MARKET THOUGHTS

FOURTH QUARTER 2015 VOLUME 40

Quarterly EQUITY INDICATOR	Quarterly BOND INDICATOR	Quarterly HEDGE FUND INDICATOR	Quarterly PENSION LIABILITY INDICATOR
Up 5.1%	Down 0.6%	Down 0.1%	Up 0.8%

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.

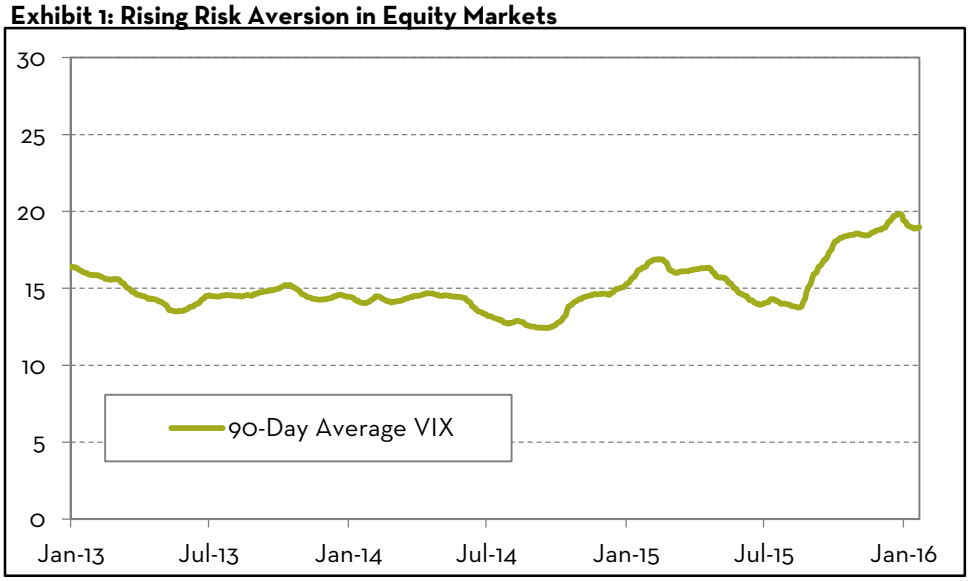
SEEKING RETURNS AMID RISK AVERSION

Introduction

As we ring in the new and ring out the old, let us reflect on the year that was. At this point last year, we emphasized moderation, be it in tempering expectations for future investment returns or curtailing the urge to replicate outsized returns with a portfolio of the past. We voiced caution amid expectations that global divergences were likely to highlight stresses in financial markets, ultimately pushing volatility higher off cyclical lows. These trends largely flowed through to asset returns in 2015, producing erratic results for investor portfolios. The S&P 500 was up 1.4% and the Barclays Aggregate Index rose 0.5%, while small-cap equities and high-yield bonds were off nearly 4.5%. Global markets wobbled under the strain of a strong US dollar as the MSCI EAFE Index declined 0.8%, emerging markets equities and local debt were down nearly 15%, and commodities plunged.

Last year was also marked by uncertainty surrounding certain globally significant economic trends in transition: the extension of the US economic cycle, the path of the Federal Reserve's monetary policy tightening, and the extent of the economic slowdown in China. This uncertainty rattled investors, culminating in risk aversion and contributing to a sharp decline in global markets in August. Despite the recovery in equities in the fourth quarter, this rising wave of risk aversion has seeped into 2016 (Exhibit 1) with broad declines across global stocks, credit and commodities. The uncertainty fueling this risk aversion can be distilled into three broad questions that will likely be at the forefront of investors' minds this year:

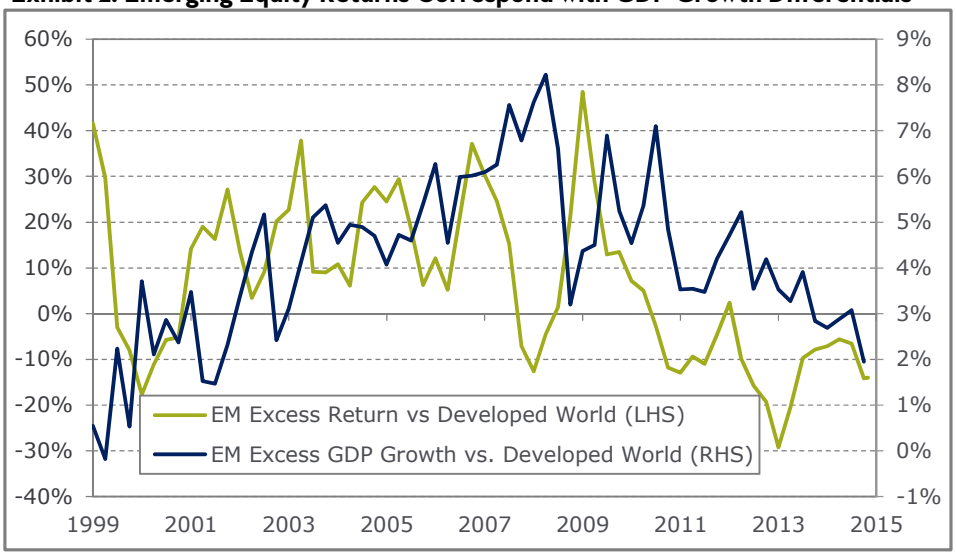
Exhibit 1: Rising Risk Aversion in Equity Markets



Source: Bloomberg

1. The US is in a mid-to-late economic cycle: Will the expansion continue or slow from external pressures and a strong dollar?
2. Global central bank policies are showing signs of divergence: Will the Fed continue on the path of a tightening cycle or need to reverse course?
3. Emerging market growth expectations are slowing (Exhibit 2): Will growth rates, specifically in China, deteriorate or will the large-scale economic adjustments be sufficient to stabilize growth?

Exhibit 2: Emerging Equity Returns Correspond with GDP Growth Differentials



Source: IMF, Bloomberg

While we will have greater clarity regarding these questions over the course of 2016, we believe the American consumer can spur economic expansion in the US. With continued domestic growth, the Fed will likely remain on a cautious and gradual path to reducing monetary support, while the European Central Bank and the Bank of Japan are expected to press forward with their accommodative monetary policies. Of greatest concern are the large corrections that have occurred in emerging markets in recent years amid greater dollar strength, depressed commodity prices and declining investment flows. These adjustments have been severe and future return expectations appear to adequately compensate investors relative to the long-term risks. Nevertheless, the strength of the US dollar may force a more aggressive currency adjustment in China and fuel greater volatility in emerging markets in the near term. To this end, we encourage investors to re-affirm their commitment levels to emerging markets and rebalance accordingly to capitalize on attractive entry points.

In light of the market activity so far this year, our calls for moderation in 2015 have shifted. We believe recent declines across global markets have revealed near-term investment opportunities. We encourage investors to actively seek these out to rebalance toward potentially higher return-seeking investments, including long-only equities and credit. In addition, should the market selloff continue, we believe consideration should be given to increasing strategic asset allocation targets to equity and credit exposure.

A willingness to be contrarian amid heightened market volatility will be beneficial for investors who are able to look past market pessimism and rebalance target weights to risk assets. We think the current market environment favors investors willing to take on risk, offering an opportunity to increase exposure to assets that have fallen in price. That said, despite the increased attractiveness of risk assets, forward-looking returns are likely to be subdued relative to historical gains. To this end, we encourage investors to look beyond conventional investment approaches and pursue private market strategies focused on direct lending and opportunities created by dislocations in energy markets. Investors should also consider strategies such as global macro hedge funds, which can benefit from divergent international market trends, and unique credit strategies seeking to exploit volatility in debt markets.

Our outlook reflects an intersection of multiple global themes and, on balance, is relatively positive for risk assets. However, we are unwavering in our commitment to a diversified investment program, believing it will weather the recent volatility better than one with an equity-focused approach. We build on these themes and provide a broader perspective of our current views in our recently published annual asset allocation letter—*Embrace Opportunities Amidst Uncertainty: NEPC's 2016 Asset Allocation Letter*—at www.nepc.com.

Global Equities

US equities ended a volatile 2015 on a strong note. Despite a solid last quarter, the year saw the lowest gains for the S&P 500 since 2008 and for the Russell 2000 since 2011. Earlier in the quarter, equities rallied amid robust corporate earnings and macroeconomic data. Subsequently, stocks faltered amid plunging oil prices and concerns around the impact of a stronger US dollar as the Fed tightens monetary policy. The consumer discretionary sector led performance in large caps in 2015 while healthcare dominated small caps; energy was the worst performing sector in both. Growth bested value in large and small equities.

Meanwhile, developed markets recouped a portion of their third quarter losses, gaining 4.8% in the last quarter. For the year, international equities were down around 0.4%. The energy and materials sectors drove losses, trading down over 16% in 2015; consumer staples and healthcare were the strongest performers, up over 8%.

Emerging economies returned 0.7% as the Fed's 25 basis points rate hike—its first since 2006—drove markets lower;

healthcare and consumer discretionary sectors gained during the quarter while industrials and staples lagged. For 2015, the materials sector—down over 20%—was a major detractor of performance. Brazil traded off 41% as the real declined sharply amid the country's political and economic problems.

Equity Index Returns as of 12/31/2015				
Global Equity	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
MSCI World	5.1%	-2.7%	7.5%	5.4%
US Equity	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
S&P 500	7.0%	1.4%	15.1%	12.6%
Dow Jones Industrial Average	7.0%	-2.2%	10.0%	8.5%
NASDAQ Composite	8.4%	5.7%	18.4%	13.5%
Russell 1000 Growth	7.3%	5.7%	16.8%	13.5%
Russell 1000 Value	5.6%	-3.8%	13.1%	11.3%
Russell 2000	3.6%	-4.4%	11.7%	9.2%
Russell 2000 Growth	4.3%	-1.4%	14.3%	10.7%
Russell 2000 Value	2.9%	-7.5%	9.1%	7.7%
International Equity	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
MSCI EAFE	4.7%	-0.8%	5.0%	3.6%
MSCI Emerging Markets	0.7%	-14.9%	-6.8%	-4.8%
MSCI Europe	2.5%	-2.8%	4.5%	3.9%
MSCI UK	0.7%	-7.6%	1.8%	3.5%
MSCI Japan	9.3%	9.6%	10.2%	4.4%
MSCI Far East	8.7%	6.7%	8.6%	4.1%

Global Fixed Income

At home, the Fed's well telegraphed rate hike drove government yields higher in the fourth quarter, resulting in losses for Treasuries with maturities of less than one year. Within corporate credit, the precipitous selloff in commodity-related sectors was unrelenting. Consequently, high-yield debt was the worst performer during the quarter and in 2015, losing 2.07% and 4.47%, respectively; in high yield, energy and metals and mining lost nearly 25% last year. Investment-grade credit spreads widened 34 basis points over the course of 2015 to 165 basis points; contributors included global growth concerns, falling commodity prices, and record issuance of $1.3 trillion which hampered liquidity.

Abroad, emerging market debt remained hindered by a strengthening US dollar, causing the local currency index to lose 0.01% compared to returns of 1.25% for the dollar-denominated index. Within developed markets, weakening currencies aided losses of 1.23%, according to the Citigroup WGBI Index.

Fixed Income Index Returns as of 12/31/2015				
Global Fixed Income	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
Citi WGBI	-1.2%	-3.6%	-2.7%	-0.1%
JPM EMBI Plus	1.8%	1.8%	-0.3%	5.0%
Domestic Fixed Income	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
BC Aggregate Bond	-0.6%	0.5%	1.4%	3.2%
BC US Agg. Treasury	-0.9%	0.8%	1.0%	2.9%
BC US Credit	-0.5%	-0.8%	1.5%	4.4%
BC Mortgage Backed	-0.1%	1.5%	2.0%	3.0%
BC Interm. Gov't/Credit	-0.7%	1.1%	1.1%	2.6%
BC 1-10 Yr TIPS	-0.7%	-0.5%	-1.8%	1.6%
BC High Yield	-2.1%	-4.5%	1.7%	5.0%
S&P LSTA Lev. Loan	-2.1%	-0.7%	2.0%	3.4%
3 Month T-Bills	0.0%	0.0%	0.1%	0.1%
10-Year Bond Yields	**Dec-15**	**Sep-15**	**Dec-14**	**Dec-13**
US	2.3%	2.0%	2.2%	3.0%
Germany	0.6%	0.6%	0.5%	1.9%
UK	2.0%	1.8%	1.8%	3.0%
Japan	0.3%	0.4%	0.3%	0.7%

Currency Markets

The US dollar strode into the fourth quarter on the back of one of its strongest rallies in history, fueled by a hawkish Fed and concerns around growth abroad. This bullish trend persisted for the three months ended December 31. The euro fell modestly during this time to 1.08 from 1.12, testing multi-year lows along the way as the ECB continued its stimulus plan. The Japanese yen was nearly flat, ending the quarter at 120.

Emerging market currencies rebounded briefly in the last quarter only to stumble in December. The Brazilian real experienced modest gains in October and November after hitting multi-year lows in September but then trended downwards. Economies heavily reliant on exporting commodities also saw their currencies depreciate with the protracted decline in commodity prices.

Commodity Markets

Commodities continued their freefall in the fourth quarter, losing 10.5%, according to the Bloomberg Commodity Index. They ended 2015 down 24.6% with 21 of the 22 single-commodity indexes posting losses. Cotton was the one bright spot while crude oil was the biggest loser with prices falling over 40%. Last year represented the fifth consecutive annual loss for commodities and the longest decline since the index data was first tracked in 1991. Volatility was a way of life in 2015 with monthly returns ranging from gains of 5.7% to losses of 10.6%. Warm winter weather conditions in the Northern United States and Europe were detrimental to energy, keeping prices depressed amid an oversupply in crude and natural gas. Weakening manufacturing data out of China, the world's largest metal consumer, and the devaluation of the yuan kept the price of industrial metals low. The potential for future rate hikes by the Fed kept precious metals in check, while plentiful inventories across a wide array of crops held back agricultural prices.

Pension Liability

Pension discount rates remained relatively flat in the fourth quarter, with the Citigroup Pension Liability Index at 4.34% as of December 31, up two basis points from 4.32% as of September 30. The Treasury curve experienced an almost parallel shift upwards, with 30-year rates rising 14 basis points. The net result was an infinitesimal increase in estimated pension liabilities of 0.8% for the quarter, with an overall net liability decline of 3.04% for 2015.

Pension plan sponsors may derive solace from the Fed's tightening monetary policy as higher interest rates mean lower liabilities in the future. Clients who have a Liability Driven Investment, or LDI, policy in place should work closely with their NEPC investment consultant to discuss appropriate hedge ratios and strategies. We believe LDI may be a useful hedging tool, especially after interest rates rise.

Hedge Fund Industry Performance Overview as of 12/31/2015				
Composite	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
DJCS Hedge Fund Composite	-0.1%	-0.7%	4.3%	3.6%
Relative Value	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
DJCS Convertible Arbitrage	-0.6%	0.8%	1.7%	2.8%
DJCS Fixed Income Arbitrage	0.0%	0.6%	2.9%	4.8%
DJCS Equity Market Neutral	0.0%	1.7%	3.2%	3.0%
DJCS Multi-Strategy	0.5%	3.8%	7.0%	6.8%
Event Driven	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
DJCS Event Driven	-2.3%	-6.3%	3.2%	2.0%
DJCS Event Driven - Distressed	-1.8%	-5.3%	4.1%	3.8%
DJCS Event Driven - Risk Arbitrage	0.8%	0.4%	1.3%	1.5%
DJCS Event Driven - Multi-Strategy	-2.5%	-6.7%	2.9%	1.1%
Equity Hedge	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
DJCS Long-Short Equity	1.6%	3.6%	8.8%	5.2%
DJCS Emerging Markets	2.8%	-0.2%	3.3%	2.6%
DJCS Dedicated Short Bias	-4.3%	2.4%	-10.2%	-9.7%
Tactical	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
DJCS Global Macro	0.6%	0.2%	2.5%	3.7%
DJCS Managed Futures	-1.1%	-0.9%	4.5%	1.2%
Traditional Markets	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
BC Aggregate Bond	-0.6%	0.5%	1.4%	3.2%
S&P 500	7.0%	1.4%	15.1%	12.6%

Hedge Funds

The CS Hedge Fund Index oscillated from positive to negative throughout 2015, ending the year with moderate losses of 0.7%. Low interest rates, steep commodity price declines and intense volatility in equities contributed to negative returns last year—a first since 2011—for both the CS Hedge Fund Index and the HFRI Fund Weighted Composite. Hedge fund sub-strategies had mixed results for the fourth quarter with equity-linked approaches outperforming credit and macro as global equities rebounded from third quarter lows and credit spreads widened.

Event-driven strategies lost 2.3% in the fourth quarter despite a brief rally in October. Global macro strategies started off the year on firm footing but were negatively affected by choppy, volatile markets. Discretionary strategies outperformed systematic strategies on the quarter, returning 0.6% and -1.1%, respectively. The CS Global Macro Index ended the year with gains of 0.6% while the Managed Futures Index posted losses of 0.9%.

Equity long/ short and emerging markets strategies were the best performing sub-strategies in the last quarter. The CS Emerging Markets Index benefited from a recovery in funds focused on China and Brazil, ending the quarter up 2.8%; while the index posted a modest loss of 0.2% in 2015, it outperformed the MSCI EM Index which lost 14.2%.

Private Markets

For venture/ growth equity, top quartile returns are attractive, but access is difficult and the risk-return tradeoff outside of the top quartile is questionable. Valuations, investment volume and average deal sizes have significantly increased over the past two years. Buyouts/ special situation strategies have performed consistently over market cycles but purchase prices hover around record highs in developed geographies (although the amount of equity in these transactions is higher than before the financial crisis). Sponsors have proven their ability to preserve capital, with median investment multiples from the last buyout boom rebounding to 1.5x-1.6x with continued upside potential. Low default rates at home and ready capital are creating a challenging environment for distressed opportunities (except in energy). Conditions in Europe are more attractive because of over $1 trillion of non-performing loans on bank balance sheets and Basel III requirements. We expect lower returns for mezzanine and direct-lending strategies. Creativity and alpha remain important for secondaries, fund of funds and co-investments.

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 given the market dislocation. Our highest conviction remains in private equity and credit as these strategies appear best equipped to invest and manage assets as stress continues to build. We are evaluating the midstream (MLP) space, which has experienced a huge selloff but risks remain. For this reason, we believe that asset selection is critical.

In real estate, we remain neutral on US private core real estate and REITS. While valuations in primary markets are above levels seen before the financial crisis, fundamentals are strong and pricing remains attractive on a relative basis to Treasuries. We are neutral on real estate debt as competition among traditional lenders keeps yields low. We are positive on value-add and opportunistic real estate and still believe Europe is attractive. For non-core real estate in the US, we favor cash flow-driven, niche-focused managers with a demonstrated ability to navigate volatility.

Final Thoughts

As we enter the seventh year of recovery in the US we remain supportive of global risk assets but are cognizant of the pressures of an advancing economic cycle, the strains of a strong dollar, and slowing growth in China. While 2016 is off to a challenging start, we believe little has changed in the underlying fundamentals driving our outlook with the current market volatility offering a compelling entry point to rebalance back into risk assets. We encourage investors to capture quickly-evolving market opportunities when they present themselves. Each investor's circumstances are unique but we think core bonds and select diversifiers, such as absolute return-oriented strategies and inflation-sensitive assets, represent a ready funding source for a reallocation to equities. We recommend an overweight exposure to non-US developed market equities as central banks provide a supportive economic backdrop. We remain optimistic over the long term on emerging markets but, despite the attractive valuations, our enthusiasm is tempered in the near term amid concerns around a strong dollar and country-specific risks.

The foundation of NEPC's investment approach is a belief in a diversified risk-balanced portfolio while advocating a contrarian view. Whether it is patiently deploying private capital to exploit distress in the energy market or a willingness to rebalance during periods of stress, we believe looking beyond short-term pessimism will best serve investors over the long-term horizon.

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