

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.

1997, 2007, OR SOMETHING ELSE ALTOGETHER?

Introduction

What a year for US stocks: The S&P 500 gained 32.4% and the Russell 2000 was up 38.8% in 2013! The domestic equity market emerged as the clear champion this past year, even as investors lost money in Treasury bonds, emerging markets disappointed, and commodities declined. Equities even shrugged off the fiscal cliff, the “taper tantrum,” the government shutdown, and the close-shave with the debt ceiling. So how should we think about US stocks at this juncture as we look back, and ahead into the future?

To be sure, exposure to US stocks propelled investment returns in 2013. That said, while evaluating this past year’s results, it is important to differentiate between absolute and relative performance. Investment programs with even moderate exposure to domestic equities will likely produce gains that exceed long-term return targets. For defined benefit plans, the positive equity markets, combined with rising interest rates, provided a strong tailwind for improved funded status, even when liabilities were partially hedged with long duration bonds. We suggest that focusing on progress relative to long-term objectives is vital, especially in light of such singular returns by one asset class.

Looking ahead, the outlook for US equities remains a key consideration for investors. However, that’s easier said than done, given that the outlook is all over the place. Are we in the midst of a multi-year bull market, with plenty of room to run, that is, for instance, comparable to 1997, the mid-point of the great equity rally of the late 1990s? Or are we cresting a market top with nothing but downside in front of us such as in 2007? At this juncture it appears that there are reasonable cases to be made for both bull and bear scenarios. From a valuation standpoint, it is clear that the market is increasingly expensive as returns have outstripped corporate profits. We put this in historical context in Exhibit 1, which shows the S&P 500 price-to-earnings (P/E) ratio today as well as at the end of 1997 and 2007. The current reading of 17.4 is above the long-term average, and comparable to the end of 2007, immediately before the great financial crisis. Yet, at the end of 1997, valuations were even more stretched and the market roared on for another two full years.

US equity bulls cite additional factors supporting their case: domestic economic growth is picking up, the Federal Reserve remains accommodative, inflation appears supine, and, frankly, there just aren’t that many other attractive options for investors. Colloquially, US stocks are the “cleanest dirty shirt,” or the “best house in a bad neighborhood.”

Exhibit 1: S&P 500 Comparison 1997, 2007 and 2013

	S&P 500 Return for Year	S&P 500 Trailing PE Ratio (as of 12/31)	S&P 500 Return for Next Year
1997	33.4%	22.3	28.6%
2007	5.5%	17.3	-37.0%
2013	32.4%	17.4	?

Source: Bloomberg

On the flip side, US equity doubters will

point to rising valuations when corporate profits are at secular highs with nowhere to go but down. History indicates that after a two-year run of more than 50% (the S&P 500 was up 52.3% since the start of 2012), the market, on average, provides negative excess returns over cash in the following five years (Exhibit 2). In addition, US stocks face potential headwinds from rising rates with the Fed tapering its monetary policy, continued fiscal austerity, and higher healthcare and regulatory costs.

We cannot tell you with certainty what will happen to US stocks in the coming year. For that matter, no one can. Every year, however, we do forecast returns, risks, and correlations for major investment categories over a five-to-seven year horizon. This year our forecast for US stocks has declined to 6.25% from 6.75% at the outset of 2013. At the same time, expected returns for most bond markets have increased along with rising rates. As a result, our forecast equity risk premium has narrowed meaningfully from this time last year. To be sure, in the shorter term, US equities could continue their run given the strong momentum already in place and the potential for uninterrupted investor flows out of other categories. The key question remains: How much of a program's risk budget should be committed to US stocks? For most long-term investors, US equity remains the single largest source of risk as well as an important driver of expected total return. This is generally appropriate. We do not, however, recommend making US equity an outsized portion of a program's total risk budget. Nor do we recommend a major underweight to targets in US equity. As we enter 2014, we may not know whether it will play out like 1998 or 2008 or something completely different. What we do know is that in an uncertain environment, a portfolio comprising a diversified, risk-balanced set of assets remains the best starting place for long-term investment programs.

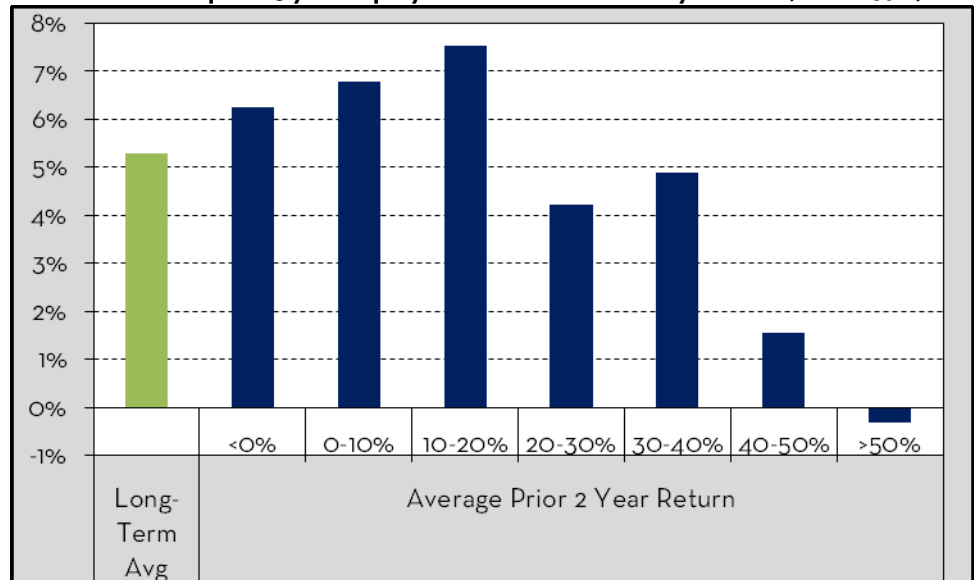
We build on this theme and provide broader perspective on our current views in our recently published 2014 asset allocation letter, "Moving in Different Directions," available at www.nepc.com.

Global Equities

US equities had a strong fourth quarter, capping off a successful year for investors. A brighter economic outlook and continued Fed stimulus drove returns higher through the year. Sectors that were tied to the improving economy, such as consumer discretionary, healthcare, industrials, and financials, outperformed; defensive, yield-oriented sectors like telecommunications and utilities, lagged. Small capitalization stocks outperformed large capitalization stocks in 2013, with the Russell 2000 Index returning 38.8% compared to the S&P 500 Index's gain of 32.4%. In terms of style, growth bested value in both large and small stocks for the year, with the lead being most pronounced down the capitalization spectrum.

Macro policy and politics affected global markets during the last quarter. Fears of the US hitting its debt ceiling and slowing growth in emerging mar-

Exhibit 2: Subsequent 5 year Equity Risk Premium After 2 year Run (Since 1970)



Source: Bloomberg

Equity Index Returns as of 12/31/2013				
Global Equity	Quarter	1 Year	3 Yrs	5 Yrs
MSCI World	7.6%	24.1%	9.9%	16.1%
US Equity	Quarter	1 Year	3 Yrs	5 Yrs
S&P 500	10.5%	32.4%	16.2%	17.9%
Dow Jones Industrial Average	9.6%	26.5%	14.4%	17.8%
NASDAQ Composite	10.7%	38.3%	19.1%	33.0%
Russell 1000 Growth	10.4%	33.5%	16.5%	20.4%
Russell 1000 Value	10.0%	32.5%	16.1%	16.7%
Russell 2000	8.7%	38.8%	15.7%	20.1%
Russell 2000 Growth	8.2%	43.3%	16.8%	22.6%
Russell 2000 Value	9.3%	34.5%	14.5%	17.6%
International Equity	Quarter	1 Year	3 Yrs	5 Yrs
MSCI EAFE	5.7%	22.8%	8.2%	12.4%
MSCI Emerging Markets	1.8%	-2.6%	-2.1%	14.8%
MSCI Europe	7.9%	25.2%	10.9%	17.4%
MSCI UK	7.4%	20.7%	11.8%	22.2%
MSCI Japan	2.3%	27.2%	6.0%	8.9%
MSCI Far East	2.3%	23.3%	5.8%	10.8%

Source: Bloomberg

kets initially pushed non-US stocks lower. Markets subsequently turned positive when Janet Yellen emerged as the favored candidate to serve as the chairperson of the Fed. A solid showing in December rounded off a strong year for global equities, which gained 22.8%, according to the MSCI World Index. During the fourth quarter, European stocks returned 7.9%, outperforming the UK and Japan. Emerging markets' equities trailed, posting gains of 1.9% during the quarter.

Global Fixed Income

Fed policy and improvements in the domestic economy drove fixed income performance in the fourth quarter and 2013. Bond markets rallied across the board for six-to-eight weeks after Fed Chairman Bernanke announced an unabated continuation of quantitative easing in September. Starting in November, as published data indicated moderate progress in the economy, investors began piling into credit sectors and equities in an effort to seek protection from rising interest rates. The reality of rising rates materialized in mid-December when the Fed announced a \$10 billion reduction in asset purchases. As a result, the most duration-sensitive sectors of the bond market, that is, Treasuries and mortgage-backed securities, sold off.

The yield on the US Treasury 10-year note closed above 3% in December, a first since July 2011. Over the fourth quarter, the 10-year yield increased 40 basis points to 3.04%. Intermediate term Treasury Inflation-Protected Securities, or TIPS, lost 1.3% during the quarter, bringing the year's losses to 5.6%. The breakeven spread, that is, the spread between nominal and real yields which serves as a proxy for the market's expectations for inflation, widened modestly to 2.24%.

The US investment grade fixed income market stood nearly flat in the quarter returning -0.1%, according to the Barclays Aggregate Index; losses in Treasuries and agency MBS detracted from the benchmark's returns. For the year, the Barclays Aggregate lost 2.0%, only its third negative annual return since inception. Credit markets withstood another barrage of rising Treasury yields to post positive returns across the duration curve. The US Credit Index gained 0.9% and the Long Duration Index returned 1.5% in the fourth quarter.

Mortgage-backed securities, while still getting technical support from the Fed's \$45 billion in mortgage purchases, lost 0.4%. High yield bonds and leveraged loans continued to lead fixed income in the fourth quarter. High yield returned 3.6% during this period, ending the year with solid annual gains of 7.4%. The yield spread, or yield advantage, of high yield bonds over Treasuries fell to 3.82% on December 31, 2013, from 5.11% at the end of 2012. A large portion of this spread tightening was fueled by increases in Treasury rates, but increased demand also drove yields lower as well. Yield-hungry investors and concern around rising interest rates drummed up demand for leveraged loans (bank loans pay a floating rate coupon that increases as interest rates rise). Loans returned 1.7% in the fourth quarter and 5.3% in 2013. In a trend that continued through the year, lower-rated securities outperformed higher-quality issues during the quarter.

Emerging markets debt turned in a subdued performance that began with the sell-off in the second quarter of 2013. Local currency debt, as measured by the JP Morgan GBI-EM Index, lost 1.5% in the quarter and racked up losses of 9.0% for the year. Hard currency debt gained 0.6% in the fourth quarter, but lost 8.3% in 2013. As the year progressed, investors shunned a cluster of countries facing balances of payments challenges. The so-called fragile five—Brazil, Indonesia, India, Turkey and South Africa—were responsible for much of the underperformance in the bond indices of emerging markets.

Currency Markets

The US dollar was range-bound in the fourth quarter versus European currencies, as markets continued to focus on potential Fed tapering. The euro, British pound, and Swiss franc strengthened against the US dollar by the end of the quarter. However, emerging market currencies, for instance, the Indian rupee, and commodity currencies, such as the Australian dollar, weakened against the US dollar amid deteriorating macroeconomic fundamentals. Emerging markets currencies

Fixed Income Index Returns as of 12/31/2013				
Global Fixed Income	Quarter	1 Year	3 Yrs	5 Yrs
Citi WGBI	-1.1%	-4.0%	1.2%	2.3%
JPM EMBI Plus	0.6%	-8.3%	6.1%	13.3%
Domestic Fixed Income	Quarter	1 Year	3 Yrs	5 Yrs
BC Aggregate Bond	-0.1%	-2.0%	3.3%	4.4%
BC US Agg. Treasury	-0.8%	-2.7%	3.0%	2.2%
BC US Credit	0.9%	-2.0%	5.4%	9.2%
BC Mortgage Backed	-0.4%	-1.4%	2.5%	4.0%
BC Interm. Gov't/Credit	0.0%	-0.9%	2.9%	4.0%
BC 1-10 Yr TIPS	-1.3%	-5.6%	2.6%	5.0%
BC High Yield	3.6%	7.4%	9.3%	18.9%
S&P LSTA Lev. Loan	1.7%	5.3%	5.7%	19.1%
3 Month T-Bills	0.0%	0.1%	0.1%	0.2%
10-Year Bond Yields	Dec-13	Sep-13	Dec-12	Dec-11
US	3.0%	2.6%	1.8%	1.9%
Germany	1.9%	1.8%	1.3%	1.8%
UK	3.0%	2.7%	1.8%	2.0%
Japan	0.7%	0.7%	0.8%	1.0%

Source: Bloomberg

displayed higher levels of volatility, as the possibility of capital flight focused investors' attention on some of the structural challenges facing these economies. The differences in the economic health of countries in emerging markets became more pronounced in the way their currencies traded. For example, stronger fundamentals in South Korea saw the won continuing to appreciate against the US dollar. The Brazilian real, however, declined against the US dollar as speculation of tapering by the Fed outweighed the effects of Brazil's monetary intervention program.

Commodity Markets

Commodities posted losses of 9.5% in 2013, according to the Dow Jones UBS Index. That said, there were significant divergences within individual market segments. For instance, the polar vortex and the resulting cold spell in the US fueled demand for residential heating and a large drawdown of stored natural gas. As a result, natural gas led all commodities in spot-price appreciation with a 26.2% return in 2013. Offsetting the gains from natural gas were precious metals and agriculture. Agriculture saw inventories swell on the back of favorable planting conditions, triggering losses for the year. Within precious metals, retail sales of popular gold and silver exchange-traded funds pushed prices lower with gold selling off around 28% and silver losing 35.9% for the year.

Pension Liability

Pension discount rates initially fell in the fourth quarter, subsequently recovering and inching higher. Rates ultimately climbed to 4.95%, as of December 31, from 4.92% on September 30, according to the Citigroup Pension Liability Index. The Treasury curve further steepened, with rates on the 30-year bond rising 28 basis points; yields also rose modestly on the short end. The net result was a slight increase in estimated pension liabilities of 0.8% for the quarter, with an overall net liability decline of 10.55% for 2013. With equities posting strong returns and liability values moving only modestly, defined benefit programs likely experienced improvements in funded status in the fourth quarter of 2013. Programs with an LDI strategy in place, however, may have experienced a more limited increase in funded status.

Clients who are considering implementing an initial LDI strategy should work closely with their NEPC investment consultant to discuss approaches and formulate a timeline for implementation. NEPC continues to believe that LDI may be a useful hedging tool, especially after the rise in funded status of most plans this year. Those programs with an LDI strategy in place should evaluate continued de-risking including potentially moving along a pre-determined "glide path."

Hedge Funds

Hedge funds posted gains of 9.7% in 2013 according to the Dow Jones Credit Suisse Hedge Fund Composite; returns totaled 4.2% in the fourth quarter compared to 10.5% for the S&P 500. Equity hedge funds led the pack, recording returns of 6.3%, according to the DJCS Long-Short Equity Index; sector-focused indices, such as the HFRI: Quantitative Directional and Technology-Healthcare, outperformed the overall hedge fund index at 4.9% and 4.7%, respectively. Stock markets in the US and UK rallied, fueling gains in developed long-equity positions.

Equity market neutral and multi-strategy approaches also posted gains returning 5.1% and 4.3%, respectively. They benefitted from a risk reversal after the Fed announced it would not begin tapering until 2014. Global macro returned 2.8% in the fourth quarter, with one of the most popular positions of the year—the "Japanese Trade"—driving performance. Discretionary macro recorded strong returns from being long US equities, while managed futures funds were hurt by talk of tapering and lack of lasting trends. Event-driven managers profited from the market rally and distressed positions with the respective index up 4.8%.

Hedge Fund Industry Performance Overview as of 12/31/2013				
Composite	Quarter	1 Year	3 Yrs	5 Yrs
DJCS Hedge Fund Composite	4.2%	9.7%	4.8%	8.7%
Relative Value	Quarter	1 Year	3 Yrs	5 Yrs
DJCS Convertible Arbitrage	1.3%	6.0%	5.0%	13.6%
DJCS Fixed Income Arbitrage	1.3%	3.8%	6.5%	11.6%
DJCS Equity Market Neutral	5.1%	9.3%	4.8%	3.5%
DJCS Multi-Strategy	4.3%	11.2%	8.0%	11.4%
Event Driven	Quarter	1 Year	3 Yrs	5 Yrs
DJCS Event Driven	4.8%	15.5%	5.1%	9.5%
DJCS Event Driven - Distressed	5.1%	16.0%	7.5%	10.6%
DJCS Event Driven - Risk Arbitrage	1.1%	4.9%	2.8%	4.7%
DJCS Event Driven - Multi-Strategy	4.7%	15.3%	3.8%	8.9%
Equity Hedge	Quarter	1 Year	3 Yrs	5 Yrs
DJCS Long-Short Equity	6.3%	17.7%	5.7%	9.0%
DJCS Emerging Markets	4.4%	8.8%	3.8%	10.1%
DJCS Dedicated Short Bias	-3.9%	-24.9%	-14.7%	-18.4%
Tactical	Quarter	1 Year	3 Yrs	5 Yrs
DJCS Global Macro	2.8%	4.3%	5.1%	8.0%
DJCS Managed Futures	5.2%	-2.6%	-3.2%	-1.0%
Traditional Markets	Quarter	1 Year	3 Yrs	5 Yrs
BC Aggregate Bond	-0.1%	-2.0%	3.3%	4.4%
S&P 500	10.5%	32.4%	16.2%	17.9%

Source: Bloomberg

Private Markets

New private equity funds raised nearly \$300 billion of capital for investments in 2013, an 11% jump over a year earlier, according to Thomson Reuters. Buyout and growth equity funds accounted for nearly 60% of all new commitments for 2013, as investors seek to benefit from an anticipated economic recovery. Venture capital firms represented 9% of new commitments, marking the first time in two decades that new VC funds fell below 10% in a single year. The US and Europe clocked modest gains in fundraising with \$196 billion and \$73 billion, respectively, committed to new funds. Private equity fundraising in Asia suffered its third consecutive year of decline, as investors sought greater clarity around the region's near-term growth prospects in light of China's new leadership, and balance of payments issues in certain economies.

Mature buyout funds capitalized on the robust performance of public equities in the US and Europe to exit existing positions. However, new funds exercised caution, with deal activity 20%-to-30% below 2012 totals. Venture capital-backed initial public offerings, led by biotech and social networking companies, rebounded to a near 10-year high. Looking ahead, we advise clients to balance their commitments between investments likely to benefit from long-term economic recovery and those that can capitalize on near-term volatilities in public equity and debt. We remain guarded on the large buyout sector as an active high yield market, elevated transaction prices, and the return of "covenant-lite" term sheets leave little room for operational missteps and provide scant protection in the event of a prolonged recession. We favor managers with demonstrated price discipline, strong value orientation, operational capabilities to enhance portfolio company performance. Opportunistically, private direct lending is an attractive fixed income alternative for investors, particularly in Europe and Asia. While secondary discounts narrowed in 2013, investors can benefit from strong levels of secondary deal flow as banks in the US and Europe sell private equity to comply with regulations, including Basel III.

In real estate, NEPC is neutral on the core segment in the US. We remain positive, however, on non-core value-add and opportunistic strategies. For US core real estate, fundamentals continue to improve with decreasing vacancy rates, increasing rents, limited new construction (outside of the apartment sector), and still attractive if narrowing income spreads relative to interest rates. A major concern for US core real estate is whether net income growth will offset potentially higher capitalization rates triggered by the market's expectation for higher future interest rates. For non-core real estate, select opportunities remain in the US for skilled firms with a proven ability to identify undervalued assets, buy right, and create value. In Europe, undervalued non-core properties and capital structure distress remain, creating more appealing prospects than in the United States. We still believe in real estate debt strategies, particularly in Europe's distressed lending environment; currency risk, however, is a potential consideration.

In real assets, energy, specifically in North America represents an attractive opportunity in the upstream and midstream parts of the energy value chain. Master limited partnerships operating in the midstream energy space continue to generate growing cash flows and provide a positive outlook over the next three-to-five years for healthy companies. Agriculture and metals/mining seem appealing based on long-term demographic trends despite a less certain short-term outlook. We are still underweight timber as total return targets are low, with a relatively small market opportunity and managers seeking deals outside the US.

Final Thoughts

As we enter 2014, we recognize divergences across global markets. The US economy appears to be picking up steam with rising growth and falling unemployment even as the Fed begins to taper its monetary stimulus and inflation remains low. Europe is struggling to come out of its most recent recession as the European Central Bank debates further stimulus, while the Bank of Japan continues to pursue aggressive monetary accommodation to spur growth in that country. Outlooks vary considerably across developing markets as rising rates in the US threaten capital flight in countries that have been dependent on external funding for growth. China grapples with its shift towards a consumer-led economy while seeking to restrain rising debt levels. Divergences have also arisen between shorter-term market catalysts—such as capital flows and investor sentiment, which may support a prolonged US equity rally while placing pressure on emerging economies—and longer-term drivers of investments, for instance, economic growth and valuation, which could lead investors in the opposite direction.

In this environment we reiterate the importance of a disciplined approach to investing, while resisting the temptation to chase returns. We advise taking gains from US equities and rebalancing to underperforming asset classes. We continue to advocate a long-term commitment to emerging markets equities and recommend employing active strategies in light of the divergent paths of countries across this broad opportunity set. Credit markets have enjoyed a strong run and now appear fairly valued, although yields are higher due to the rise in rates. For those investors who can lock up capital, exposure to private markets can improve overall return expectations. To this end, opportunities in European debt and real estate appear particularly compelling. Expectations for both short-term inflation and returns on liquid inflation-hedging assets are

muted, although selected strategies employing private real assets have a better outlook.

The strong showing by equities in 2013 helped most investment programs meet and exceed their return targets. For corporate defined benefit plans, rising rates, combined with the stock market rally, have led to significant improvements in funded status. On the back of such a positive year, it is now time to re-focus on long-term objectives. We remind investors that a risk-balanced portfolio of asset class exposures is the most prudent starting point for meeting long-term return targets. This will not only help to weather the volatility of divergent economic and market forces, but also provide a vantage point to seize opportunities as they arise.

Disclaimers and Disclosures

- Past performance is no guarantee of future results.
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