

Quarterly
EQUITY
INDICATOR



Up 4.4%

Quarterly
BOND
INDICATOR



Up 0.5%

Quarterly
HEDGE FUND
INDICATOR



Up 1.7%

Quarterly
PENSION
LIABILITY
INDICATOR



Up 1.6%

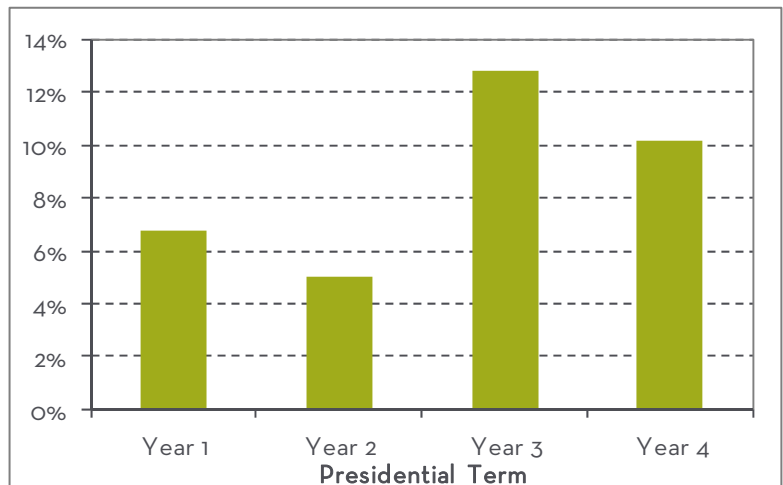
NEPC is an independent, full service investment consulting firm, providing asset allocation, traditional and alternative asset manager search, performance evaluation and investment policy services to institutional investment programs. We offer our market letters to provide insight into recent market conditions, and to assist your interpretation of investment results. We encourage your comments and feedback, as well as any inquiries you may have about our firm or our consulting services.

THE YEAR SO FAR...AND YEAR(S) AHEAD

In what has been a bountiful year so far for global markets, equity and credit assets continued their climb upwards in the third quarter. Non-US equities led the way as stocks in Europe and Japan bounced back from their lows following the Brexit vote. Emerging market equities are up 16% for the year amid economic growth and recovering currencies. Meanwhile, yields rose for US Treasuries, pressured by expectations of higher inflation and in anticipation of a rate increase in December by the Federal Reserve. For investors who remained diversified, it has been a frustrating number of years and it is encouraging to see those that held the course enjoy the rewards in 2016.

For those contemplating the impact on markets from the upcoming US presidential elections, we have some facts and figures. But first, be sure to vote. Historically, the electoral outcome has had minimal impact on stocks. That said, dating back to 1896, the first two years of a presidential term have been a more difficult period for US equity investors, underperforming the final years of a four-year term by more than 5% (Exhibit 1). To be sure, this is not an investment thesis unto itself. Still, this trend's consistency should weigh on investors' minds as the S&P 500 marches towards its eighth straight year of gains.

Exhibit 1: US Equity Return in Presidential Term Years (1896-2016)



Source: Bloomberg

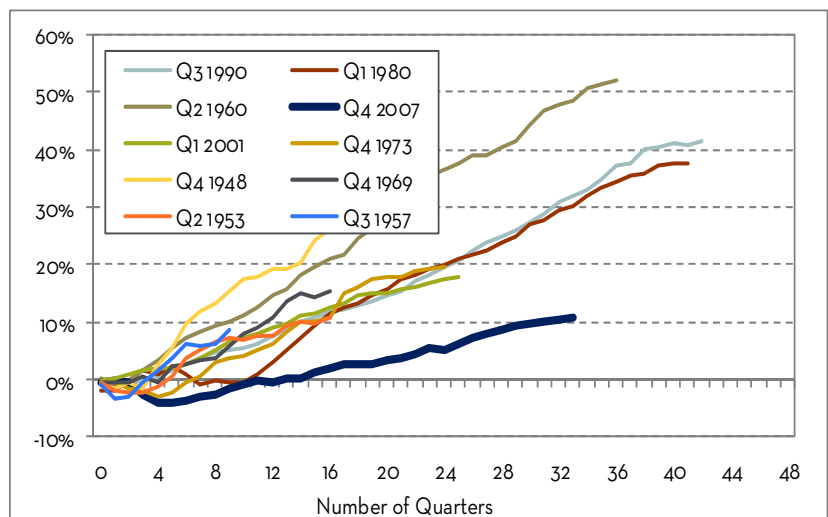
Looking beyond the presidential race, we turn our thoughts to key influences that we think will dominate markets in 2017 and beyond. To this end, we have outlined the following three major themes:

- (i) **US economic expansion:** The current growth cycle—at over seven years—is now the fourth longest expansion in the post-war period (Exhibit 2). One might assume, given the length of the expansion, the economy is due for a downturn. However, the continued strength of the US consumer and improvement in the housing sector remain a healthy tail wind. Considering these factors and the relatively muted economic growth of this cycle, there is potential for the US economy to grow at a slow and steady pace for an extended period. Such a scenario has broad implications for equity and credit assets as the absence of a downturn likely reduces the potential for volatility in corporate revenue and credit defaults.
- (ii) **Federal Reserve:** While the spotlight may be on the potential timing of the next rate hike, the pace at which the Fed raises rates over the longer term is of greater significance. To this end, we believe the Fed will raise rates at a slow and steady pace. Furthermore, the Fed has signaled its willingness to let the US economy run above capacity and allow inflation expectations to trend above its 2% target. Such an approach reinforces the potential of an ex-

tended economic expansion at home and curbs rapid appreciation of the dollar. Global economies are likely to benefit as a strong dollar tightens liquidity and raises borrowing costs for international dollar-based debtors. This dovish approach supports global economic growth and, more specifically, benefits emerging markets.

- (iii) China: It is hard to overestimate the impact of China on the world economic order. For instance, its economic growth rate is equivalent to adding a new Switzerland to the global economy every year. China is expected to contribute nearly 40% of total GDP growth in 2016, according to the IMF. This is also a time of major transitions in China's economic and capital markets. The economy is shifting its focus from industry to services and consumer consumption. Furthermore, the central government is slowly easing restrictions on capital markets and allowing the free market to hold greater sway over interest rate and currency levels. However, this transition is not without volatility as we saw earlier this year in January and August 2015 when sudden shifts in China's currency management fueled risk aversion, resulting in sharp declines in global capital markets.

Exhibit 2: Cumulative Real GDP Growth of US Economic Expansions



Source: FRED

These three themes inform our investment outlook for 2017 and beyond. We believe they provide a positive backdrop for global assets although with some clear risks. Ultimately, fundamentals and valuations will dictate returns but key cyclical and secular forces in the US and China underscore the risks and opportunities prevalent in the current investment environment. We look forward to further examining and highlighting these trends as they evolve and offering our insights to help investors meet their long-term investment objectives.

Global Equities

Domestic equities reversed course in the third quarter with the S&P 500 returning 3.9% and the Russell 2000 gaining 9.0%. Growth outpaced value across all capitalizations. Technology was the best performing sector while utilities and consumer staples lagged behind. Volatility, as measured by the VIX, dropped 15% during the quarter.

Outside the United States, developed markets had their best quarter of 2016, returning 6.4%. Investors shrugged off fears surrounding Brexit and monetary policies remained accommodative. Sector results were mixed with materials leading the pack with gains of 16% while healthcare declined 2%. In the United Kingdom, the market rebounded in local currency terms, but the pound continued to sell off and is at a 30-year low relative to the dollar.

Equity Index Returns as of 9/30/2016				
Global Equity	Quarter	1 Year	3 Yrs	5 Yrs
MSCI World	4.4%	9.1%	3.8%	9.3%
US Equity	Quarter	1 Year	3 Yrs	5 Yrs
S&P 500	3.9%	15.4%	11.2%	16.4%
Dow Jones Industrial Average	2.1%	12.4%	6.6%	10.9%
NASDAQ Composite	9.7%	15.0%	12.1%	17.1%
Russell 1000 Growth	4.6%	13.8%	11.8%	16.6%
Russell 1000 Value	3.5%	16.2%	9.7%	16.2%
Russell 2000	9.0%	15.5%	6.7%	15.8%
Russell 2000 Growth	9.2%	12.1%	6.6%	16.1%
Russell 2000 Value	8.9%	18.8%	6.8%	15.4%
International Equity	Quarter	1 Year	3 Yrs	5 Yrs
MSCI EAFE	6.4%	6.5%	0.5%	7.4%
MSCI Emerging Markets	9.0%	16.8%	-0.6%	3.0%
MSCI Europe	5.4%	2.5%	-0.6%	7.5%
MSCI UK	4.0%	1.5%	-1.8%	6.0%
MSCI Japan	8.6%	12.1%	3.3%	7.4%
MSCI Far East	8.6%	12.8%	3.4%	7.7%

Elsewhere, emerging markets rose around 9%, according to the MSCI Emerging Market Index. China—among the better performing countries—gained 13.9% in the third quarter. Political unrest in the Philippines resulted in declines of 5.3%.

Global Fixed Income

One-third of global developed sovereign debt yields were negative and two-thirds yielded below 1% in the third quarter. On the other hand, domestic high-yield fixed-income securities and hard currency emerging market debt were up 5.6% and 4%, respectively, for the three months ended September 30. So far this year, US high-yield debt and hard currency emerging market issues have returned around 15%, second only to gains of 17.1% by local currency

emerging market debt. The US Barclays Aggregate Index returned 0.5% this quarter, driven primarily by the corporate credit component of the index.

Currency Markets

Currency volatility subsided—albeit slightly—following the Brexit vote that ignited foreign exchange markets in June. The British pound continued its decline against the dollar. The DXY Index, a measure of the US dollar against a basket of developed currencies, finished the quarter marginally lower. The bid for high-yielding emerging market local debt buoyed developing economies though the currencies of some countries, including Mexico and Turkey, depreciated around 4%-5% in the quarter. The Fed will take center stage in investors' minds towards the end of the year as markets are currently pricing in a greater than 50% chance of a rate hike in December.

Commodity Markets

On the heels of a strong first half of the year, commodities gave back a portion of their gains in the third quarter, as the Bloomberg Commodity Index retreated 3.9%. Markets were driven lower by concerns around excess supply in energy, the potential for a robust grain harvest and indications that soy prices were reverting back to the mean. Investor appetite for risk had minimal impact on precious metals as gold and silver gained. In energy, a deal that could potentially end OPEC's "pump at will" policy buoyed oil prices.

Pension Liability

The Citigroup Pension Liability Index rose 11 basis points to 3.57% in September, its second increase this year. Still, rates are down four basis points for the quarter. Therefore, liabilities are estimated to have increased over the third quarter by 1.62%, with pension discount rates ending at 3.57% on September 30 compared to 3.61% on June 30. This brings the total increase in liabilities over the first three quarters of 2016 to about 19.1%.

Fixed Income Index Returns as of 9/30/2016				
Global Fixed Income	Quarter	1 Year	3 Yrs	5 Yrs
Citi WGBI	0.3%	9.7%	1.8%	0.8%
JPM EMBI Plus	3.1%	17.8%	8.0%	7.3%
Domestic Fixed Income	Quarter	1 Year	3 Yrs	5 Yrs
BC Aggregate Bond	0.5%	5.2%	4.0%	3.1%
BC US Agg. Treasury	-0.3%	4.1%	3.4%	2.2%
BC US Credit	1.2%	8.3%	5.4%	4.8%
BC Mortgage Backed	0.6%	3.6%	3.6%	2.6%
BC Interm. Gov't/Credit	0.2%	3.5%	2.8%	2.4%
BC 1-10 Yr TIPS	0.6%	4.8%	1.5%	1.3%
BC High Yield	5.6%	12.7%	5.3%	8.3%
S&P LSTA Lev. Loan	3.1%	5.5%	3.4%	5.2%
3 Month T-Bills	0.1%	0.3%	0.1%	0.1%
10-Year Bond Yields	Mar-16	Dec-15	Mar-15	Mar-14
US	1.6%	1.5%	2.0%	2.5%
Germany	-0.1%	-0.1%	0.6%	0.9%
UK	0.7%	0.9%	1.8%	2.4%
Japan	-0.1%	-0.2%	0.4%	0.5%

Changes in funded status were driven by asset returns rather than changes in liability. With equities gaining this quarter, many plans likely saw funded status improve. Clients with liability driven investment (LDI) strategies may not have seen much movement in funded status with long-duration credit posting gains over the quarter, partially offsetting the increase in liabilities. However, long-duration Treasuries posted negative returns in the third quarter. Therefore, the type of hedging assets in place was an important component of returns this quarter.

Given the low rate environment, clients who are considering implementing an initial LDI strategy should discuss strategies with their NEPC investment consultant.

Hedge Funds

Hedge funds were up 1.7% in the third quarter, according to the Credit Suisse Hedge Fund Composite. Strong performance in technology, healthcare and energy contributed to a rebound in equities, with the Credit Suisse Long-Short Equity Index gaining 1.9% in the third quarter.

Event-driven strategies experienced a healthy rebound with gains of 3.0%, according to the Credit Suisse Event Driven Index. Distressed opportunities in the event-driven space are driving annual performance for the strategy, returning 2.8% year to date, according to the Credit Suisse Event Driven Distressed Hedge Fund Index. Credit strategies experienced favorable performance with gains of 3.1%, according to the HFRI Relative Value (Total) Index, driven largely by convertible and fixed-income arbitrage strategies.

Global macro strategies lagged, gaining only 0.6%, according to the Credit Suisse Global Macro Index. The Credit Suisse Managed Futures Index was down 3.2% fueled by underperformance among managers following medium- and long-term trends. Although macro funds struggled in the third quarter, positive performance in emerging markets bolstered the overall strategy.

Hedge Fund Industry Performance Overview as of 9/30/2016				
Composite	Quarter	1 Year	3 Yrs	5 Yrs
DJCS Hedge Fund Composite	1.7%	0.0%	2.5%	4.3%
Relative Value	Quarter	1 Year	3 Yrs	5 Yrs
DJCS Convertible Arbitrage	3.8%	5.5%	2.1%	4.0%
DJCS Fixed Income Arbitrage	2.6%	2.4%	2.9%	4.6%
DJCS Equity Market Neutral	1.6%	-2.0%	1.2%	2.1%
DJCS Multi-Strategy	2.6%	3.7%	5.9%	7.3%
Event Driven	Quarter	1 Year	3 Yrs	5 Yrs
DJCS Event Driven	3.0%	-1.9%	0.1%	4.2%
DJCS Event Driven - Distressed	2.8%	0.9%	1.6%	5.4%
DJCS Event Driven - Risk Arbitrage	2.3%	5.9%	1.7%	2.6%
DJCS Event Driven - Multi-Strategy	3.1%	-3.0%	-0.6%	3.7%
Equity Hedge	Quarter	1 Year	3 Yrs	5 Yrs
DJCS Long-Short Equity	1.9%	-1.7%	4.0%	6.6%
DJCS Emerging Markets	4.2%	7.7%	3.5%	5.0%
DJCS Dedicated Short Bias	-12.1%	-21.9%	-8.8%	-15.4%
Tactical	Quarter	1 Year	3 Yrs	5 Yrs
DJCS Global Macro	0.6%	-0.4%	1.7%	2.3%
DJCS Managed Futures	-3.2%	-2.3%	6.8%	1.0%
Traditional Markets	Quarter	1 Year	3 Yrs	5 Yrs
BC Aggregate Bond	0.5%	5.2%	4.0%	3.1%
S&P 500	3.9%	15.4%	11.2%	16.4%

Private Markets

For the three months ended September 30, new deal and exit activity in buyouts lagged the prior quarter and year ago period, though aggregate deal value was consistent with the second quarter. Financial sponsors remain active in deploying capital but lag strategic merger and acquisition activity. Firms are exiting companies but the decline in sponsor-backed IPOs is driving down volume. Purchase prices are hovering near record highs in developed geographies, spurred by robust leverage levels; equity contributions also continue to be high.

At home, direct-lending opportunities still reside in the middle market with the lower-middle market posting outsized returns. That said, the risk-return profile of the core middle market is also appealing. In Europe, geopolitical events and reform are accelerating the pullback by banks. The manager universe in Europe has become tiered; stronger managers have better deal flow and are performing well. As pricing becomes competitive, fees have gained prominence.

In real estate, we are neutral on US core assets. While valuations stand at record highs on an absolute basis, fundamentals are robust as vacancies remain tight and new supply has largely been balanced. On a relative basis, cap rate spreads to US Treasury yields are still attractive as global economic uncertainty, partly influenced by Brexit, has driven down interest rates to record lows. We are positive on non-core real estate and continue to favor cash flow-driven managers who are attentive to duration risk at the current stage of the expansion cycle. A flight to quality will continue to favor US real estate markets, while opportunities to capitalize on distress or capital markets' inefficiencies in Europe and select emerging markets remain.

In real assets, we are positive on energy, negative on timber, and neutral on agriculture, infrastructure, and metals and mining. NEPC continues to evaluate energy-related investment opportunities. Still, balance sheet stress has subsided as oil prices have rebounded and capital markets have become more accessible. Although the global oil market remains oversupplied, signals from OPEC and Russia supporting a potential cut or limit on new production have bolstered oil prices, leading to higher asset values in the energy sector. Our highest conviction remains in private equity as these managers appear best equipped to invest and manage assets amidst a choppy recovery. We believe asset selection is critical in energy and are evaluating select opportunities in other parts of real assets.

Final Thoughts

We strongly advocate disciplined portfolio rebalancing. Reducing exposure to assets that have outperformed expectations is integral to our investment philosophy. The gains of US stocks provide just such an opportunity and we advise investors to shift exposure to developed market equities outside of the United States. Similarly, we encourage adjustments in developed market sovereign debt following recent gains and are biased towards Treasury inflation-protected securities (TIPS) over nominal government bonds. Despite their recent strong showing, we recommend investors maintain allocations to emerging markets and believe equities and local currency debt offer the most attractive total return opportunity in public markets. Finally, we remind investors of the importance of a risk balanced investment approach and believe it best serves investors' ability to weather a multitude of economic environments over the long term.

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