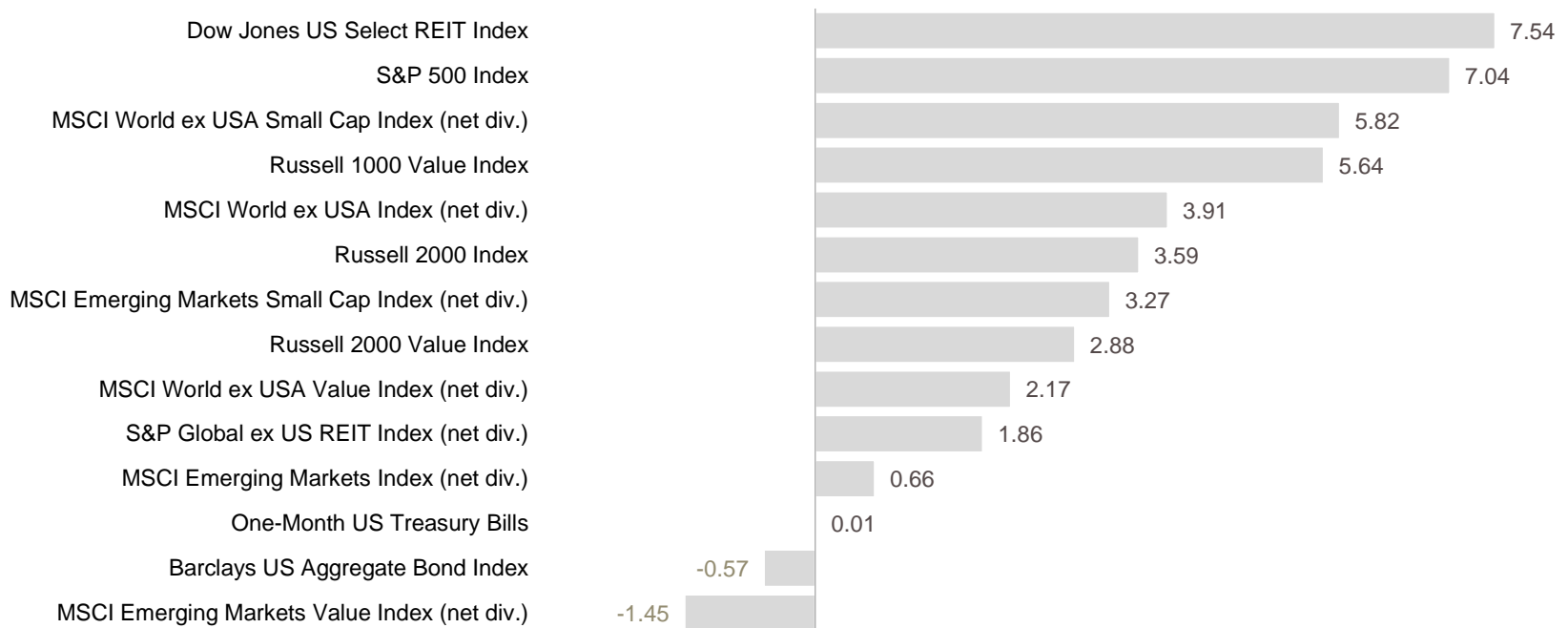
It is not possible to invest directly in an index. Performance does not reflect the expenses associated with management of an actual portfolio. **Past performance is not a guarantee of future results.**

# World Asset Classes

## Fourth Quarter 2015 Index Returns (%)

Looking at broad market indices, the US equity market again outperformed both developed ex US and emerging markets during the quarter. In a repeat from the third quarter, US REITs recorded the highest returns, outperforming equity markets.

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



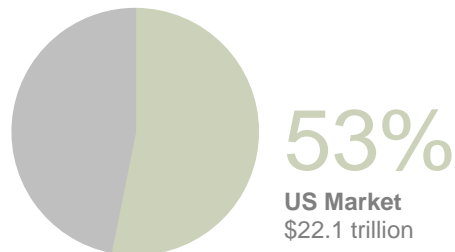
# US Stocks

## Fourth Quarter 2015 Index Returns

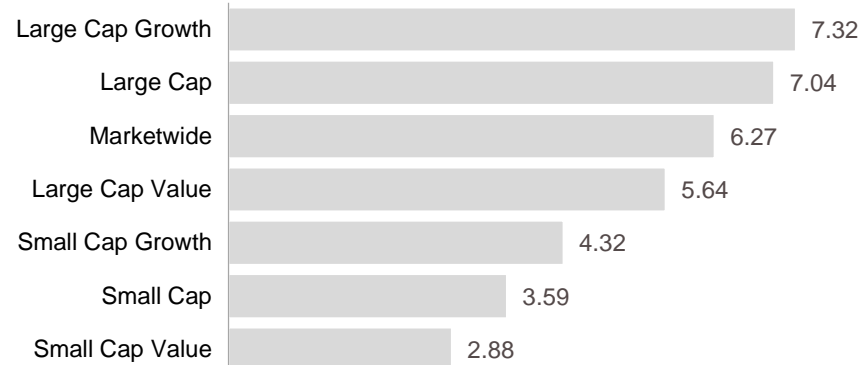
In a turnaround from the previous quarter, the US equity market recorded positive performance.

Small caps underperformed large caps, and value indices underperformed growth indices across all size ranges.

### World Market Capitalization—US



### Ranked Returns for the Quarter (%)



### Period Returns (%)

Asset Class	* Annualized			
	1 Year	3 Years*	5 Years*	10 Years*
Marketwide	0.48	14.74	12.18	7.35
Large Cap	1.38	15.13	12.57	7.31
Large Cap Value	-3.83	13.08	11.27	6.16
Large Cap Growth	5.67	16.83	13.53	8.53
Small Cap	-4.41	11.65	9.19	6.80
Small Cap Value	-7.47	9.06	7.67	5.57
Small Cap Growth	-1.38	14.28	10.67	7.95

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 (S&P 500 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. Russell data © Russell Investment Group 1995–2016, all rights reserved. The S&P data are provided by Standard & Poor's Index Services Group.

# International Developed Stocks

## Fourth Quarter 2015 Index Returns

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

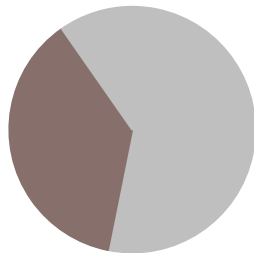
Small caps outperformed large caps in non-US developed markets.

Value indices underperformed growth indices across all size ranges in non-US developed markets.

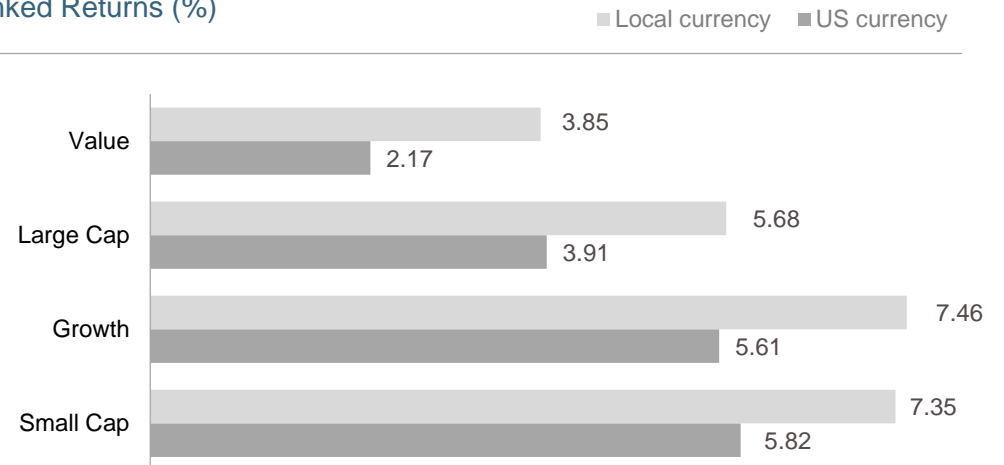
### World Market Capitalization—International Developed

# 37%

International  
Developed  
Market  
\$15.4 trillion



### Ranked Returns (%)



### Period Returns

Asset Class	* Annualized			
	1 Year	3 Years*	5 Years*	10 Years*
Large Cap	-3.04	3.93	2.79	2.92
Small Cap	5.46	7.82	4.39	4.09
Value	-7.68	1.99	1.90	1.95
Growth	1.65	5.83	3.62	3.81

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: Large Cap (MSCI World ex USA Index), Small Cap (MSCI World ex USA Small Cap Index), Value (MSCI World ex USA Value Index), and Growth (MSCI World ex USA Growth). All index returns are net of withholding tax on dividends. World Market Cap represented by Russell 3000 Index, MSCI World ex USA IMI Index, and MSCI Emerging Markets IMI Index. MSCI World ex USA IMI Index used as the proxy for the International Developed market. MSCI data © MSCI 2016, all rights reserved.



# Emerging Markets Stocks

## Fourth Quarter 2015 Index Returns

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

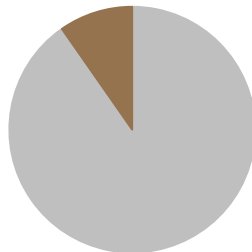
Small cap indices outperformed large cap indices in emerging markets.

Value indices underperformed growth indices in emerging markets across all size ranges.

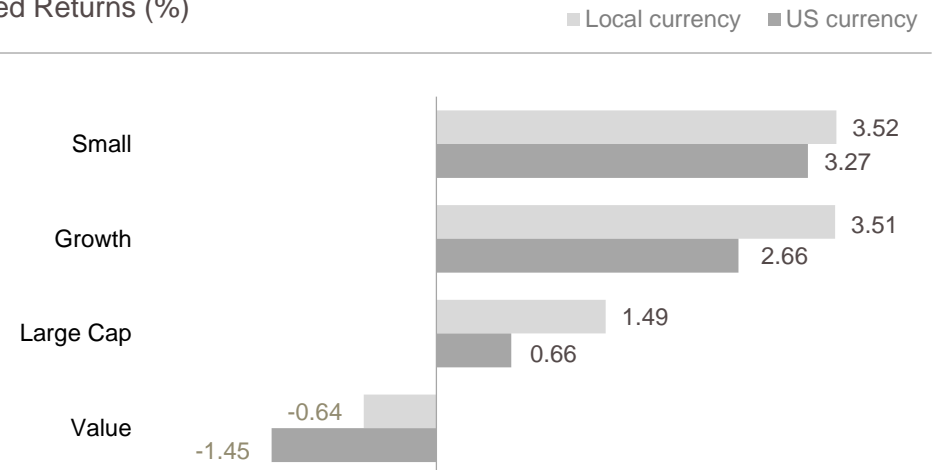
### World Market Capitalization—Emerging Markets

# 10%

**Emerging Markets**  
\$4.0 trillion



### Ranked Returns (%)



### Period Returns (%)

Asset Class	* Annualized			
	1 Year	3 Years*	5 Years*	10 Years*
Large Cap	-14.92	-6.76	-4.81	3.61
Small Cap	-6.85	-1.67	-3.29	6.11
Value	-18.57	-9.50	-6.74	3.39
Growth	-11.34	-4.10	-2.94	3.76

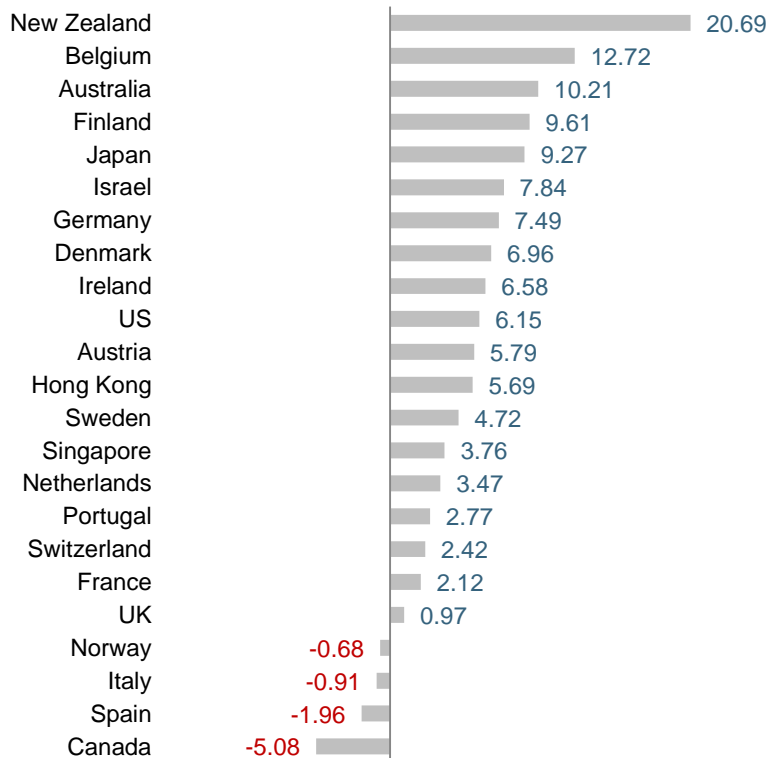
Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: Large Cap (MSCI Emerging Markets Index), Small 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 2016, all rights reserved.

# Select Country Performance

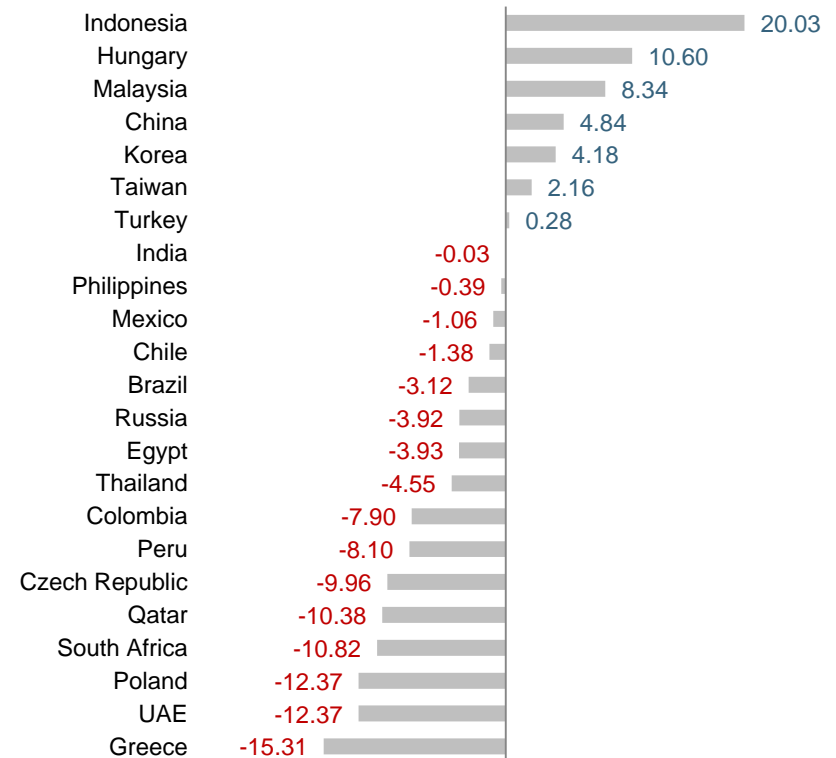
## Fourth Quarter 2015 Index Returns

In US dollar terms, there was wide dispersion in country returns across both developed and emerging markets countries. New Zealand recorded the highest country performance in developed markets, while Spain and Canada returned the lowest performance for the quarter. In emerging markets, Indonesia and Hungary posted the highest country returns, while Poland and Greece posted the lowest. China, which had previously dominated news headlines, recorded one of the highest returns in emerging markets.

### Ranked Developed Markets Returns (%)



### Ranked Emerging Markets Returns (%)

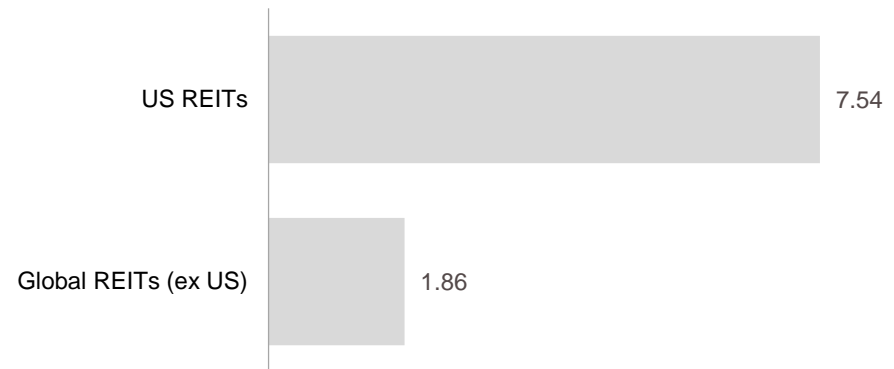


# Real Estate Investment Trusts (REITs)

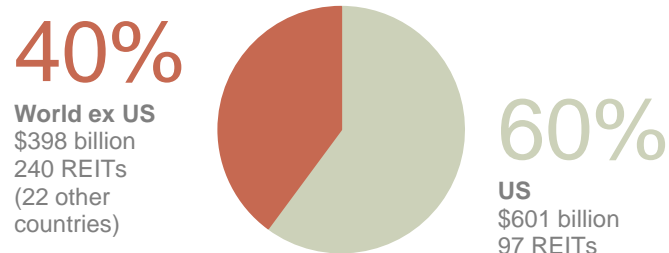
## Fourth Quarter 2015 Index Returns

US REITs were one of the best-performing asset classes during the quarter, outperforming equities. But REITs outside the US underperformed non-US broad equity market indices.

### Ranked Returns (%)



### Total Value of REIT Stocks



### Period Returns (%)

Asset Class	* Annualized			
	1 Year	3 Years*	5 Years*	10 Years*
US REITs	4.48	11.76	12.32	7.20
Global REITs (ex US)	-3.54	3.08	5.72	3.32

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 © 2016.

# Fixed Income

## Fourth Quarter 2015 Index Returns

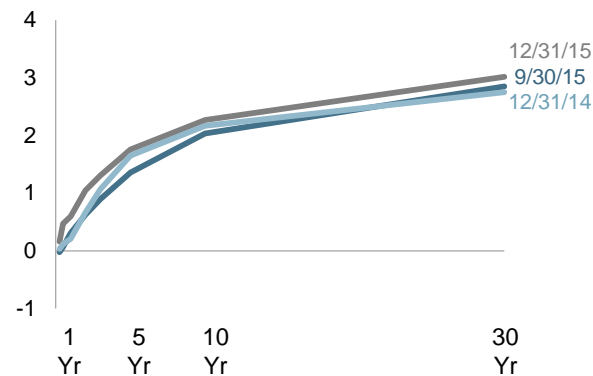
Interest rates across the US fixed income markets increased in the fourth quarter. The yield on the 5-year Treasury note gained 39 basis points to end the quarter at 1.77%. The yield on the 10-year Treasury note increased 22 bps to 2.27%. The 30-year Treasury bond added 14 bps points to finish with a yield of 3.01%.

The short end of the yield curve experienced the largest increase in yields during 2015.

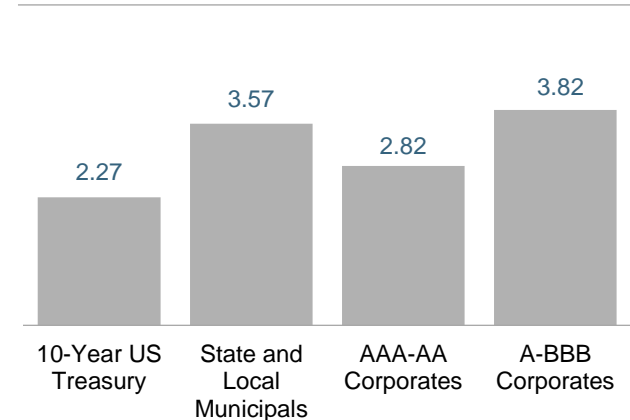
Short-term corporate bonds declined 0.14% during the quarter but gained 1.01% for the year. Intermediate-term corporates fell by 0.42% during the quarter but climbed 1.08% in 2015.<sup>1</sup>

Short-term municipal bonds returned 0.08% for the quarter and 1.21% for the year. Intermediate-term municipal bonds returned 1.26% for the quarter and 3.28% for the year.<sup>2</sup>

US Treasury Yield Curve (%)



Bond Yields across Issuers (%)



Period Returns (%)

Asset Class	* Annualized			
	1 Year	3 Years*	5 Years*	10 Years*
BofA Merrill Lynch Three-Month US Treasury Bill Index	0.05	0.05	0.07	1.24
BofA Merrill Lynch 1-Year US Treasury Note Index	0.15	0.20	0.28	1.78
Citigroup WGBI 1-5 Years (hedged to USD)	1.00	1.17	1.58	2.90
Barclays Long US Government Bond Index	-1.16	2.55	7.65	6.67
Barclays US Aggregate Bond Index	0.55	1.44	3.25	4.51
Barclays US Corporate High Yield Index	-4.47	1.69	5.04	6.96
Barclays Municipal Bond Index	3.30	3.16	5.35	4.72
Barclays US TIPS Index	-1.44	-2.27	2.55	3.94

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1. Barclays Short and Intermediate US Corporate Bond Indices. 2. Barclays Short and Intermediate Municipal Bond Indices. Yield curve data from Federal Reserve. State and local bonds are from the Bond Buyer Index, general obligation, 20 years to maturity, mixed quality. 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. Barclays data provided by Barclays Bank PLC. US long-term bonds, bills, inflation, and fixed income factor data © Stocks, Bonds, Bills, and Inflation (SBI) Yearbook™, Ibbotson Associates, Chicago (annually updated work by Roger G. Ibbotson and Rex A. Sinquefeld). Citigroup bond indices © 2016 by Citigroup. The BofA Merrill Lynch Indices are used with permission; © 2016 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.

# Global Diversification

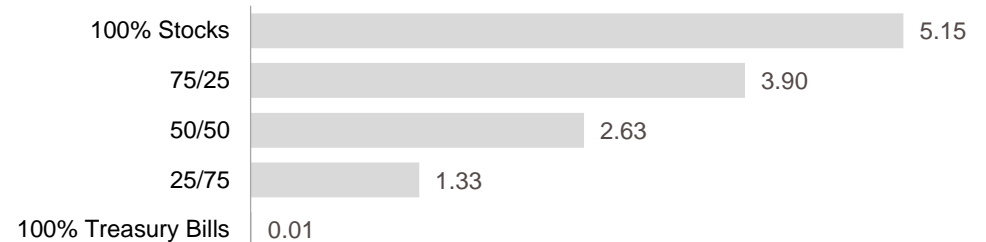
## Fourth Quarter 2015 Index Returns

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.

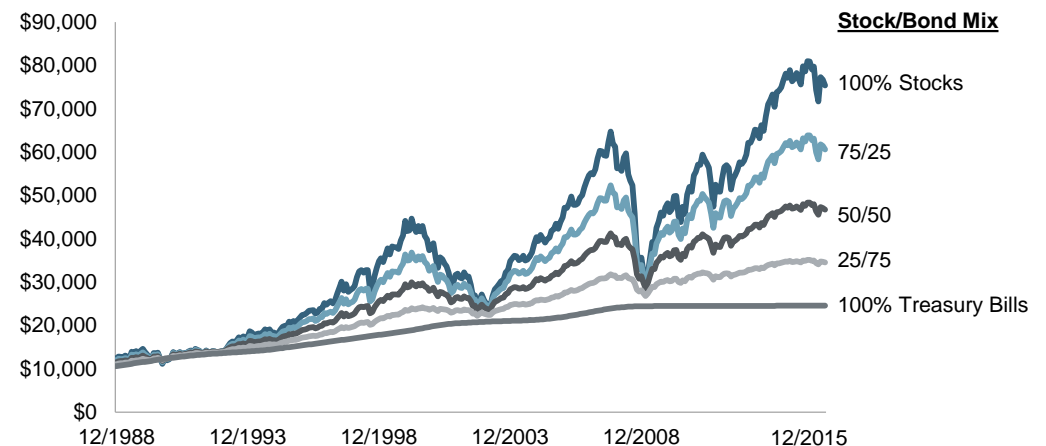
Asset Class	Period Returns (%)			
	1 Year	3 Years*	5 Years*	10 Years*
100% Stocks	-1.84	8.26	6.66	5.31
75/25	-1.22	6.25	5.13	4.54
50/50	-0.70	4.21	3.51	3.58
25/75	-0.29	2.13	1.81	2.44
100% Treasury Bills	0.02	0.02	0.03	1.13

\* Annualized

### Ranked Returns (%)



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



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 2016, 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).

# Where Have the Returns Gone?

Fourth Quarter 2015

After 6 years of increasing stock valuations, 2015 ended rather flat. Many are asking whether this is normal. Well, yes it's very normal and could be worse. Just don't make it worse than it needs to be.

According to [this](#) study, the annualized US stock market return from 1926 through the end of 2014 was 10.24%. Keep in mind this wasn't the return that investors received each year, but was the annualized return over the entire period. In fact, the same study found that annual US stock market returns fell within the return range of 9.24%-11.24% only 6 out of 89 years! There is no evidence to suggest that future returns won't be equally volatile.

If that volatility isn't to your liking, then you should dampen it with bonds. Page 2 of the [same study](#) found the US bond market had an annualized return of 5.45% from 1926-2014; and actual annual returns fell within the return range of 4.45%-6.45% a more generous 27 out of 89 years. Thus, bonds were much less volatile than the stock market, but the long-term return was also much less.

This information is very important to remember for two reasons:

1. The risk/return relationship cannot be divorced. That is, one cannot have higher returns without taking on more risk and one cannot reduce risk without reducing expected returns.
2. At any given level of risk there is going to be at least some volatility. As an investor you must come to expect this. As JP Morgan said when asked what the stock market will do, "It will fluctuate". The key is to understand how much return you should give up for less volatility.

It would be a mistake to believe that bonds don't ever lose money. The last two pages (another Vanguard study) of this newsletter show that while the US stock market has had negative returns 25.8% of rolling 12-month periods during 1926-2014, while bond markets suffered losses 15.6% of the time! Even so, the worst losses in the bond market have paled in comparison to those suffered in stock markets.

As an investor, these historical facts are important to remember.

**Do not let short-term market fluctuations drive your long-term investment strategy.** Instead, remember that fluctuations (up and down) are to be expected. Develop your investment program based on the volatility you can handle emotionally and the return you need mathematically.

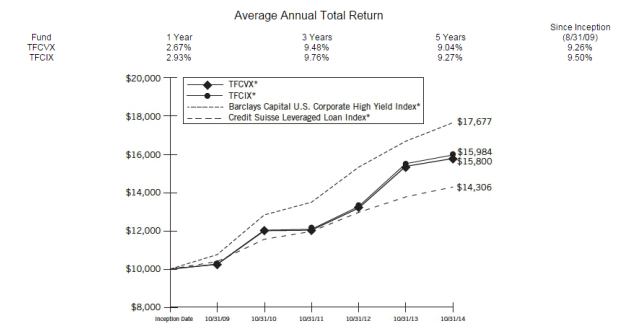
Many investors seem to forget about the irrevocable risk/return relationship. Take the Third Avenue Focused Credit Fund, for instance. Take some time to read the "glowing" reports linked below.

- Zacks; August 2014: [3 High-Yield Bond Funds to Buy Now](#)
- U.S. News; 2015: ["Best Mutual Funds"](#) (note that US News has now taking their ranking down, so I've linked an internet archive page. Shame on you US News!)
- Distressed Debt Investing; December 2009: [Third Avenue Focused Credit Fund](#)

If after reading the linked reports you're compelled to consider investing you're not alone. [In July 2014 the fund's assets reached \\$3.5 billion!](#) A lot of investors seem to have forgot about the risk of lending to unworthy borrowers even though the Great Recession should have provided an adequate "education" for a lifetime.

[Third Avenue Management](#) is a well-regarded active manager that launched the Focused Credit Fund on August 31, 2009. The chart below was taken from the Fund's Oct. 31, 2014 Annual Report as filed with the SEC and shows growth since inception (darker solid lines).

COMPARISON OF CHANGE IN VALUE OF A \$10,000 INVESTMENT IN **THIRD AVENUE FOCUSED CREDIT FUND—INVESTOR CLASS (TFVCX)**, **THIRD AVENUE FOCUSED CREDIT FUND—INSTITUTIONAL CLASS (TFCDX)**, THE BARCLAYS CAPITAL U.S. CORPORATE HIGH YIELD INDEX AND THE CREDIT SUISSE LEVERAGED LOAN INDEX FROM INCEPTION OF THE FUND (8/31/09) THROUGH OCTOBER 31, 2014



There's no doubt that the performance was very good over the period, but a well-informed investor would know there might be lurking risk (which is always the case!). This investor would also know that the two dimensions of returns for bonds are paramount; which are:

1. Credit Quality
2. Duration

According to Morningstar, the duration of the Focused Credit Fund was 3.11 years, which is perfectly acceptable. The credit quality was an entirely different matter, however, with 58.77% of the bonds being "junk" and 41.23% of them not rated at all! The problem with using such a fund to offset stock volatility is that "junk bonds" are necessarily issued by less than credit-worthy

# Where Have the Returns Gone?

Fourth Quarter 2015

borrowers. We would learn that this fund holds a high proportion of “junk bonds” simply by looking at the fund’s SEC Yield, which was last reported as 11.83% by Morningstar. Treasuries of a similar duration were yielding about 1% during the same time period. This necessarily means that the fund was much more risky than Treasuries.

I encourage people to think about yield in terms of how they themselves borrow. That is, we all try to get the lowest interest rate possible on our loans. It’s no different when it comes to corporate borrowing. Corporations seek to get the best loan terms possible, but some have shaky credit so they’re forced to pay high borrowing rates. Again, the risk/return relationship cannot be divorced.

So, what happens when segments of the economy become weak? Generally, both the stock and junk bond prices for companies that exist within those weakening segments go down together. This is because not only are the companies doing worse, but defaults among those with shaky credit tend to increase. This is opposite of what you’d want from your bond allocation!! Bonds are meant to dampen the volatility brought by stocks. If you seek a higher return, you should accomplish that through a greater allocation to stocks, not by adding junk bonds to your portfolio!

The following chart shows what happened to the Third Avenue Focused Credit Fund (‘blue line’) [on the day it was closed](#). In comparison, the ‘orange line’, which represents the Barclays US Aggregate Bond Fund (intermediate term Treasury, Mortgage, & Investment Grade Corp bonds), the Third Avenue Fund was doing VERY well until it wasn’t, then things got very

bad very quickly. The Third Avenue Fund has now obtained “exemptive relief” from the SEC in order to allow it to unwind the fund over the next year or so. What its investors will eventually receive is anyone’s guess.



## Takeaways:

1. The Risk/Return relationship cannot be divorced.
2. Stocks have a higher expected long-term return than bonds. This is because the risk is higher in stocks than bonds. Historically, US stocks have lost value 25.8% of rolling 12-month periods during 1926-2014. If stocks did not have a higher expected return than bonds, people would not invest in them. Instead, they would choose to invest in safer bonds.
3. Though bonds have lost value 15.6% of rolling 12-month periods during 1926-2014, these losses were much less than those experienced by US stocks over the same period.
4. It’s possible to turn one’s bond position into one that resembles stocks, but don’t be lured into doing so. Focus instead on high quality bonds that are of short to intermediate duration. Remember that the main role of bonds is to cushion the volatility brought by stocks. Yield is a consideration when determining risk. That is, the further the yield is from Treasuries of a similar duration,

the more risky a bond is. DON’T REACH FOR YIELD. Doing so is much like picking up nickels on the New Jersey Turnpike. Seems like easy money until you get run over by a truck!

5. Stocks and bonds sometimes lose value, but over longer periods of time investors have been rewarded for their patience.
6. Position your portfolio according to your risk tolerance and time horizon. This means having an appropriate target mix of stocks and bonds; and then gaining exposure in such a way as to maximize anticipated after tax returns.
7. An individual’s bond position should be short to intermediate term high quality bonds. (Have I said this enough?!?)
8. When investing in stocks, one should start with the global allocation, and then determine how they want their portfolio to differ from that allocation. Most investors around the world first tilt into their “home country”. In other words, they own a greater percentage of companies in their own country than they are actually weighted around the globe. Further tilts can be made into areas that have been shown over time and across markets to provide superior returns. An example would be to tilt into Smaller Value Companies. Just know that once a portfolio is tilted away from the global allocation, it will perform differently than the global portfolio; and just because an asset class has a higher expected long-term return does not mean it will have a higher return over shorter periods.



# The Rise of Short-Term Rates

Fourth Quarter 2015

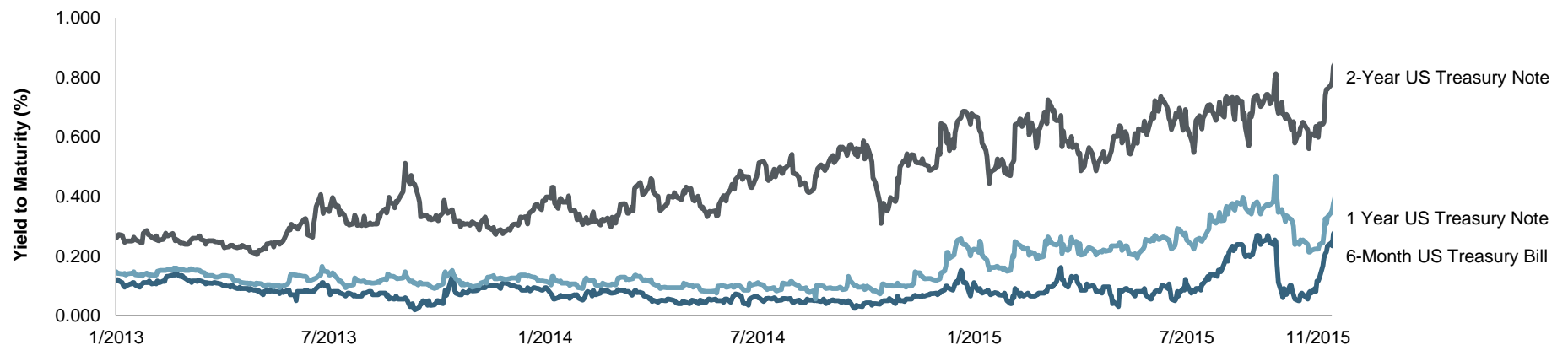
While many market participants were waiting for the “inevitable” rise in short-term interest rates expected when the Federal Reserve tightened its monetary policy, some investors may have missed the increase in short-term rates already underway as a result of market forces.

Looking at the zero- to two-year segment of the yield curve—the segment that many believe will be most affected whenever the Fed “normalizes interest rates”—it may be surprising to see how much rates have increased since 2013.

In fact, the yield on the 2-Year US Treasury note has nearly doubled since the beginning of 2015, rising from 0.45% in January to almost 0.90% in late November.<sup>1</sup> The yield on the 1-Year US Treasury note more than tripled, from 0.15% to more than 0.50% over the same period. The 6-Month US Treasury bill’s yield rose from a low of 0.03% in May to over 0.30% in late November. Yet, despite the higher rates, we have not experienced the conjectured financial storm in the fixed income market.

The question of how far the Fed will go in raising its overnight target rate is still open. Similarly, we can ask ourselves a more complex question: Will the market lead the Fed or is the Fed leading the market through setting expectations?

US Treasury Yields, January 2013 to November 2015



Past performance is no guarantee of future results. Source: Barclays Bank PLC.

1. As of November 18, 2015. Source: Barclays Bank PLC.

Adapted from “The Rise of Short-Term Rates,” Issue Brief, November 2015. Dimensional Fund Advisors LP is an investment advisor registered with the Securities and Exchange Commission.

Fixed income securities are subject to increased loss of principal during periods of rising interest rates and may be subject to various other risks, including changes in credit quality, liquidity, prepayments, and other factors. Sector-specific investments can increase these risks.

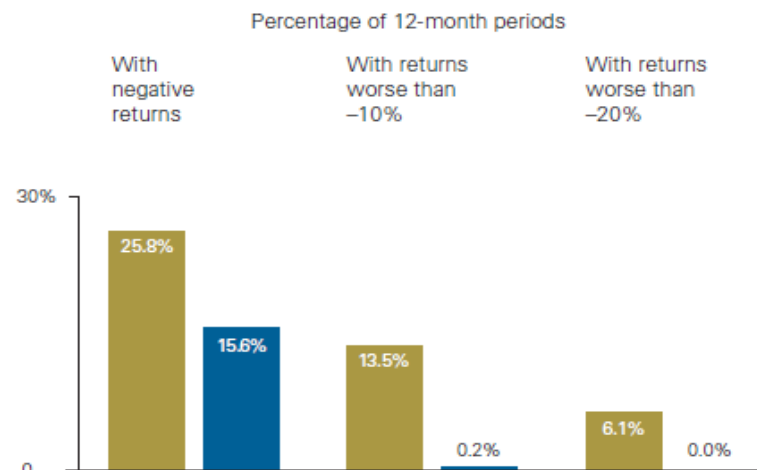
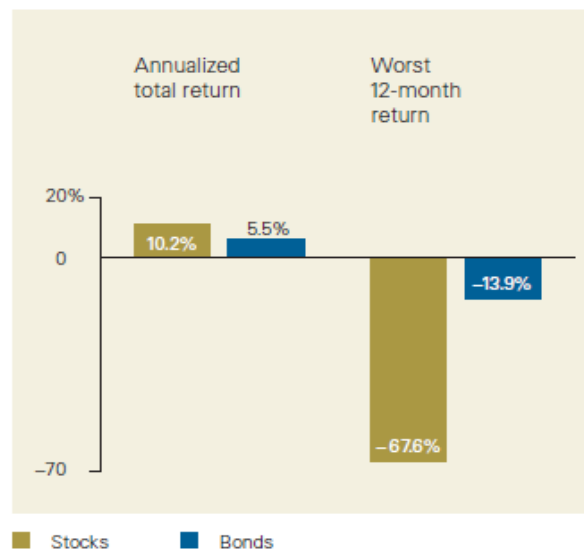
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FIXED INCOME SERIES

# Bonds have never reached the depths of a bear market for stocks

## U.S. financial markets, 1926–2014

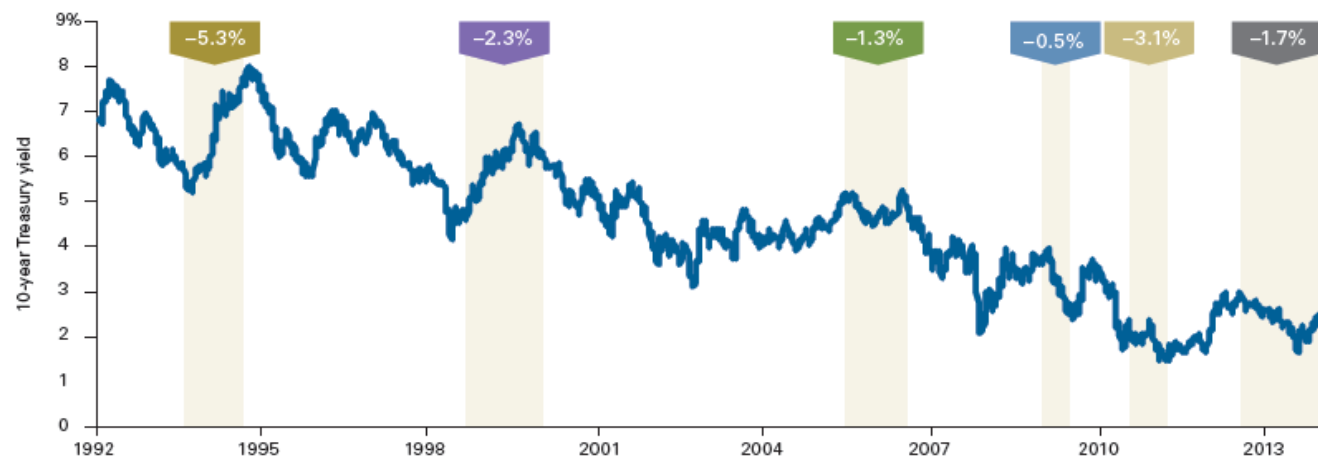


- Vanguard believes that investment-grade bonds may provide total annualized returns of 2% to 3% over the next decade.
- With current low yields, bonds have a higher chance of posting negative return over the short run, stemming from falling prices if interest rates spike.
- But, historically, the worst 12-month return for bonds has not come close to what would qualify as a bear market for stocks.
- When rates rise, bond mutual fund and ETF returns can benefit from higher income.
- When bonds have declined in the past, the equity portion of a balanced portfolio often more than offset the decline. (See table on reverse.)
- When stocks decline, investment-grade bonds remain among the best diversifiers.

*Past performance is no guarantee of future results. The performance of an index is not representative of any particular investment, as you cannot invest directly in an index.* The following indexes were used for U.S. stock market returns: S&P 90 Index, 1926 through March 3, 1957; S&P 500 Index, March 4, 1957, through 1974; Dow Jones Wilshire 5000 Index, 1975 through April 22, 2005; MSCI US Broad Market Index, April 23, 2005, through April 30, 2011; and CRSP US Total Market Index thereafter. For U.S. bond market returns: S&P High Grade Corporate Index, 1926 through 1968; Citigroup High Grade Index, 1969 through 1972; Lehman Brothers U.S. Long Credit AA Index, 1973 through 1975; Barclays U.S. Aggregate Bond Index, 1976 through 2009; and Barclays U.S. Aggregate Float Adjusted Index thereafter.

Source: Vanguard calculations using data from S&P, MSCI, CRSP, Citigroup, and Barclays, as of December 31, 2014.

## 10-year U.S. Treasury yields, 1992–2015



Bond market returns

Date range	Yield at start	Yield at end	Rate increase in percentage points	Cumulative return of Barclays U.S. Aggregate Bond Index	Cumulative return of S&P 500 Index	Cumulative return of 60% stock, 40% bond portfolio
10/15/1993 – 11/07/1994	5.19%	8.02%	2.83	-5.3%	1.6%	-1.2%
10/05/1998 – 01/21/2000	4.15%	6.78%	2.63	-2.3%	48.2%	28.0%
06/02/2005 – 06/26/2006	3.89%	5.24%	1.35	-1.3%	5.9%	3.0%
12/30/2008 – 06/10/2009	2.09%	3.94%	1.85	-0.5%	6.8%	3.9%
10/08/2010 – 02/10/2011	2.38%	3.71%	1.33	-3.1%	14.2%	7.3%
07/24/2012 – 12/31/2013	1.40%	3.03%	1.63	-1.7%	37.1%	21.6%

Yields for the 10-year U.S. Treasury note are from January 1, 1992, through June 30, 2015. Total cumulative returns for the broad U.S. bond market are represented by the returns of Barclays U.S. Aggregate Bond Index; the S&P 500 Index was used to represent the returns of the broad U.S. stock market. For more information about this topic, see the Vanguard paper *Reducing bonds? Proceed with caution* (Kinniry, Scott, 2013).

Source: Vanguard calculations using data from Bloomberg and Barclays.

**For more information about Vanguard funds and ETFs, please contact your financial advisor to obtain a prospectus. Investment objectives, risks, charges, expenses, and other important information about a fund are contained in the prospectus; read and consider it carefully before investing.**

All investing is subject to risk, including possible loss of principal.

Bond funds are subject to interest rate risk, which is the chance bond prices overall will decline because of rising interest rates, and credit risk, which is the chance a bond issuer will fail to pay interest and principal in a timely manner or that negative perceptions of the issuer's ability to make such payments will cause the price of that bond to decline.

Diversification does not ensure a profit or protect against a loss.



Vanguard Financial  
Advisor Services™

P.O. Box 2900  
Valley Forge, PA 19482-2900

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