

Quarterly
EQUITY
INDICATOR

Up 1.8%

Quarterly
BOND
INDICATOR

Up 1.6%

Quarterly
HEDGE FUND
INDICATOR

Up 2.5%

Quarterly
PENSION
LIABILITY
INDICATOR

Up 4.8%

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.

CENTRAL BANKS MOVE FRONT AND CENTER...WHAT HAPPENS NEXT?

Introduction

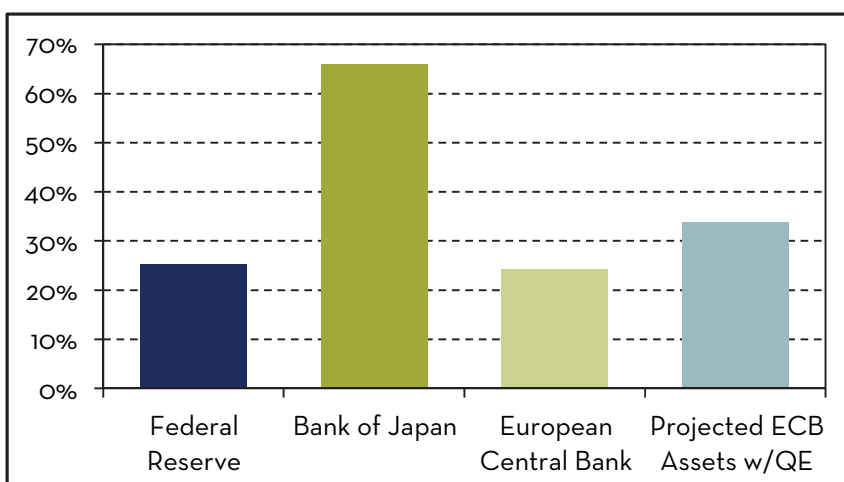
Central banks the world over took center stage in the first quarter, easing monetary conditions across economies representing more than half of the world's GDP. Many emerging market economies exercised an accommodative monetary policy. Not to be outdone, central banks in developed markets stole the show as the European Central Bank embarked on a €1 trillion bond-buying program. The Swiss National Bank rattled foreign currency markets with a dramatic removal of its euro currency peg, further pushing interest rates into negative territory. The negative rate monetary policy club now includes the Eurozone, Sweden and Denmark.

Global risk assets responded locally to the broad easing efforts of central banks. Non-US developed market equities, led by Japan and Germany, rallied with the MSCI EAFE returning 4.9% (unhedged). Overall, emerging market equities gained 2.2% during the quarter with wide discrepancies among countries. Commodities were still an outlier; they sank deeper, buffeted by declining inflationary expectations, subdued global growth, and extreme negative sentiment within the energy sector.

At home, the spotlight remained firmly on the Federal Reserve, which appears on track to raise interest rates sometime this year. Expectations of a Fed rate increase relative to rate cuts across the globe pushed the dollar higher. To this end, the decline in the euro was particularly pronounced as it fell 11% in the quarter and is down over 20% in the last year relative to the US dollar. The power of the Fed over global markets was in full display as investors fretted over text from the central bank as it dropped the word 'patient' from the March FOMC statement when describing the normalization of US monetary policy and simply stated the "current 0 to 1/4 percent target range for the Federal Funds rate remains appropriate." The Fed has stated that rate increases will be dependent on economic conditions. This uncertainty and the resultant volatility are likely to stay as conflicting US economic growth and jobs data keep investors guessing on the timing of a Fed rate increase. Amid this backdrop, we urge fixed-income investors to favor low volatility investment strategies relative to traditional credit exposures as liquidity risk is a concern. We also recommend a shift from benchmark-focused global bond strategies to US duration exposures, given the low yields overseas relative to the US.

US equities were also affected by the uncertainty surrounding Fed action and bounced around during the quarter. The S&P 500 was up 1% in the first quarter while small cap stocks gained 4%, bolstering already high valuations. Ultimately, the transition to a tighter monetary policy may expose vulnerabilities within US stocks. As a result, any deviation from a clearly visible Fed policy path is likely to push volatility higher for US equity markets largely priced for perfection.

A continuation of the outsized returns of the last five years appears challenging in the face of slowing earnings growth, a strong dollar, and valuations trending above historical averages. For these reasons we are looking beyond the US for potential investment opportunities, especially as accommodative monetary policies abroad act as a catalyst to spur investment gains.

Exhibit 1: Central Bank Assets as % of GDP

Source: Bloomberg

Despite the strong recent equity performance in Europe and Japan and valuations hovering around long-term P/E averages, catalysts remain. In Japan, the central bank's bond purchases have pushed its assets above 60% of total GDP (Exhibit 1) with no end in sight to the quantitative easing program. This unwavering support, coupled with a broad local investor shift into Japanese equities and improvements in corporate governance, promote a favorable outlook. Meanwhile, the ECB's €1 trillion bond-purchase program has pushed European government bond yields into negative territory, forcing investors further out on the risk spectrum. In addition, earnings in this region remain subdued on a cyclical basis and are well below the highs reached before the financial crisis, creating grounds for a rebound in earnings growth spurred by a weak-

ened euro and incremental employment gains. To be sure, risks remain in these markets, including the unprecedented nature of Japan's bond-buying program or a potential exit of Greece from the Eurozone. That said, we favor international equities relative to US stocks because of the untapped potential for returns in developed markets, especially in light of the monetary-easing policies in place there. Furthermore, we recommend a 50% strategic currency hedge for developed market currencies. We also endorse the use of dynamic strategies such as global macro, global asset allocation and unconstrained bonds to navigate macroeconomic and currency risks. At the same time, we encourage investors to continue to build positions in niche private market opportunities focused on Asia, the energy sector, and European direct lending.

Global Equities

The S&P 500 returned just under 1% for the three months ended March 31, while small-cap stocks, as measured by the Russell 2000 Index, gained 4.3% during the same period. Growth trumped value in each benchmark, helped by a strong showing by biotech. Small-cap equities benefitted from their largely domestic focus while a stronger dollar took a bite out of large-cap stocks. Monetary accommodation and increasing optimism in Japan led to gains of 5% for the EAFE Index during the quarter, outpacing domestic and emerging markets. Japan was the top performer, returning close to 10%, while New Zealand and Singapore trailed the pack, selling off roughly 1%. Emerging markets returned 2.2% in the first quarter, bolstered by gains in India and Russia. Russia was the top performer, with quarterly returns of 18%. Other commodity-driven markets, such as Brazil, lagged on the back of continued pressure on energy prices.

Equity Index Returns as of 3/31/2015

| Global Equity | Quarter | 1 Year | 3 Yrs | 5 Yrs |
|------------------------------|---------|--------|-------|-------|
| MSCI World | 1.8% | 4.0% | 9.9% | 7.7% |
| US Equity | Quarter | 1 Year | 3 Yrs | 5 Yrs |
| S&P 500 | 1.0% | 12.7% | 16.1% | 14.5% |
| Dow Jones Industrial Average | -0.3% | 8.0% | 10.4% | 10.4% |
| NASDAQ Composite | 3.5% | 16.7% | 16.6% | 15.4% |
| Russell 1000 Growth | 3.8% | 16.1% | 16.3% | 15.6% |
| Russell 1000 Value | -0.7% | 9.3% | 16.4% | 13.8% |
| Russell 2000 | 4.3% | 8.2% | 16.3% | 14.6% |
| Russell 2000 Growth | 6.6% | 12.1% | 17.7% | 16.6% |
| Russell 2000 Value | 2.0% | 4.4% | 14.8% | 12.5% |
| International Equity | Quarter | 1 Year | 3 Yrs | 5 Yrs |
| MSCI EAFE | 4.9% | -0.9% | 9.0% | 6.2% |
| MSCI Emerging Markets | 2.2% | 0.4% | 0.3% | 1.7% |
| MSCI Europe | 3.5% | -4.9% | 9.4% | 6.4% |
| MSCI UK | -1.0% | -5.5% | 6.6% | 6.8% |
| MSCI Japan | 10.2% | 12.1% | 9.4% | 5.9% |
| MSCI Far East | 9.0% | 11.8% | 9.3% | 6.3% |

Global Fixed Income

Global sovereign debt gained in the first quarter as yields fell amid declining inflation and accommodative monetary policies. The ECB's €1 trillion government bond-buying program pushed yields in the Eurozone to record lows, while US Treasury yields also declined on renewed expectations of a delayed Fed rate hike. The yield on the 10-year US Treasury dropped 23 basis points to 1.94% at the end of March. The spread between two- and 10-year rates fell 12 basis points to 1.38%. Treasury Inflation-Protected Securities, or TIPS, returned 1.4% during the quarter, as measured by the Barclays US TIPS Index. The 10-year breakeven inflation rate increased 10 basis points to 1.78% as inflationary expectations inched up with the stabilization of oil prices. US investment-grade corporate bonds returned 2.3% during the quarter. The Barclays Long Duration Credit Index gained 3.1%, bolstered by

falling Treasury yields. Agency mortgage-backed securities benefitted from a decrease in mortgage rates in January and March, and posted quarterly gains of 1.1%. High-yield bonds bounced back after two quarters of losses, returning 2.5%.

A strong US dollar affected local-currency emerging market debt. Local-currency bonds were down 4.0% in the first quarter, as measured by the JPMorgan GBI-EM Global Diversified Index. Hard-currency emerging market debt market trumped local-currency debt, with the JPMorgan EMBI Global Diversified Index returning 2.0%. After plunging at year-end, Russian debt outperformed as oil prices stabilized and geopolitical tensions cooled. Brazilian debt underperformed amid disappointing growth, high inflation, and concerns around the mismanagement of the state-run oil giant Petrobras.

Currency Markets

The US dollar continued to strengthen relative to major global currencies in the first quarter bolstered by the pervasiveness of accommodative monetary policies abroad and the prospect of a Fed rate hike at home. The euro has depreciated over 20% relative to the dollar in the past year, the yen is down 14%, and many emerging market currencies are down 15% or more. While the potential for higher short-term interest rates in the US is supporting the dollar, meaningful fund flows have moved to a long-dollar position as those hedging or speculating increase their dollar exposure. Currency volatility, which has been muted in recent years, will likely remain as global monetary policies diverge. Increasing volatility, along with the potential for continued US dollar strength, suggest that a strategic currency hedging program can be an effective risk management tool for investors.

Commodity Markets

Commodities continued their losing streak for the third straight quarter. The Bloomberg Commodity Index lost 5.9% in the three months ended March 31 as a stronger US dollar, anemic growth beyond the US, and excess supply extracted a toll. Lean hogs led the decline, posting losses of 23.7%; precious metals were the only group in the black at 1.3%. Volatility in the commodity sector trumped other asset classes, including equities, bonds and the US dollar; for instance, Brent crude dropped 9.9% in January, then sharply recovered, gaining 14.8% in February, and slipped again in March, losing 12.3% and posting losses of 9.3% for the quarter.

Pension Liability

The Citigroup Pension Liability Index fell 20 basis points over the first quarter, translating into an estimated increase in liabilities of 4.83%. The Citigroup pension discount rate ended the quarter at 3.75%, modestly down from 3.95% on December 31.

Even though interest rates remain at historically low levels, we have seen a jump in activity in cash-outs of inactive participants. This may be an opportunity for clients to lower overall liabilities and Pension Benefit Guaranty Corporation (PBGC) premiums. With the implementation of the RP-2014 mortality tables released last year by the Society of Actuaries, some pension plans may see an increase in liabilities of 4%-8%. However, this table has not yet been mandated by the IRS for funding or lump sum calculations, with the likely implementation date of 2017.

NEPC continues to believe in the benefits of hedging interest rates, if appropriate. However, given the low-interest rate environment, clients considering implementing an initial Liability-Driven Investment strategy should discuss any future implementation approaches, for instance, asset allocation glide paths, with their NEPC investment consultant.

| Fixed Income Index Returns as of 3/31/2015 | | | | |
|--------------------------------------------|---------|--------|--------|--------|
| Global Fixed Income | Quarter | 1 Year | 3 Yrs | 5 Yrs |
| Citi WGBI | -2.5% | -5.5% | -1.6% | 1.4% |
| JPM EMBI Plus | 1.9% | 4.5% | 4.0% | 6.6% |
| Domestic Fixed Income | Quarter | 1 Year | 3 Yrs | 5 Yrs |
| BC Aggregate Bond | 1.6% | 5.7% | 3.1% | 4.4% |
| BC US Agg. Treasury | 1.6% | 5.4% | 2.4% | 4.0% |
| BC US Credit | 2.2% | 6.7% | 4.9% | 6.2% |
| BC Mortgage Backed | 1.1% | 5.5% | 2.5% | 3.6% |
| BC Interm. Gov't/Credit | 1.4% | 3.6% | 2.3% | 3.5% |
| BC 1-10 Yr TIPS | 1.2% | 1.1% | -0.1% | 2.9% |
| BC High Yield | 2.5% | 2.0% | 7.5% | 8.6% |
| S&P LSTA Lev. Loan | 2.1% | 2.5% | 4.9% | 5.1% |
| 3 Month T-Bills | 0.0% | 0.0% | 0.1% | 0.1% |
| 10-Year Bond Yields | Mar-15 | Dec-14 | Mar-14 | Mar-13 |
| US | 1.9% | 2.2% | 2.7% | 1.8% |
| Germany | 0.2% | 0.5% | 1.6% | 1.3% |
| UK | 1.6% | 1.8% | 2.7% | 1.8% |
| Japan | 0.4% | 0.3% | 0.6% | 0.6% |

| Hedge Fund Industry Performance Overview as of 3/31/2015 | | | | |
|----------------------------------------------------------|---------|--------|--------|--------|
| Composite | Quarter | 1 Year | 3 Yrs | 5 Yrs |
| DJCS Hedge Fund Composite | 2.5% | 5.7% | 6.6% | 5.8% |
| Relative Value | Quarter | 1 Year | 3 Yrs | 5 Yrs |
| DJCS Convertible Arbitrage | 0.5% | -3.6% | 2.5% | 4.1% |
| DJCS Fixed Income Arbitrage | -0.1% | 2.1% | 5.3% | 6.4% |
| DJCS Equity Market Neutral | -2.5% | -3.4% | 1.6% | 2.1% |
| DJCS Multi-Strategy | 3.0% | 7.2% | 8.9% | 8.0% |
| Event Driven | Quarter | 1 Year | 3 Yrs | 5 Yrs |
| DJCS Event Driven | 1.6% | 0.3% | 7.8% | 5.2% |
| DJCS Event Driven - Distressed | 0.3% | -0.2% | 8.0% | 6.0% |
| DJCS Event Driven - Risk Arbitrage | 0.7% | -1.4% | 1.6% | 1.9% |
| DJCS Event Driven - Multi-Strategy | 2.1% | 0.5% | 7.7% | 4.8% |
| Equity Hedge | Quarter | 1 Year | 3 Yrs | 5 Yrs |
| DJCS Long-Short Equity | 1.8% | 5.8% | 8.5% | 6.2% |
| DJCS Emerging Markets | 1.4% | 5.0% | 5.2% | 4.6% |
| DJCS Dedicated Short Bias | -4.3% | -5.7% | -14.7% | -13.7% |
| Tactical | Quarter | 1 Year | 3 Yrs | 5 Yrs |
| DJCS Global Macro | 4.5% | 8.4% | 5.0% | 6.7% |
| DJCS Managed Futures | 7.3% | 32.7% | 6.5% | 4.8% |
| Traditional Markets | Quarter | 1 Year | 3 Yrs | 5 Yrs |
| BC Aggregate Bond | 1.0% | 12.7% | 16.1% | 14.5% |
| S&P 500 | 1.6% | 5.7% | 3.1% | 4.4% |

Hedge Funds

Hedge funds outperformed most major indices in the first quarter, benefiting from the reemergence of market volatility. The Credit Suisse Hedge Fund Composite returned 2.5%, compared to 1.0% for the S&P 500 and 1.6% for the Barclays Aggregate Bond Index over the same period. The volatility was triggered by economic growth and policy divergence, currency pressures, a potential Greek default, and supply/ demand factors pressuring oil prices.

Tactical trading strategies led performance for the quarter, continuing their winning streak dating back to the second half of 2014. The Credit Suisse Global Macro and Credit Suisse Managed Futures indices closed the quarter up 4.5% and 7.3%, respectively, as managers were able to profit from trends in currencies, commodities and equities. The US dollar strengthened relative to other major currencies, benefiting managers with long US dollar positions. Short oil positions were profitable through January amid depressed energy prices.

Event-driven strategies were positive for the quarter, with the Credit Suisse Event Driven Multi-Strategy Index up 2.1%, a modest rebound from the end of last year. The first quarter saw strong merger and acquisition activity, continuing the high volume and valuation levels seen through 2014. However, risk arbitrage managers have not been able to fully capitalize given the relatively tight deal spreads.

Equity strategies were mixed. Short-biased and market-neutral strategies were negative as global equity markets generally performed well. The Credit Suisse Long-Short Equity Index ended the first quarter up 1.8%. Merger and acquisition activity in the healthcare space continued to be a strong contributor. Additionally, managers with European exposure outperformed, capturing gains in European equities fueled by the ECB's debt-purchase plan.

Private Markets

Private equity fundraising remained strong during the first quarter with \$83 billion of capital raised globally. On an annualized basis, the amount raised during the quarter suggests that fundraising in 2015 could equal or exceed the \$350 billion raised in 2014, the most prolific year since 2007. Geographically, North American and European funds garnered the lion's share—92%—of the total capital raised. Energy funds shrugged off the falloff in oil prices, attracting 16% of total capital as investors seek to benefit from a potential price dislocation.

In the US, buyout activity fell significantly. The widening capital overhang—\$534 billion—coupled with cheap and widely available debt has created a highly competitive environment, making it increasingly difficult to close deals. Conversely, exit activity continued to be strong. Even at this healthy pace, distributions for 2015 may fall shy of the record set in 2014 of 1,000 exits totaling \$248 billion in transaction value.

In Europe, the deleveraging of the banking sector is still making headway. To this end, non-performing loans, or NPLs, present one of the largest, most actionable opportunities. This year could set a record for trading in NPLs totaling €100 billion in transaction value, according to PricewaterhouseCoopers; €40 billion of announced transactions are already in the works. This activity is being partly fueled by the ECB's *Asset Quality Review* in 2014 that brought to light €136 billion of troubled loans. As competition intensifies for these securities in the UK, Ireland, and Spain, investors are starting to look in Italy and the Netherlands, which have nearly €9 billion of deals in progress.

Moving to real estate, NEPC remains neutral on US core real estate for private strategies and real estate investment trusts. US core real estate continued to generate robust returns in the first quarter. Real estate fundamentals remain strong and core real estate is priced at attractive income yields relative to interest rates, though absolute yields are low based on historical averages. Our main longer-term concerns for US core real estate are large inflows of capital that have driven up pricing (especially in major markets and now spreading to secondary markets), low relative absolute yields (or capitalization rates), the market's expectation for higher interest rates and the impact this would have on capitalization rates (and asset

values), and some new construction in certain locations. US REITs have traded up and are now trading at slight premiums to NAV. We remain neutral on real estate debt. Yields have generally remained low and lenders continue to loosen credit standards. NEPC remains positive on value-add and opportunistic real estate. We still view Europe as the best candidate for a marginal dollar of real estate investment. However, the opportunity—focused on asset mispricing (and not future expected growth)—is limited in duration. For non-core real estate in the US, we still favor niche-focused and historically conservative managers with a proven ability to understand local markets and avoid overheated markets.

In real assets, we are positive on energy and neutral on agriculture, infrastructure, metals and mining, and timber. NEPC continues to evaluate the spectrum of liquid and illiquid energy-related investment opportunities given the dislocation in oil prices. The investment community generally expects that supply and demand forces will likely see oil prices settle in the \$70-\$75 range in 2016. NEPC shares this view. Under this scenario, NEPC believes that public exploration and production companies and energy services firms will experience varying degrees of distress and capital needs. As oil prices remain low, hedges roll off, revolvers get resized and cash flows decrease. As a result, many companies will require capital, generating a variety of investment opportunities. This process has already started to occur with a handful of companies and is expected to grow this year and into 2016.

Determining the best energy investment strategy today is complex and requires consideration of the future price and volatility of oil. We have thought through this while using three different scenarios to evaluate the opportunity set: (a) oil remains volatile for the first half of 2015 but rebounds to \$70-\$75 by year end, (b) oil remains volatile in the current range but rebounds to \$70-\$75 in 2016, and (c) oil remains volatile around the current range well past 2016-2017. NEPC views scenario (b) as the most likely outcome. Given this as a baseline, we view long/ short equity strategies and stressed/ dislocated credit approaches as attractive in the near term; long/ short commodity strategies are also interesting assuming volatility persists. The long/ short commodity play, using commodity derivatives, is less a bet on the path of oil but the interim volatility of oil and the manager's ability to gauge price movements. As the stress starts to build towards the end of the year and into 2016, distressed credit, rescue financing and private equity strategies should become appealing.

Final Thoughts

As financial markets look for clarity from the Fed and digest the near-term ambiguity of its policy statements, uncertainty in a changing global environment is to be expected. At NEPC, we continue to believe that a diversified risk-balanced portfolio best serves the ability of long-term investors to withstand the multitude of economic environments. We are also cognizant of the profound cyclical divergences in central bank policies and aim to provide clear and concise language outlining our thoughts on markets and investment ideas. These include our preference for international equities in conjunction with a strategic currency hedge for developed market currencies. We also endorse the use of dynamic strategies and encourage investments in niche private market opportunities focused on Asia, the energy sector, and European direct lending. Within fixed income, we recommend investors eschew traditional credit exposures in favor of low volatility investment strategies. We also suggest a shift from benchmark-focused global bond strategies to US duration exposures given low global yields relative to the US.

In conclusion, we hope you are attending NEPC's Annual Investment Conference. It will be held on May 19-20 (Tuesday-Wednesday) at the Boston Convention and Exhibition Center, at 415 Summer Street in Boston.

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- Past performance is no guarantee of future results.
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- This report contains summary information regarding the investment management approaches described herein but is not a complete description of the investment objectives, portfolio management and research that supports these approaches. This analysis does not constitute a recommendation to implement any of the aforementioned approaches.