



2016 Market Review

In 2016, the US market reached new highs and stocks in a majority of developed and emerging market countries delivered positive returns. The year began with anxiety over China's stock market and economy, falling oil prices, a potential US recession, and negative interest rates in Japan. US equity markets were in steep decline and had the worst start of any year on record. The markets began improving in mid-February through midyear. Investors also faced uncertainty from the Brexit vote in June and the US election in November.

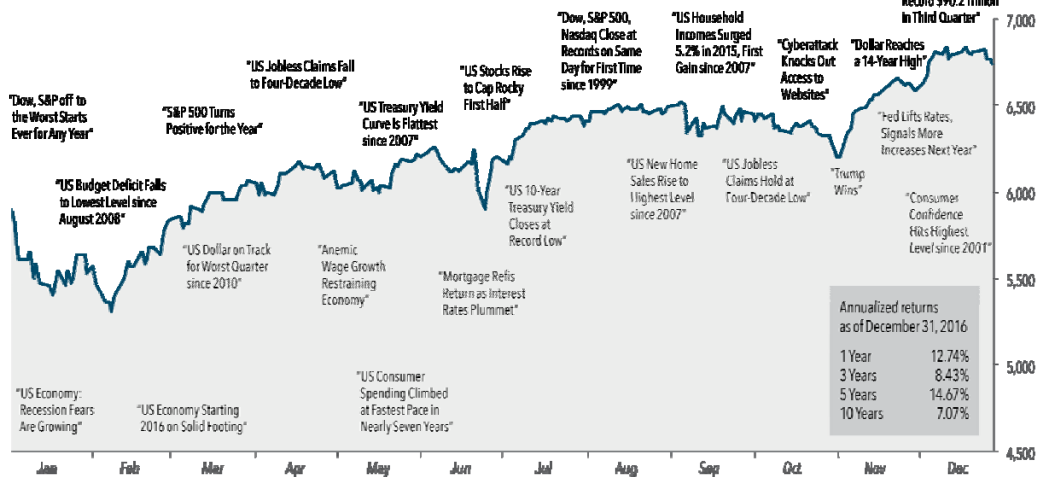
Many investors may not have expected global stocks and bonds to deliver positive returns in such a tumultuous year. This turnaround story highlights the importance of diversifying across asset groups and regional markets, as well as staying disciplined despite uncertainty. Although not all asset classes had positive returns, a globally diversified, cap-weighted portfolio logged attractive returns in 2016.

Consider that global markets are incredible information-processing machines that incorporate news and expectations into prices. Investors are well served by staying the course with an asset allocation that reflects their needs, risk preferences, and objectives. This can help investors weather uncertainty in all of its forms. The following quote by Eugene Fama describes this view.

"If three or five years of returns are going to change your mind [on an investment], you shouldn't have been there to begin with." —Eugene Fama

US Stock Market Performance

Russell 3000 Index with selected headlines from 2016



Source: Frank Russell Company.

Best performance is not a guarantee of future results. In US dollars. Index is not available for direct investment. Performance does not reflect the expenses associated with management of an actual portfolio.

The chart above highlights some of the year's prominent headlines in context of broad US market performance, measured by the Russell 3000 Index. 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.

New Market Highs and Positive Expected Returns

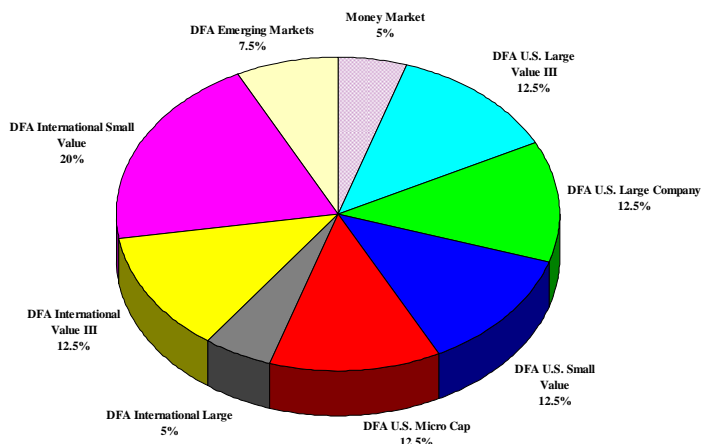
There has been much discussion in the news recently about new nominal highs in stock indices like the Dow Jones Industrial Average and the S&P 500. When markets hit new highs, is that an indication that it's time for investors to cash out? History tells us that a market index being at an all-time high generally does not provide actionable information for investors. For evidence, we can look at the S&P 500 Index for the better part of the last century. **Exhibit 1** on page 3 shows that from 1926 through the end of 2016 the proportion of annual returns that have been positive after a new monthly high is similar to the proportion of annual returns that have been positive after any index level. In fact, over this time period almost a third of the monthly observations were new closing highs for the index. Looking at this data, it is clear that new index highs have historically not been useful predictors of future returns.

Given that the level of an index by itself does not seemingly have a bearing on future returns, you may ask yourself a more fundamental question: What drives expected returns for stocks?

Portfolio Returns: January 1, 2016—December 31, 2016*

AGGRESSIVE GROWTH

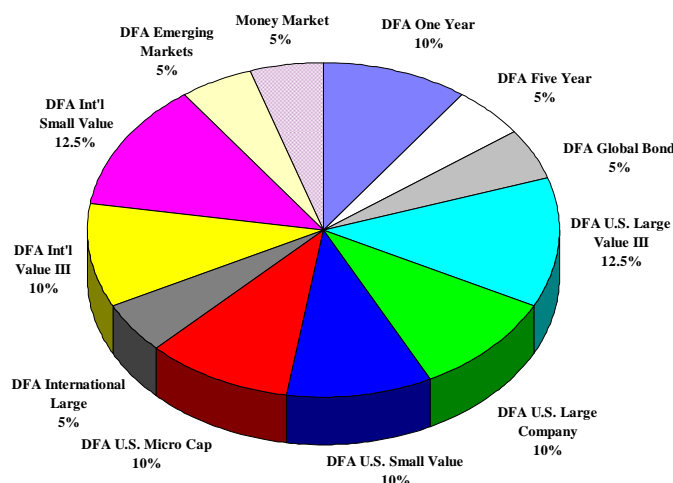
95% Equities/5% Fixed



Rate of Return 13.04%

LONG TERM GROWTH

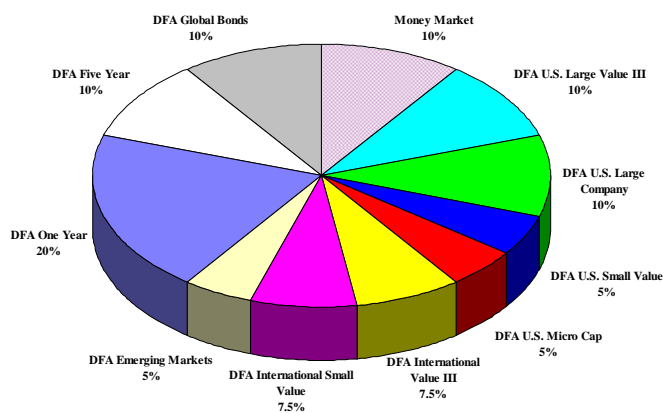
75% Equities/25% Fixed



Rate of Return 10.77%

BALANCED GROWTH

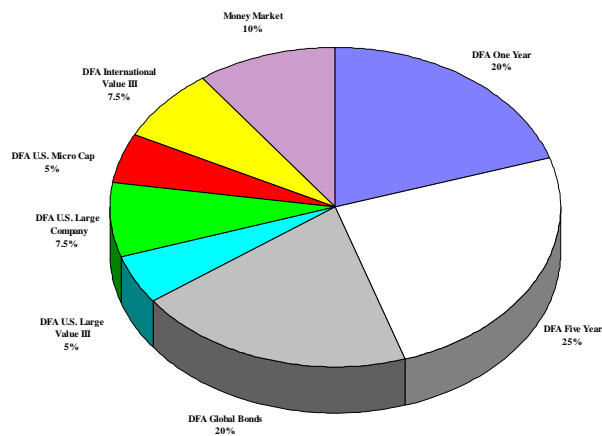
50% Equities/50% Fixed



Rate of Return 7.02%

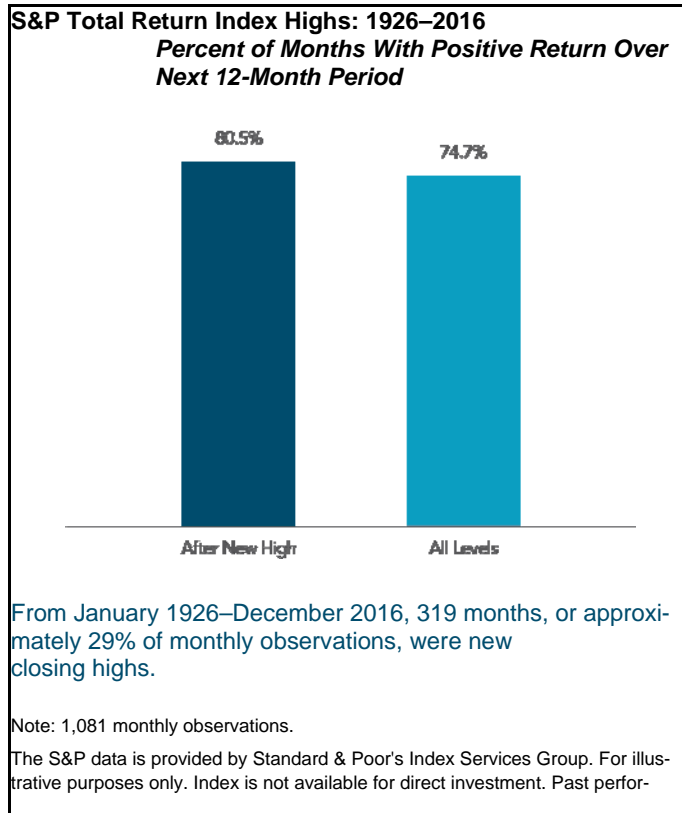
INCOME & GROWTH

25% Equities/75% Fixed



Rate of Return 3.85%

*Individual returns may vary slightly based upon assets, size and fees charged, performance shown is net of fees. Performance shown reflects the reinvestment of dividends and other earnings. The returns shown represent past performance and are not indicators of future results.



Positive Expected Returns

Stock prices are the result of the interaction of many willing buyers and sellers. It is extremely unlikely that in aggregate, those willing buyers apply negative discount rates to the expected profits of the firms they are purchasing. Why? Because there is always a risk that expected profits will not materialize or that the price might decline because of unanticipated future events. If investors apply positive discount rates to the cash flows they expect to receive from owning a stock, we should expect the price of that stock to represent a level such that its expected return is always positive. Unless the expected cash flows are persistently biased downward or upward, we can expect this to be the case.

There is little evidence, though, that the aggregate expectations of investors that set market prices have been persistently biased downward or upward. Many studies document that professional money managers have been unable to deliver consistent outperformance by outguessing market prices. In the end, prices set by market forces are difficult to out-guess. The market does a good job setting prices, and we can assume that the expected return investors have applied when setting prices are not biased.

Therefore, it is reasonable to assume that the price of a stock, or the price of a basket of stocks like the S&P 500 Index, should be set to a level such that its expected return is positive, regardless of whether or not that price level is at a new high. This helps explain why new index highs have not, on average, been followed by negative returns. At a new high, a new low, or something in between, expected returns are positive.

Expected Returns, Realized Returns and Holding Horizons

Today's prices depend on expected returns and expectations about future profits. If either expected returns or expectations about future profits change, prices will also change to reflect this new information. Changes in risk aversion, tastes and preferences, expectations about future profits, or the quantity of risk can all drive changes in expected returns. All else equal, an increase in expected returns is reflected through a drop in prices. A decrease in expected returns is

Meeting Expectations

All DFA portfolios are designed to deliver “market rates of return.” DFA is not trying to “beat” the market by employing crystal ball type strategies, only working to achieve market returns, historically outpacing 90% of the active managers who attempt to beat the market.

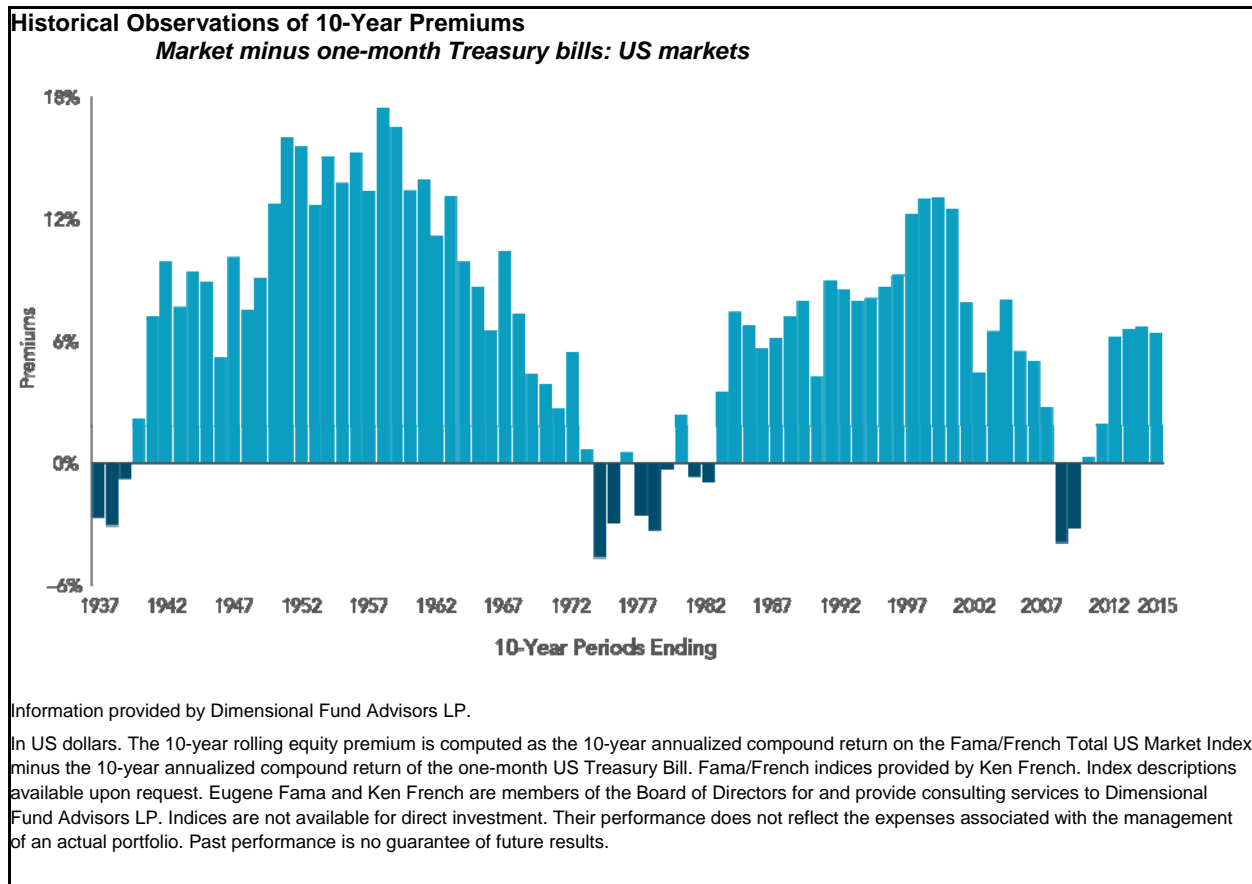
To evaluate your portfolio, it is helpful to look at the various DFA funds and **compare them** to the specific markets in which they are invested:

	01/01/16 through 12/31/16 Return*
DFA U.S. Large Co. S&P 500 Index	11.90% 11.96%
DFA U.S. Large Value S&P 500 Value	19.09% 17.40%
DFA U.S. Micro Cap Russell 2000	25.63% 21.31%
DFA U.S. Small Value Russell 2000 Value	28.26% 31.74%
DFA Emerging Markets MSCI Emerging Market Idx	12.09% 11.19%
DFA Int'l Large Company MSCI EAFE Large Co Idx	3.16% 1.00%
DFA Int'l Large Value MSCI EAFE Value	8.58% 5.02%
DFA Int'l Small Value MSCI EAFE Sm Cap Index	8.00% -0.02%
DFA One Yr. Gov't Bond BarCap 1-3 Yr. Gov't	0.84% 0.87%
DFA Short-Term Gov't Bond BarCap 1-5 Yr. Gov't	0.99% 1.02%
DFA 5 Yr. Global Bond Citi WGBI AA 1-5 Yr. USD	1.79% 1.60%

*Morningstar 12/31/16

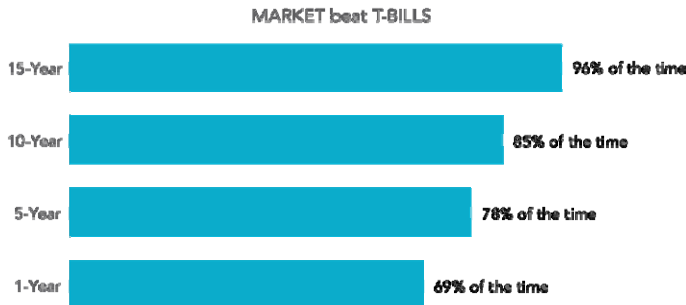
reflected through a rise in prices. Thus, realized returns can differ from expected returns.

Exhibit 2 shows rolling 10-year performance of the equity market premium (equity returns minus the return of one-month US Treasury bills, considered to be short-term, risk-free investments). In most periods it was positive, but in several periods it underperformed.



There is uncertainty around how long periods of underperformance like this may last. Historically, however, the probability of equity returns being positive increases over longer time periods compared to shorter periods. **Exhibit 3** shows the percentage of time that the equity market premium was positive over different time periods going back to 1928. When the length of the time period measured increases, so does the chance of the equity market premium being positive. So to answer our question from before: as an investor’s holding period increases, the probability of a negative realized return decreases. This is why it is important to choose a level of equity exposure that you can stay invested in over the long term.

Exhibit 3: Historical Performance of Equity Market Premium over Rolling Periods
US markets overlapping periods: January 1928–December 2015



Conclusion

By themselves, new all-time highs in equity markets have historically not been useful predictors of future returns. While positive realized returns are never guaranteed, equity investments have positive expected returns regardless of index levels or prior short-term market returns. Historically speaking, over longer time horizons, the odds of realized stock returns being positive have increased. This is one reason why investors should consider investing a long-term commitment: Staying invested and not making changes based on short-term predictions increases your likelihood of