

October 2016

PRIM Board Update



PENSION RESERVES
INVESTMENT
MANAGEMENT BOARD

Massachusetts Pension Reserves Investment Management Board

Market Snapshot for October 2016

U.S. Gross Domestic Product (GDP) increased 2.9% in 3Q16, greater than the 1.4% reading in 2Q16, and higher than economists' expectations of 2.5% in the Commerce Department's final assessment. This represents the largest quarterly gain since 2014. Unemployment remained level at 5.0% in the most recent jobs report issued by the Bureau of Labor Statistics (BLS). Jobless claims rose 2,000 to 256,000. The U.S. Institute for Supply Management (ISM) Purchasing Manufacturing Index (PMI) expanded in October to 51.9, higher than 51.5 in September and stronger than market expectations. (A reading above 50 indicates the manufacturing sector of the economy is growing.)

The Federal Reserve (the Fed) left interest rates unchanged at the November meeting of the Federal Open Market Committee (FOMC). The Fed's statement had a slightly more hawkish tone, signaling that the case for an increase in the Federal Funds rate has continued to strengthen. The U.S. Dollar Index increased 3.1%, while the yen and the euro fell 3.6% and 2.5%, respectively. Oil prices fell to \$46.8 a barrel in October, a 2.9% decrease from September's \$48.2 a barrel, on skepticism of an output freeze by the Organization of the Petroleum Exporting Countries' ("OPEC") and an increase crude supplies.

In October, U.S. equities fell on lower oil prices and tightening in the U.S. presidential race. Domestic large cap stocks were down 1.8%, but outperformed their small cap counterparts, which returned -4.8% in October.

Developed international equities fell 2.0% in October. European equities returned -3.3%, on weaker than anticipated corporate earnings, U.S. elections concerns, and lower oil prices. Japanese equities rose 1.3% as exporters benefitted from a weaker yen, which fell 3.6% for the month.

Emerging equities gained 0.2% in October. Chinese equities were lower at -1.9% on lower energy prices and liquidity concerns. The Brazilian equity market rose 14.0% on favorable corporate earnings and investor optimism that the government would pass fiscal austerity measures. Frontier markets returned -0.4% in October.

In fixed income markets, the 20+ Year STRIPS Index fell 6.2% in October, but remained in double digits CYTD at 14.3%. The 20+ Year STRIPS Index returned 13.3% on a trailing 12-month basis ending September 30, 2016. The Barclays Capital U.S. Aggregate Bond Index fell 0.8% in October.

U.S High Yield bonds rose 0.3% in October, as spreads tightened by 6 basis points (bps). Emerging markets debt U.S. dollar denominated (EMD\$) fell 1.5%, as spreads were generally unchanged. EMD local currency lost 0.8% for the month, as yields were 18bps higher (the yield and price move in opposite directions). Bond prices fell 0.8% while FX lost 0.6% and coupon added 0.5%. Emerging markets debt local performance was led by Brazil, South Africa, and Mexico.

PRIT FUND ASSETS: \$62,232,172,000

PRIT Fund Recap – October 31, 2016

Portfolio	Month	CYTD	1-Year
PRIT Core Total	-1.4%	6.7%	5.5%
U.S. Equity	-2.4%	5.6%	4.0%
International Equity	-2.4%	1.2%	-1.1%
Emerging Markets Equity	-0.2%	15.9%	10.3%
Core Fixed Income	-2.8%	9.9%	9.1%
Public Value Added FI	-0.2%	13.1%	9.7%
Total Value Added FI	-0.2%	9.9%	6.3%
Private Equity	-0.5%	9.2%	10.5%
Core Real Estate	-1.1%	7.1%	9.7%
Timberland	-0.1%	3.5%	1.1%
Hedge Funds (net of fees)	0.8%	2.7%	2.3%
Portfolio Completion Strategies	-0.7%	1.6%	2.2%

Returns are gross of fees unless otherwise noted.

Market Recap October 31, 2016

Global Equity Markets

U.S. Equities:

Index	Month	CYTD	1-Year
S&P 500	-1.9%	6.0%	4.6%
Russell 2000 Growth	-6.2%	0.9%	-0.4%
Russell 2000 Value	-3.3%	11.7%	8.8%
Russell 2500 Growth	-5.2%	1.4%	0.0%
Russell 2500	-4.1%	6.3%	4.0%

International Equities:

Index	Month	CYTD	1-Year
Custom World IMI Ex-US	-2.0%	1.4%	-1.6%
MSCI Emerging Mkts. IMI	0.0%	15.1%	8.8%

Fixed Income

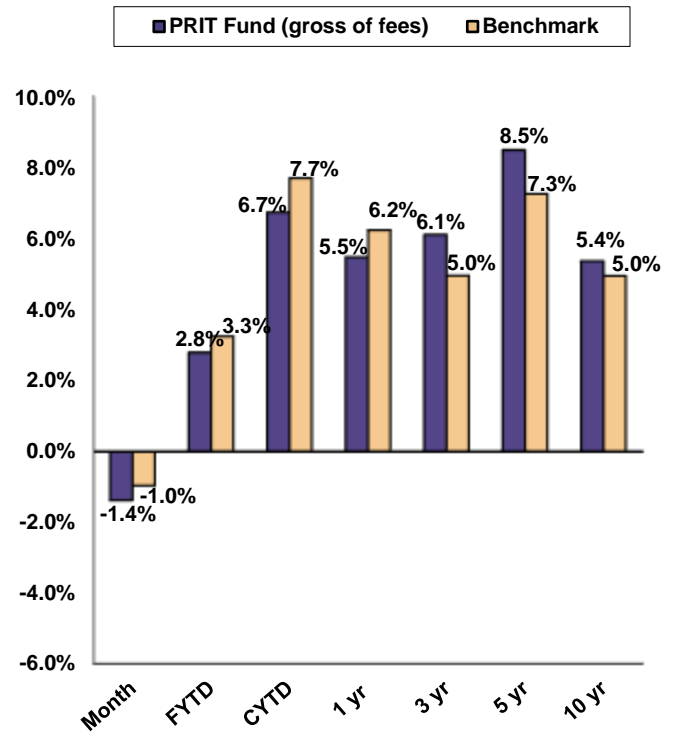
Index	Month	CYTD	1-Year
Barclays Capital Aggregate	-0.8%	5.0%	4.4%
BC US Treas 20+Yr STRIPS	-6.2%	14.3%	13.4%
ML High Yield Master II	0.3%	15.7%	10.2%
JPM EMBI Global	-1.5%	13.4%	11.6%
JPM GBI EM Global Div.	-0.9%	16.1%	11.0%

Real Estate

NCREIF 1-Qtr Lag Private	0.0%	7.3%	10.6%
FTSE EPRA NAREIT Global	-5.7%	4.5%	3.2%

Hedge Funds

Index	Month	CYTD	1-Year
HFRI Fund of Funds	-0.2%	-0.4%	-0.5%



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