September 2015

PRIM Board Update



Massachusetts Pension Reserves Investment Management Board

Market Snapshot for September 2015

U.S. Gross Domestic Product ("GDP") was revised to 3.9%, up from the previous estimate of 3.7% in 2Q15 in the Commerce Department's third assessment. Unemployment remained level at 5.1%, while the latest jobs report shows employers added just 142,000 jobs, well below economists' expectations of 200,000. U.S. manufacturing expanded at a slower pace in September, as the US Purchasing Managers Index ("PMI"), fell to 50.2 from 51.1 in August. The U.S. Dollar Index remained flat for the month on mixed reactions to economic data, despite positive consumer confidence. Oil prices fell 8.4% in September to \$45.1 a barrel on weak China demand and U.S.-Russia tensions in the Middle East. Despite recent rhetoric that a rate move is warranted, the Federal Reserve (the "Fed") decided to keep rates unchanged at the September meeting.

U.S. equities fell in September, as concerns over global growth lingered. Large cap equities, down 2.5%, outperformed small caps, which returned -4.5%.

International equities fell 5.1%, as European equities returned -4.7%. Japanese equities declined 6.8% on weak U.S. and Chinese manufacturing data. Also, the recent Volkswagen diesel emissions scandal hurt Japan's auto sector.

Emerging markets equities returned -3.0% in September. Brazil markets fell 11.9%, as the Real depreciated 8.5% and Standard & Poors downgraded Brazil's debt rating to junk at BB+. Chinese shares slid 1.9% in September as China's National Bureau of statistics reported industrial profits dropped 8.8% from a year earlier. Russian equities declined 4.4% as the nation's largest oil and mining companies fell on speculation that they may be targets of President Vladimir Putin's new tax plan. Frontier Markets returned -2.5% in September.

The 20+year STRIPS index rose 1.5% in September, and is up 11.5% for the trailing one-year period. 30-year yields were 10 basis points ("bps") lower in September, at 2.86% versus 2.96% in August. The Barclays Aggregate Index rose 0.7% in September, as yields were down 11 bps on the month. (Price and yield move in the opposite direction.) Credit spreads widened in September, as high yield bonds returned -2.6%.

Emerging markets debt ("EMD") U.S. Dollar denominated fell 1.4% in September, and EMD local currency returned declined -3.0% for the month. Bond prices fell 0.9%, while the EM FX (foreign currency exchange) returned -2.6%. Brazil, Indonesia, Turkey, and South Africa were the worst performing countries.

REMINDER: 2015 PRIM Investors' Conference!

Please join us on Thursday, November 5, 2015 at the College of the Holy Cross in Worcester, MA for the 2015 PRIM Investors' Conference. The conference will be held in the Hogan Center Ballroom. Registration begins at 8:15 a.m.; the formal program will convene at 9:00 a.m. Among our speakers will be State Treasurer & Receiver-General, and PRIM Board Chair, Deborah B. Goldberg, and Stuart Schiff, Chief Executive Officer of DivcoWest Real Estate Investments. We will also feature presentations from PRIM's investment and finance staff.

PRIT FUND ASSETS: \$58,840,153,000

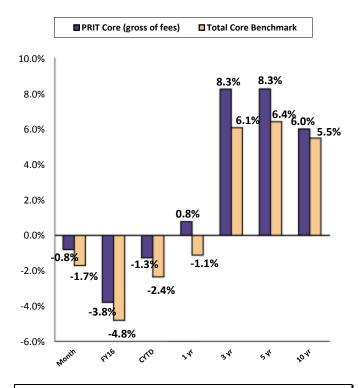
PRIT Core Fund Recap - September 30, 2015

| Portfolio | Month | CYTD | 1-Year |
|---------------------------------|--------|---------|---------|
| PRIT Core Total | -0.80% | -1.27% | 0.78% |
| U.S. Equity | -2.88% | -5.53% | -0.64% |
| International Equity | -4.52% | -3.72% | -6.46% |
| Emerging Markets Equity | -1.98% | -14.42% | -17.66% |
| Core Fixed Income | 0.67% | -1.21% | 6.23% |
| Public Value Added FI* | -2.06% | -4.27% | -6.82% |
| Total Value Added FI** | -1.24% | -2.78% | -4.72% |
| Private Equity | 5.98% | 15.47% | 17.72% |
| Core Real Estate | 2.50% | 7.92% | 14.03% |
| Timber/Natural Resources | -0.90% | -4.50% | -4.48% |
| Hedge Funds (net of fees) | -2.42% | -1.99% | -0.83% |
| Portfolio Completion Strategies | 1.46% | -1.96% | N/A |

Returns are gross of fees unless otherwise noted. Timber/Natural Resources, Total Value-Added Fixed Income, and Portfolio Completion Strategies sleeves are currently not available through Segmentation; however, the *Public Value Added Fixed Income sleeve is available as of April 1, 2013. **Total Value-Added FI includes returns of Public Value-Added FI and Private Debt. Private Equity is available to Segmented Systems through the Vintage Year Program.

| Market Recap – September 30, 2015 | | | | |
|-----------------------------------|--------|---------|---------|--|
| Global Equity Markets | | | | |
| U.S. Equities: | | | | |
| Index | Month | CYTD | 1-Year | |
| S&P 500 | -2.47% | -5.29% | -0.61% | |
| Russell 2000 Growth | -6.32% | -5.47% | 4.04% | |
| Russell 2000 Value | -3.46% | -10.06% | -1.60% | |
| Russell 2500 Growth | -5.47% | -3.85% | 3.35% | |
| Russell 2500 | -4.47% | -5.98% | 0.38% | |
| International Equities: | | | | |
| Index | | | | |
| Custom World IMI Ex-US | -4.90% | -6.04% | -9.46% | |
| MSCI Emerging Mkts. IMI | -2.51% | -14.70% | -18.32% | |
| Fixed Income | | | | |
| Index | | | | |
| Barclays Aggregate | 0.68% | 1.13% | 2.94% | |
| BC US Treas 20+Yr STRIPS | 1.53% | -2.70% | 11.54% | |
| ML High Yield Master II | -2.56% | -2.50% | -3.54% | |
| JPM EM Debt Global | -1.38% | -0.32% | -1.96% | |
| JPM GBI EMI Global Div. | -2.97% | -14.91% | -19.77% | |
| Real Estate | | | | |
| NCREIF 1-Qtr Lag Private | 3.14% | 10.08% | 12.98% | |
| FTSE EPRA NAREIT Global | 1.23% | -4.29% | 3.43% | |
| Hedge Funds | | | | |
| Index | | | | |
| HFRI Fund of Funds | -1.91% | -1.06% | -0.12% | |

PRIT Core Fund as of 9/30/2015



Senior Client Service Officer Paul Todisco - (617) 946-8423 ptodisco@mapension.com