

Overview

The fourth quarter of 2016 was positive for US equities, but generally negative for international developed and emerging market equities. Duration sensitive assets also suffered as the market priced in rising US interest rates and higher inflation expectations. The unexpected result of the United States presidential election produced an initial market shock, as US equity futures traded off nearly 5% during the night of November 8th. By morning however, the volatility and uncertainty gave way to renewed optimism for risk assets as markets contemplated the policy objectives and corresponding economic impact of the Trump administration's agenda. Policies that were generally viewed as pro-cyclical include tax relief on the repatriation of corporate foreign cash holdings, corporate and income tax reductions, infrastructure spending, and deregulation, particularly in the financial and energy sectors. These policy expectations were a tailwind for US equities, led to a steepening of the yield curve, and increased inflation expectations across medium- and long-term horizons.

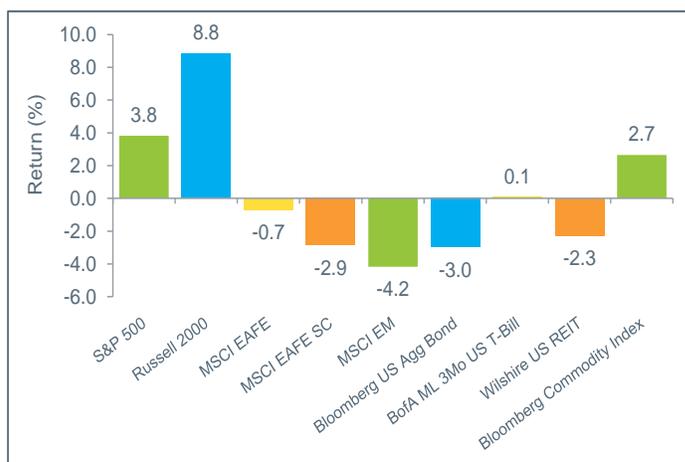
The bullish sentiment in the US cleared the path for the Federal Reserve Open Market Committee to raise the benchmark federal funds rate by 25 basis points during its December meeting. The move was widely anticipated, as economic data supported the Fed tightening at this point in the economic cycle. Non-farm payroll growth continued at a pace consistent with a firming of labor market conditions. In the fourth quarter, the average US job growth of 165,000 per month fell short of the average pace of 185,000 per month achieved during the first nine months of the year. However, this level was still sufficient enough to exert downward pressure on the unemployment rate, which declined to 4.7% in the fourth quarter. Another key factor influencing the Fed's decision to tighten monetary policy was improving wage growth. Indeed, according to the Bureau of Labor Statistics, the monthly compound annual rate of private sector wage growth averaged 2.9% in 2016, which is the highest rate since 2009. Finally, the outlook for US GDP growth remains relatively strong, as the Atlanta Fed's GDP Now forecast estimates GDP growth of 2.8% for the fourth quarter.

Outside the US, a number of noteworthy events also took place. On November 30, 2016, OPEC announced a deal to cut oil production by 1.2 million barrels per day, the first cut since 2008, which drove the price of oil up nearly 10% on the day of the announcement. In Europe, the European Central Bank announced a moderation in the pace of asset purchases from 80 billion euros per month to 60 billion euros, but also extended the duration of the purchase program. Another notable headline was India's continued efforts to reduce corruption by invalidating 500 and 1,000 rupee notes in order to force the exchange of the old notes for a new series. Industries within India that heavily used the older notes to avoid fully reporting transactions for tax purposes, such as real estate and retailing, have initially struggled to adjust to this change.

Trailing Period Market Performance (%)

	QTD	YTD	1 Year	5 Years	10 Years
S&P 500	3.8	12.0	12.0	14.7	6.9
Russell 2000	8.8	21.3	21.3	14.5	7.1
MSCI EAFE	-0.7	1.0	1.0	6.5	0.7
MSCI EAFE SC	-2.9	2.2	2.2	10.6	2.9
MSCI EM	-4.2	11.2	11.2	1.3	1.8
Bloomberg US Agg Bond	-3.0	2.6	2.6	2.2	4.3
BofA ML 3Mo US T-Bill	0.1	0.3	0.3	0.1	0.8
Wilshire US REIT	-2.3	7.2	7.2	12.0	4.8
Bloomberg Commodity Index	2.7	11.7	11.7	-9.0	-5.6

Quarter-to-Date Performance (%)



Key Economic Indicators

		As of	9/30/2016	6/30/2016	10 Year Average
Federal Funds Rate	0.55%	12/31/2016	0.29%	0.30%	0.83%
Treasury - 1 Year	0.85%	12/31/2016	0.59%	0.45%	0.87%
Treasury - 10 Year	2.45%	12/31/2016	1.60%	1.49%	2.82%
Treasury - 30 Year	3.06%	12/31/2016	2.32%	2.30%	3.65%
Breakeven Inflation - 1 Year	1.27%	12/31/2016	0.95%	1.17%	0.89%
Breakeven Inflation - 10 Year	1.97%	12/31/2016	1.61%	1.44%	2.01%
Breakeven Inflation - 30 Year	2.10%	12/31/2016	1.75%	1.61%	2.23%
Bloomberg US Corp: Hi Yld Index - OAS	4.09%	12/31/2016	4.80%	5.94%	6.06%
Capacity Utilization	75.00%	11/30/2016	75.37%	75.44%	76.05%
Unemployment Rate	4.70%	12/31/2016	4.90%	4.90%	7.00%
ISM PMI - Manufacturing	54.70%	12/31/2016	51.50%	53.20%	51.96%
Baltic Dry Index - Shipping	961	12/31/2016	875	660	2,504
Consumer Confidence (Conf. Board)	113.70	12/31/2016	103.50	97.40	74.41
CPI YoY (Headline)	1.70%	11/30/2016	1.50%	1.00%	1.77%
PPI YoY - Producer Prices	1.90%	12/31/2016	-0.10%	-2.00%	1.88%
US Dollar Total Weighted Index	\$96	12/31/2016	\$90	\$91	\$79
WTI Crude Oil per Barrel	\$54	12/31/2016	\$48	\$48	\$79
Gold Spot per Ounce	\$1,152	12/31/2016	\$1,316	\$1,322	\$1,209

Asset Class Commentary

US Equity

US equity markets started the fourth quarter with a slight decline, fueled largely by uncertainty surrounding the presidential election. However, results swiftly shifted post-election, and all major US equity indices finished the quarter and year in positive territory, with the Russell 3000 Index returning 4.2% and 12.7%, respectively. Most notably, small-cap indices substantially outperformed large-cap counterparts, and value stocks outperformed growth stocks for the year.

Post-election, equity markets were characterized by increased risk appetite driven by expectations that the Trump administration could enact fiscal stimulus, deregulation, and tax reform. The subsequent rally, which was most pronounced in small-cap indices, was led by cyclical and economically-sensitive sectors such as energy, financials, and materials. As a result, the Russell 2000 Value Index notched the best performance of all US equity indices for the year, returning 31.7% in 2016 and 14.1% for the fourth quarter.

The persistent “safety” trade, which drove results during the first half of 2016, slowly abated. Sectors, such as consumer staples, real estate, and utilities,

underperformed economically-sensitive sectors for the year. While still notably positive, the S&P 500 Low Volatility High Dividend Index returned 22.7% in 2016 versus 26.5% for the S&P 500 High Beta Index. This marked a dramatic shift in investor risk appetite as six months prior, at the close of the second quarter, the indices had returned 17.1% and 0.7%, respectively.

Figure 1 shows the bifurcation in pre- and post-election results in cyclical and economically-sensitive sectors within the Russell 2000 Value. While producing modestly positive returns through October 2016, these sectors surged post-election.

Figure 1: Russell 2000 Value Sector Performance



Non-US Equity

Developed international markets ended the quarter slightly negative, but were positive for the year. Small-cap stocks underperformed large-cap stocks. There was an inflection point for value stocks during the quarter, producing strong, absolute returns, which pushed value stocks well ahead for the year. Growth stocks continued to lag and remained in negative territory for the year. Cyclical sectors, such as financials and energy, provided positive contributions for the quarter. By country, there were few bright spots, with only a few European countries posting positive returns in the fourth quarter.

Emerging Markets underperformed developed markets by a significant margin for the quarter. Year-end returns remained strong, but lagged US equities. Emerging market small-cap stocks underperformed large-cap stocks, and value stocks outperformed growth stocks for the quarter and year. Poor performance in emerging markets this quarter stemmed from fears that stimulus programs in the US could lead to higher bond yields and a stronger dollar, which may draw significant capital to the currency. Dollar strength is problematic for emerging market countries that hold dollar denominated debt.

Fixed Income

Recent and anticipated interest rate hikes negatively affected bond market returns for the quarter. The Bloomberg US Aggregate Bond Index returned 2.6% for the year after returning -3.0% during the fourth quarter. Long duration government bonds, which are particularly sensitive to interest rate movements, returned -11.5% for the quarter and ended the year with a return of 1.4% as measured by the Bloomberg Long US Government Index. Investment grade and high yield credit spreads compressed during the quarter as appetite for credit increased. The BofAML US High Yield Index returned 17.5% for the quarter – its best return since 2009.

Foreign debt from both developed and emerging markets declined significantly during the quarter as the US dollar strengthened. The sharpest decline occurred immediately following the US presidential election and may be partially attributable to the Trump Administration's protectionist policy proposals. Despite the down quarter, both hard currency and local currency emerging markets

debt finished the year with returns of 10.2% and 9.9%, respectively – their strongest performance since 2012.

Diversified Hedge Funds

The fourth quarter wrapped up a mixed year for the hedge fund industry. The first quarter of 2016 proved tumultuous, with many managers and strategies experiencing large drawdowns. The final three quarters of the year generally brought positive returns, resulting in the HFRI Fund Weighted Composite returning 5.6% for 2016. However, Fund of Hedge Funds ("FoF") delivered lower returns, with the HFRI FoF Composite returning just 0.5% for the year. While some of the difference is likely stems from unexpected large beta rallies in high yield credit and equity, which many FoFs were not positioned for, part of it may also be due to a historically large return spread between large and small managers. Across all categories, HFR indices that equal weight their constituents, and therefore have more significant small manager representation, outperformed the asset weighted counterpart. For example, the spread between the asset weighted and fund weighted composites for all hedge funds was -261 basis points in 2016, the largest negative spread between the two index measurements since the inception of the asset weighted index in 2008. Individual hedged equity managers had another difficult quarter from an alpha perspective, with early reports indicating the second worst quarter of alpha generation since 2010, partially driven by sector rotations out of technology, consumer, and health care following the November elections. For managers RVK follows closely, long performance was strong throughout most of the year, with the first quarter being a notable exception. Poor performance from short books was a main detractor for many managers that delivered disappointing alpha and absolute returns. The best performing strategies for the year continued to be in the distressed/restructuring space, while macro, which started out well in the first quarter of 2016, faded to the back of the pack.

GTAA

Most GTAA managers underperformed an undiversified and static 60/40 portfolio of US large cap equity and US fixed income during the quarter. Performance varied widely among managers over the

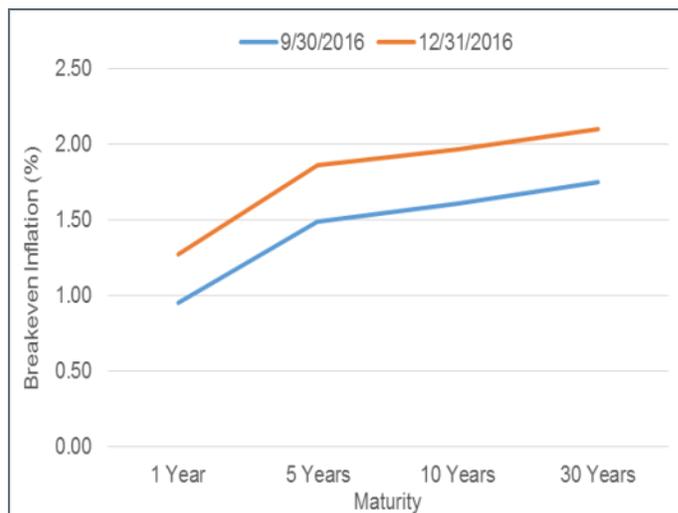
year, although some outperformed the static portfolio by as much as 550 basis points, net of fees. Fourth quarter performance exhibited similar return dispersion, with very few managers outperforming a static, undiversified portfolio. Managers that focus on lower-volatility and low correlation alpha provided the strongest performance for the quarter, as long dollar, short US duration, and credit positions were rewarded. As the dollar strengthened relative to global currencies, allocations to international equity and fixed income underperformed. Managers dependent upon long-term fundamental measures of global relative value have gravitated to these types of positions and have thus underperformed by the widest margins. US-focused managers that rely on bottom-up security selection performed near the middle of the group due to US energy and financials exposures; however, these strategies also underperformed a static allocation. Risk parity managers posted a strong 2016, but provided the widest underperformance during the quarter as the impact from rapid increases in bond yields proved too large to offset.

Diversified Inflation Strategies (Real Return)

Despite disappointing performance in the fourth quarter, nearly all Diversified Inflation Strategies managers produced strong results in 2016. Underlying inflation-sensitive asset classes diverged widely during the quarter as markets re-evaluated expectations of future inflation and considered the effects of a 25 basis point increase in the federal funds rate. Beginning in October, nominal bond yields rose considerably, and future expected inflation also increased (measured by the breakeven rate and illustrated in [Figure 2](#)). Commodities, particularly energy, and natural resource equities gained during the quarter as OPEC agreed to its first crude oil production cut in eight years. The US dollar gained as markets correctly anticipated the increase in the Federal Funds Rate. Managers with higher energy commodity exposure and natural resource equity exposure led the group during both the quarter and year. Managers with larger infrastructure and REIT allocations posted negative performance during the quarter as these asset classes were initially affected by increased bond yields. Strategies that structurally allocate to TIPS at the expense of REITs, infrastructure, and natural resource

equity ended the quarter at the approximate midpoint of the group.

Figure 2: Increasing Inflation Expectations



Real Estate

Investors responded to recent US political events and interest rate increases by selling off REITs, as evidenced by the -3.5% return in the FTSE/NAREIT US Real Estate Index during the quarter. Lower-yielding REITs outperformed on a relative basis, suggesting a shift in investor sentiment toward securities with higher growth prospects. While property-level fundamentals, such as rent and vacancy rates, remain strong overall, deal flow is slowing due to general economic uncertainty. In particular, debt providers have been unwilling to compromise underwriting standards as borrowers face higher debt service costs, resulting in lower transaction volume and less new supply. Reminders of prior lending mishaps are evident with CMBS delinquencies sharply increasing at year-end, as a result of loans coming due from 2006-2007 vintage borrowings.

The aforementioned interest rate increases did not have a significant short-term impact on real estate valuations as of year-end, as the NCREIF-ODCE Index returned 2.1% for the quarter based on preliminary estimates, with a nearly equal share of returns derived from income and appreciation. Recent interest in cash-flowing properties has slightly declined. Capital flows from overseas into US real estate are down 10% year-over-year as foreign investors await potential policy action.

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