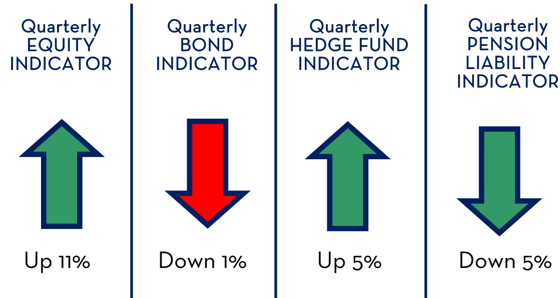
NEPC
MARKET THOUGHTS
FOURTH QUARTER 2010 VOLUME 20



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.

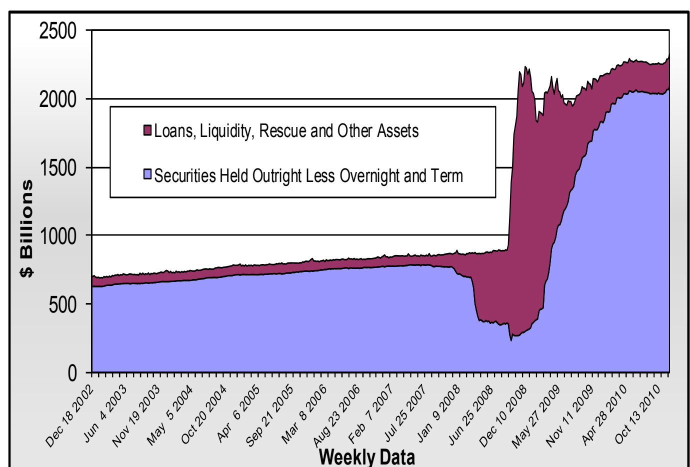
A High Quality Problem

Every year in January we update our asset allocation forecasts, looking out over a five- to seven-year time horizon, which we summarize in our annual asset allocation letter. This year's letter, entitled "The Long View," is now available at www.nepc.com. In addition to forecasts, the asset allocation letter presents general market observations and actions, including assessments of key dynamics in markets over the coming year. Guided by this approach, both our medium-term forecasts and shorter-term observations in past years have been mostly correct in terms of market direction, and have supported strong results for our clients relative to benchmarks and peer groups. Examples include our recommendations for reducing equity exposure through 2007–2008, opportunistic allocations to credit in 2008–2009, and, more recently, increasing allocations to emerging markets equity and debt.

In the spirit of New Year's retrospection and candor, however, we acknowledge two general observations from the past two years that have not played out: elevated inflation and the stock market's return to a focus on company fundamentals. As we think about key issues facing markets in 2011, it is instructive to take a look at each of these once again.

Inflation: At the outset of both 2009 and 2010, we indicated that the risk of increased inflation, while not imminent, was at its highest level in nearly 30 years. This outlook, combined with our view that most investors have been underweight to assets that respond well to high inflation, led us to recommend that clients build diversified allocations to inflation-hedging strategies. Today a glance at US inflation statistics reminds us of the sarcastic quip among sports fans that "soccer is the sport of tomorrow in the United States…and always will be." It may be the case that "inflation is 12 to 18 months away and always will be." Although measured levels of inflation have been low in the US, reported statistics such as CPI may understate the true increase in prices in today's economy. Globally, higher inflation has begun to develop in many emerging countries, as well as in the UK (3.7% for 2010). In light of strong 2010 returns for commodities, the stocks of companies producing commodities, and inflation-linked bonds, it's apparent that inflation-hedging assets better reflect an uptick in consumer prices than do government statistics. Entering 2011, we continue to believe that the "tail risk" of inflation remains elevated, and that it's still prudent for many investment programs to build strategic exposure to inflation-hedging strategies. With the explosion of monetary liquidity in the developed world, as represented by the growth of the Federal Reserve's balance sheet (Exhibit 1), and the increase in demand for commodities in the rapidly growing developing world, it is likely prices will rise eventually. We expect that this will happen before the World Cup returns to the US.

Exhibit 1—Federal Reserve Balance Sheet

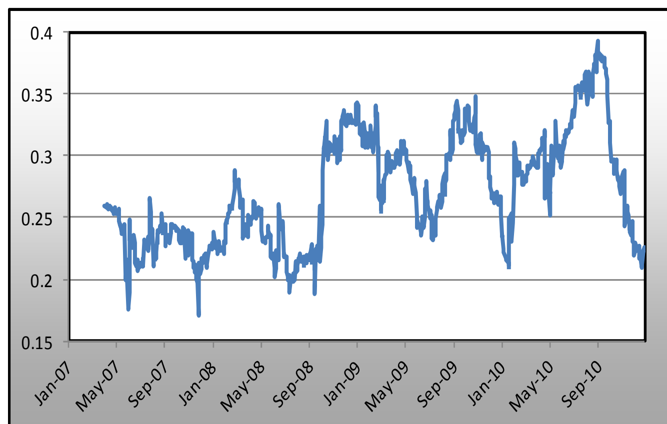


Source: United States Federal Reserve

Fundamentals: Since the onset of the Credit Crisis, markets for risky assets have tended to move in unison — straight down in 2008, then straight up in 2009 — driven by major macro factors. In this climate, cross-correlations among securities rose

(Exhibit 2) as the flow of capital mattered more than differentiation among securities. Active managers struggled to add value in such a "risk on/risk off" environment. At the outset of 2010, we believed that fundamentals would begin to matter more as a less unidirectional market would lower correlations among stock prices. We were wrong: beginning with the onset of the European sovereign debt crisis in the first quarter, global markets once again were driven by major headlines, and correlations among stock prices rose while quality companies lagged. Active managers that commonly populate institutional portfolios trailed market benchmarks, including those with biases toward well-capitalized, steady-growing, higher-dividend-paying companies, and away from more highly leveraged companies with low or nonexistent earnings.

Exhibit 2—Average 3-month Stock Correlation to Market



Source: Bloomberg

As we consider 2011, and as security correlations fall to more normal levels, we feel that the time is ripe for fundamentals to reassert themselves in the equity market. While US stock market multiples are in line with historic averages, this masks significant dispersion within market segments. Smaller-cap shares and high-P/E, low-quality securities have benefited inordinately from the post-credit crisis rally, while larger-cap, less-leveraged, higher-dividend-paying securities look potentially undervalued. Many equity managers make the case to us that the time to invest in "high quality" companies is upon us. While we struggle with the various approaches to defining quality in evaluating companies, we do expect fundamental, active strategies to take advantage in this environment.

We also acknowledge that there remain significant macro challenges on the global scene, including the potential for additional chapters of the European debt crisis, and elevated risks of currency turmoil as the US and other developed countries potentially seek to devalue in order to reduce outsized debt burdens and kick-start exports. As a result, we continue to recommend balance in portfolio construction, with diversification across types of risk. In addition, we recommend including investment strategies such as global asset allocation and global macro hedge funds that can position portfolios to take advantage of, or mitigate against, major themes that can move markets.

Global Equities

Equity markets in the US posted positive results in the fourth quarter, pushing calendar-year returns higher. The rally that began in September continued into November before cooling off, only to return with vigor in December. Sentiment continued to drive the markets, as investors focused on the Fed's quantitative easing (QE2) program to stimulate the economy and tax relief designed to increase business and consumer spending. Although weak housing and high (but improving) unemployment persist, these were not the areas of focus for investors. In this "risk on" market environment, the riskiest assets benefited the most during the quarter. Small caps handily beat large caps and growth outpaced value. In similar form, cyclical sectors — Energy, Materials, and Industrials — led the way.

Equity Index Returns (12/31/10)				
Global Equity	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
MSCI World	9.0%	11.8%	-4.9%	2.4%
US Equity				
S&P 500	10.8%	15.1%	-2.9%	2.3%
Dow Jones Industrial Average	7.3%	11.0%	-4.4%	1.6%
NASDAQ Composite	12.0%	16.9%	0.0%	3.8%
Russell 1000 Growth	11.8%	16.7%	-0.5%	3.8%
Russell 1000 Value	10.5%	15.5%	-4.4%	1.3%
Russell 2000	16.3%	26.9%	2.2%	4.5%
Russell 2000 Growth	17.1%	29.1%	2.2%	5.3%
Russell 2000 Value	15.4%	24.5%	2.2%	3.5%
International Equity				
MSCI EAFE	6.6%	7.8%	-7.0%	2.5%
MSCI Emerging Markets Free	7.3%	18.9%	-0.3%	12.8%
MSCI Europe	4.5%	3.9%	-8.9%	2.9%
MSCI UK	6.0%	8.8%	-7.0%	2.7%
MSCI Japan	12.1%	15.4%	-4.6%	-2.4%
MSCI Far East	10.9%	16.5%	-3.9%	-0.7%

On the international side, stronger economic data and the QE2 program helped push markets higher despite further concerns over European sovereign debt. Economic strength in Asia, led by strong returns in both the yen and Japanese equities, resulted in growth in those markets. European markets, on the other hand, offered more of a mixed bag. Healthier economies like Germany and the energy-linked Norwegian market delivered strong results, but Greece, Spain, and Portugal all declined amidst concerns about their creditworthiness.

Emerging markets again outpaced their developed-market peers, returning 7.3% while EAFE posted a 6.6% return. Despite double-digit gains in Taiwan and Korea, where technology stocks led the way, emerging Asian markets on the whole were held down by a virtually flat return in China. Weak US currency was an overall tail wind for emerging currencies.

Global Fixed Income

2010 was a big year for bonds across all sectors. Persistently low levels of inflation combined with accommodative Fed policy helped to hold interest rates near record lows. The yield on the Barclays Capital Aggregate Index hit an all-time low of 2.35% in early November, reflecting the market's pessimistic outlook on inflation and growth that dominated most of the year. This climate changed quickly late in the year, however, with the extension of the Bush administration's tax cuts and

mid-term election results that yielded a divided Congress. Rates rose rapidly in December, pricing in a more optimistic outlook on the economy for 2011. Treasuries and other high-quality bonds sold off while high yield bonds, emerging markets debt, and commercial mortgage-backed securities benefitted, adding to very strong returns for the year.

In the fourth quarter, the BC Aggregate Index ended down 1.3%, reflecting December's shifting yield curve. By yearend, the two-year Treasury yielded 0.61%, while the ten-year Treasury yielded 3.30% as the overall yield curve once again looked very steep, with short-term rates anchored near zero.

High yield bonds, as measured by the BC High Yield Index, were up 3.2% during the quarter, with the lowest quality segments posting the strongest results. US Agency MBS (+ 0.2%) and US CMBS (+1.1%) were the only other positive US fixed-income sectors during the quarter. Emerging markets bonds felt the pressure of rising rates in the fourth quarter, falling 1.8%, but were strong over the total calendar year, gaining 12%, as measured by the JP Morgan EMBI.

Fixed Income Index Returns (12/31/10)				
Global Fixed Income	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
Citi World Gov. Bond	-1.8%	5.2%	6.1%	7.1%
JPM EMBI Global	-1.8%	12.0%	8.6%	8.4%
Domestic Fixed Income				
BC Aggregate	-1.3%	6.5%	5.9%	5.8%
BC Government	-2.3%	5.5%	5.1%	5.5%
BC US Credit	-1.9%	8.5%	6.9%	6.0%
BC Mortgage Backed	0.2%	5.4%	6.5%	6.3%
BC Govt/Credit	-2.2%	6.6%	5.6%	5.6%
BC TIPS	-0.7%	6.3%	5.0%	5.3%
BC High Yield	3.2%	15.1%	10.4%	8.9%
S&P LSTA Lev. Loan	3.1%	10.1%	5.8%	5.2%
91 Day Treasury Bills	0.0%	0.1%	0.8%	2.4%
10-Year Bond Yields	**Dec-10**	**Sep-10**	**Jun-10**	**Mar-10**
US	3.0%	2.5%	2.9%	3.3%
Germany	3.0%	2.3%	2.6%	3.1%
UK	3.4%	2.9%	3.4%	3.6%
Japan	1.1%	0.9%	1.1%	1.3%

In aggregate, active managers had a fairly good year in 2010. Spreads tightened in credit sectors and many of the macro-economic themes that drove returns during the year also influenced fixed income markets. Consistent with our recommendations to focus on portfolio structure, we continue to recommend reviewing core and core-plus fixed-income allocations, and also favor opportunities in emerging markets local currency debt.

Currency Markets

The US dollar was mixed against specific major currencies in the fourth quarter, but in total, relative to a basket of major developed currencies, the dollar increased approximately 1% for the fourth quarter and 2% for the year. In the fourth quarter, continued uncertainty in Europe and the UK drove broad dollar strength, extending a 2010 theme as the dollar rose 2.4% relative to the British pound and 7.8% against the euro. The Swiss franc (+4.9%) and the Japanese yen (+2.6%) benefited from further scrutiny of the Federal Reserve's plans for quantitative easing, finishing a year in which both currencies rallied by approximately 10% versus the US dollar. After Australia's central bank increased its rate to 4.75%, that country's dollar continued to soar, gaining another 5% and knocking 13% off the US dollar for the year.

Against emerging currencies, the US dollar was mostly stable in the fourth quarter as economic conditions in the US continued to stabilize. One exception was the South African rand, which strengthened 5% against the dollar during the quarter. Over the past year, the dollar has weakened 12% versus the rand, 6% versus the Brazilian real, and 3%–4% versus both the Indian rupee and the Chinese yuan. The yuan's 3.6% appreciation was in line with annual increases up to 6% against the dollar since 2005.

Commodity Markets

A strong December led commodities to new highs in 2010, as the 9.4% return of the Goldman Sachs commodity Index (GSCI) in the final month boosted its return for the year to 9%. The late rally was broad based, with all sectors increasing by double digits in the fourth quarter. Precious metals continued their strong performance, adding another 12% to finish the year up 34% — with silver (+81%) outpaced by only cotton (+98%) across the entire index in 2010. The large allocation to energy in the GSCI (72%) provided a significant headwind throughout the year with expectations of higher prices creating significant negative roll yield. Spot energy prices were up 14% in 2010, but the total return for the energy sector was only +2% due to the cost of rolling contracts at higher prices. The negative roll yield environment, also known as "contango", appears to have moderated, with less steepness across the future curves of most commodity markets as we enter 2011.

Pension Liability

Pension liabilities benefited from rising long Treasury yields during the fourth quarter, but the discount rate impact was partially muted by tightening corporate spreads. The Citigroup Pension Liability Index discount rate rose from 5.16% as of September 30 to 5.54% on December 31.

A typical pension plan's liabilities decreased by 5.1% in the fourth quarter, but still finished the year up 13.8%. Strong asset returns in the second half of 2010, however, helped reduce the threat of a substantial drop in year-over-year funded status. For many plan sponsors, funded status at the end of the year was at similar or slightly lower levels compared to the close of 2009, depending on net cash flows.

Over the course of the year, clients with liability-driven investment (LDI) strategies likely fared better as a portion of their exposure to declining interest rates was hedged. During the fourth quarter, however, several LDI strategies experienced double-digit negative returns. We believe it is important to measure the combined impact of asset and liability movements, and avoid focusing on LDI asset losses when rates rise.

NEPC continues to recommend LDI strategies for corporate clients who wish to reduce funded status volatility. In an environment of historically low interest rates, a dynamic "glide-path" approach over an extended period of time can mitigate interest rate timing risk. As always, your NEPC consultant can review implementation strategies and discuss the appropriate amount of liability hedging to target in your portfolio.

Hedge Funds

The Dow Jones Credit Suisse Hedge Fund Composite gained 4.7% in the fourth quarter, bringing 2010 performance to 11%. On the year, event-driven multi-strategy managers were the top performers (+14.4%), while equity-oriented strategies mostly lagged. Although long/short equity managers delivered solid returns (+9.3%), equity-market neutral (-0.9%) and short-bias (-22.5%) managers finished the year at the bottom. It was a difficult year for stock pickers, particularly those who were overly cautious and/or highly hedged, because of generally low levels of performance dispersion among stocks within sectors. We expect that managers with specific sector expertise, and those combining a top-down, opportunistic framework with their fundamental views, are poised to perform well going forward.

Hedge Fund Index Returns (12/31/10)				
Composite	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
DJ CS Hedge Fund Composite	4.7%	11.0%	2.1%	6.4%
Relative Value				
DJ CS Convertible Arbitrage	3.2%	11.0%	3.8%	6.1%
DJ CS Fixed Income Arbitrage	2.5%	12.5%	0.7%	2.9%
DJ CS Equity Market Neutral	0.1%	-0.9%	-14.9%	-5.7%
Event Driven				
DJ CS Event Driven	6.0%	12.6%	3.7%	7.9%
DJ CS Event Driven - Distressed	4.4%	10.3%	2.0%	5.8%
DJ CS Event Driven - Risk Arb.	-0.9%	3.2%	3.8%	5.6%
DJ CS Event Driven - Multi-Strat.	7.1%	14.4%	4.7%	9.3%
Equity Hedge				
DJ CS Long-Short Equity	6.0%	9.3%	1.6%	6.4%
DJ CS Emerging Markets	3.4%	11.3%	0.3%	7.9%
DJ CS Dedicated Short Bias	-11.4%	-22.5%	-12.6%	-7.9%
Tactical				
DJ CS Multi-Strategy	4.1%	9.3%	1.3%	5.6%
DJ CS Global Macro	3.8%	13.5%	6.5%	10.0%
DJ CS Managed Futures	5.4%	12.2%	7.5%	7.3%

The success of event-driven managers in 2010 (the blended event-driven return based on the four sub-buckets was 10.1%) reflects an ability to invest both long and short in idiosyncratic corporate situations across the capital structure. Mergers and acquisitions activity was more robust during the year than in any of the past several years. With strategic and financial buyers flush with cash and becoming more active, the outlook for arbitrage and event-oriented equity strategies is attractive. Credit spreads remain somewhat wide by historical standards, but the consensus is that the broad rally in credit is over. Concerns about the direction of bond markets leads us to favor credit managers focused on short-duration bonds, floating-rate exposures and shorter-term event/catalyst-driven situations.

Arbitrage strategies did well during 2010, aided by tailwinds from the departure of bank proprietary trading desks, which historically have acted as the "policemen" of these markets. An example of this is convertible arbitrage (+11%), which had a strong year — partly due to the positive direction of bond prices, but also because of idiosyncratic events that managers were able to exploit (for example, tender offers). Both fundamental and systematic macro strategies performed well on the year. Managers who maintained bullish positioning in the latter part of the year performed best. Emerging-markets foreign exchange rate trades were generally productive, particularly to the extent that managers were long versus the dollar. We are selectively positive on arbitrage and macro strategies going forward.

Lastly, we think that managers with expertise outside the US continue to have a competitive edge. For instance, managers that can understand and tactically position themselves for profit based on developments in European financial markets may generate significant alpha there in 2011. These opportunities could be manifested through macro situations such as sovereign debt, or micro situations such as corporate restructurings. We are also constructive on managers with emerging-markets expertise across asset classes.

Private Markets

Private equity fundraising continues to be difficult. During 2010, ninety-five US-based private equity funds closed on $85 billion in commitments — the lowest amount raised since 2003. Fundraising has been affected by both the liquidity challenges for plan sponsors and the private equity capital overhang of $485 billion. On average it has taken nineteen months to close fundraising (compared to twelve months in 2005) and the average fund size declined to $911 million in 2010 from a high of $1.5 billion in 2008.

Private equity investors are concerned with legacy investments. *Pitchbook* has reported that 5,994 companies were owned by private equity managers at the end of 2010, a substantial increase from the 1,620 owned by private equity managers at the end of 2003. Exits for venture capital managers picked up during the year—during the fourth quarter alone, thirty-two venture-backed companies went public. Half of these were outside of the IT industries. Of the companies that exited through an IPO, seventeen were backed by China-based private equity managers.

On the real estate side, the rating services Fitch, Moody's, and Standard & Poors anticipate that the default rate for CMBS will range from 10%–12% this year. These predictions are based on the expectation that property fundamentals are stabilizing and liquidity is returning to the market. *Commercial Mortgage Alert* has reported that the forecast for CMBS issuance during 2011 is $39 billion, up substantially from $2.9 billion issued during 2009 and $12.3 billion in 2010, but dramatically lower than the $230.2 billion issued during 2007.

Through November 2010, sales of institutional-quality real estate (properties over $5 million in value) totaled $79.3 billion.

This is comparable to 2001, when $79.4 billion of property was sold, but down significantly from the 2007 figure of $430.7 billion. The office-space sector remains a tenant's market. The national vacancy rate, at 17.6%, is at its highest point since 1993, and office rents are approximately 25% below 2008 levels. Overall, opportunistic and distressed-focus funds with experienced operators should perform well during this cycle.

Final Thoughts

We are concerned that capital market returns will be lower than long-term historic averages over the next five to seven years, as we expressed in our annual asset allocation letter ("The Long View"). We do see pockets of opportunity for higher returns in emerging markets and in illiquid strategies such as distressed debt, mezzanine, and direct lending; however, these represent relatively limited market segments and may not be appropriate for all investors. We recommend that investors focus on opportunities for active management in less efficient markets. We also believe investors should structure fixed income portfolios to meet both specific program objectives (liability hedging, real spending, etc.) while also providing liquidity, deflation hedging, access to credit markets, and alpha generation, as appropriate.

The risks of extreme economic environments remain elevated. While the recent US stimulus package has provided a short-term tail wind for risky assets, the potential for unintended consequences in terms of rising commodity prices and volatility in currency markets has increased. A focus of our work in 2011 will be evaluating and helping to manage these risks in client portfolios.

NEPC is pleased to celebrate our 25th anniversary this year. It has been a privilege to be of service to our clients for so many years. As we extend our investment horizon over the next 25 years or so, our return forecasts are somewhat higher and more optimistic, consistent with longer-term averages. Over this period, investors can take comfort that their expectations can approximate their programs' formal return assumptions. Helping our clients bridge the gap between near-term challenges and the longer view is our mission, and a challenge we look forward to.