



PRIM Board Update

Massachusetts Pension Reserves Investment Management Board

Market Snapshot for November 2016

Arguably, the most important aspect of November's market activity occurred not during the month itself, but two weeks into December when November data played a significant role in prompting the Federal Open Market Committee to increase interest rates for the second time in nine years. Citing data on the labor market and inflation expectations, the FOMC moved the important Federal Funds rate to 0.75% from 0.50% -- an increase of 0.25%.

The Fed's action followed a drop in the U.S. unemployment rate to 4.6% in November, the lowest rate reported by the Bureau of Labor Statistics since August 2007. Also in November, the Commerce Department revised 3Q16 GDP upward to 3.2% from the previous 2.9%. The key driver for the increase was personal consumption.

In the private sector, the Institute for Supply Management (ISM) Purchasing Manufacturing Index (PMI) rose to 53.2 from October's 51.9 (a reading greater than 50 indicates that the manufacturing sector of the economy is growing).

The key factor in November markets, of course, was the U.S. Presidential election.

Markets throughout the month seemed to focus on pro-growth components of the nascent Trump platform. Tax reform, fiscal stimulus, infrastructure spending and deregulation, if and when implemented, are expected to boost growth and drove both U.S equity markets and bond yields higher.

Markets focused less on potential constricting policies and the longer-term effects of Trump policies pertaining to trade, tariffs and immigration – which many believe could dampen growth.

During November, large-cap equities rose 3.7%. Small cap equities returned 11.2%, driven by fiscal and tax policy expectations. Developed international equities fell 2.0% in November. Emerging markets equities fell 4.6%.

The dollar strengthened versus the euro and yen. Oil prices rose to \$49.40 per barrel at month's end from \$46.80 at the beginning of the month.

In fixed income markets, the 20+ Year STRIPS Index fell 10.5% in November, but remained positive for the calendar year through Nov. 30 at 2.3%. The Barclays Capital Aggregate Bond Index fell 2.4% in November, with yields higher at 2.6%, up by 45 bps on the month (the yield and price move in opposite directions).

U.S High Yield bonds fell 0.4% in November. Emerging markets debt U.S. dollar-denominated (EMD\$) returned -4.2%, as spreads widened by 24 basis points (bps).

After a long period of serving as effective insurance against equity risk, duration positions were hurt by rising yields. PRIM staff is focused on finding the best ways to obtain that protection during what are likely to be stronger headwinds for bonds.

Looking forward, significant uncertainties and risks in the economy will very likely lead to volatile markets. Fortunately, PRIM staff is deep into its annual asset allocation work and will bring recommendations to the February cycle Investment Committee and Board meetings.

PRIT FUND ASSETS: \$61,636,377,000

PRIT Fund Recap – November 30, 2016

Portfolio	Month	CYTD	1-Year
PRIT Core Total	-0.7%	6.0%	5.3%
U.S. Equity	4.9%	10.8%	8.4%
International Equity	-2.1%	-0.9%	-2.1%
Emerging Markets Equity	-3.7%	11.6%	9.4%
Core Fixed Income	-5.4%	4.0%	3.7%
Public Value Added FI	-2.9%	9.8%	7.6%
Total Value Added FI	-2.3%	7.4%	4.8%
Private Equity	-0.5%	8.7%	10.7%
Core Real Estate	-0.4%	6.7%	9.4%
Timberland	-0.3%	3.2%	0.7%
Hedge Funds (net of fees)	0.8%	3.4%	2.7%
Portfolio Completion Strategies	-1.1%	0.5%	1.77%

Returns are gross of fees unless otherwise noted.

Market Recap November 30, 2016

Global Equity Markets

U.S. Equities:

Index	Month	CYTD	1-Year
S&P 500	3.9%	10.0%	8.3%
Russell 2000 Growth	8.9%	9.9%	4.7%
Russell 2000 Value	13.3%	26.6%	19.9%
Russell 2500 Growth	7.3%	8.8%	5.0%
Russell 2500	8.5%	15.4%	10.7%

International Equities:

Index	Month	CYTD	1-Year
Custom World IMI Ex-US	-1.7%	-0.3%	-1.8%
MSCI Emerging Mkts. IMI	-4.7%	9.7%	7.7%

Fixed Income

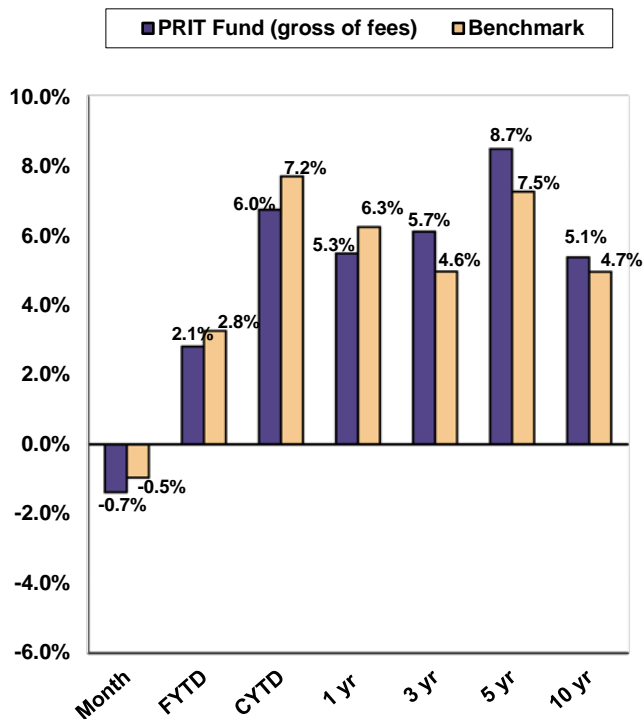
Index	Month	CYTD	1-Year
Barclays Capital Aggregate	-2.4%	2.5%	2.2%
BC US Treas 20+Yr STRIPS	-10.5%	2.3%	2.7%
ML High Yield Master II	-0.4%	15.2%	12.2%
JPM EMBI Global	-4.2%	8.6%	7.0%
JPM GBI EM Global Div.	-7.0%	7.9%	5.5%

Real Estate

NCREIF 1-Qtr Lag Private	0.0%	7.3%	10.6%
FTSE EPRA NAREIT Global	-2.7%	1.7%	2.7%

Hedge Funds

Index	Month	CYTD	1-Year
HFRI Fund of Funds	0.3%	-0.2%	-0.6%



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

Please note: As of 7/1/2016, all equity indices shown above are customized to exclude legislatively prohibited tobacco, Sudan, and Iran securities.