Capital Markets Outlook
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- Investors are faced with three primary issues in the near-term: 1) historically low bond yields, 2) the potential for a transition into a rising rate environment, and 3) the potential for deteriorating corporate earnings.
  - The price of the U.S. stock market relative to ten-year average earnings increased slightly from the beginning of the year, remaining above its historical average (28.9x versus 21.6x).
    - Small cap domestic stocks remain richly priced relative to large cap stocks.
  - Developed international and emerging market stocks are trading at lower valuations than U.S. stocks.
    - Sovereign debt issues and weak economic growth in Europe, and a cyclical slowdown in emerging economies, are weighing down valuations.
  - Uncertainties around global demand (particularly from emerging markets), stimulative monetary policy, and geopolitical tensions could cause heightened volatility despite a recent lull in turbulence.
    - In particular, the monetary policy changes by central banks are having a meaningful impact on most markets.
  - At the end of June, the spreads for both high yield corporate bonds (3.4% versus 5.5%) and investment grade bonds (1.0% versus 1.5%) were below their long-term averages.
  - At 2.5%, the yield on the ten-year Treasury remained far below its post-WWII average of 5.7%.
  - Low yields on fixed income instruments are likely to push long-term investors further out on the risk spectrum as they seek to achieve their target returns, while short-term investors may look to cash for safety.

1 Sources: Thomson Reuters, U.S. Treasury, Standard & Poor's. Data is as of June 30, 2014.
One of the most powerful predictors of long term equity returns has been the Cyclically Adjusted Price to Earnings Ratio (CAPE), which was originally proposed by Robert Shiller.

This fundamentally driven measure is highly correlated with future returns which are shown in the chart above with seven year forward returns on a reverse scale.

The cyclically adjusted P/E ratio for the S&P 500 finished June at 28.9x, above its post-WWII average of 21.6x.

Recent strong performance has driven this valuation measure well past its long-term average. While still not at extreme levels, it is not likely that this type of price appreciation can continue indefinitely.

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1 Source: Standard & Poor’s. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is from January 31, 1946 to June 30, 2014.
The P/E ratio of small cap stocks (Russell 2000) relative to large cap stocks (Russell 1000) remains more than one standard deviation above its long-term average, signaling potential underperformance of small cap stocks relative to large cap stocks.

Source: Russell Investments. Earnings figures represent 12-month “as reported” earnings. Data is as of June 30, 2014.
• The P/E ratio of growth stocks (Russell 3000 Growth) relative to value stocks (Russell 3000 Value) finished June at 135%, well above its level four years prior, but still below its long-term average.

• Of note, the long-term average was sharply influenced by the technology bubble of the late 1990s.

1 Source: Russell Investments. Earnings figures represent 12-month “as reported” earnings. Data is as of June 30, 2014.
Valuations (for the MSCI EAFE (ex-Japan) remain approximately one standard deviation cheaper than their historical average.

Sovereign debt concerns and the slow-to-negative pace of economic growth in Europe likely account for the low valuation levels.

1 Source: MSCI and Thomson Reuters. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of June 30, 2014.
Emerging market equities (MSCI Emerging Markets) are priced more than one standard deviation below their (brief) historical average.

By this metric, emerging market equities are trading at a much lower valuation than U.S. equities, and at a slightly lower valuation than non-U.S. developed market equities.

1 Source: MSCI and Thomson Reuters. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of June 30, 2014.
Ten-year Treasury yields were 2.5% at the end of June, meaningfully above their level at the end of 2012, but well below their post-WWII average.

The decision from the Federal Reserve to begin “tapering” off quantitative easing was one of the causes of the increase in rates.

1 Source: U.S. Treasury. Data is as of June 30, 2014.
• Breakeven (or expected) inflation, the difference between the nominal yield on a ten-year Treasury and the real yield on a ten-year TIPS, was close to its historical average at the end of June.

• The most recent inflation rate year over year was 2.1%. This means actual inflation has been 0.2% below the ten-year breakeven inflation rate.

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1 Source: U.S. Treasury and Federal Reserve. Data is as of June 30, 2014 for TIPS and Treasuries. Inflation is measured by the Consumer Price Index (CPI-U) for which the most recent data point is from May 30 2014.
Credit spreads (versus U.S. Treasury bonds) for both high yield and investment grade corporate bonds finished June below their respective historical averages.

With both spreads close to the bottom quartile mark the search for yield continues to become more difficult and complacency about risk remains a concern.

1 Source: Barclays Capital. High Yield is proxied by the Barclays High Yield index and Investment Grade Corporates are proxied by the Barclays U.S. Corporate Investment Grade index. Data is as of June 30, 2014.
The chart above shows that High Yield Bond Issuance has grown much faster than Investment Grade Bond Issuance in recent years. The current proportion of High Yield Issuance is near historic highs.

With rates near historic lows companies have increased their bond issuance with lower quality issues increasing at a faster rate the average quality of bonds is on the decline.

1 Source: SIFMA research. Data is as of June 30, 2014.
• With yield becoming harder to find in fixed income markets that seem expensive across the spectrum, one asset class that stands out is Emerging Market Local Currency.
• When compared with the current yield on U.S. High Yield bonds, the last period when the spread remained at these levels was 2001.

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1 Source: Barclays Capital. High Yield is proxied by the Barclays High Yield index and Emerging Markets Local Currency is proxied by the Barclays Emerging Markets Local Currency index. Data is as of June 30, 2014.
• At the end of June, the spread between core real estate cap rates and REIT yields was 2.7%, which continues on a downward trend toward its long-term average.

• REITs were yielding 3.8% at the end of June, well below the 10.1% level of early 2009.

1 Sources: Thomson Reuters and NCREIF. Core Real Estate is proxied by the transaction-based cap rate for the NCREIF NPI index and REITs are proxied by the yield for the NAREIT Equity index. NPI transactional capitalization rates are calculated on a quarterly basis and lagged in their release. Data is as of March 31, 2014, for the NCREIF NPI and June 30, 2014, for the NAREIT Equity index.
At 4.0%, the difference between the 6.5% cap rate for core real estate and the 2.5% yield for the ten-year Treasury remains elevated but has come down substantially toward the long term average.

Still, the absolute level of core real estate cap rates is near a historical low.

Source: NCREIF, U.S. Treasury. NPI transactional capitalization rates are calculated on a quarterly basis. The June 30, 2014 NCREIF NPI data is not yet available. Data is as of March 31, 2014, for the NCREIF NPI and June 30, 2014, for the ten-year Treasury.
• REIT yield spreads were 1.2% at the end of June. As the recovery in the real estate market continues, this spread is trending closer to its long term average.

• As with core real estate, the absolute level of REIT dividend yields is near a historical low.

1 Source: NAREIT, U.S. Treasury. REITs are proxied by the yield for the NAREIT Equity index. Data is as of June 30, 2014.
Based on Meketa Investment Group’s long term expectations, only a handful of asset classes are priced to produce returns above 8% per year. All of these asset classes incorporate a high degree of volatility.

1 Twenty-year expected returns based upon Meketa Investment Group’s 2014 Annual Asset Study.
Total Return Comparison of Barclays U.S. Aggregate Minus Barclays U.S. TIPS

Changes In Rates (bps)

<table>
<thead>
<tr>
<th>Inflation Rate Scenarios</th>
<th>-100</th>
<th>-50</th>
<th>0</th>
<th>50</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0%</td>
<td>-4.16%</td>
<td>-2.97%</td>
<td>-2.03%</td>
<td>-1.36%</td>
<td>-0.94%</td>
</tr>
<tr>
<td>3.0%</td>
<td>-3.16%</td>
<td>-1.97%</td>
<td>-1.03%</td>
<td>-0.36%</td>
<td>0.06%</td>
</tr>
<tr>
<td>2.0%</td>
<td>-2.16%</td>
<td>-0.97%</td>
<td>-0.03%</td>
<td>0.64%</td>
<td>1.06%</td>
</tr>
<tr>
<td>1.0%</td>
<td>-1.16%</td>
<td>0.03%</td>
<td>0.97%</td>
<td>1.64%</td>
<td>2.06%</td>
</tr>
<tr>
<td>0.0%</td>
<td>-0.16%</td>
<td>1.03%</td>
<td>1.97%</td>
<td>2.64%</td>
<td>3.06%</td>
</tr>
</tbody>
</table>

Total Return Scenario: 100 bps Rate Increase and 2% Inflation

<table>
<thead>
<tr>
<th>Total Return Over Longer Holding Periods</th>
<th>1 Year</th>
<th>3 Year</th>
<th>5 Year</th>
<th>7 Year</th>
<th>10 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barclays U.S. Aggregate</td>
<td>-3.38%</td>
<td>0.93%</td>
<td>1.81%</td>
<td>2.20%</td>
<td>2.48%</td>
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<tr>
<td>Barclays U.S. Treasury U.S. TIPS</td>
<td>-4.44%</td>
<td>0.57%</td>
<td>1.61%</td>
<td>2.05%</td>
<td>2.39%</td>
</tr>
</tbody>
</table>

1 Data is as of June 30, 2014 via Barclays, Bloomberg, and Thomson Reuters.
## Total Return Given Changes in Interest Rates (bps)$^1$

<table>
<thead>
<tr>
<th></th>
<th>Total Return for Given Changes in Interest Rates (bps)</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-100</td>
<td>-50</td>
</tr>
<tr>
<td>Barclays U.S. Short Treasury (Cash)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barclays U.S. Treasury 1-3 Yr.</td>
<td></td>
<td>1.5%</td>
</tr>
<tr>
<td>Barclays U.S. Treasury Intermediate</td>
<td>5.0%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Barclays U.S. Treasury Long</td>
<td>21.7%</td>
<td>12.0%</td>
</tr>
</tbody>
</table>

$^1$ Data represents the expected total return from a given change in interest rates (shown in basis points) over a 12-month period assuming a parallel shift in rates. Data is as of June 30, 2014 via Barclays and Thomson Reuters.