

MARKET THOUGHTS

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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.

Troubles on Your Mind

Note: As this issue of Market Thoughts goes to press, the deadline for raising the US debt ceiling is approaching along with the potential for US government default. While we believe that Congress will reach an agreement that averts a default, every day that passes without a budget deal increases the risk of significant market disruption. We are monitoring this situation closely, along with the peripheral European debt crisis. At this time, we don't believe that either of these situations requires immediate action, however, we remain committed to communicating promptly with clients as this and other troubles arise.

Everything we do here at NEPC is directed at providing best-in-class investment consulting services to our clients. A key part of this process is not only delivering our very best advice, but also – and often more important – listening. In other words, understanding our clients' needs and what is weighing on their minds.

We recently sought to take those concerns and make them a key part of the program at our annual client conference. Every May, we invite our clients to gather in Boston with members of the NEPC team and key outside experts for discussions of the opportunities and risks in global capital markets, and the challenges facing institutional investors. This spring, we were delighted to have more than 220 of our clients join us for this important two-day event. To facilitate the discussion, we explored a new approach to creating dialogue: we asked attendees important questions, then tabulated and displayed their answers in real time. This provided us with the unique opportunity to really listen to what was on our client's minds – to be "all ears," so to speak.

What we heard in this client forum gave us plenty of food for thought. It is clear that, two years after the market bottom, significant concerns about the future remain. Table 1 shows a list of the most significant issues our conference attendees told us they face. This highlights the central conundrum of the current environment: investors are facing funding and revenue challenges amid low return expectations and high levels of uncertainty about economic outcomes. These concerns were borne out in their views on markets. When it comes to stocks, the majority of conference participants expected the S&P 500 to return less than 7% over the coming 12 months. Looking at interest rates, more than 80% of attendees figured that Treasury yields will be higher a year from now, creating a headwind for the bond market. Low return and high risk – an unattractive combination!

When we drilled down on the sources of uncertainty, clients listed the items in Table 2. Since our conference, the Greek crisis and the US debt ceiling have served to amplify the concerns cited in these responses. In the US, several additional conditions are contributing to these concerns: the economy appears to be slowing; the end of the Federal Reserve's current round of quantitative easing (QE2) is removing key stimulus from the US economy; and unemployment remains stubbornly high. Concurrently, the peripheral European

Exhibit 1— NEPC Client Conference Attendees: What is the Biggest Issue you face?



Note: Totals do not equal 1.00 as respondents could select more than one item Source: NEPC





Note: Totals do not equal 1.00 as respondents could select more than one item Source: NEPC



debt crisis highlights the intractably high levels of public debt in many developed countries including the US, Japan, and the UK. The recent run-up in food and energy costs provides another stumbling block for the increasingly tepid recovery.

Of course, the purpose of the conference (and our consulting work) is not just to identify problems, but to address them. We spent much of those two days exploring opportunities to improve returns and manage risk. Topics covered included risk budgeting and risk parity strategies, as well as real-assets investing to hedge the negative effects of inflation. We explored key themes such as global macro investing, new ideas in credit strategies, and broader opportunities in hedge funds and private equity. One area that clients (and we) find **at**tractive is investment in emerging markets. More than three-quarters of clients indicated that they will be increasing exposure to emerging markets in total, and more than two-thirds believed that emerging markets currencies will appreciate versus the dollar and other developed market currencies.

Finally, in response to the realities of the current environment, clients indicated that they are striving to be more nimble in their approach to markets. Approximately two-thirds of attendees indicated that they are adapting their governance structures to be able to react more quickly to events such as rising inflation and bond yields, or a possible "double dip" recession. We applaud the move toward more dynamic investment program management and away from the "set it and forget it" approach to asset allocation. We believe that a good dialogue on this and the other issues raised at our annual conference will be a critical component of dealing with the many troubles that are on our clients' minds.

Global Equities

It was a bumpy ride for global equity markets in the second quarter. The period started on a positive trend, as investors applauded strong corporate earnings results, but macro headlines in May and June quickly derailed market gains. Continued economic fears surrounding the European debt crisis, inflationary concerns in China, poor jobs reports from the US, and ongoing unrest in the Middle East all contributed to lower returns. During the final days of the quarter, the markets rallied sharply – neutralizing major losses – to end the period anywhere between modestly positive to modestly negative.

In the US, equity indices posted relatively flat returns. While large caps beat small caps, mid caps once again performed best. Given the macro headlines and concerns, defensive sectors (healthcare, staples, utilities) fared better than their cyclical counterparts (financials, energy, technology). Across the board, growth stocks outperformed value stocks.

During the quarter, emerging markets (-1.1%) lagged developed markets, which were boosted by a sell-off in the dollar. From a sector standpoint, energy and materials

Equity Index Returns (6/30/11)								
Global Equity	Quarter	YTD	1 Year	3 Yrs	5 Yrs			
MSCI World	0.5%	5.3%	30.5%	0.5%	2.3%			
US Equity								
S&P 500	0.1%	6.0%	30.7%	3.3%	2.9%			
Dow Jones Industrial Average	0.8%	7.2%	27.0%	3.0%	2.2%			
NASDAQ Composite	-0.3%	4.5%	31.5%	6.5%	5.0%			
, Russell 1000 Grow th	0.8%	6.8%	35.0%	5.0%	5.3%			
Russell 1000 Value	-0.5%	5.9%	28.9%	2.3%	1.2%			
Russell 2000	-1.6%	6.2%	37.4%	7.8%	4.1%			
Russell 2000 Grow th	-0.6%	8.6%	43.5%	8.4%	5.8%			
Russell 2000 Value	-2.6%	3.8%	31.4%	7.1%	2.2%			
International Equity								
MSCI EAFE	1.6%	5.0%	30.4%	-1.8%	1.5%			
MSCI Emerging Markets Free	-1.1%	0.9%	27.8%	4.2%	11.4%			
MSCI Europe	2.4%	9.1%	36.0%	-2.0%	2.0%			
MSCI UK	1.7%	5.6%	34.1%	-1.4%	1.2%			
MSCI Japan	0.2%	-4.8%	13.0%	-4.3%	-3.8%			
MSCI Far East	0.2%	-4.0%	14.9%	-2.8%	-2.0%			

were the biggest detractors, driven lower by weaker commodity prices. At the same time, consumer sectors in both developed and emerging markets enjoyed strong performance. Earnings growth and demand were bolstered by emerging market consumers, as the developing country staples and discretionary sectors posted high single-digit returns.

Global Fixed Income

High-grade US fixed-income sectors posted strong results in the second quarter as uncertainty about the sustainability of the US recovery and concerns over the European debt crisis overtook market sentiment. High-quality sectors such as US Treasuries, US MBS, and US investment-grade credit performed well as yields decreased across the curve. This came at a time when many investors had been concerned with the risks of rising interest rates in previous months. The yield on the two-year Treasury note fell 35 basis points to 0.45% over the quarter, while the 10-year Treasury note's yield fell 29 basis points to 3.2%. Concerns over domestic inflation subsided as oil prices fell, the housing market remained weak, and unemployment numbers ticked up in many parts of the country. By the end of the quarter, Congress had yet to reach an agreement on the US debt ceiling, furthering anxiety in fixed-income markets. Similar to the first quarter, policies from Washington may ultimately decide the future outlook for the US bond market.

In the second quarter, the BC Aggregate index ended up 2.3%, reflecting slight spread compression in credit

Fixed Income Index Returns (6/30/11)									
Global Fixed Income	Quarter	YTD	1 Year	3 Yrs	5 Yrs				
Citi World Gov. Bond	3.3%	4.0%	10.5%	5.8%	7.4%				
JPM EMBI Plus	4.3%	5.0%	11.8%	10.4%	9.6%				
Domestic Fixed Income									
BC Aggregate	2.3%	2.7%	3.9%	6.5%	6.5%				
BC Government	2.2%	2.1%	2.3%	5.1%	6.1%				
BC US Credit	2.5%	3.4%	6.2%	8.2%	7.0%				
BC Mortgage Backed	2.3%	2.9%	3.8%	7.0%	7.0%				
BC Govt/Credit	2.3%	2.6%	3.7%	6.2%	6.4%				
BC TIPS	5.3%	6.8%	8.3%	6.8%	7.8%				
BC High Yield	1.1%	5.0%	15.6%	12.7%	9.3%				
S&PLSTA Lev. Loan	-0.5%	2.0%	10.1%	7.1%	5.2%				
91 Day Treasury Bills	0.0%	0.1%	0.2%	0.4%	2.0%				
10-Year Bond Yields	Jun-11	Mar-11	Jun-10	Dec-10	Sep-10				
US	3.2%	3.5%	2.9%	3.0%	2.5%				
Germany	3.0%	3.4%	2.6%	3.0%	2.3%				
UK	3.4%	3.7%	3.4%	3.4%	2.9%				
Japan	1.1%	1.3%	1.1%	1.1%	0.9%				



and MBS sectors, and falling interest rates. The shape of the curve remains very steep, with short-term rates anchored near zero and long-term rates above 4%. Notably, long US TIPS (as measured by the BC 10+ Year Index) were up 5.30%. High-yield bonds, as measured by the BC High Yield Index, were up 1.05% during the quarter, with the higher-quality, more-interest-rate sensitive portions of the market performing best. Within investment-grade credit, utilities led the way while financials lagged.

Diversification into emerging markets paid off in the second quarter. The JP Morgan GBI-EM GD (unhedged local currency bonds) returned 3.95%. Hard currency emerging markets debt, as measured by the JP Morgan EMBI+, returned 4.26%. In aggregate, developing market currencies appreciated versus the dollar.

Currency Markets

The US dollar continued a trend of depreciation against most major currencies in the second quarter. Relative to the basket of foreign currencies in the MSCI EAFE Index, the dollar fell (-2.4%) in the second quarter and has been a 17% drag over the trailing year. The US dollar depreciated significantly against the Australian dollar (-3.9%) as Australia benefited from a strong local economy and higher interest rates, against the Japanese yen (-3.2%) as Japan continued to recover from the tsunami and nuclear reactor fallout, and against the Euro (-2.7%) – even as markets began to price in potential default by Greece. The US dollar's greatest decline, however, was against the Swiss franc (-8.6%), which was isolated from European sovereign debt issues.

With more subdued returns in the assets of emerging countries, their currencies were less reactive in the second quarter as well. The US dollar dropped against the Brazilian real (-4%) as currency markets were apathetic to taxes placed on foreign investments in Brazil to limit capital flows, and against the Korean won and the Russian ruble (-2% to -3% for each). Lastly, the Chinese yuan continued its slow, methodical appreciation against the dollar, picking up 1.4% in the second quarter.

Commodity Markets

After a bullish start to 2011 that extended into April, most commodities markets experienced a sharp correction. In aggregate, the Goldman Sachs Commodity Index (GSCI) lost 7.9% in the second quarter but remained positive for the year at 2.7%. Energy, which matched the total benchmark's loss (-7.9%), was once again the dominant story due to its large size in the index. Agriculture(-12.1%) was the worst-performing sector, as it fell with the expectation that supply would ramp up quickly in these markets. Precious metals actually finished the quarter in positive territory after a roller coaster ride, as silver peaked close to \$50/ounce at the end of April before settling at \$35/ounce to end the period. Gold surpassed and then dipped briefly below \$1,500/ounce, and then rode the positive momentum of capital markets in the last few days of June to rise back above that level as the quarter came to a close.

Pension Liability

Pension liabilities took a turn upward in the second quarter, mainly due to the fall of Treasury yields. Liabilities grew by an estimated 2.72% during the quarter as the Citigroup Pension Liability Index published a quarter-end discount rate of 5.67%, compared to 5.75% at the end of the first quarter. The 30-year Treasury yields also declined 13 basis points during the quarter, settling at 4.38% on June 30. Corporate spreads over long Treasuries remained relatively flat based on the Barclays Capital Long Credit Index.

For many years, NEPC has been advising corporate clients on the benefits of LDI strategies to protect against declining interest rates and to help maintain funded status. However, implementation of LDI strategies has become more tactical in recent years. Clients who are considering implementing an initial LDI strategy may benefit from dollar cost averaging into an allocation over a period of months or years, as rates and/or funded status increase. Clients who have already implemented an interest rate hedge may be revisiting their target hedge ratio or developing a program to hold asset duration steady for the time being, and may then extend duration after future increases in yields occur. Your NEPC consultant can review LDI implementation strategies with you, if applicable, and can also discuss the amount of interest rate hedging that is appropriate for your pension system.

Hedge Funds

The DJCS Hedge Fund Composite returned -0.6% during the second quarter, bringing year-to-date performance to +1.6%. Equity market neutral was the top performer (+2.0%), while managed futures fared the worst (-2.4%). On a year-to-date basis, all strategies are in positive territory with the exception of dedicated short bias (-4.9%) and managed futures (-3.4%).

The quarter was a challenging one for equity-oriented managers, as volatility ticked up and correlations increased with the equity market sell-off. Manager performance was materially affected by sector positioning: defensive sectors such as healthcare and consumer staples performed better while cyclical areas such as energy lagged. In the long-short equity space, we continue to focus significant time and effort on sector and regional specialists who we think are poised to extract substantial alpha once the market begins to differentiate among outperforming companies and their peers. In equity market neutral, managers with a long bias toward "quality" stocks were able to generate returns. Eventdriven trading, particularly merger arbitrage, was also profitable, with Alcon/Novartis and Massey/Alpha among the deals that drove manager profits. Going forward, we are constructive on the

Hedge Fund Index Returns (6/30/11)							
Composite	Quarter	YTD	1 Year	3 Yrs	5 Yrs		
DJ CS Hedge Fund Composite	-0.6%	1.6%	12.1%	2.5%	5.5%		
Relative Value							
DJ CS Convertible Arbitrage	-0.8%	3.7%	12.1%	7.1%	5.3%		
DJ CS Fixed Income Arbitrage	1.2%	3.5%	10.4%	3.3%	2.4%		
DJ CS Equity Market Neutral	2.0%	5.5%	9.6%	-14.5%	-5.9%		
Event Driven							
DJ CS Event Driven	-1.7%	1.3%	12.1%	4.6%	6.6%		
DJ CS Event Driven - Distressed	0.4%	3.1%	10.4%	3.5%	5.0%		
DJ CS Event Driven - Risk Arb.	0.6%	2.9%	6.4%	3.6%	5.5%		
Equity Hedge							
DJ CS Long-Short Equity	-1.5%	0.8%	13.8%	2.0%	5.5%		
DJ CS Emerging Markets	0.5%	2.2%	14.7%	2.2%	6.8%		
DJ CS Dedicated Short Bias	1.0%	-4.9%	-24.2%	-17.2%	-9.5%		
Tactical							
DJ CS Multi-Strategy	0.2%	4.4%	13.5%	3.5%	5.0%		
DJ CS Global Macro	0.7%	1.4%	10.4%	3.9%	8.5%		
DJ CS Managed Futures	-2.4%	-3.4%	8.1%	1.4%	6.1%		

drove manager profits. Going forward, we are constructive on the merger space and on event-driven opportunities more broadly – as low interest rates, significant corporate cash, and unspent private equity capital point to heightened corporate activity.

On the credit side, despite investors' seemingly insatiable thirst for yield from and a concomitant collapse in spreads, we remain constructive on specific segments of the market. Two investment themes that we think have merit are European credits and domestic



smaller-cap corporate credit. With respect to the former, we continue to monitor market developments and the potential for significant buying opportunities as the banking system in Europe is deleveraged. Finally, despite the poor performance of managed futures during the quarter, we remain constructive on tactical trading managers. We think that the experience of these managers is valuable in the current macro environment, and evidence shows that investing in the space has a positive impact on overall portfolio returns.

Private Markets

Private equity fund-raising continues to recover, but remains well below peak levels. In the first half of 2011, 202 US private equity funds closed on \$65 billion of commitments. This is well ahead of the 2010 pace – when 225 funds closed on \$47 billion in the first half – but remains well behind the record of 2008, when private equity funds closed on nearly \$156 billion in commitments. Four funds closed on \$3.5 billion or more: Centerbridge (\$4.4 billion), EIG (\$4.1 billion), EnCap (\$3.5 billion), and Stone Point Trident (\$3.5 billion).

Additionally, M&A deal volume remains somewhat muted. The 470 deals announced in the first half of 2011 (representing \$75 billion in transactions) compare favorably with the 420 deals representing \$40 billion in the first half of 2010, but this remains significantly below the 840 deals representing \$280 billion in transactions from the first six months of 2007. The average deal size and the number of transactions remain well below peak and below trend. As credit market conditions improved, however, the equity contributions in buyout transactions fell to 35.4% in the first quarter, slightly below the 10-year moving average of 35.7%, and significantly below the high of 45.7% reached in 2009 (according to Standard & Poor's Leveraged Commentary & Data). Additionally, Preqin estimates that there is nearly \$414 billion in committed but undrawn buyout capital available. Hence, the conditions are ripe for a significant increase in transaction volume in the near term.

Given some of the challenges on the fundraising trail, as well as the difficulty of putting money to work, some notable events have recently occurred regarding limited partnership terms. For years, the Institutional Limited Partnership Association (ILPA) has engaged with private equity managers to agree on certain best practices regarding fund terms. In the recent past, more and more managers have acceded to this request. The latest is Bain Capital. Traditionally, Bain charged a 2% management fee with a 30% carry, according to the Wall Street Journal (July 15, 2011). However, Bain's latest offering will grant investors an option to pay either a 2% management fee with a 20% carry (similar to many other firms) or a 1% management fee with a 30% carry. We believe this reflects both a desire of many general partners to conform with the ILPA guidelines and recognition that those who have traditionally earned outsized returns have not done so with their most recent funds and consequently are "on sale."

In real estate, returns continue to stabilize. NCREIF shows that, in the first quarter, core funds generated a 4.1% total return (1.4% income, 2.7% appreciation). The trailing one-year return for core funds stood at 20.6%. This represents a significant improvement, as the trailing one-year return for core funds through the first quarter of 2010 was -18.0%. The trailing three-year return now stands at an annualized 8.7%.

Furthermore, fundamentals continue to stabilize. In the most recent PwC Commercial Real Estate Investor Survey, office capitalization rates decreased in 27 of 31 markets, with the steepest declines occurring in the national central business district sector. The Manhattan office market has seen its overall cap rate fall below 6.0 for the first time since 2008. Nationally, the Central Business District sector is seeing rent growth rates move from negative (-2.0%) in the fourth quarter of 2009 to positive (1.4%). However, woes continue in the retail sector where conditions are not expected to improve until 2013 or 2014.

Final Thoughts

As we pass the midway point of 2011 we are focused on the key short-term risks facing markets: the US debt ceiling and the Greek debt crisis. Although these are significant concerns, measures of "fear" in the markets are surprisingly muted with VIX below 20 and the so-called "TED Spread" (the difference in yield between LIBOR and T-Bills) at below average levels. In the US, we believe that Congress will act to avoid a default; this is consistent with signals from the Treasury market. Investors recently purchased T-Bills at auction at a yield of -0.05% – essentially paying the government to hold their money– and longer term Treasury rates remain near secular lows. Not exactly signs of investor panic before impending default.

In Europe, the recent bailout package for Greece represents an important step in addressing the peripheral country debt crisis. Yet significant concerns remain. In response, we have reached out to leading investment managers and other experts on the risk of contagion of large European financial institutions and, through their short-term debt, money market funds. Our research indicates that there is a very low probability of the current crisis causing money funds to "break the buck", but we continue to evaluate developments closely.

Despite the challenges facing developed markets, we remain constructive on emerging market stocks – especially the equities of smaller, more consumer-oriented companies in these markets – as well as emerging market sovereign debt issued in local currency. We also believe that, for those investors who can lock up capital, the illiquidity premium remains very attractive. Particularly interesting strategies in this area include distressed investing and event-driven strategies in Europe, distressed real estate, direct lending, and sector-focused strategies.

Significant global imbalances are rarely resolved gradually. While we do not foresee either a "double dip" recession or elevated inflation in the near term, we do anticipate an extended period of slow economic growth in the US and other developed countries. In this environment, any number of short-term risk factors (whether listed above or a new exogenous shock), could cause volatility to increase. As a result, we continue to advise clients to take a risk-balanced approach to asset allocation. At the same time, we recommend adopting dynamic strategies, such as global asset allocation and global macro, to help mitigate economic risk factors while also seeking excess returns. As always, we look forward to listening to our clients and helping them craft investment solutions in these troubled times.