TIMONIER

Wealth Beyond Financial™

From the Engine Room

2016 Annual Market Review & Letter

2016 Annual Market Review

This report features Timonier's quarterly client letter, a timeline of events for this past year, and charts of world capital market performance. 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 year end article.

"The best way to predict the future... is to create it!"

Overview:

Questioning Decades of Accepted Methods & Truths

"Where then do I look for good and evil? Not to uncontrollable externals, but within myself to the choices that are my own."
~ Seneca, Roman philosopher

The storied events of 2016 should be all that is needed to bring light to an unhealthy pattern of choices in our culture. However, these events should pave the way for a new template…a new pattern of living a discerning life. Capitalism, democracy, health systems, religions, family structures, nationalism, and the eco systems of our planet all seem to be in severe dissonance. And the media thrives on its display! But will we recognize the Dis…Ease and more importantly, do we have the will to change our own habits? Has there been enough pain to make better choices? We have an opportunity to reinvent, to redefine ourselves…NOW!

We have within our cultural DNA a 200-year old structure of obtaining financial services which needs a major overhaul. As a consumer of these products and services we need to become the hunter rather than the hunted. And, I feel your frustration. Being also a consumer *and* in the field of wealth management, you can only imagine the array of service offerings I must filter. There isn't a new investment opportunity, an insurance product, a sales pitch, a financial strategy that I haven't seen in its archetypal form a hundred times over in my 35-year plus career. I don't have more intellectual capacity than you to evaluate these potential opportunities, I just have more experience in evaluating their worthiness with a staff of professionals at my side. And *we have made it our life mission to look after your interests.*

The institutional structures aren't broken, the morality of those providing these services are. The behavior has reached a point of crescendo that we should not be tolerant of. Any organization that lacks a spiritual foundation puts at risk the public it wishes to serve. A perspective of separateness and scarcity dominates the actions of the leaders of these companies and the representatives within them. You need not be a victim here. For you are a product of your choices and you have free will.

Today you don't know whether a Wall Street brokerage house (many are owned by the banks now) forecast is providing a genuine guidance for the months ahead or whether it is an effort to have their constituents moving their money from one account to the next to boost their corporate earnings. This past January saw the Royal Bank of Scotland call for a SELL EVERYTHING investment alarm with a prediction for an impending world recession. Some of you remember this. Because you are the ones that forwarded these emails to me. Citi Bank and Wells Fargo followed suit with their own dire predictions of an impending stock market crash. Wells Fargo added a twist however, when another financial division within this bank/investment/mortgage company alternatively predicted that the US economy was on the right track for steady growth. Just which god head do you pay homage to? After a normal market decline, levels recovered, even before the first quarter ended. Looking back, it was obvious to me what these institutions were doing…and in my field it is called churning. Its short term impact is to create revenue. This is revealed in part, with the Royal Bank of Scotland announcing at the end of last year's first quarter, that it had just completed seven straight years of losses! Even the churning couldn't dig them from the red on their earnings report. I hear, read, and see these tactics on a daily basis.

If they aren't trying to penetrate your amygdala or unlock the dopamine in your system with their sales stories, they are now literally stealing from your accounts. If you don't know about the Wells Fargo scandal you should volunteer as a jury member. They were caught opening over 2.1 million unauthorized deposit and credit card accounts for banking customers in an effort by employees to meet sales quotas.

"The greatest individuals in history were unwaveringly committed to a future destiny without any need for immediate feedback from the environment. Their minds were ahead of their present environment, because their environment no longer controlled their thinking. Truly, they were ahead of their time!"

Dr. Joe Dispenza, Neuroscientist-Author-Teacher

As of December, more criminal acts were being revealed and Wells Fargo has admitted that sales reps had opened thousands of bogus bank accounts without the permission of customers to fund the purchase of insurance contracts from Prudential Financial. The *conflicts of interest* created from commission structures and productivity pressure from corporate management, are just too insurmountable for those financial representatives without strong ethical principles and a moral compass to overcome.

The financial trade industry's magazine articles are inundated with lawsuit after lawsuit over the basic issue of ***conflicts of interest***. The contingency fee world of law is thriving. A consumer of financial information has no idea if what she/he is hearing has economic merit or is a pitch belied into earning commissions. The next time your friend, your colleague, or family member chats about their newly acquired Hedge Fund, or annuity, or life insurance policy, or 529 college savings plan, etc., ask them how much they paid in commissions and carried interest! They won't know. And there in…lies the problem.

Prudential Insurance Company of America, Metropolitan Life, New York Life, Equitable Life, Mass Mutual Life Insurance Company, and others lost law suits in the tens of millions of dollars over aggressive sales practices of their agents promoting the retirement savings attributes of life insurance policies without also disclosing the commission costs and contract charges of those policies. I thought the industry had purged itself of these deceptive practices until I saw policy after policy being brought in to our office having been purchased under these same sales practices. Annual premiums as high a $75,000 were being made to life insurance policies. The buyer had no idea that as soon as the ink dried on the contract that the agent just made $75,000! Was that a good way to save for retirement? Was there perhaps conflicts of interest in this hidden cost transaction? I tried to make calls to the NC State Insurance commissioner and couldn't get a live body on the phone and have never received a reply to any of my emails of inquiry concerning these practices.

Folks, it hasn't always been so…but in today's environment there are "no commission" insurance companies with fully disclosed costs. There are transparent fee only investment advisory firms. There are no points…no origination fee mortgages. There are fee list realtors. ***As you will read below there are now flat fee accounting services.*** There are software's to help you see if your accounts at any institution has suspect activity. There are family offices and multi-family offices that function as fiduciaries for the families that employ them who coordinate all of these services…and more. There are organizations that have leaders, coaches, and employees with a moral compass and will place their clients' interest ahead of their own. *IF* there are items of conflict…they will disclose them in writing! This IS the way! It's not the only way…but you have a choice.

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Now, I return to my recall of market and event predictions of 2016 (as I look at page one I had only described the January institutional forecasts of an impending stock crash of sorts that didn't materialize)…

Then came Brexit. The London bookies didn't even see the voting outcome of this one just hours before the tally. The global stock markets fell roughly 6.5% on the fears of this social breakup, but we all know how bad news one day turns into "Thank god that happened!" once emotions calm down. Yes, there was a sale taking place for the world's best publicly traded businesses but it only lasted 72 hours.

"Change requires coherence—align your thoughts and feelings!"
Dr. Deepak Chopra, Author-Teacher

Finally, at 2 a.m. on election night I turned in. The news outlets were not going to officially announce who had won the Presidential election though it was clear who had. With yet another wrongly forecasted result, the S&P 500 stock market futures dropped almost 4.5%! But by the opening bell of Wall Street, emotions were springing back in balance and the markets closed on a positive note by days' end.

There is not a month that goes by that someone doesn't ask me if it is time to get out of the stock market whether it is based on a perceived valuation, an impending election, a comment from a respected or unsubstantiated source, or a forecast from their favorite news channel. The forecasters and prognosticators and the bookies were three for three in their major predictions in 2016. But they were on the wrong side of right. It was a very good year for the patient and centered investor who chose to respond to the environment and not react. In spite of leaders at the head of institutions trying to manipulate investor behavior, in spite of investor concerns over major social and political events, in spite of sales representatives fight for commissions in their world of scarcity…the global markets responded to the underlying economic actions of world commerce…**INCREASED EARNINGS**! At Timonier, our 100% globally stock allocated portfolios benefitted from our long-term strategic buy-hold-rebalance strategy with double digit returns for the year. Returns of our portfolios with allocations to bonds, were slightly muted in results, due to the bond markets low but positive results.

According to economist Tim Duy, "As long as people have babies, capital depreciates, technology evolves, and tastes and preferences change, there is a powerful underlying impetus for growth that is almost certain to reveal itself in any reasonably well-managed economy." Numerous studies have shown that those who trade the most earn the lowest returns. Remember Pascal's wisdom: "All man's miseries derive from not being able to sit in a quiet room alone." Overtrading is indeed a big killer of returns. The traders are the winners. As finance researchers Brad Barber and Terry Odean show in a landmark 2000 paper, "trading is hazardous to your wealth." Yet an investor's instinctive reaction to every market correction or downturn is to change something and almost always to sell something. As my colleague Nick Murray would say, "No panic no sell. No sell no lose!"

The gross domestic product of the US economy grew by 3% in the last reporting quarter before year end. Profits of companies in the US market grew by 6.6%. To a buyer of the 10-year US treasury bond she/he will receive a yield of 2.5% if held to maturity and will pay ordinary income taxes on its payments unless it is held in an IRA or other qualified retirement account. The US stock market as measured by the S&P 500 increased in value including dividends by 11.96%. This was after a year that it was up 1.38%! So, although the stock market is priced at near an all-time high, I wouldn't call this a pricey market. By most models of valuing this barometer of business valuation…it is only fairly valued. You must realize that over time, the market will always reach new highs. It has NO CEILING of VALUATION. This index had a price of 42.25 on the day of my birth and it closed the year end at 2,239. And, that price gain does not include the benefit of dividends. Again, the potential price ceiling is infinite. Saying that the stock market is trading at all-time highs as if it is unlikely to move higher, just makes for good **BREAKING NEWS…**headlines.

The total net worth of the individuals that are in America is over $92 trillion which is $25 trillion more than the peak net worth prior to the Great Financial Collapse of 2008. Eight million households own financial assets in excess of a million dollars, not counting homes or luxury goods. Moreover, according to Boston Consulting Group, ***we're minting seventeen hundred new millionaires every day***. And finally, there is $12.3 trillion in cash deposits slushing around in bank money market, checking, and savings accounts still

"Your vision will become clear only when you can look into your own heart.
Who looks outside, dreams; Who looks inside, awakens."
Carl Gustav Jung, Man and his Symbols, 1964

earning almost ZERO % returns but steadily losing 2.5% purchasing power due to inflation. This cash balance represents 69.4% of our nation's gross domestic product which is higher than any time since 1980 by a substantial margin. Sadly, a good portion of this money lays dormant in fear of the next economic crisis.

The US economy is on solid footing. Both the developed economies of Europe and Japan and the emerging economies, who are mostly geographically located in the Pacific Rim region of the world, are improving. Their economies didn't recover at the rate that the US did coming out of the financial collapse, but their companies are priced at attractive valuations and their economies are in an earlier cycle of improvement. The prudence of global diversification will one day be realized. Below you will find a chart which measures the activity in the manufacturing sector of all major economies. A score of 50 or more is an indication that the activity level is healthy and the coloration assigned to the score provides an indication whether an economy is accelerating or slowing down. This display makes it easy to see that there is both a healthy and improving world of commerce taking place. I cheer for all the economies of the world…for we are all connected.

Global Purchasing Managers' Index for manufacturing

	Jan'15	Feb'15	Mar'15	Apr'15	May'15	Jun'15	Jul'15	Aug'15	Sep'15	Oct'15	Nov'15	Dec'15	Jan'16	Feb'16	Mar'16	Apr'16	May'16	Jun'16	Jul'16	Aug'16	Sep'16	Oct'16	Nov'16	Dec'16
Global	51.6	51.8	51.5	50.8	51.1	50.9	50.8	50.5	50.4	51.1	51.0	50.7	50.9	50.0	50.6	50.2	50.1	50.4	51.0	50.8	51.0	52.0	52.1	52.7
Developed Markets	52.5	52.8	53.0	52.1	52.4	52.1	52.5	52.4	52.1	53.0	52.6	52.0	52.3	50.9	50.9	50.4	50.2	50.9	51.5	51.3	51.6	52.8	53.2	-
Emerging Markets	50.8	50.9	49.8	49.3	49.5	49.2	48.8	48.3	48.3	48.9	49.1	49.2	49.2	48.8	50.0	49.5	49.5	49.3	50.1	49.9	50.0	50.7	50.6	-
U.S.	53.9	55.1	55.7	54.1	54.0	53.6	53.8	53.0	53.1	54.1	52.8	51.2	52.4	51.3	51.5	50.8	50.7	51.3	52.9	52.0	51.5	53.4	54.1	54.3
Canada	51.0	48.7	48.9	49.0	49.8	51.3	50.8	49.4	48.6	48.0	48.6	47.5	49.3	49.4	51.5	52.2	52.1	51.8	51.9	51.1	50.3	51.1	51.5	51.8
UK	52.6	54.0	53.7	52.3	52.1	51.5	52.2	51.7	51.5	54.8	52.6	51.4	52.7	50.7	51.0	49.7	50.5	52.4	48.2	53.4	55.5	54.6	53.6	56.1
Euro Area	51.0	51.0	52.2	52.0	52.2	52.5	52.4	52.3	52.0	52.3	52.8	53.2	52.3	51.2	51.6	51.7	51.5	52.8	52.0	51.7	52.6	53.5	53.7	54.9
Germany	50.9	51.1	52.8	52.1	51.1	51.9	51.8	53.3	52.3	52.1	52.9	53.2	52.3	50.5	50.7	51.8	52.1	54.5	53.8	53.6	54.3	55.0	54.3	55.6
France	49.2	47.6	48.8	48.0	49.4	50.7	49.6	48.3	50.6	50.6	50.6	51.4	50.0	50.2	49.6	48.0	48.4	48.3	48.6	48.3	49.7	51.8	51.7	53.5
Italy	49.9	51.9	53.3	53.8	54.8	54.1	55.3	53.8	52.7	54.1	54.9	55.6	53.2	52.2	53.5	53.9	52.4	53.5	51.2	49.8	51.0	50.9	52.2	53.2
Spain	54.7	54.2	54.3	54.2	55.8	54.5	53.6	53.2	51.7	51.3	53.1	53.0	55.4	54.1	53.4	53.5	51.8	52.2	51.0	51.0	52.3	53.3	54.5	55.3
Greece	48.3	48.4	48.9	46.5	48.0	46.9	30.2	39.1	43.3	47.3	48.1	50.2	50.0	48.4	49.0	49.7	48.4	50.4	48.7	50.4	49.2	48.6	48.3	49.3
Ireland	55.1	57.5	56.8	55.8	57.1	54.6	56.7	53.6	53.8	53.6	53.3	54.2	54.3	52.9	54.9	52.6	51.5	53.0	50.2	51.7	51.3	52.1	53.7	55.7
Australia	49.0	45.4	46.3	48.0	52.3	44.2	50.4	51.7	52.1	50.2	52.5	51.9	51.5	53.5	58.1	53.4	51.0	51.8	56.4	46.9	49.8	50.9	54.2	55.4
Japan	52.2	51.6	50.3	49.9	50.9	50.1	51.2	51.7	51.0	52.4	52.6	52.6	52.3	50.1	49.1	48.2	47.7	48.1	49.3	49.5	50.4	51.4	51.3	51.9
China	49.7	50.7	49.6	48.9	49.2	49.4	47.8	47.3	47.2	48.3	48.6	48.2	48.4	48.0	49.7	49.4	49.2	48.6	50.6	50.0	50.1	51.2	50.9	51.9
Indonesia	48.5	47.5	46.4	46.7	47.1	47.8	47.3	48.4	47.4	47.8	46.9	47.8	48.9	48.7	50.6	50.9	50.6	51.9	48.4	50.4	50.9	48.7	49.7	49.0
Korea	51.1	51.1	49.2	48.8	47.8	46.1	47.6	47.9	49.2	49.1	49.1	50.7	49.5	48.7	49.5	50.0	50.1	50.5	50.1	48.6	47.6	48.0	48.0	49.4
Taiwan	51.7	52.1	51.0	49.2	49.3	46.3	47.1	46.1	46.9	47.8	49.5	51.7	50.6	49.4	51.1	49.7	48.5	50.5	51.0	51.8	52.2	52.7	54.7	56.2
India	52.9	51.2	52.1	51.3	52.6	51.3	52.7	52.3	51.2	50.7	50.3	49.1	51.1	51.1	52.4	50.5	50.7	51.7	51.8	52.6	52.1	54.4	52.3	49.6
Brazil	50.7	49.6	46.2	46.0	45.9	46.5	47.2	45.8	47.0	44.1	43.8	45.6	47.4	44.5	46.0	42.6	41.6	43.2	46.0	45.7	46.0	46.3	46.2	45.2
Mexico	56.6	54.4	53.8	53.8	53.3	52.0	52.9	52.4	52.1	53.0	53.0	52.4	52.2	53.1	53.2	52.4	53.6	51.1	50.6	50.9	51.9	51.8	51.1	50.2
Russia	47.6	49.7	48.1	48.9	47.6	48.7	48.3	47.9	49.1	50.2	50.1	48.7	49.8	49.3	48.3	48.0	49.6	51.5	49.5	50.8	51.1	52.4	53.6	53.7

Source: Markit, J.P. Morgan Asset Management.
Heatmap colors are based on PMI relative to the 50 level, which indicates acceleration or deceleration of the sector, for the time period shown. Japan December manufacturing PMI is a flash estimate.
Guide to the Markets – U.S. Data are as of December 31, 2016.

I share Nick Murray's observation of our new political administration. He writes, "It remains to be seen whether the growth Trump or the protectionist Trump is to dominate in these next couple of years, and the extent to which he allows his jarringly flawed personality to get in the way of a transformative agenda. But the election of a generally pro-growth, pro-capital, pro-business administration was in and of itself almost too much to hope for." One thing is almost certain. Our citizens and companies of our country will have more net take home pay by year end 2017. What do you think people and corporations will do with it and how will this affect the economy and the pricing of the asset markets?

I will leave you with a few headlines from December 2016 from **The Daily Optimist** that you and the mainstream media may have missed…and I can assure you there will be plenty more of its kind in the year ahead:

"Solar-powered electric buses – a UK first"

"The simple water filter that could save lives around the world"

"U.S. takes step to boost organic food production"

"Amazon to hire 100,000 workers in the year ahead"

"The world's largest solar farm just went online in India"

"Rooftop farm takes over Israel's oldest mall to grow organic vegetables"

"China is implementing ban on ivory trade, closing factories"

"The future of agriculture is drip irrigation"

SPECIAL ANNOUNCEMENT

In continuation of our mission to always improve in the favor of the clients we serve and to do so creatively, indifferent to our peers, and in harmony of our days of service we have sent to each of you a new price structure for the accounting services you receive. In short, we have put in place a flat fee model for the work that is provided replacing the hourly bill format. First and foremost we have decided to bill in this manner in an effort to always encourage you and those yet to onboard our ship, to use our professional accounting staff. **It is at the core of our philosophy** that a family use professionals that are integrated to the client mission statement, who are philosophically aligned, and most importantly…collegially collaborate for the benefit of that client or family. Having the opportunity to practice this way for the past 8 years, I find it invaluable to do so. Each of you, if not already, will soon see our pricing model specific to you and compared to your prior years costs. I have surveyed my peers and the market we serve…and I am confident that you will embrace this new price structure. It is a leading edge format that I hope will soon be replicated.

I am **in gratitude** each day of you allowing Timonier to be a part of your journey. Know that we are accountable as your fiduciaries. And our collaborative team of advisors look forward to assisting you in making conscious choices for this one great life you deserve to live. Contact us any time, if we haven't contacted you first.

Namaste'

Tim L. Baker, CIMA, GFS

"The main purpose of meditation is to remove your attention from the environment, your body, and the passage of time so that what you intend, what you think, becomes your focus instead of these externals. You can then change your internal state independent of the outside world."

Dr. Joe Dispenza, Neuroscientist-Author-Teacher

Market Summary

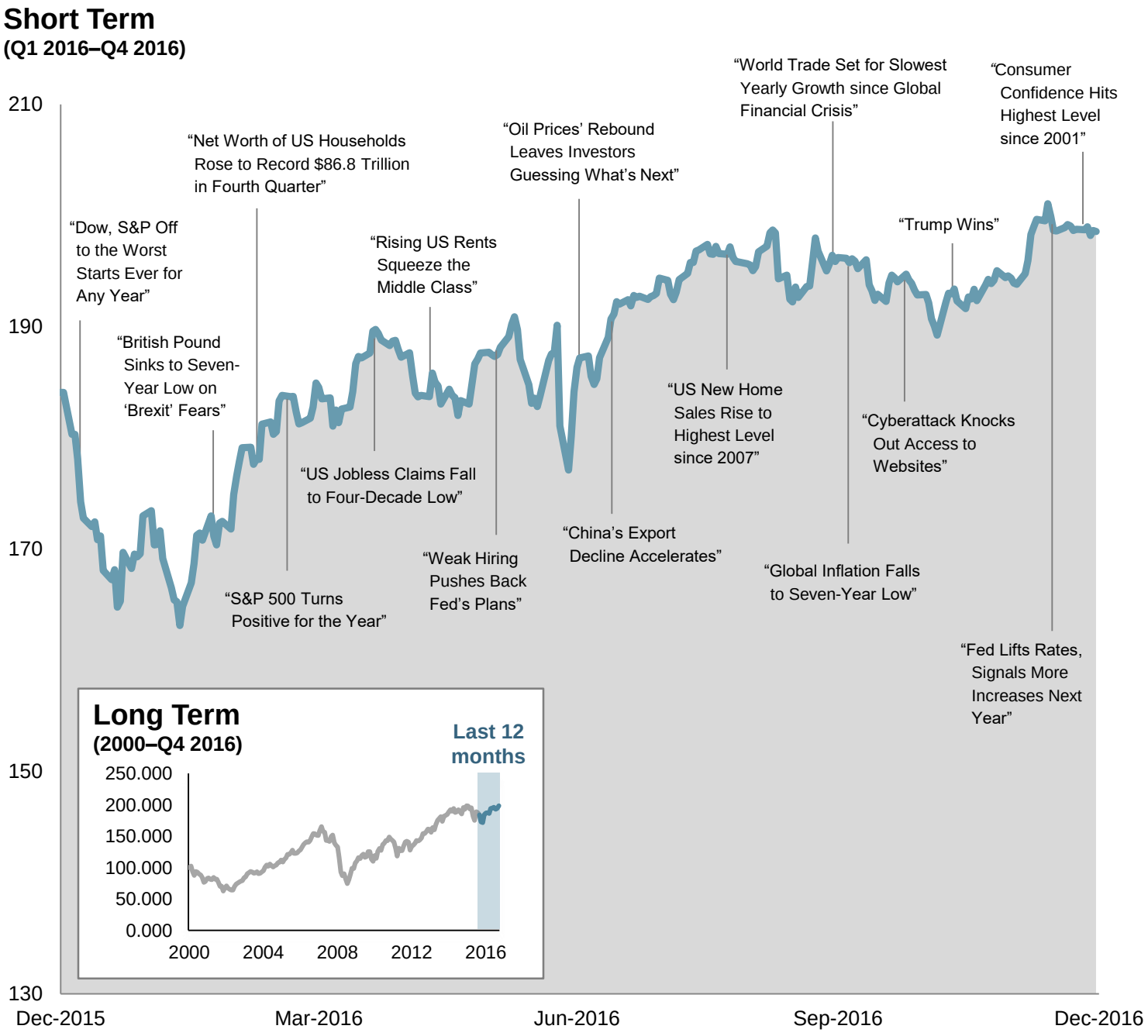
Index Returns

	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate	US Bond Market	Global Bond Market ex US
2016	**STOCKS**				**BONDS**	
	12.74%	**2.75%**	**11.19%**	**5.77%**	**2.65%**	**5.13%**
Since Jan. 2001						
Avg. Annual Return	7.6%	5.9%	13.3%	11.2%	4.9%	4.6%
Best Year	33.6% **2013**	39.4% **2003**	78.5% **2009**	37.4% **2006**	10.3% **2002**	9.8% **2014**
Worst Year	-37.3% **2008**	-43.6% **2008**	-53.3% **2008**	-45.7% **2008**	-2.0% **2013**	1.4% **2013**

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 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 2017, all rights reserved.

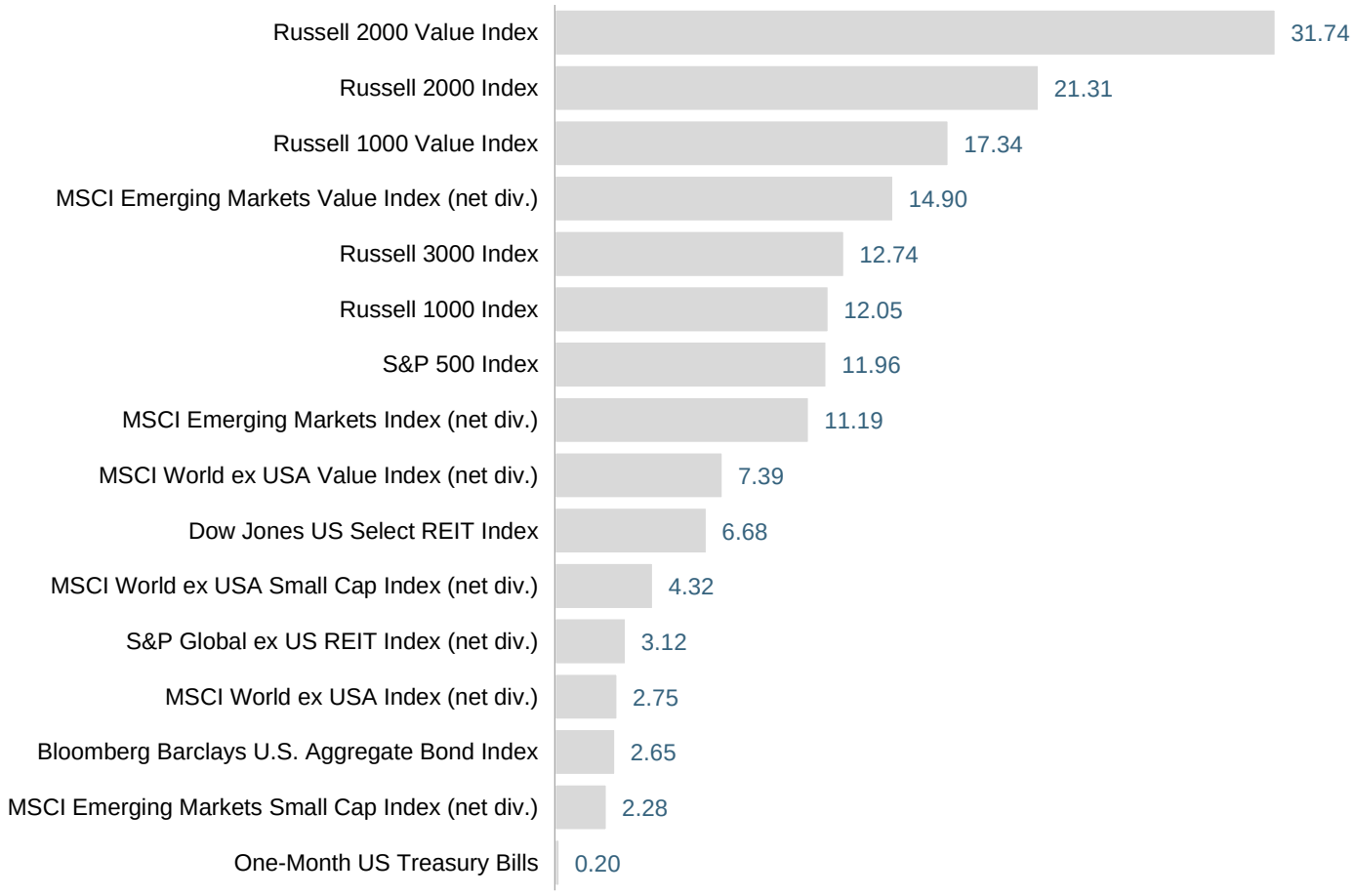
It is not possible to invest directly in an index. Performance does not reflect the expenses associated with management of an actual portfolio. Past performance is not a guarantee of future results.

World Asset Classes

2016 Index Returns (%)

Looking at broad market indices, the US outperformed both non-US developed and emerging markets for the year. US and non-US real estate investment trusts (REITs) recorded positive returns but lagged the US and non-US equity markets.

The value effect was positive in the US, non-US, and emerging markets across all size ranges. Small caps outperformed large caps in the US and developed markets outside the US but underperformed in emerging 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 2017, all rights reserved. Dow Jones data (formerly Dow Jones Wilshire) provided by Dow Jones Indices. Bloomberg Barclays data provided by Bloomberg. Treasury bills © Stocks, Bonds, Bills, and Inflation Yearbook™, Ibbotson Associates, Chicago (annually updated work by Roger G. Ibbotson and Rex A. Sinquefield).

US Stocks

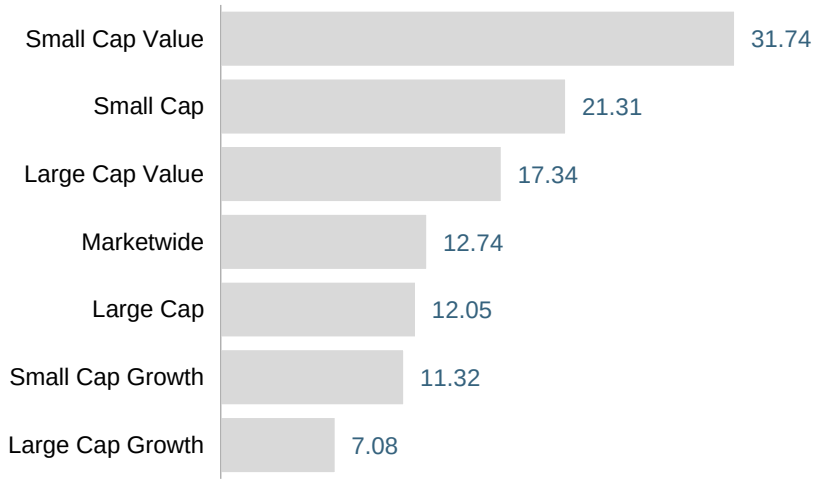
2016 Index Returns

The broad US equity market recorded positive performance for the year.

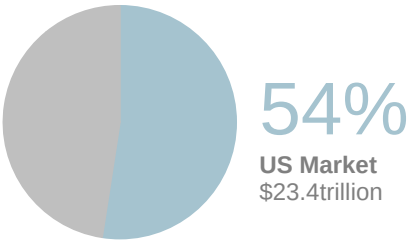
Value indices significantly outperformed growth indices in the US across all size ranges.

Small caps in the US outperformed large caps.

Ranked Returns for 2016 (%)



World Market Capitalization—US



Period Returns (%)

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Marketwide	12.74	8.43	14.67	7.07
Large Cap	12.05	8.59	14.69	7.08
Large Cap Value	17.34	8.59	14.80	5.72
Large Cap Growth	7.08	8.55	14.50	8.33
Small Cap	21.31	6.74	14.46	7.07
Small Cap Value	31.74	8.31	15.07	6.26
Small Cap Growth	11.32	5.05	13.74	7.76

** Annualized*

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

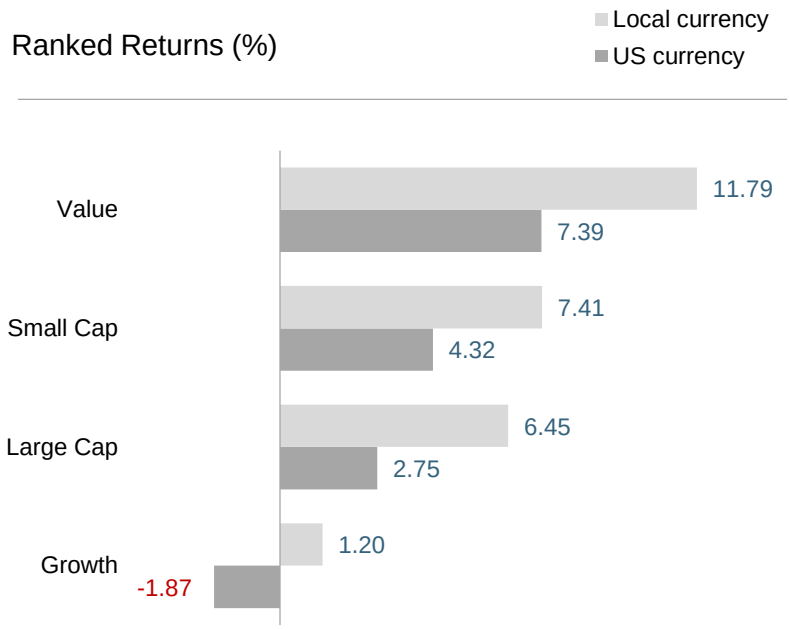
2016 Index Returns

In US dollar terms, developed markets outside the US lagged both the US equity market and emerging markets indices for the year.

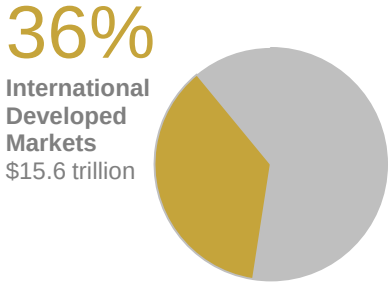
Small caps outperformed large caps in non-US developed markets.

Looking at broad market indices, the value effect was positive across all size ranges.

Ranked Returns (%)



World Market Capitalization—International Developed



Period Returns (%)

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Large Cap	2.75	-1.59	6.07	0.86
Small Cap	4.32	1.36	8.96	2.69
Value	7.39	-2.12	5.96	0.08
Growth	-1.87	-1.18	6.08	1.56

** Annualized*

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

Emerging Markets Stocks

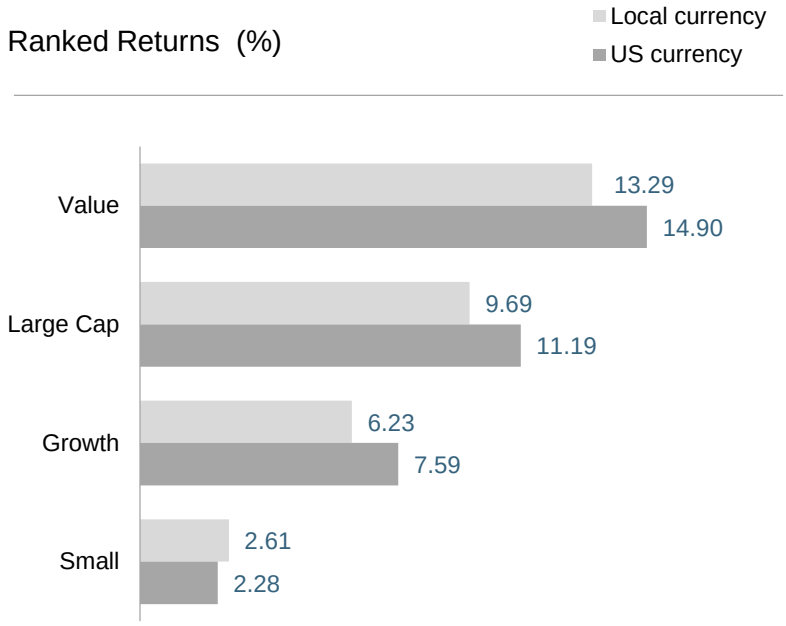
2016 Index Returns

In US dollar terms, emerging markets indices underperformed the US but outperformed developed markets outside the US for the year.

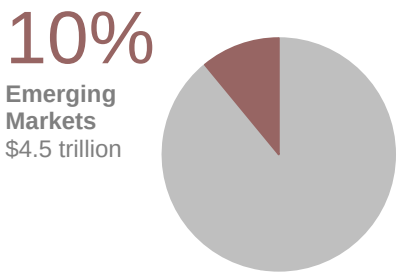
Looking at broad market indices, the value effect was positive across all size ranges.

Small caps underperformed large caps in emerging markets.

Ranked Returns (%)



World Market Capitalization—Emerging Markets



Period Returns (%)

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Large Cap	11.19	-2.55	1.28	1.84
Small Cap	2.28	-1.27	3.51	3.41
Value	14.90	-3.54	-0.27	1.97
Growth	7.59	-1.67	2.73	1.63

** Annualized*

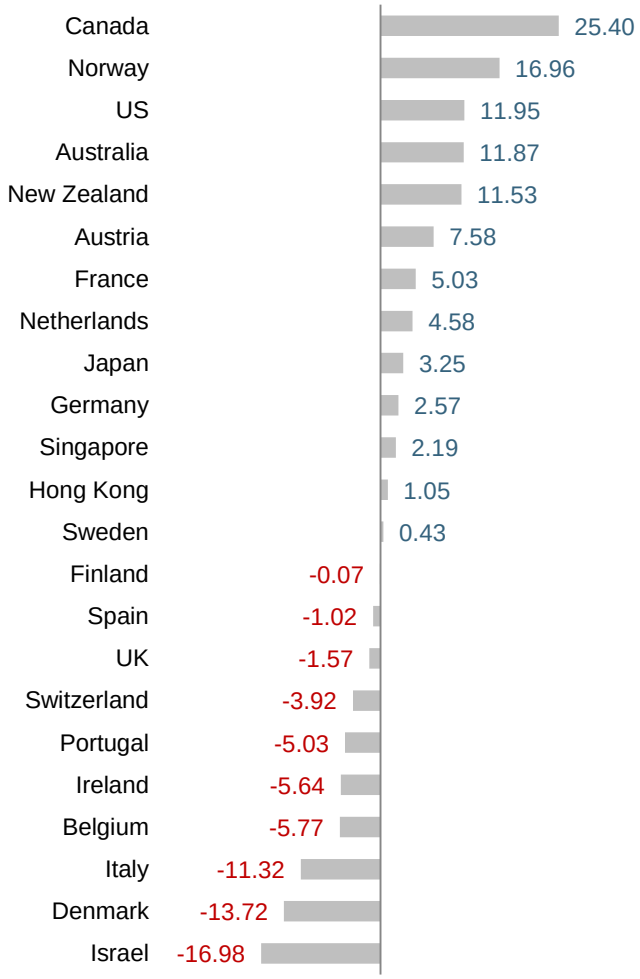
Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: Large Cap (MSCI Emerging Markets Index), Small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

Select Country Performance

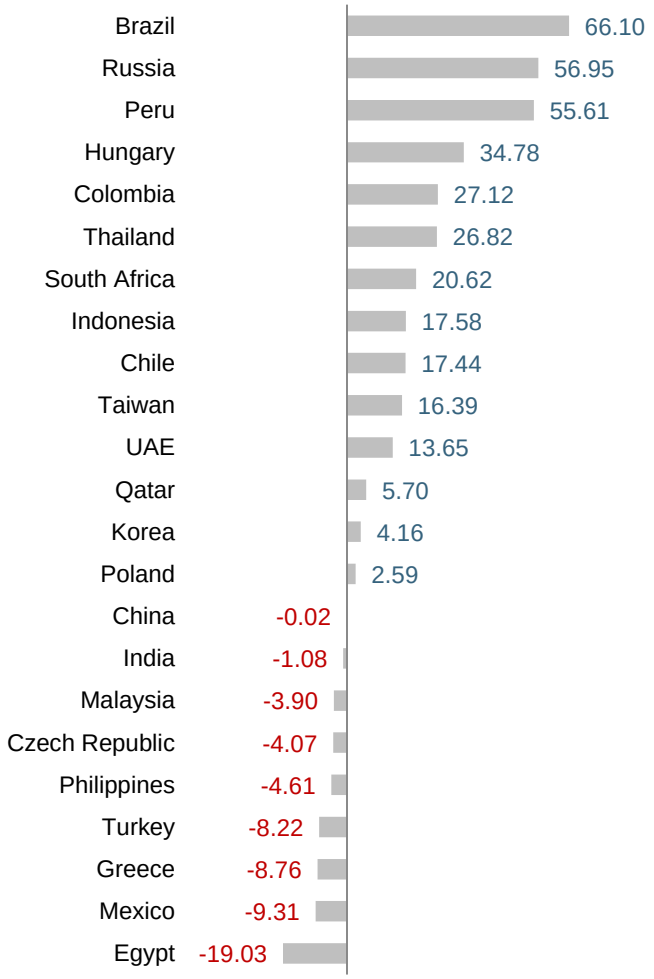
2016 Index Returns

Canada and Norway recorded the highest country performance in developed markets, while Israel and Denmark posted the lowest returns for the year. In emerging markets, Brazil and Russia posted the highest country returns, while Egypt and Mexico recorded the lowest performance.

Ranked Developed Markets Returns (%)



Ranked Emerging Markets Returns (%)



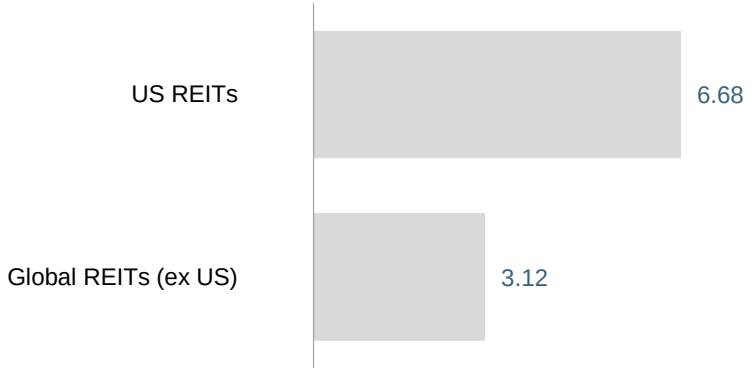
Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Country performance based on respective indices in the MSCI World ex US IMI Index (for developed markets), MSCI USA IMI Index (for US), and MSCI Emerging Markets IMI Index. All returns in USD and net of withholding tax on dividends. UAE and Qatar have been reclassified as emerging markets by MSCI, effective May 2014.

Real Estate Investment Trusts (REITs)

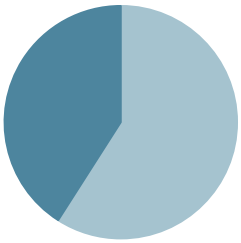
2016 Index Returns

US and non-US REITs had positive performance for the year but lagged the broad equity market in both regions.

Ranked Returns for 2016 (%)



Total Value of REIT Stocks



40%
World ex US
$421 billion
258 REITs
(22 other countries)

60%
US
$638 billion
102 REITs

Period Returns (%)

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
US REITs	6.68	13.73	11.77	4.63
Global REITs (ex US)	3.12	3.34	8.30	0.00

** Annualized*

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.

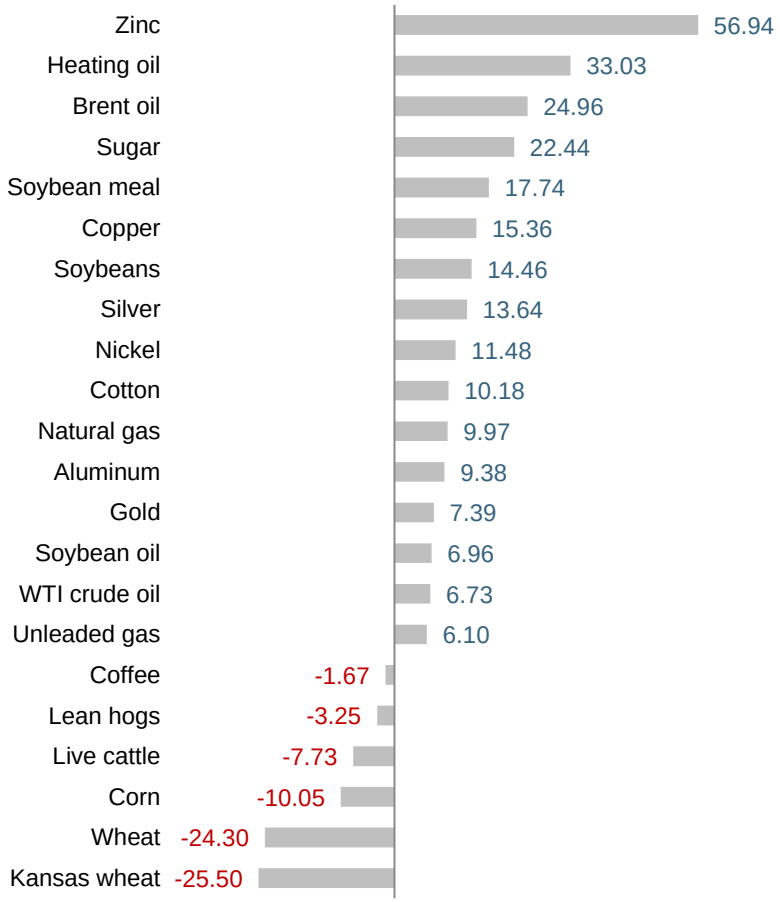
Commodities

2016 Index Returns

The Bloomberg Commodity Index Total Return gained 11.77% in 2016.

Zinc was the strongest performer, posting a return of 56.94%. Heating oil and Brent oil followed with respective returns of 33.03% and 24.96%. Kansas wheat was the weakest performer for the year, falling 25.50%.

Ranked Returns for Individual Commodities (%)



Period Returns (%)

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Commodities	11.77	-11.26	-8.95	-5.58

** Annualized*

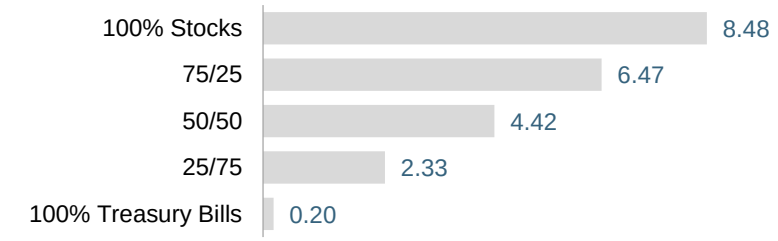
Past performance is not a guarantee of future results. Index is not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. All index returns are net of withholding tax on dividends. Securities and commodities data provided by Bloomberg.

Impact of Diversification

2016 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 more volatile but have higher expected returns over time.

Ranked Returns for 2016 (%)

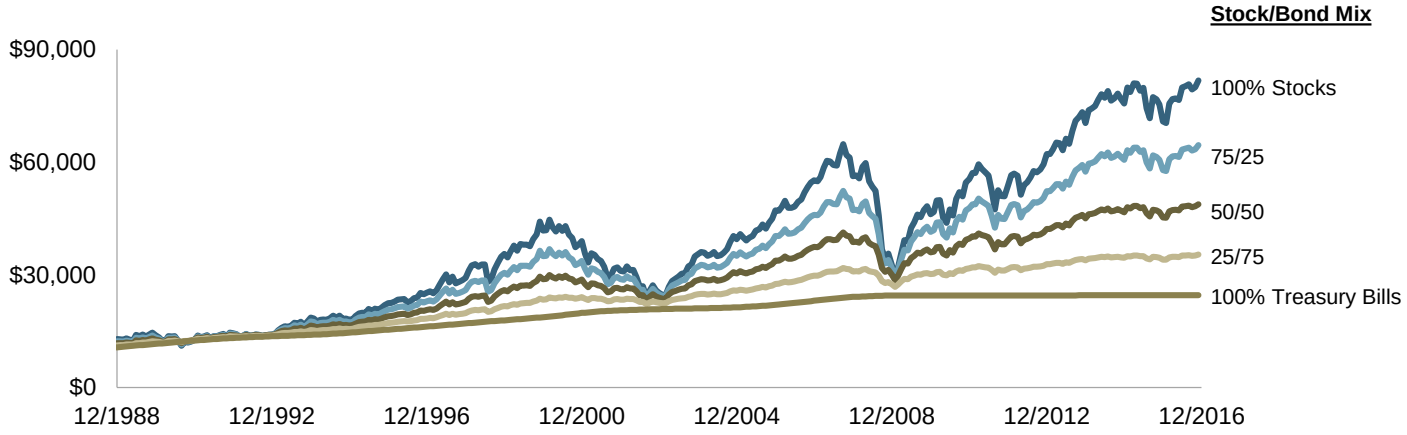


Period Returns (%)

** Annualized*

Asset Class	1 Year	3 Years*	5 Years*	10 Years*	10-Year STDEV[1]
100% Stocks	8.48	3.69	9.96	4.12	16.99
75/25	6.47	2.90	7.53	3.54	12.74
50/50	4.42	2.03	5.07	2.77	8.49
25/75	2.33	1.09	2.58	1.81	4.24
100% Treasury Bills	0.20	0.08	0.06	0.67	0.41

Growth of Wealth: The Relationship between Volatility 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. Sinquefield).

The Power of Markets

Fourth Quarter 2016

In 1958, economist Leonard Read published an essay entitled “I, Pencil: My Family Tree as Told to Leonard E. Read.”

The essay, narrated from the point of view of a pencil, describes the “complex combination of miracles” necessary to create and bring to market the commonplace writing tool that has been used for generations. The narrator argues that no single individual possesses enough ability or know-how to create a pencil on their own. Rather, the mundane pencil—and the ability to purchase it for a “trifling” sum—is the result of an extraordinary process driven by the knowledge of market participants and the power of market prices.

The Importance of Price

Upon observing a pencil, it is tempting to think a single individual could easily make one. After all, it is made up of common items such as wood, paint, graphite, metal, and a rubber eraser. By delving deeper into how these seemingly ordinary components are produced, however, we begin to understand the extraordinary backstory of their synthesis. Take the wood as an example: To produce wood requires a saw, to make the saw requires steel, to make steel requires iron. That iron must be mined, smelted, and shaped. A truck, train, or boat is needed to transport the wood from the forest to a factory where numerous machines convert it into lumber. The lumber is then transported to another factory where more machines assemble the pencil. Each of the components mentioned above and each step in the process have similarly complex backstories. All require materials that are sourced from far-flung locations, and countless processes are involved in refining them. While the multitude of inputs and processes necessary to create a pencil is impressive, even more impressive are the coordinated actions required by millions of people around the world to bring everything together. There is the direct involvement of farmers, loggers, miners, factory workers, and the providers of capital. There is also the indirect involvement of millions of others—the makers of rails, railroad cars, ships, and so on. Market prices are the unifying force that enables these millions of people to coordinate their actions efficiently.

Workers with specific knowledge about their costs, constraints, and efforts use market prices to leverage the knowledge of others to decide how to direct their own resources and make a living. Consider the farmer, the logger, and the price of a tree. The farmer will have a deep understanding of the costs, constraints, and efforts required to grow trees. To increase profit, the farmer will seek out the highest price when selling trees to a logger. After purchasing the trees, the logger will convert them to wood and sell that wood to a factory. The logger understands the costs, constraints, and efforts required to do this, so to increase profit, the logger seeks to pay the lowest price possible when buying trees from the farmer. When the farmer and the logger agree to transact, the agreed upon price reflects their combined knowledge of the costs and constraints of both growing and harvesting trees. That knowledge allows them to decide how to efficiently allocate their resources in seeking a profit. Ultimately, it is price that enables this coordination. On a much larger scale, price formation is facilitated by competition between the many farmers that sell trees to loggers and between the many loggers that buy trees from farmers. This market price of trees is observable and can be used by others in the production chain (e.g., the lumber factory mentioned above) to inform how much they can expect to pay for wood and to plan how to allocate their resources accordingly. (continues on page 17)

The Power of Markets

(continued from page 18)

The Power of Financial Markets

There is a corollary that can be drawn between this narrative about the market for goods and the financial markets. Generally, markets do a remarkable job of allocating resources, and financial markets allocate a specific resource: financial capital. Financial markets are also made up of millions of participants, and these participants voluntarily agree to buy and sell securities all over the world based upon their own needs and desires. Each day, millions of trades take place, and the vast collective knowledge of all of these participants is pooled together to set security prices. Exhibit 1 shows the staggering magnitude of participation in the world equity markets on an average day in 2015.

Any individual trying to outguess the market is competing against the extraordinary collective wisdom of all of these buyers and sellers. Viewed through the lens of Read's allegory, attempting to outguess the market is like trying to create a pencil from scratch rather than going to the store and reaping the fruits of others' willingly supplied labor. In the end, trying to outguess the market is incredibly difficult and expensive, and over the long run, the result will almost assuredly be inferior when compared to a market-based approach. Professor Kenneth French has been quoted as saying, "The market is smarter than we are and no matter how smart we get, the market will always be smarter than we are." One doesn't have to look far for data that supports this. Exhibit 2 shows that only 17% of US equity mutual funds have survived and outperformed their benchmarks over the past 15 years.

(continues on page 18)

Exhibit 1. Embrace Market Pricing

World Equity Trading in 2015

	Number of Trades	Dollar Volume
Daily Average	98.6 million	$447.3 billion

In US dollars. Global electronic order book (largest 60 exchanges). Source: World Federation of Exchanges.

Exhibit 2. Don't Try to Outguess the Market

US Equity Mutual Fund Performance

Beginning sample includes funds as of the beginning of the 15-year period ending December 31, 2015. Past performance is no guarantee of future results. Source: Dimensional Fund Advisors, "The US Mutual Fund Landscape." See disclosures for more information.

The Power of Markets

(continued from page 19)

Conclusion

The beauty of Leonard Read's story is that it provides a glimpse of the incredibly complex tapestry of markets and how prices are formed, what types of information they contain, and how they are used. The story makes it clear that no single individual possesses enough ability or know-how to create a pencil on their own but rather that the pencil's miraculous production is the result of the collective input and effort of countless motivated human beings. In the end, the power of markets benefits all of us. The market allows us to exchange the time we require to earn money for a few milliseconds of each person's time involved in making a pencil. For an investor, we believe the lesson here is that instead of fighting the market, one should pursue an investment strategy that efficiently and effectively harnesses the extraordinary collective power of market prices. That is, an investment strategy that uses market prices and the information they contain in its design and day-to-day management. In doing so, an investor has access to the rewards that financial markets make available to providers of capital.

Leonard Read's essay can be found here: http://econlib.org/library/Essays/rdPncl1.html.
Source: Dimensional Fund Advisors LP.
There is no guarantee investment strategies will be successful.
US-domiciled mutual fund data is from the CRSP Survivor-Bias-Free US Mutual Fund Database, provided by the Center for Research in Security Prices, University of Chicago. Certain types of equity funds were excluded from the performance study. Index funds, sector funds, and funds with a narrow investment focus, such as real estate and gold, were excluded.
Funds are identified using Lipper fund classification codes. Correlation coefficients are computed for each fund with respect to diversified benchmark indices using all return data available between January 1, 2001, and December 31, 2015. The index most highly correlated with a fund is assigned as its benchmark. Winner funds are those whose cumulative return over the period exceeded that of their respective benchmark. Loser funds are funds that did not survive the period or whose cumulative return did not exceed their respective benchmark.
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Ken French is a member of the Board of Directors for and provides consulting services to Dimensional Fund Advisors LP.