Mid-Atlantic UFCW and Participating Employers Pension Fund

Master Consulting Services Report

Period Ended
December 31, 2017

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Market Discussion Points 4Q | 2017

INVESTMENT PERFORMANCE SERVICES, LLC

Financial Market Performance

Periods Ending December 31, 2017

Strategy	Sector	Index	QTR	YTD	2017	2016	2015	2014	2013	1-Yr	3-Yr	5-Yr	10-Yr	20-Yr
Stocks	**US Large Cap**	S&P 500	6.6	21.8	21.8	12.0	1.4	13.7	32.4	21.8	11.4	15.8	8.5	7.2
	US Small Cap	Russell 2000	3.3	14.7	14.7	21.3	-4.4	4.9	38.8	14.7	10.0	14.1	8.7	7.9
	All Country	MSCI All Country World (net)	5.7	24.0	24.0	7.9	-2.4	4.2	22.8	24.0	9.3	10.8	4.7	-
	Non-US Developed	MSCI EAFE (net)	4.2	25.0	25.0	1.0	-0.8	-4.9	22.8	25.0	7.8	7.9	1.9	5.3
	Emerging Markets	MSCI EM (net)	7.4	37.3	37.3	11.2	-14.9	-2.2	-2.6	37.3	9.1	4.4	1.7	-
	Int'l Small Cap	MSCI EAFE Small Cap (net)	6.1	33.0	33.0	2.2	9.6	-5.0	29.3	33.0	14.2	12.9	5.8	-
Bonds	**Treasury**	Bloomberg Barclays US Govt	0.1	2.3	2.3	1.1	0.9	4.9	-2.6	2.3	1.4	1.3	3.2	4.6
	Broad Market	Bloomberg Barclays Aggregate	0.4	3.5	3.5	2.7	0.6	6.0	-2.0	3.5	2.2	2.1	4.0	5.0
	High Yield	Bloomberg Barclays HY BaB 2% IC	0.4	6.9	6.9	14.1	-2.7	3.5	6.2	6.9	5.9	5.5	7.5	-
	Global Bonds	Citigroup WGBI	1.0	7.5	7.5	1.6	-3.6	-0.5	-4.0	7.5	1.7	0.1	2.7	4.5
Global Tactical Asset		65% MSCI World /35% Citi WGBI	3.9	17.0	17.0	5.6	-1.6	3.0	15.3	17.0	6.7	7.6	4.7	5.9
Real Estate	**Core**	NCREIF ODCE Equal Weighted	2.1	7.7	7.7	9.3	15.2	12.4	13.3	7.7	10.7	11.6	4.9	8.6
Hedge Funds	**Diversified FOFs**	HFRI HFOF Composite	2.0	7.7	7.7	0.5	-0.3	3.4	9.0	7.7	2.6	4.0	1.1	4.2
	Equity Long-Short	HFRI Equity Hedge	3.5	13.5	13.5	5.5	-1.0	1.8	14.3	13.5	5.8	6.6	3.2	7.5
Commodities	**Commodities**	Goldman Sachs Commodity	9.9	5.8	5.8	11.4	-32.9	-33.1	-1.2	5.8	-7.5	-12.2	-10.2	-0.9

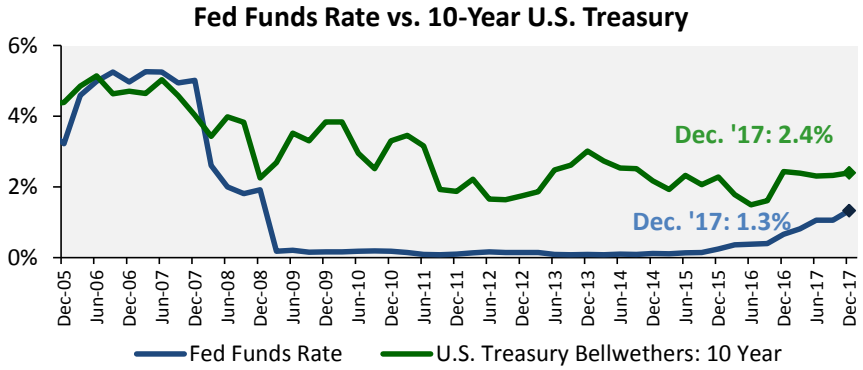
Asset Class Performance "Quilt"

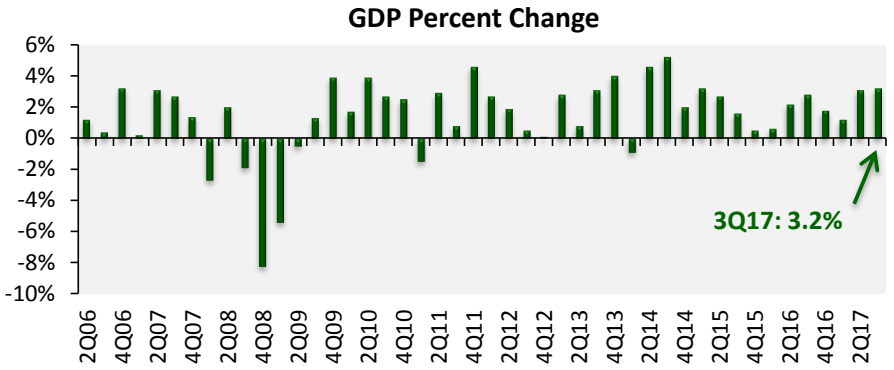
2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
RE 14.3%	Fx Inc 8.4%	Fx Inc 10.3%	EM Equity 55.8%	EM Equity 25.6%	EM Equity 34.0%	EM Equity 32.2%	EM Equity 39.4%	Fx Inc 5.2%	EM Equity 78.5%	Small Cap 26.9%	RE 16.0%	EM Equity 18.2%	Small Cap 38.8%	Large Cap 13.7%	RE 15.2%	Small Cap 21.3%	EM 37.3%
Fx Inc 11.6%	RE 5.6%	RE 5.5%	Small Cap 47.3%	Mid Cap 20.2%	RE 21.4%	Int'l 26.3%	RE 16.0%	RE -10.0%	HY 57.5%	Mid Cap 25.5%	Fx Inc 7.8%	Int'l 17.3%	Mid Cap 34.8%	Mid Cap 13.2%	Large Cap 1.4%	HY 17.5%	Int'l 25.0%
Mid Cap 8.3%	HY 4.5%	HFoF 1.0%	Mid Cap 40.1%	Int'l 20.2%	Int'l 13.5%	Small Cap 18.4%	Int'l 11.2%	SD HY -14.0%	Mid Cap 40.5%	EM Equity 18.9%	HY 4.4%	Mid Cap 17.3%	Large Cap 32.4%	RE 12.5%	SD HY 1.2%	Mid Cap 13.8%	Large Cap 21.8%
HFoF 4.1%	HFoF 2.8%	HY -1.9%	Int'l 38.6%	Small Cap 18.3%	Mid Cap 12.6%	RE 16.3%	HFoF 10.3%	HFoF -21.4%	SD HY 36.1%	RE 16.4%	SD HY 4.4%	Small Cap 16.3%	Int'l 22.8%	Fx Inc 6.0%	Fx Inc 0.6%	Large Cap 12.0%	Mid Cap 18.5%
Small Cap -3.0%	Small Cap 2.5%	EM Equity -6.2%	Large Cap 28.7%	GTAA 13.2%	HFoF 7.5%	Large Cap 15.8%	GTAA 9.9%	GTAA -25.4%	Int'l 31.8%	HY 15.2%	Large Cap 2.1%	Large Cap 16.1%	GTAA 15.3%	Small Cap 4.9%	HFoF -0.3%	EM 11.2%	GTAA 17.0%
HY -5.2%	EM Equity -2.6%	GTAA -7.2%	HY 28.1%	RE 13.0%	Large Cap 4.9%	Mid Cap 15.3%	Fx Inc 7.0%	HY -26.4%	Small Cap 27.2%	Large Cap 15.1%	GTAA -0.9%	HY 15.6%	RE 14.0%	HFoF 3.4%	Int'l -0.8%	RE 9.3%	Small Cap 14.7%
GTAA -8.1%	Mid Cap -5.6%	Int'l -15.9%	GTAA 26.7%	Large Cap 10.9%	Small Cap 4.6%	GTAA 15.1%	Mid Cap 5.6%	Small Cap -33.8%	Large Cap 26.5%	SD HY 11.7%	Mid Cap -1.6%	RE 10.9%	HFoF 9.0%	GTAA 3.0%	GTAA -1.6%	SD HY 8.5%	RE 7.7%
Large Cap -9.1%	GTAA -10.8%	Mid Cap -16.2%	HFoF 11.6%	HY 10.8%	GTAA 3.6%	HY 11.7%	Large Cap 5.5%	Large Cap -37.0%	GTAA 20.1%	GTAA 9.8%	Small Cap -4.2%	GTAA 10.9%	HY 7.4%	HY 2.5%	Mid Cap -2.4%	GTAA 5.6%	HFoF 7.7%
Int'l -14.2%	Large Cap -11.9%	Small Cap -20.5%	RE 9.3%	HFoF 6.9%	HY 2.7%	HFoF 10.4%	SD HY 3.9%	Mid Cap -41.5%	HFoF 11.5%	Int'l 7.8%	HFoF -5.7%	SD HY 10.2%	SD HY 5.6%	SD HY 1.9%	Small Cap -4.4%	Fx Inc 2.7%	HY 7.5%
EM Equity -30.8%	Int'l -21.5%	Large Cap -22.1%	Fx Inc 4.1%	Fx Inc 4.3%	Fx Inc 2.4%	SD HY 9.9%	HY 2.2%	Int'l -43.4%	Fx Inc 5.9%	Fx Inc 6.5%	Int'l -12.1%	HFoF 4.8%	Fx Inc -2.0%	EM Equity -2.2%	HY -4.6%	Int'l 1.0%	SD HY 3.6%
					SD HY 2.4%	Fx Inc 4.3%	Small Cap -1.6%	EM Equity -53.3%	RE -29.8%	HFoF 5.7%	EM Equity -18.4%	Fx Inc 4.2%	EM Equity -2.6%	Int'l -4.9%	EM Equity -14.9%	HFoF 0.5%	Fx Inc 3.5%

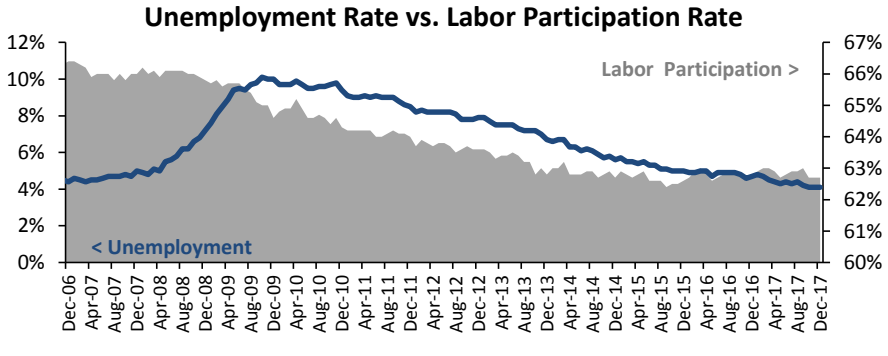
Source: NCREIF, Wilshire. Large Cap Equity: S&P 500 Index, Mid Cap Equity: Russell Midcap Index, Small Cap Equity: Russell 2000 Index, International Equity: MSCI EAFE Index, Emerging Markets: MSCI EM Index, Fixed Income: Barclays Aggregate Index, High Yield Fixed Income: Merrill Lynch High Yield Master II Index, Short Duration High Yield Fixed Income: ML High Yield Cash Pay 1-3 Yr BB Index, Real Estate: NCREIF ODCE Equal Weighted Index, Hedge Fund of Funds: HFRI FOF Index, Global Tactical Asset Allocation: 65%MSCI World Equity/35% Citi World Gov't Bond Index. Inception date for the ML High Yield Cash Pay 1-3 Yr BB Index was January 1, 2005. Past performance is not indicative of future returns.

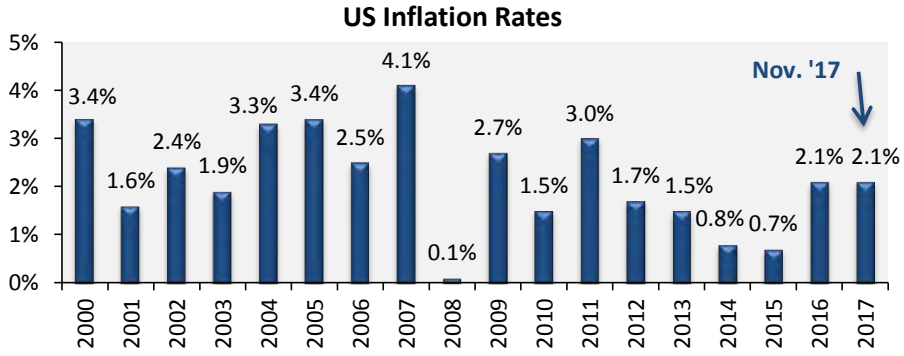
U.S. Economy

The US economy is now in its 102nd month of expansion, the second longest in history. The longest expansion was the 1990-2000 Tech Boom, which lasted 113 months. The difference is that the stock market was up 417% during the Tech Boom, while the current stock market rally has posted "only" a 295% cumulative return since March 2009. GDP growth is about 2.3% year over year, but the current run rate is slightly above 3%. Inflation appears to still be benign at about 2.2%. The unemployment rate fell to an exceptionally low 4.1%. The consumer segment is nearly 70% of the economy and looks to be healthy. Household debt as a percentage of income is near all-time lows at 10% and household net worth is at all-time highs. The housing affordability index is at 13% of income, compared to a long term average of 19%, driven by low interest rates. The national average 30-year conventional mortgage rate is still below 4%. The number of consumers with sub-prime FICO scores are also at historic lows. US manufacturing expanded at the highest rate in 13 years and corporate earnings growth is robust, hitting all-time highs in 2017. All of this positive news has allowed the Federal Reserve to feel confident enough in the strength of the economy to continue to raise the Fed Funds rate five times over the last two years, including a 0.25% increase in December 2017. Expectations are for the Federal Reserve to raise rates three or four more times in 2018.





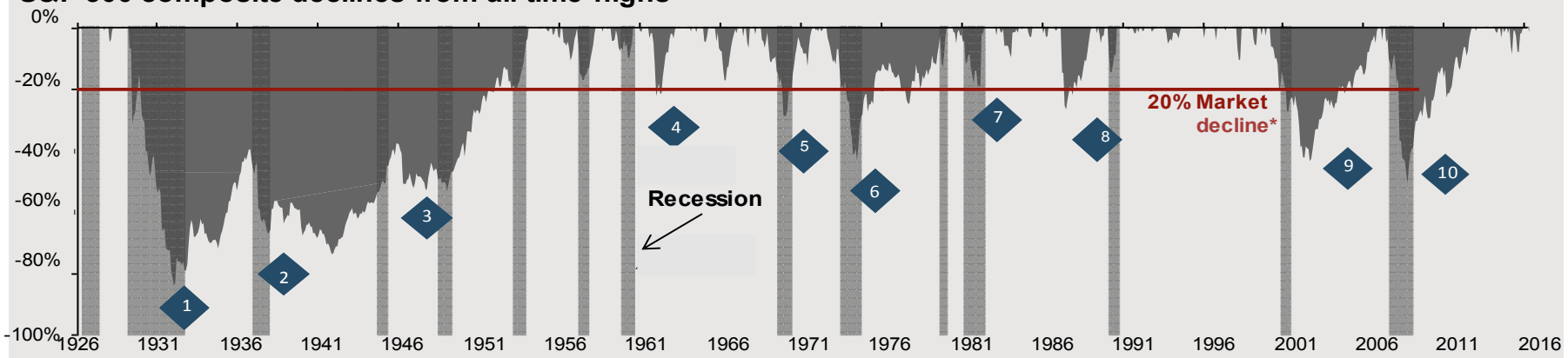




Source: Top Left - The Federal Reserve; Top Right - Bureau of Economics, U.S. Department of Commerce; Bottom Left and Right: Bureau of Labor Statistics

Current Bull Market: Historical Context

S&P 500 composite declines from all-time highs

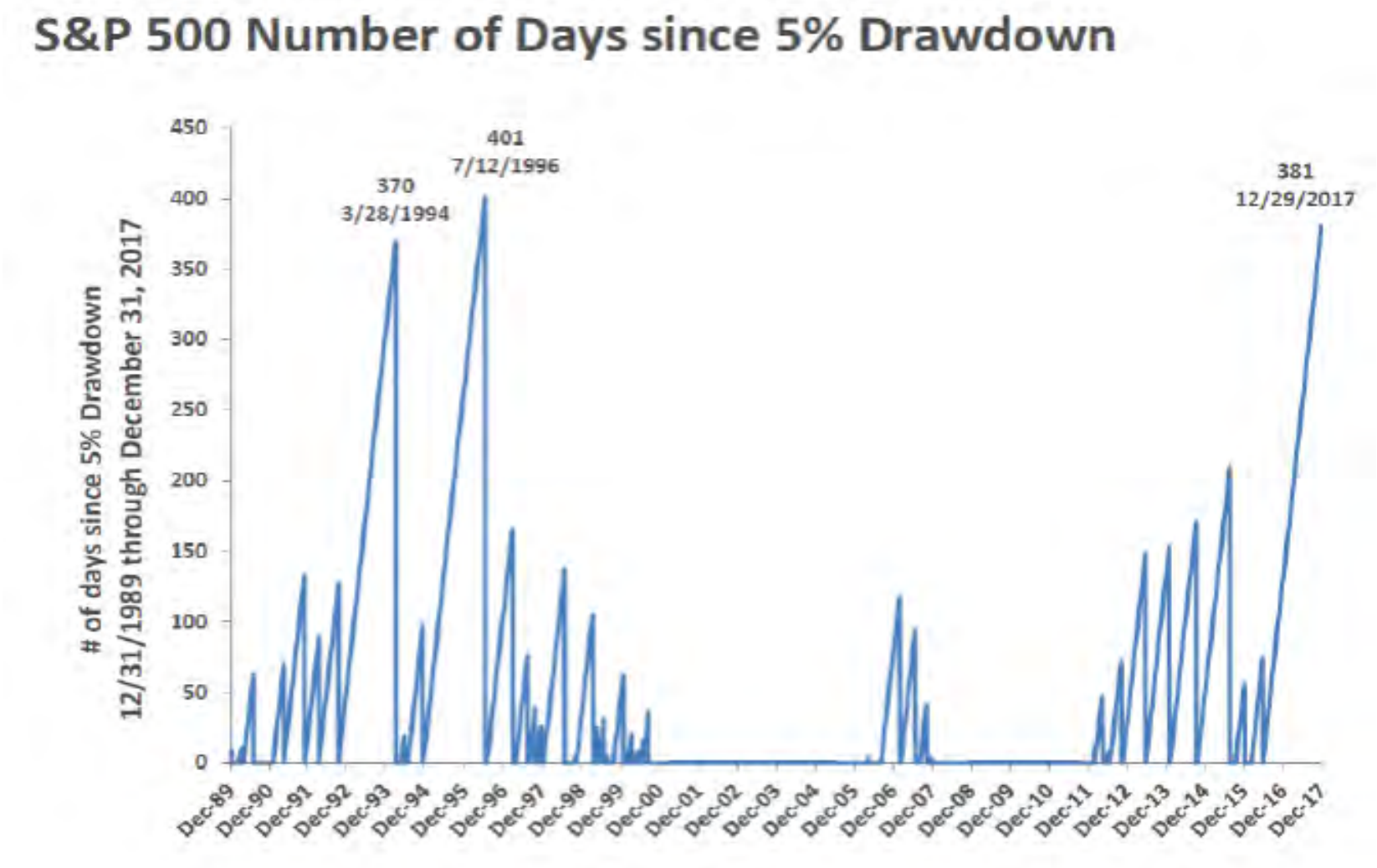


Characteristics of bull and bear markets

	Market Corrections	Bear markets: Market peak	Bear markets: Bear return*	Bear markets: Duration (months)*	Macro environment: Recession	Macro environment: Commodity spike	Macro environment: Aggressive Fed	Macro environment: Extreme valuations	Bull markets: Bull begin date	Bull markets: Bull return	Bull markets: Duration (months)
1	Crash of 1929 - Excessive leverage, irrational exuberance	Sep 1929	-86%	32	◆			◆	Jul 1926	152%	37
2	1937 Fed Tightening - Premature policy tightening	Mar 1937	-60%	61	◆		◆		Mar 1935	129%	23
3	Post WWII Crash - Post-war demobilization, recession fears	May 1946	-30%	36	◆			◆	Apr 1942	158%	49
4	Flash Crash of 1962 - Flash crash, Cuban Missile Crisis	Dec 1961	-28%	6				◆	Oct 1960	39%	13
5	Tech Crash of 1970 - Economic overheating, civil unrest	Nov 1968	-36%	17	◆	◆	◆		Oct 1962	103%	73
6	Stagflation - OPEC oil embargo	Jan 1973	-48%	20	◆	◆			May 1970	74%	31
7	Volcker Tightening - Whip Inflation Now	Nov 1980	-27%	20	◆	◆	◆		Mar 1978	62%	32
8	1987 Crash - Program trading, overheating markets	Aug 1987	-34%	3				◆	Aug 1982	229%	60
9	Tech Bubble - Extreme valuations, .com boom/bust	Mar 2000	-49%	30	◆			◆	Oct 1990	417%	113
10	Global Financial Crisis - Leverage/housing, Lehman collapse	Oct 2007	-57%	17	◆	◆	◆		Oct 2002	101%	60
	Current Cycle								Mar 2009	295%	105
	Averages	-	**-45%**	**24**					-	**160%**	**54**

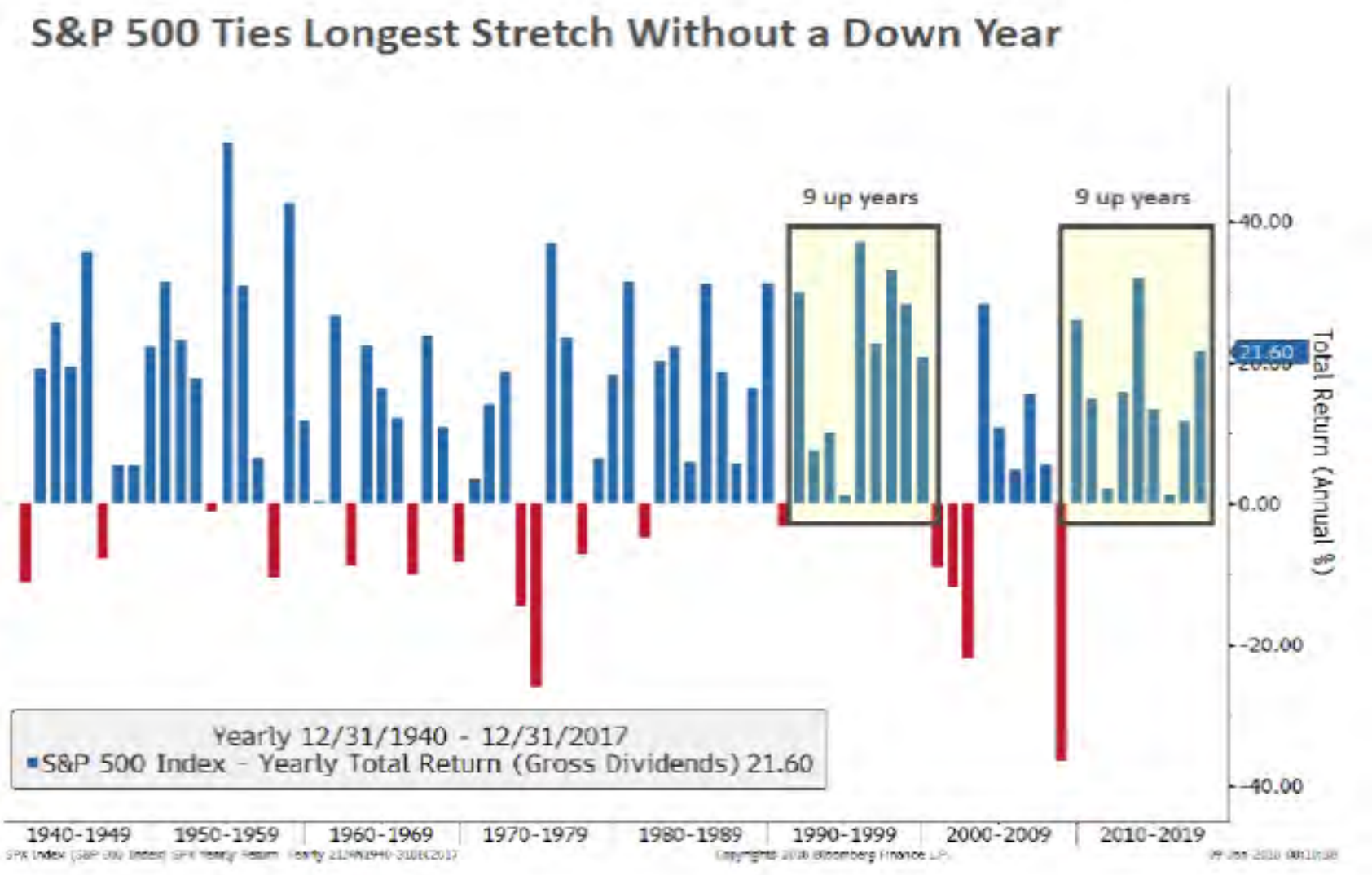
Source: FactSet, NBER, Robert Shiller, Standard & Poor's, J.P. Morgan Asset Management.
*A bear market is defined as a 20% or more decline from the previous market high. The bear return is the peak to trough return over the cycle. Periods of "Recession" are defined using NBER business cycle dates. "Commodity spikes" are defined as significant rapid upward moves in oil prices. Periods of "Extreme valuations" are those where S&P 500 last 12 months' P/E levels were approximately two standard deviations above long-run averages, or time periods where equity market valuations appeared expensive given the broader macroeconomic environment. "Aggressive Fed Tightening" is defined as Federal Reserve monetary tightening that was unexpected and/or significant in magnitude. Bear and Bull returns are price returns.
Guide to the Markets – U.S. Data are as of December 31, 2017.

Historic Low Volatility



Source: Bloomberg, DoubleLine

Bull Market Run

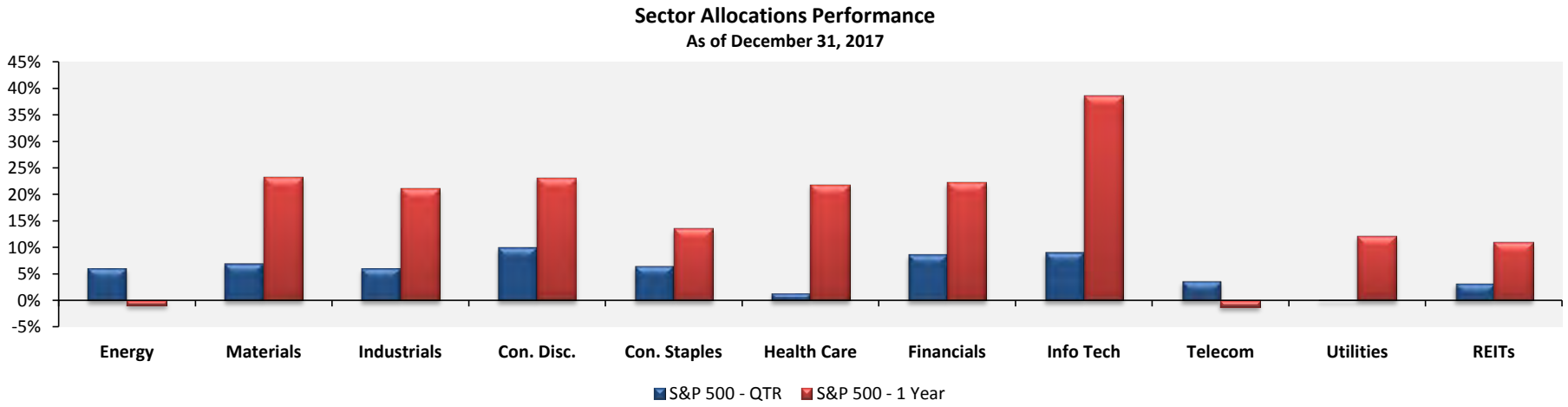


Source: Bloomberg, DoubleLine

U.S. Equity Market

Let the good times roll! US equity markets continued their rise in 2017. The S&P 500 index rose 21.8% for the year and the Dow Jones Industrial Average posted a robust 28.1%. Growth investing dominated, with the Russell 1000 Growth index up 30.2% for the year, trouncing the Russell 1000 Value index which returned 13.6%. The same growth domination occurred in small cap stocks as well, as the Russell 2000 Growth index rose 22.2% for the year vs. the Russell 2000 Value's 7.8% increase. Large-cap technology stocks dominated the markets. Index exchange traded funds (ETFs) were also a big driver of the market returns. In 2017, money poured out of equity mutual funds and into ETFs at a furious pace. Four of the "Top 10 Most Active Stocks" were ETFs. Retail investors may have gotten the timing wrong on this; while active management had a rough year in 2016, it roared back to dominate the index funds in 2017. Are stocks overvalued? The price/earnings (P/E) ratio, the most common measure of stock valuation, for the S&P 500 was at 20 times earnings at year end vs. 19 times at the end of 2016. The long-term average is about 16 times earnings, which suggests stocks are somewhat overvalued; this is still much lower than the peak of the Tech Boom in 2000, when the P/E ratio for the S&P 500 was about 25 times earnings.

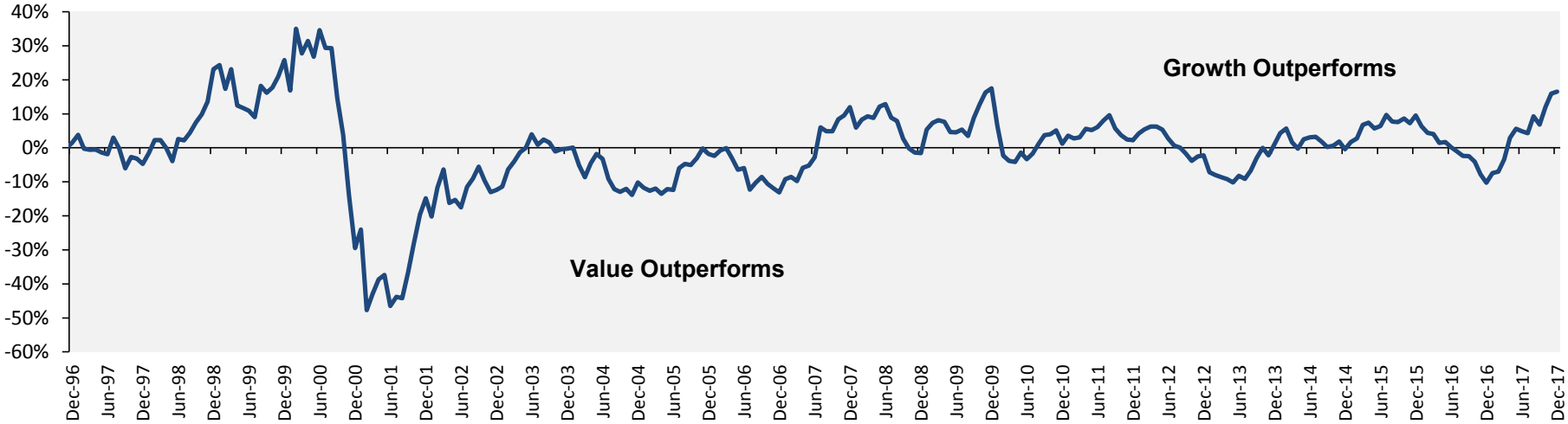
Sector	Index	4Q 17	YTD	2017	2016	2015	2014	2013	1-Year	3-Year	5-Year	10-Year
Large Cap	S&P 500	6.6	21.8	21.8	12.0	1.4	13.7	32.4	21.8	11.4	15.8	8.5
	Russell 1000	6.6	21.7	21.7	12.1	0.9	13.3	33.1	21.7	11.2	15.7	8.6
	Russell 1000 Value	5.3	13.7	13.7	17.3	-3.8	13.5	32.5	13.7	8.7	14.0	7.1
	Russell 1000 Growth	7.9	30.2	30.2	7.1	5.7	13.1	33.5	30.2	13.8	17.3	10.0
Mid Cap	Russell Mid-Cap	6.1	18.5	18.5	13.8	-2.4	13.2	34.8	18.5	9.6	15.0	9.1
	Russell Mid-Cap Value	5.5	13.3	13.3	20.0	-4.8	14.7	33.5	13.3	9.0	14.7	9.1
	Russell Mid-Cap Growth	6.8	25.3	25.3	7.3	-0.2	11.9	35.8	25.3	10.3	15.3	9.1
Small Cap	Russell 2000	3.3	14.7	14.7	21.3	-4.4	4.9	38.8	14.7	10.0	14.1	8.7
	Russell 2000 Value	2.1	7.8	7.8	31.7	-7.5	4.2	34.5	7.8	9.6	13.0	8.2
	Russell 2000 Growth	4.6	22.2	22.2	11.3	-1.4	5.6	43.3	22.2	10.3	15.2	9.2
Total Market	Wilshire 5000	6.4	21.0	21.0	13.4	0.7	12.7	33.1	21.0	11.4	15.7	8.6
	Russell 3000	6.3	21.1	21.1	12.7	0.5	12.6	33.6	21.1	11.1	15.6	8.6



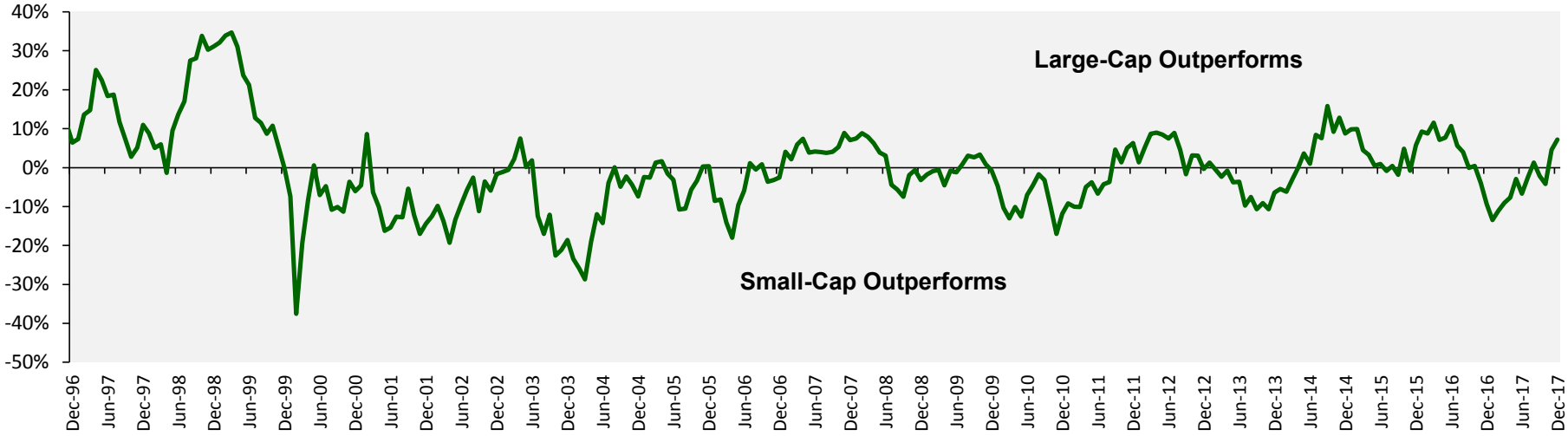
*S&P 500 (GICS Real Estate) Index performance began August 2016.

U.S. Equity Market

Russell 1000 Growth vs. Russell 1000 Value
Rolling One-Year Returns



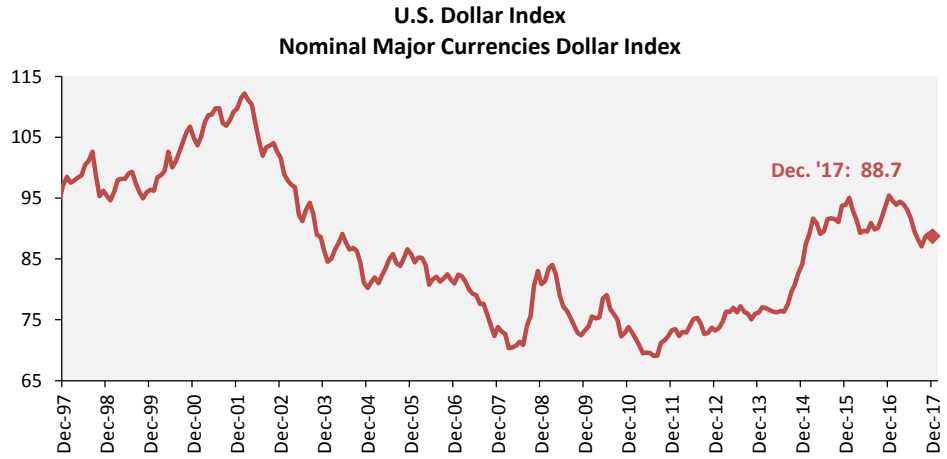
S&P 500 vs. Russell 2000
Rolling One-Year Returns

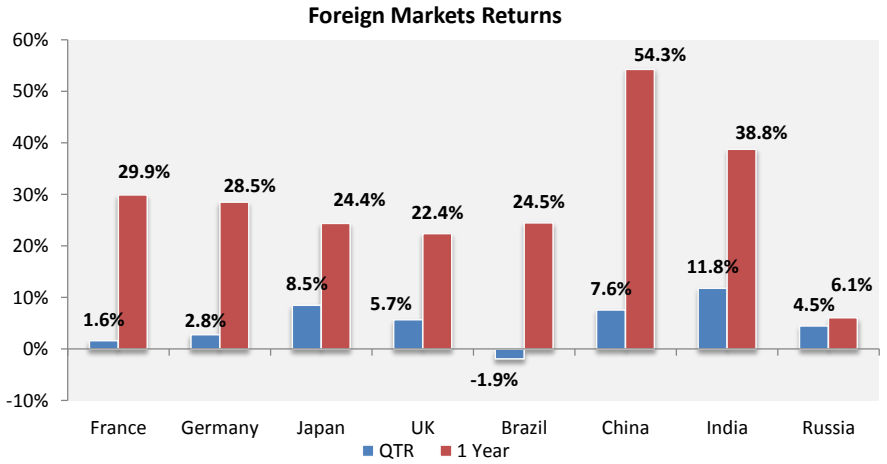


International Equity Market

Let the good times roll, globally! While non-US equity markets have lagged the US for the past several years, the rest of the world apparently noticed that the US Federal Reserve policies of low rates and bond buying helped to drive stock prices higher. In 2017, it worked for them too. Most developed and emerging economies around the globe have seen renewed growth, which has been reflected in surging stock markets. The MSCI EAFE Index, which is comprised of the largest 22 developed countries outside the US, was up 25% in 2017, besting the S&P 500's return of 21.8%. Global small cap stocks, as measured by the MSCI World ex US Small Cap index, were up 31.6%. The MCSI Emerging Markets index was up 37.3%. While there has been some modest expansion of P/E ratios, the real driver of the global markets has been earnings growth, which hit 19% last year. The MSCI All Country ex-US index P/E ratio is at 14.3 times, which is still a bit below the long term average of 14.5 times, so there may be room to grow valuations. EAFE GDP growth is projected to be 3% in 2018, the best since 2000. Eurozone unemployment rates are coming down and European banks are reporting positive loan demand by businesses for expansion.

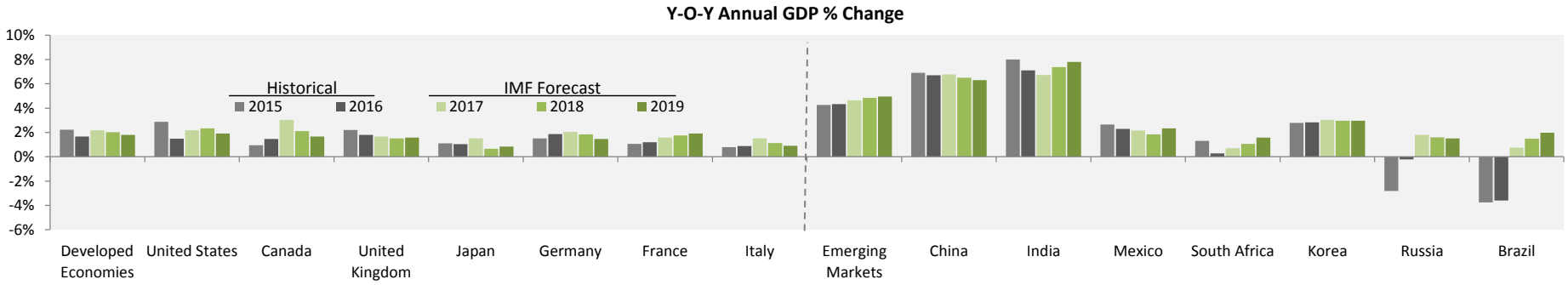
Sector	Index	4Q 17	YTD	2017	2016	2015	2014	2013	1-Year	3-Year	5-Year	10-Year
Global	MSCI AC World Index (net)	5.7	24.0	24.0	7.9	-2.4	4.2	22.8	24.0	9.3	10.8	4.7
	MSCI World Small Cap (net)	5.7	23.8	23.8	11.6	-1.0	1.8	28.7	23.8	11.0	12.4	7.2
	MSCI World ex US (net)	5.0	27.2	27.2	4.5	-5.7	-3.9	15.3	27.2	7.8	6.8	1.8
	MSCI World ex US Small Cap (net)	6.6	31.6	31.6	3.9	2.6	-4.0	19.7	31.6	12.0	10.0	4.7
Developed ex US	MSCI EAFE (net)	4.2	25.0	25.0	1.0	-0.8	-4.9	22.8	25.0	7.8	7.9	1.9
	MSCI EAFE Value (net)	3.2	21.4	21.4	5.0	-5.7	-5.4	23.0	21.4	6.4	7.0	1.2
	MSCI EAFE Growth (net)	5.2	28.9	28.9	-3.0	4.1	-4.4	22.6	28.9	9.2	8.8	2.7
	MSCI EAFE Small Cap (net)	6.1	33.0	33.0	2.2	9.6	-5.0	29.3	33.0	14.2	12.9	5.8
Emerging Markets	MSCI Emerging Markets (net)	7.4	37.3	37.3	11.2	-14.9	-2.2	-2.6	37.3	9.1	4.4	1.7





Left chart: The major currencies index is a weighted average of the foreign exchange values of the U.S. dollar against a subset of currencies in the broad index that circulate widely outside the country of issue. The weights are derived from those in the broad index. **Right chart:** Data as of December 31, 2017. **Source:** The Federal Reserve

International Equity Market

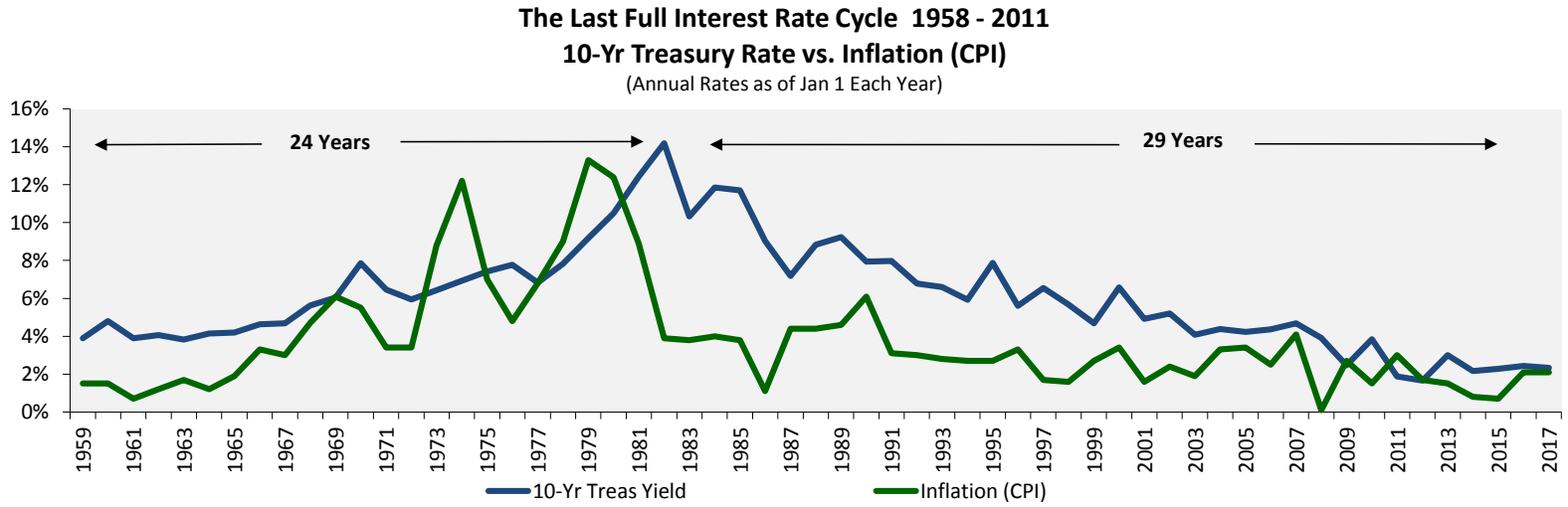


Top chart: Source - MSCI, Standard & Poor's, FactSet, J.P. Morgan Asset Management. **Bottom chart:** Annual percentages of constant price GDP are year-on-year changes; the base year is country-specific. Source: International Monetary Fund, World Economic Outlook Database, October 2017.

U.S. Bond Market

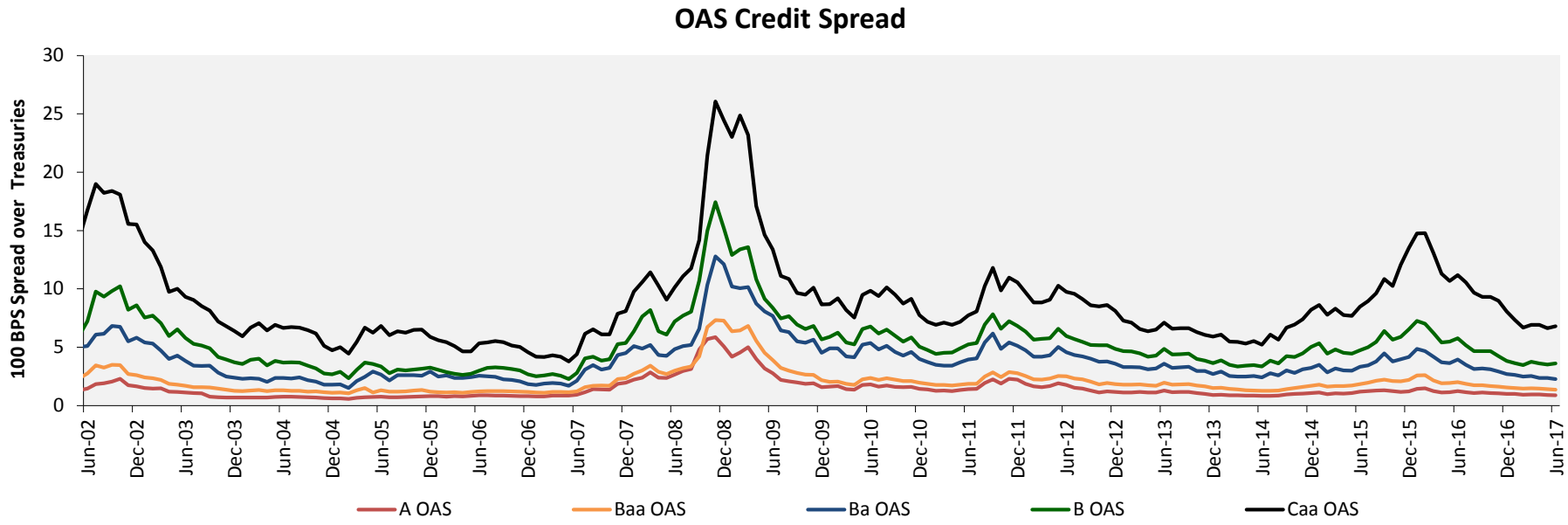
Since December 2015, the Federal Reserve raised the Federal Funds rate for the fifth time in December. The rate target is currently 1.25% to 1.50%. Expectations are the Fed will raise rates three or four times in 2018 to a target range of 2.25% to 2.50%. The yield curve remains relatively flat with the two-year Treasury Bill at about 1.89%, the 5-year at 2.2% and the 10 year at 2.4%. Foreign demand for US Treasuries, and a strong currency, has kept the middle part of the yield curve artificially low. Every time yields rise it spawns more buying; however, that may change. The European economy is rapidly recovering and the central banks are starting to raise rates. The US Dollar is also weakening relative to the Euro. Together foreign buyers have more reasons to invest at home rather than in the US. Less than 15% of Treasury purchases in October were from foreign buyers, down from 43% in June 2009. Foreign bond holders own nearly 50% of all of the outstanding Treasury bonds. The biggest buyer of US Treasuries, China, with $1.18 trillion in US Treasury holdings, has indicated that they may slow down or even stop buying US Treasuries. This could be a game changer; without the foreign buying that is keeping US rates low, we could experience rising rates and declining bond prices. The Bloomberg Barclays Aggregate Bond Index, which is the most commonly used benchmark for institutional investors, has also seen its duration (a measure of interest rate sensitivity) increase from about five years in 2013 to six years at the end of 2017. That means the Aggregate index now has 20% more risk for a 1% change in interest rates. The Bloomberg Barclays Intermediate Gov't/Credit Index returned 2.1% for the year and the Bloomberg Barclays Aggregate returned 3.5%. Higher quality high yield bonds, as measured by the Bloomberg Barclays High Yield Ba/B 2% Cap index, returned 6.9% for the year while the broader high yield market returned 7.5%. Default rates in the high yield space remain low at about 1.3%, while the yield spread above Treasuries is hovering around 4%.

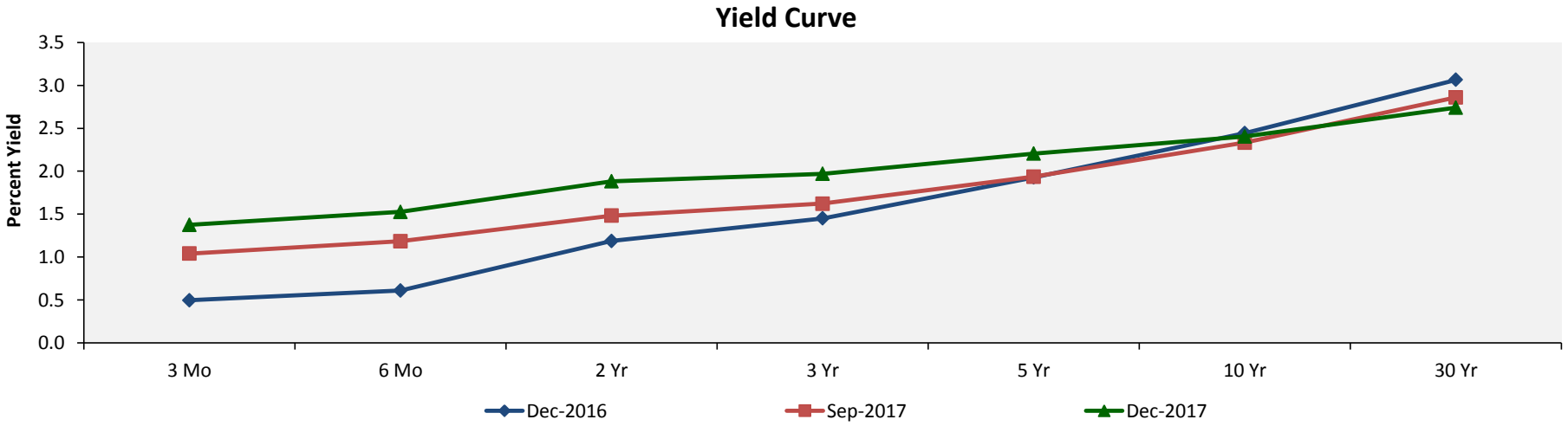
Index	Yield	Duration	4Q 17	YTD	2017	2016	2015	2014	2013	1-Year	3-Year	5-Year	10-Year
Bloomberg Barclays Aggregate	2.70	6.1	0.4	3.5	3.5	2.7	0.6	6.0	-2.0	3.5	2.2	2.1	4.0
Bloomberg Barclays Govt/Credit	2.64	6.6	0.5	4.0	4.0	3.1	0.2	6.0	-2.4	4.0	2.4	2.1	4.1
Bloomberg Barclays Int Agg	2.54	4.4	-0.1	2.3	2.3	2.0	1.2	4.1	-1.0	2.3	1.8	1.7	3.5
Bloomberg Barclays Int Govt/Credit	2.38	4.0	-0.2	2.1	2.1	2.1	1.1	3.1	-0.9	2.1	1.8	1.5	3.3
Bloomberg Barclays HY Ba/B 2% IC	5.03	3.9	0.4	6.9	6.9	14.1	-2.7	3.5	6.2	6.9	5.9	5.5	7.5
BofA ML HY Cash Pay BB 1-3 Yr.	4.01	1.6	0.0	3.6	3.6	8.5	1.2	1.9	5.6	3.6	4.4	4.1	6.3
Bloomberg Barclays Mortgage	2.84	5.2	0.2	2.5	2.5	1.7	1.5	6.1	-1.4	2.5	1.9	2.0	3.8
Bloomberg Barclays Treasury	2.19	6.2	0.1	2.3	2.3	1.0	0.8	5.1	-2.8	2.3	1.4	1.3	3.3
Bloomberg Barclays US TIPS	2.34	7.7	1.3	3.0	3.0	4.7	-1.4	3.6	-8.6	3.0	2.1	0.1	3.5
BofA ML 91 day T-Bills	1.36	0.2	0.3	0.9	0.9	0.3	0.1	0.0	0.1	0.9	0.4	0.3	0.4



Source: Bloomberg Barclays

Bond Market





Source: Bloomberg Barclays

Interest Rate Sensitivity

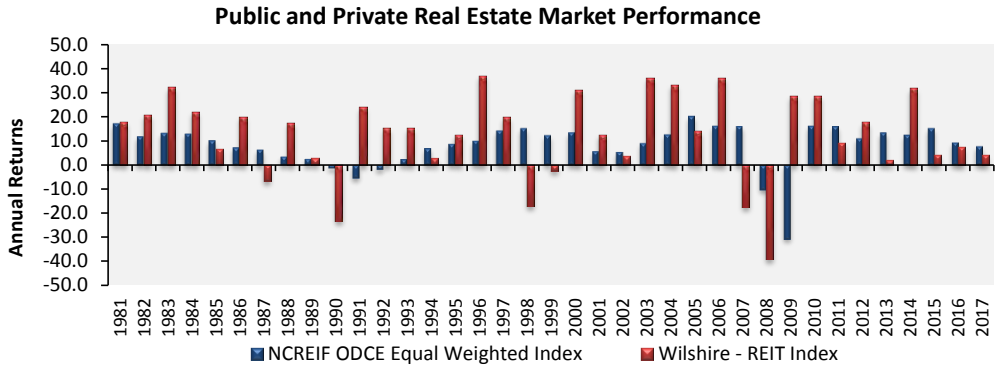
12 Month Holding Period - Annualized Returns as of 12/31/2017							
Yield Change (bps)	10 Year Treasury	Bloomberg Barclays Aggregate US Aggregate	Bloomberg Barclays Int Govt/Credit US Int Govt/Credit	ML Gov/Corp Master	ML 1-3 yr Gov/Corp	Defensive ML US HY BB/B ND	Short Duration ML US HY BB/B 1-3 yr
-150	15.57	12.06	8.35	12.51	4.86	10.93	6.44
-100	11.18	8.94	6.36	9.22	3.92	8.94	5.63
-50	6.80	5.83	4.37	5.94	2.99	6.95	4.82
-25	4.60	4.27	3.38	4.29	2.52	5.96	4.42
0	2.41	2.71	2.38	2.65	2.05	4.96	4.01
25	0.22	1.15	1.39	1.01	1.58	3.97	3.61
50	-1.98	-0.41	0.39	-0.64	1.12	2.97	3.20
100	-6.36	-3.52	-1.60	-3.92	0.18	0.98	2.39
150	-10.75	-6.64	-3.59	-7.21	-0.76	-1.01	1.58
200	-15.13	-9.75	-5.58	-10.49	-1.69	-3.00	0.77
250	-19.52	-12.87	-7.57	-13.78	-2.63	-4.99	-0.04
300	-23.90	-15.98	-9.56	-17.06	-3.56	-6.98	-0.85
350	-28.29	-19.10	-11.55	-20.35	-4.50	-8.97	-1.66
400	-32.67	-22.21	-13.54	-23.63	-5.43	-10.96	-2.47
450	-37.06	-25.33	-15.53	-26.92	-6.37	-12.95	-3.28
500	-41.44	-28.44	-17.52	-30.20	-7.30	-14.94	-4.09
Duration	8.77	6.23	3.98	6.57	1.87	3.98	1.62

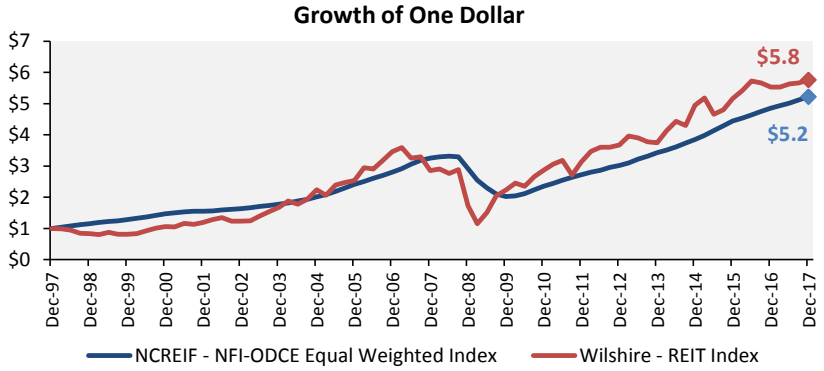
FOR ILLUSTRATIVE PURPOSES ONLY: For each index the current yield to worst as of 12/31/2017 was used as the base case annualized return. The annualized return sensitivity to a uniform increase or decrease in the yield curve was calculated by taking the index's Macaulay's (Modified) Duration to Worst as of 12/31/2017 multiplied by the percentage point change in the yield curve (basis point change divided by 100) and then appropriately adding or subtracting this implied percentage change in the value of the index (due to the shift in the yield curve) to the base case annualized return. This is a rough approximation of the annual return sensitivity to parallel shifts in the yield curve. **SOURCE:** PENN Capital Internal Research.

Real Estate Market

Real estate as an asset class has recovered strongly since 2008 and achieved new highs in market value. Coupled with attractive income, total returns from income have been very strong, both absolutely and in comparison to other asset classes. However, one of the major components of return from this cycle - cap rate compression - has probably run its course. While cap rates could go modestly lower, real estate returns will now depend on income for the majority of total return. Income returns of approximately 5% and appreciation of 1-3%, indicate an expected total return of 6-8% for the longer term. The income return of 5% is relatively attractive when compared against other asset classes. Unless interest rates rise substantially, the income component of real estate will continue to be appealing to investors, especially foreign investors, and keep valuations at high levels. PREA forecast returns show moderation from that of recent years but are still desirable.

Sector	Index	4Q 17	YTD	2017	2016	2015	2014	2013	1-Year	3-Year	5-Year	10-Year
US Private	NCREIF ODCE Equal Weighted	2.1	7.7	7.7	9.3	15.2	12.4	13.3	7.7	10.7	11.6	4.9
US Public	Wilshire REIT	1.7	4.2	4.2	7.2	4.2	31.8	1.9	4.2	5.2	9.4	7.3



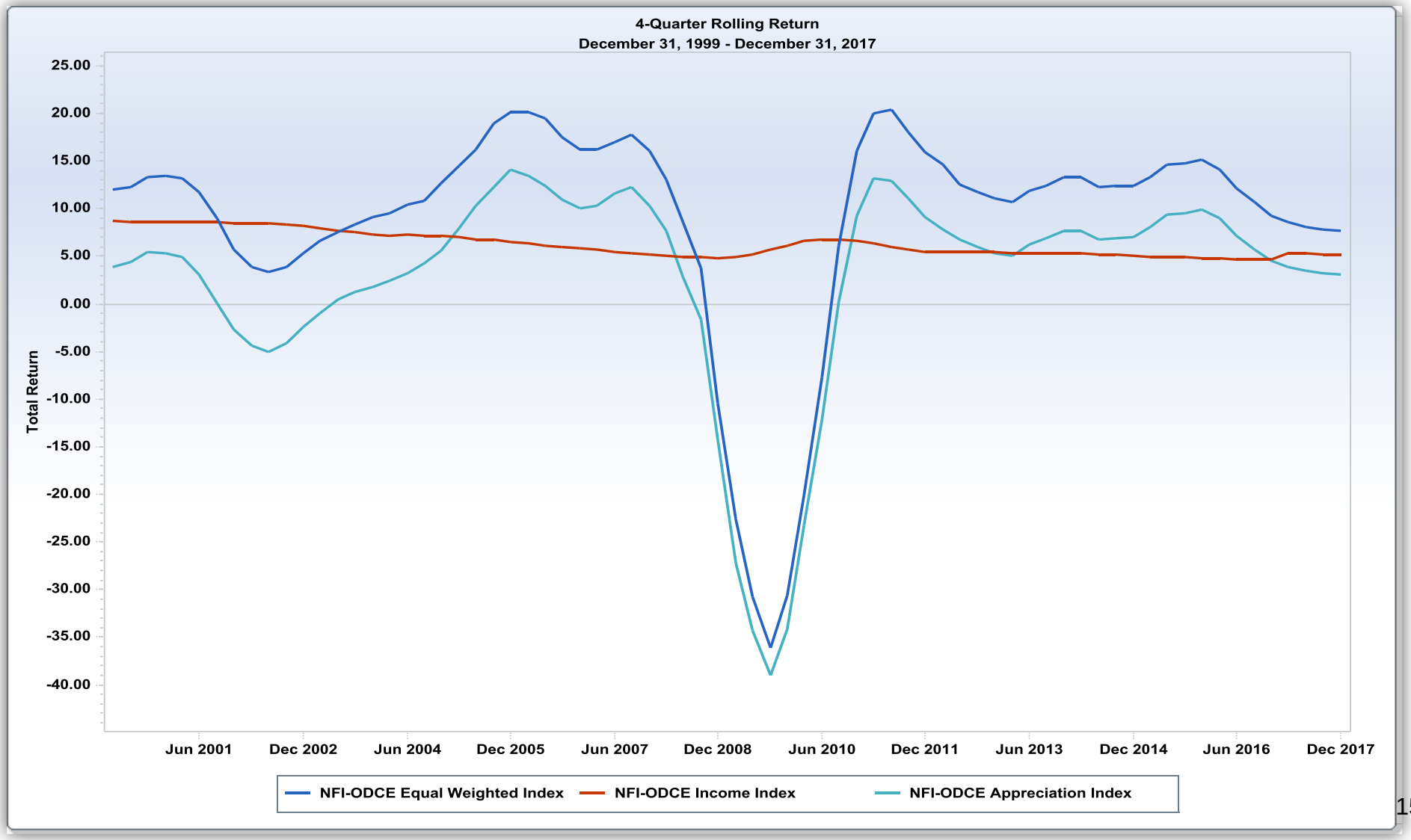


	Total return (incl. income) 2017	Total return (incl. income) 2018	Total return (incl. income) 2019	Total return (incl. income) 2017 to 2021 (per year)
National, All Property Types (NPI)	6.9	5.6	5.0	5.3
Office	5.9	5.2	4.4	4.6
Retail	5.9	4.8	4.7	4.9
Industrial	11.7	7.6	6.3	7.1
Apartment	6.0	5.3	5.0	5.4

Bottom chart: Average of respondents' forecasts of the NCREIF Property Index (NPI) and sub-indices by property type. **Source:** Pension Real Estate Association Consensus Forecast Survey of the NCREIF Property Index Q4 2017.

Real Estate Market

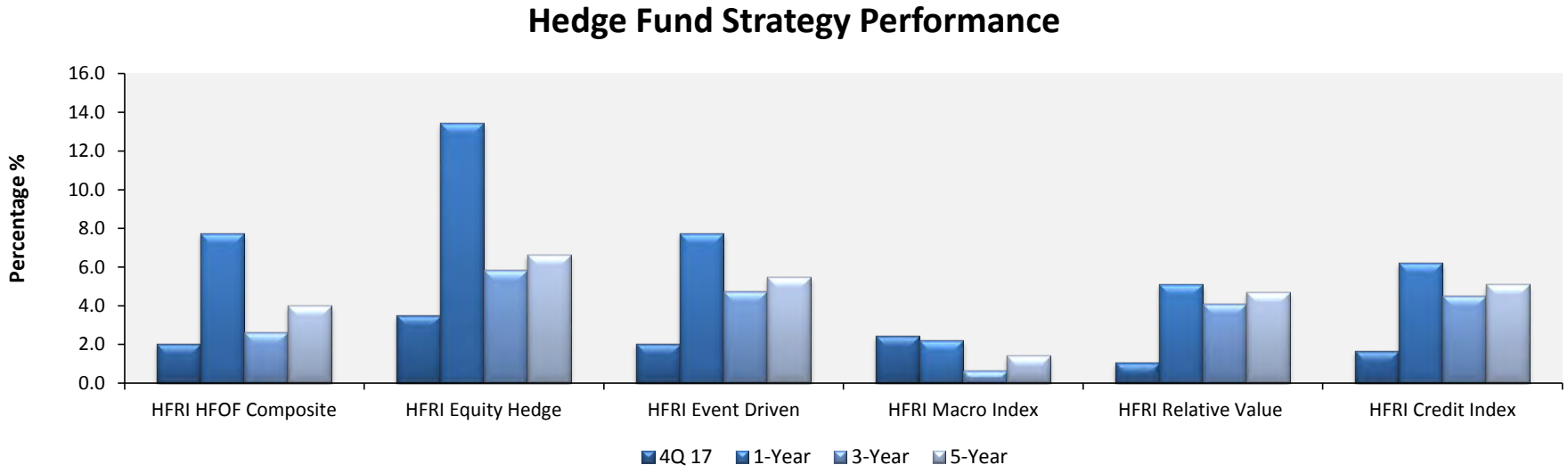
The chart below shows the trend of recent quarters indicating the expected slowdown from the torrid pace of recent years. Most sectors of the institutional real estate market are viewed as fully priced, especially in the gateway markets of New York, San Francisco and Boston. The income stream of real estate has adjusted to the low interest rate environment, although spreads against the 10-Year Treasury are near historical norms. However, the income rate of return has declined from the 8% level when IPS first focused on real estate as an asset class in the late 1990s to 4.5% today.



Hedge Fund of Funds Market

The HFRI Fund of Funds Composite Index was up 7.7% in 2017, its best return since 2013. Hedge fund sub-strategies were broadly positive for both Q4 and the calendar year, and outpaced the bond market return of 3.5% (Bloomberg Barclays Aggregate Index) in 2017. Bonds had four negative months during the year; the HFRI outperformed in all of those months, and was positive in two of them (March and September). Hedged equity continued its yearlong run during the fourth quarter as the best performing hedge fund strategy (+3.5% in Q4), and the HFRI Equity Hedge closed the year up 13.5%. Like the S&P 500, it did not have a negative month during the calendar year for the first time in its history. While the positive news described in the "US Economy" section of the market commentary may provide continued tailwinds for equity markets, many HFOF managers are favoring a less directional (more hedged) approach to equity given the current level of stock valuations, the potential for rising interest rates and higher market volatility. This positioning caused some managers to underperform in 2017 – less directional equity and "long volatility" – the expectation that volatility will increase off the historically low levels witnessed in 2017. Event driven and credit strategies performed relatively well in 2017, while global macro continued to lag most hedge fund strategies. The HFRI Macro index rose 2.4% in Q4 to finish the year in positive territory at just 2.2%. The low volatility and continued low inflationary environment have not provided much opportunity for macro strategies, however these strategies have generally seen increased inflows in anticipation of higher volatility and inflation creating trading opportunities for macro managers.

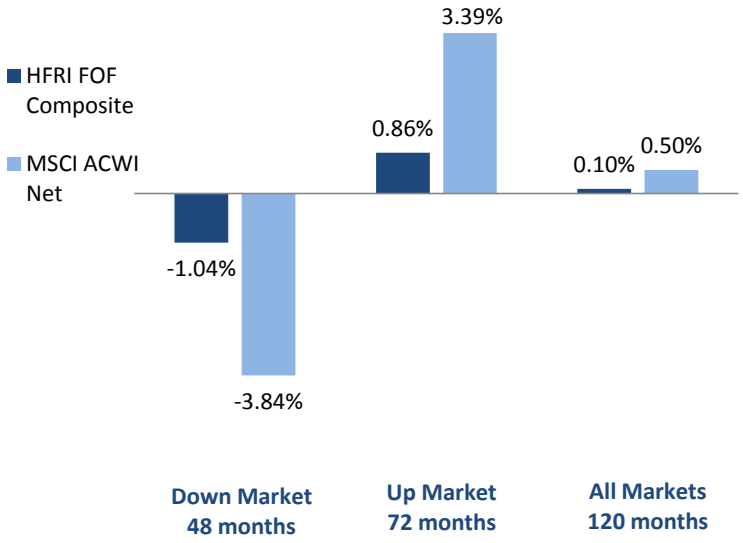
Strategy	Index	4Q 17	YTD	2017	2016	2015	2014	2013	1-Year	3-Year	5-Year	10-Year
Fund of Funds	HFRI HFOF Composite	2.0	7.7	7.7	0.5	-0.3	3.4	9.0	7.7	2.6	4.0	1.1
Equity Long-Short	HFRI Equity Hedge	3.5	13.5	13.5	5.5	-1.0	1.8	14.3	13.5	5.8	6.6	3.2
Event Driven	HFRI Event Driven	2.0	7.7	7.7	10.6	-3.6	1.1	12.5	7.7	4.7	5.5	4.2
Global Macro	HFRI Macro Index	2.4	2.2	2.2	1.0	-1.3	5.6	-0.4	2.2	0.7	1.4	2.0
Relative Value	HFRI Relative Value	1.1	5.1	5.1	7.7	-0.3	4.0	7.1	5.1	4.1	4.7	4.8
Credit	HFRI Credit Index	1.6	6.2	6.2	8.6	-1.0	3.0	9.0	6.2	4.5	5.1	5.0



Hedge Fund of Funds Market

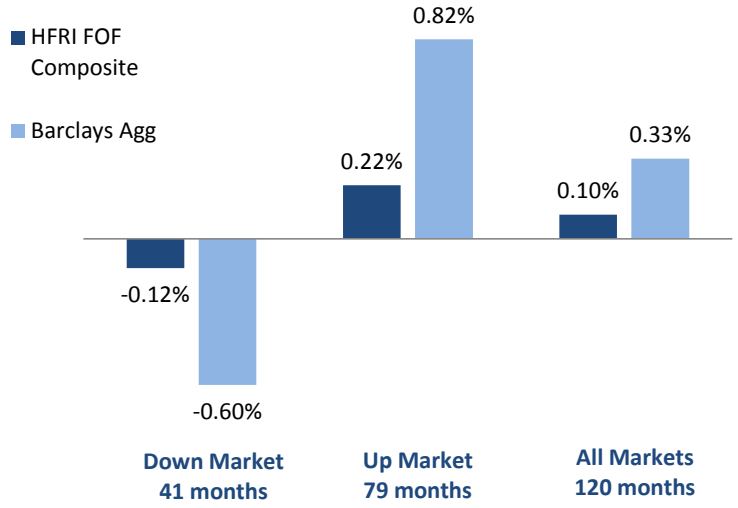
Up/Down Capture vs. Equity

Average Returns
January 2008 - December 2017



Up/Down Capture vs. Bonds

Average Returns
January 2008 - December 2017



Mid-Atlantic UFCW and Participating Employers Pension Fund

Master Consulting Services Report

Period Ended

December 31, 2017

Summary of Cash Flows

	Fourth Quarter	One Year	Three Years	Inception 3/31/13
Beginning Market Value	$76,477,604	$59,362,070	$25,171,727	$0
Net Cash Flow	$3,112,074	$14,143,279	$43,396,195	$67,128,336
Net Investment Change	$2,564,195	$8,648,523	$13,585,951	$15,025,537
Ending Market Value	$82,153,873	$82,153,873	$82,153,873	$82,153,873

Performance Summary (Gross of Fees)

	Market Value	% of Portfolio	Ending December 31, 2017					Inception	
			2017 Q4	1 Yr	3 Yrs	5 Yrs	10 Yrs	Return	Since
Composite	**$82,153,873**	**100.0%**	**3.5%**	**13.9%**	**8.2%**	**--**	**--**	**6.4%**	**Mar-13**
Total Equity	**$27,581,156**	**33.6%**	**6.1%**	**21.0%**	**11.1%**	**--**	**--**	**11.3%**	**Nov-14**
CRSP US Total Market TR USD			*6.3%*	*21.2%*	*11.1%*	--	--	*11.3%*	*Nov-14*
Total Short Duration High Yield	**$6,940,016**	**8.4%**	**0.1%**	**4.0%**	**3.4%**	**--**	**--**	**3.1%**	**Nov-14**
BofA ML - U.S. HY Cash Pay 1-3 Yr BB			*0.0%*	*3.6%*	*4.4%*	--	--	*4.1%*	*Nov-14*
Total Real Estate	**$6,993,156**	**8.5%**	**1.7%**	**8.1%**	**--**	**--**	**--**	**8.7%**	**Jul-15**
NCREIF ODCE Equal Weighted Index			*2.1%*	*7.8%*	--	--	--	*9.8%*	*Jul-15*
Total GTAA	**$30,744,060**	**37.4%**	**3.7%**	**14.4%**	**8.5%**	**--**	**--**	**6.4%**	**Mar-13**
65% MSCI World Index/35% CitigroupWGBI			*3.9%*	*17.0%*	*6.7%*	--	--	*7.1%*	*Mar-13*
Total Private Equity	**$340,789**	**0.4%**							
Total Fund Cash	**$9,554,696**	**11.6%**	**0.2%**	**0.8%**	**0.4%**	**--**	**--**	**0.3%**	**Mar-13**

Allocation vs. Targets and Policy

	Current Balance	Current Allocation	Policy	Policy Range	Difference	Difference
Large Cap Equity	$19,603,408	23.9%	25.0%	20.0% - 30.0%	-1.1%	-$935,060
Small/Mid Cap Equity	$7,977,748	9.7%	10.0%	5.0% - 15.0%	-0.3%	-$237,640
Short Duration High Yield Fixed Income	$6,940,016	8.4%	10.0%	5.0% - 15.0%	-1.6%	-$1,275,372
Real Estate - Core	$6,993,156	8.5%	10.0%	5.0% - 15.0%	-1.5%	-$1,222,231
Real Estate - Value Add	--	--	5.0%	0.0% - 10.0%	-5.0%	-$4,107,694
Opportunistic Strategies	--	--	5.0%	0.0% - 10.0%	-5.0%	-$4,107,694
Private Equity	$340,789	0.4%	5.0%	0.0% - 10.0%	-4.6%	-$3,766,905
GTAA	$30,744,060	37.4%	30.0%	25.0% - 35.0%	7.4%	$6,097,898
Cash	$9,554,696	11.6%	--	--	11.6%	$9,554,696
Total	**$82,153,873**	**100.0%**	**100.0%**			

- Effective date of Policy is TBD.
- On January 2, 2018, Corbin (opportunistic strategies) was funded with $3.0 million from First Eagle.

Asset Allocation

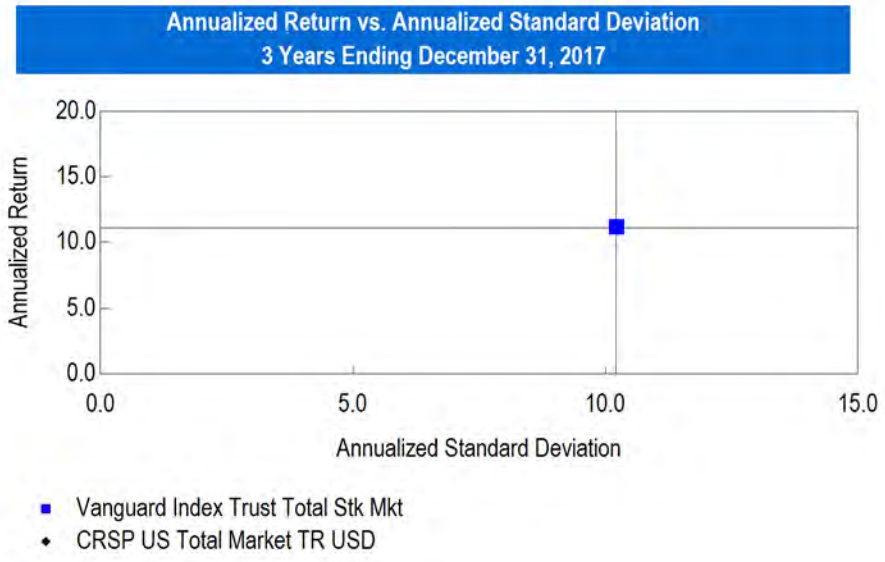
- Asset allocation reviews were presented at the following meetings: 4/28/14, 4/29/15, 5/31/17, and 7/13/17.
- On February 29, 2016, excess cash reserves of $5.9M were transferred to First Eagle (GTAA) $3.0M, Vanguard U.S. Stock Market Index Fund (equity) $2.0M, and Chartwell (SDHY) $900,000 for investment.
- On June 30, 2016, excess cash reserves of $3.8M were transferred to First Eagle (GTAA) $2.8M (for investment on July 1, 2016) and Vanguard U.S. Stock Market Index Fund (equity) $1.0M for investment.
- During the 3Q 2016, excess cash reserves of $4.0M were transferred to First Eagle (GTAA) $2.0M (for investment on September 1, 2016) and Vanguard U.S. Stock Market Index Fund (equity) $1.0M, and Chartwell (SDHY) $1.0M, for investment.
- During the 4Q 2016, excess cash reserves of $3.0M were transferred to Vanguard U.S. Stock Market Index Fund (equity) $2.0M, and Chartwell (SDHY) $1.0M, for investment.
- At the Board of Trustees meeting on January 26, 2017, due to the positive cash flow, the Fund's GTAA allocation is slightly below the permitted range (49% vs. 50% minimum). Trustees agreed to have all new cash allocated to First Eagle (GTAA) until further notice.
- During the 1Q 2017, excess cash reserves of $4.0M were transferred to First Eagle (GTAA).
- An asset allocation review, private equity educational materials, smid cap equity manager search, and real estate manager search were presented at the May 31, 2017 meeting. IPS due diligence memos on private equity and opportunistic strategy managers will be included in the meeting materials and discussed at the May 31, 2017 meeting. Decisions are expected to be made at a special meeting.
- At a special meeting held on July 13, 2017, an asset allocation review, private equity educational materials, smid cap equity manager search, and real estate manager search were presented. IPS due diligence memos on private equity and opportunistic strategy managers were also presented and discussed.
- At a follow up teleconference call on July 19, 2017, the Trustees adopted asset allocation policy of 25% large cap equity, 10% smid cap equity, 10% SDHY, 10% core real estate, 5% value add real estate, 5% opportunistic strategies, 5% private equity, and 30% GTAA. The following managers were selected: smid cap equity - Rothschild ($8M), value add real estate - Intercontinental ($4M), opportunistic strategies - Corbin Capital ($3M), opportunistic strategies - EnTrustPermal ($2M), and private equity - GCM Grosvenor ($8M). On September 26, 2017, Grosvenor SOF II received $255,694 from the cash account for investment on October 1, 2017. On December 18, 2017, Rothschild was funded with $8.0M from First Eagle. On January 2, 2018, Corbin was funded with $3.0M from First Eagle.
- An asset allocation review will be presented at today's meeting.

Recommendation: Proceed with funding new managers. Asset allocation is expected to rebalance within the policy range.

Account Information	
Account Name	**Vanguard Index Trust Total Stk Mkt**
Account Structure	**Mutual Fund**
Investment Style	**Passive**
Inception Date	**10/31/14**
Account Type	**Equity**
Benchmark	**CRSP US Total Market TR USD**
Universe	**Large Cap MStar MF**

Vanguard Index Trust Total Stk Mkt
Ending December 31, 2017

	Fourth Quarter	Inception 10/31/14
Beginning Market Value	$18,435,049	$0
Net Cash Flow	$0	$14,224,654
Net Investment Change	$1,168,359	$5,378,754
Ending Market Value	$19,603,408	$19,603,408



3 Years Ending December 31, 2017

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Index Trust Total Stk Mkt	11.2%	10.2%	100.3%	99.9%
CRSP US Total Market TR USD	11.1%	10.2%	100.0%	100.0%

									Ending December 31, 2017										Inception	
	2017 Q4	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	2017	Rank	2016	Rank	2015	Rank	2014	Rank	2013	Rank	Return	Since
Vanguard Index Trust Total Stk Mkt	6.4%	51	21.3%	50	11.2%	31	--	--	21.3%	50	12.7%	31	0.5%	45	--	--	--	--	11.4%	Oct-14
CRSP US Total Market TR USD	*6.3%*	*52*	*21.2%*	*50*	*11.1%*	*33*	*15.6%*	*34*	*21.2%*	*50*	*12.7%*	*31*	*0.4%*	*46*	*12.6%*	*32*	*33.6%*	*41*	*11.3%*	*Oct-14*

Note: Returns are gross of fees.

Mid-Atlantic UFCW Unions and Participating Employers Pension Fund - Vanguard Total US Stock Market Index

Correspondence Summary

- On October 31, 2014, manager received $5.4M from PIMCO All Asset Fund. In November 2014, manager received an additional $2.45M from the cash account.
- On February 29, 2016, manager received $2.0M from cash reserves.
- On June 30, 2016, manager received $1.0M from cash reserves.
- On August 1, 2016, manager received $1.0M from cash reserves.
- On November 30, 2016, manager received $2.0M from cash reserves.

Manager Summary

Recommendation: None.

Compliance Summary

This is an index investment in a mutual fund; the manager will not sign the quarterly compliance questionnaires.

Account Information	
Account Name	**Rothschild Asset Management**
Account Structure	**Separate Account**
Investment Style	**Active**
Inception Date	**12/01/17**
Account Type	**US Stock Small/Mid**
Benchmark	**Russell 2500 Value**
Universe	

Rothschild Asset Management
Ending December 31, 2017

	Fourth Quarter	Inception 12/1/17
Beginning Market Value	--	$0
Net Cash Flow	$8,000,000	$8,000,000
Net Investment Change	-$22,252	-$22,252
Ending Market Value	$7,977,748	$7,977,748

Mid-Atlantic UFCW Unions and Participating Employers Pension Fund - Rothschild Asset Management

Correspondence Summary

- On December 18, 2017, Rothschild was funded with $8.0M from First Eagle.

Manager Summary

Recommendation: None.

Compliance Summary

Exceptions : None.

Action to be taken: None.

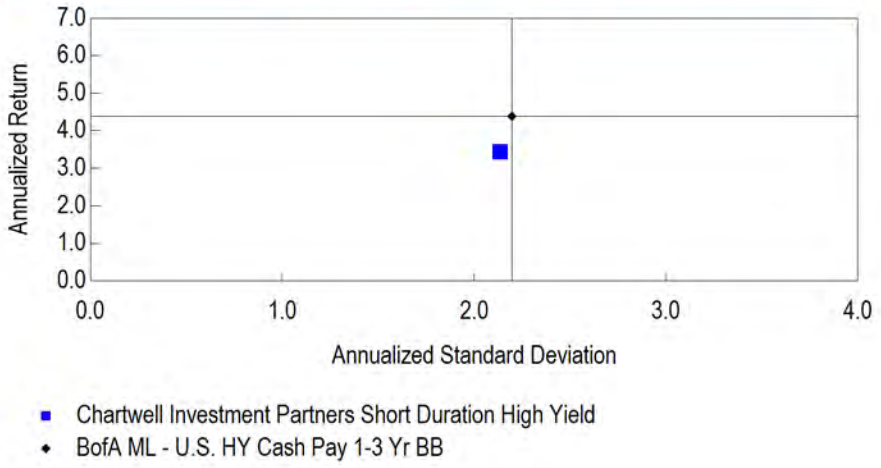
Items of Interest: None.

Account Information	
Account Name	**Chartwell Investment Partners Short Duration High Yield**
Account Structure	**Separate Account**
Investment Style	**Active**
Inception Date	**10/31/14**
Account Type	**US Fixed Income High Yield**
Benchmark	**BofA ML - U.S. HY Cash Pay 1-3 Yr BB**
Universe	

Chartwell Investment Partners Short Duration High Yield
Ending December 31, 2017

	Fourth Quarter	Inception 10/31/14
Beginning Market Value	$6,932,805	$0
Net Cash Flow	$0	$6,383,867
Net Investment Change	$7,211	$556,149
Ending Market Value	$6,940,016	$6,940,016

Annualized Return vs. Annualized Standard Deviation
3 Years Ending December 31, 2017



3 Years Ending December 31, 2017

	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Chartwell Investment Partners Short Duration High Yield	3.4%	2.1%	85.8%	114.1%
BofA ML - U.S. HY Cash Pay 1-3 Yr BB	4.4%	2.2%	100.0%	100.0%

				Ending December 31, 2017					Inception	
	2017 Q4	1 Yr	3 Yrs	5 Yrs	2017	2016	2015	2014	2013	Return	Since
Chartwell Investment Partners Short Duration High Yield	0.1%	4.0%	3.4%	--	4.0%	6.7%	-0.3%	--	--	3.1%	Oct-14
BofA ML - U.S. HY Cash Pay 1-3 Yr BB	*0.0%*	*3.6%*	*4.4%*	*4.1%*	*3.6%*	*8.5%*	*1.2%*	*1.9%*	*5.5%*	*4.1%*	*Oct-14*
BBgBarc 1-3 Yr BB U.S. Constrained Index	*0.2%*	*3.9%*	*4.5%*	*3.9%*	*3.9%*	*8.8%*	*1.1%*	*1.5%*	*4.3%*	*4.2%*	*Oct-14*

Note: Returns are gross of fees.

Mid-Atlantic UFCW Unions and Participating Employers Pension Fund - Chartwell Investment Partners Short Duration High Yield

Correspondence Summary

- On October 21, 2014, $2.2M was received from cash reserves. On November 7, 2014, manager received $1.8M from PIMCO All Asset Fund.
- On February 29, 2016, manager received $900,000 from cash reserves.
- On August 31, 2016, manager received $1.0M from cash reserves.
- On November 30, 2016, manager received $1.0M from cash reserves.

Manager Summary

- IPS conducted a due diligence meeting with Chartwell on March 22, 2017.
- On January 25, 2018, Chartwell announced their planned acquisition of the public equity and fixed income businesses of Columbia Partners, an investment management firm based in Chevy Chase, MD. The deal is expected to close by the end of the first quarter, 2018. While a consent to assignment will be required on the part of Columbia Partners' clients, no action is required on the part of Chartwell clients.

Recommendation: None.

Compliance Summary

Exceptions: None.

Action to be taken: None.

Items of Interest: Personnel Changes - The manager stated that during the fourth quarter 2017, Lee Grout, Senior Portfolio Manager for the Berwyn Fund, left to pursue another career opportunity. **Ownership Change -** In an email dated January 25, 2018 the manager stated that Chartwell Investment Partners has entered into an agreement to acquire the long-only, investment management business of Columbia Partners.

Account Information	
Account Name	**American Core Realty Fund**
Account Structure	**Commingled Fund**
Investment Style	**Active**
Inception Date	**7/01/15**
Account Type	**Real Estate**
Benchmark	**NCREIF ODCE Equal Weighted Index**
Universe	

American Core Realty Fund Ending December 31, 2017	Fourth Quarter	Inception 7/1/15
Beginning Market Value	$6,893,345	$0
Net Cash Flow	$0	$6,000,000
Net Investment Change	$99,811	$993,156
Ending Market Value	$6,993,156	$6,993,156

					Ending December 31, 2017					Inception	
	2017 Q4	1 Yr	3 Yrs	5 Yrs	2017	2016	2015	2014	2013	Return	Since
American Core Realty Fund	1.7%	8.1%	--	--	8.1%	7.1%	--	--	--	8.7%	Jul-15
NCREIF ODCE Equal Weighted Index	*2.1%*	*7.8%*	*10.7%*	*11.6%*	*7.8%*	*9.3%*	*15.2%*	*12.4%*	*13.3%*	*9.8%*	*Jul-15*

Note: Returns are gross of fees.

Mid-Atlantic UFCW Unions and Participating Employers Pension Fund - American Core Realty Fund

Correspondence Summary

- Total commitment is $6M. On July 1, 2015, manager was funded with $3M. Funding sources were Vanguard ($2M) and Chartwell ($1M). On January 4, 2016, the remaining $3M was called and funded from cash reserves. The commitment is fully funded.
- Manager is reinvesting income.

Manager Summary

- IPS conducted a due diligence meeting with American Realty Advisors on July 27, 2016.
- IPS conducted an on-site due diligence meeting with American Realty Advisors on June 21, 2017.

Recommendation: None.

Compliance Summary

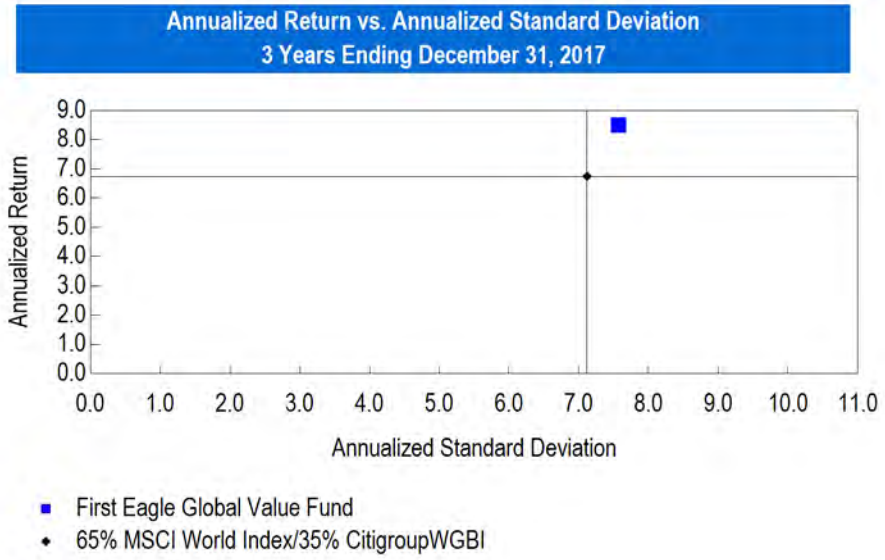
Manager verified that the portfolio is currently, and has been during the past quarter, in compliance with the firm's commingled investment vehicle investment guidelines and/or offering document governing the management of the investment. With respect to the portfolio(s) under management, manager acknowledges sole fiduciary responsibility under ERISA for adherence with the commingled investment vehicle and /or offering document guidelines.

Items of Interest: None.

Account Information	
Account Name	**First Eagle Global Value Fund**
Account Structure	**Commingled Fund**
Investment Style	**Active**
Inception Date	**7/31/14**
Account Type	**Other**
Benchmark	**65% MSCI World Index/35% CitigroupWGBI**
Universe	

First Eagle Global Value Fund
Ending December 31, 2017

	Fourth Quarter	Inception 7/31/14
Beginning Market Value	$40,440,975	$0
Net Cash Flow	-$11,000,000	$24,050,000
Net Investment Change	$1,303,085	$6,694,060
Ending Market Value	$30,744,060	$30,744,060



3 Years Ending December 31, 2017	Anlzd Return	Anlzd Standard Deviation	Up Mkt Capture Ratio	Down Mkt Capture Ratio
First Eagle Global Value Fund	8.5%	7.6%	103.1%	82.3%
65% MSCI World Index/35% CitigroupWGBI	6.7%	7.1%	100.0%	100.0%

	2017 Q4	1 Yr	3 Yrs	5 Yrs	Ending December 31, 2017 2017	2016	2015	2014	2013	Inception Return	Since
First Eagle Global Value Fund	3.7%	14.4%	8.5%	--	14.4%	11.4%	0.2%	--	--	7.1%	Jul-14
65% MSCI World Index/35% CitigroupWGBI	*3.9%*	*17.0%*	*6.7%*	*7.6%*	*17.0%*	*5.6%*	*-1.6%*	*3.1%*	*15.1%*	*5.5%*	*Jul-14*

Note: Returns are gross of fees.

Mid-Atlantic UFCW Unions and Participating Employers Pension Fund - First Eagle Global Value Fund

Correspondence Summary

- On July 31, 2014, $8.5M was received from PIMCO All Asset Fund.
- On October 31, 2014, $3.6M was received from PIMCO All Asset Fund.
- On February 29, 2016, manager received $3,000,000 from cash reserves.
- On June 30, 2016, manager received $2,800,000 from cash reserves for investment on July 1, 2016.
- On August 31, 2016, manager received $2,000,000 from cash reserves for investment on September 1, 2016.
- On February 28, 2017, manager received $4,000,000 from cash reserves for investment on March 1, 2017.
- On April 30, 2017, manager received $750,000 from cash reserves for investment on May 1, 2017.
- On June 30, 2017, manager received $3,000,000 from cash reserves for investment on July 1, 2017.
- On July 31, 2017, manager received $500,000 from cash reserves for investment on August 1, 2017.
- A redemption request for $11.0 million was submitted effective November 30, 2017. Redemption occurred on December 1, 2017 and transferred to cash. Proceeds were used to fund Rothschild ($8.0M - smid cap equity) and Corbin ($3.0M - opportunistic strategies).

Manager Summary

- IPS conducted due diligence meetings with First Eagle on December 21, 2016, April 13, 2017, May 11, 2017, and July 24, 2017.
- IPS conducted an on-site due diligence meeting with First Eagle on November 9, 2017.

Recommendation: None.

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Mid-Atlantic UFCW Unions and Participating Employers Pension Fund - First Eagle Global Value Fund (cont.)

Compliance Summary

Manager verified that the portfolio is currently, and has been during the past quarter, in compliance with the firm's commingled investment vehicle guidelines and/or offering document governing the management of the investment. With respect to the portfolio(s) under management, manager acknowledges sole fiduciary responsibility under ERISA for adherence with the commingled investment vehicle and /or offering document guidelines.

Items of Interest: Legal - The manager stated First Eagle and certain private funds it managed were listed among the 32,000+ former shareholder defendants in lawsuits related to the Tribune Company's LBO in 2007, and subsequent bankruptcy. They believe virtually all persons who were shareholders of the Tribune Company in 2007 and tendered or exchanged shares of Tribune stock were initially named as defendants. In October 2017, a settlement was reached on all Tribune related matters and the case was voluntarily dismissed with prejudice. They now consider this matter closed. **Acquisition -** In an email dated October 17, 2017, the manager stated that they entered into a definitive agreement to acquire NewStar Financial, Inc.

Account Information	
Account Name	**GCM Grosvenor Secondary Opportunities Fund II, L.P.**
Account Structure	**Commingled Fund**
Investment Style	**Active**
Inception Date	**9/01/17**
Account Type	**Private Equity**
Benchmark	
Universe	

GCM Grosvenor Secondary Opportunities Fund II, L.P.

Ending December 31, 2017

	Fourth Quarter	Inception 9/1/17
Beginning Market Value	$340,789	$0
Net Cash Flow	$0	$252,837
Net Investment Change	$0	$87,952
Ending Market Value	$340,789	$340,789

Note: The above market value is as of 3rd quarter 2017. Statements for 4th quarter 2017 were not available at the time of this report. All returns, values, contributions, and distributions are provided by GCM Grosvenor and cannot be verified by IPS.

				Ending December 31, 2017					Inception	
	2017 Q4	1 Yr	3 Yrs	5 Yrs	2017	2016	2015	2014	2013	Return	Since
GCM Grosvenor Secondary Opportunities Fund II, L.P.											

Mid-Atlantic UFCW Unions and Participating Employers Pension Fund - GCM Grosvenor Secondary Opportunities Fund II, L.P.

Correspondence Summary

- Manager was hired for an $8.0 million commitment. Total unfunded commitment is $7.74 million.
- On September 26, 2017, $255,694 was received from the cash account for investment on October 1, 2017.
- On February 9, 2018, a distribution of $63,781 was transferred to the cash account.

Manager Summary

- IPS conducted due diligence meetings with Grosvenor on January 5, 2017 and December 5, 2017.

The investment is illiquid.

Compliance Summary

Manager verified that the portfolio is currently, and has been during the past quarter, in compliance with the commingled investment vehicle guidelines and/or offering document governing the management of the investment. With respect to the portfolio under management, manager acknowledges sole fiduciary responsibility under ERISA for adherence with the commingled investment vehicle and/or offering document guidelines.

Items of Interest: Personnel Changes – The manager stated Dasha Dwin, Managing Director, Chief Human Resources Officer and a member of the Office of the Chairman, will be leaving the firm at the end of January 2018. The firm is currently engaged in a search for a successor. Stephen Ramsthaler, Managing Director and leader of fund finance and portfolio management operations for private markets business, will be retiring at the end of 1Q 2018. Mr. Ramsthaler's fund finance responsibilities will be assumed by Heidi Fang, Senior Vice President, and his portfolio management responsibilities will be assumed by Jonathan Jacoby, Senior Vice President. **Communication -** The manager stated the Fund is invested in GSF II, a multi-investor investment fund. As the general partner and a fiduciary to GSF II and its investors, the firm cannot be bound by the terms and conditions of the Fund's investment policy statement. However, manager stated they believe the Fund is receiving all reporting it requires or has requested. **Form ADV -** Manager stated GCMLP's Form ADV Part 1 can be found online at www.adviserinfo.sec.gov; Part 2A can be accessed via their Client Web Portal. Material changes are listed in Item 2.

Account Information	
Account Name	**Cash**
Account Structure	**Separate Account**
Investment Style	**Active**
Inception Date	**3/31/13**
Account Type	**Cash**
Benchmark	
Universe	

Cash Ending December 31, 2017		
	Fourth Quarter	**Inception 3/31/13**
Beginning Market Value	$3,434,641	$0
Net Cash Flow	$6,112,074	$9,536,641
Net Investment Change	$7,981	$18,055
Ending Market Value	$9,554,696	$9,554,696

Compliance Summary

Cash and money market accounts are not monitored for compliance by IPS.

Custody Bank

- PNC Bank.

Investment Policy Statement

- Investment policy statement was adopted in August 2014.

Commingled Funds

- Commingled Fund: Due to the commingled fund structure, IPS does not monitor the holdings within the commingled fund for compliance with the client's investment policy statement. The commingled fund is governed by its own investment policy.

Mid-Atlantic UFCW and Participating Employers Pension Fund

Appendix

Performance Smmary (Gross of Fees) - Annualized

	Market Value	% of Portfolio	Ending December 31, 2017					Inception	
			2017 Q4	1 Yr	3 Yrs	5 Yrs	10 Yrs	Return	Since
Composite	**$82,153,873**	**100.0%**	**3.5%**	**13.9%**	**8.2%**	**--**	**--**	**6.4%**	**Mar-13**
Total Equity	**$27,581,156**	**33.6%**	**6.1%**	**21.0%**	**11.1%**	**--**	**--**	**11.3%**	**Nov-14**
CRSP US Total Market TR USD			*6.3%*	*21.2%*	*11.1%*	--	--	*11.3%*	*Nov-14*
Vanguard Index Trust Total Stk Mkt	$19,603,408	23.9%	6.4%	21.3%	11.2%	--	--	11.4%	Oct-14
CRSP US Total Market TR USD			*6.3%*	*21.2%*	*11.1%*	--	--	*11.3%*	*Oct-14*
Rothschild Asset Management	$7,977,748	9.7%							
Russell 2500 Value									
Total Short Duration High Yield	**$6,940,016**	**8.4%**	**0.1%**	**4.0%**	**3.4%**	**--**	**--**	**3.1%**	**Nov-14**
BofA ML - U.S. HY Cash Pay 1-3 Yr BB			*0.0%*	*3.6%*	*4.4%*	--	--	*4.1%*	*Nov-14*
Chartwell Investment Partners Short Duration High Yield	$6,940,016	8.4%	0.1%	4.0%	3.4%	--	--	3.1%	Oct-14
BofA ML - U.S. HY Cash Pay 1-3 Yr BB			*0.0%*	*3.6%*	*4.4%*	--	--	*4.1%*	*Oct-14*
BBgBarc 1-3 Yr BB U.S. Constrained Index			*0.2%*	*3.9%*	*4.5%*	--	--	*4.2%*	*Oct-14*
Total Real Estate	**$6,993,156**	**8.5%**	**1.7%**	**8.1%**	**--**	**--**	**--**	**8.7%**	**Jul-15**
NCREIF ODCE Equal Weighted Index			*2.1%*	*7.8%*	--	--	--	*9.8%*	*Jul-15*
American Core Realty Fund	$6,993,156	8.5%	1.7%	8.1%	--	--	--	8.7%	Jul-15
NCREIF ODCE Equal Weighted Index			*2.1%*	*7.8%*	--	--	--	*9.8%*	*Jul-15*
Total GTAA	**$30,744,060**	**37.4%**	**3.7%**	**14.4%**	**8.5%**	**--**	**--**	**6.4%**	**Mar-13**
65% MSCI World Index/35% CitigroupWGBI			*3.9%*	*17.0%*	*6.7%*	--	--	*7.1%*	*Mar-13*
First Eagle Global Value Fund	$30,744,060	37.4%	3.7%	14.4%	8.5%	--	--	7.1%	Jul-14
65% MSCI World Index/35% CitigroupWGBI			*3.9%*	*17.0%*	*6.7%*	--	--	*5.5%*	*Jul-14*
Total Private Equity	**$340,789**	**0.4%**							
GCM Grosvenor Secondary Opportunities Fund II, L.P.	$340,789	0.4%							

Performance Smmary (Gross of Fees) - Annualized

	Market Value	% of Portfolio	Ending December 31, 2017					Inception	
			2017 Q4	1 Yr	3 Yrs	5 Yrs	10 Yrs	Return	Since
Total Fund Cash	**$9,554,696**	**11.6%**	**0.2%**	**0.8%**	**0.4%**	**--**	**--**	**0.3%**	**Mar-13**
Cash	$9,554,696	11.6%	0.2%	0.8%	0.4%	--	--	0.3%	Mar-13

Performance Smmary (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending December 31, 2017					Inception	
			2017 Q4	1 Yr	3 Yrs	5 Yrs	10 Yrs	Return	Since
Composite	**$82,153,873**	**100.0%**	**3.3%**	**13.2%**	**7.5%**	**--**	**--**	**5.9%**	**Mar-13**
Total Equity	**$27,581,156**	**33.6%**	**6.0%**	**20.8%**	**10.9%**	**--**	**--**	**11.1%**	**Nov-14**
CRSP US Total Market TR USD			*6.3%*	*21.2%*	*11.1%*	--	--	*11.3%*	*Nov-14*
Vanguard Index Trust Total Stk Mkt	$19,603,408	23.9%	6.3%	21.2%	11.0%	--	--	11.2%	Oct-14
CRSP US Total Market TR USD			*6.3%*	*21.2%*	*11.1%*	--	--	*11.3%*	*Oct-14*
Rothschild Asset Management	$7,977,748	9.7%							
Russell 2500 Value									
Total Short Duration High Yield	**$6,940,016**	**8.4%**	**0.0%**	**3.5%**	**3.0%**	**--**	**--**	**2.6%**	**Nov-14**
BofA ML - U.S. HY Cash Pay 1-3 Yr BB			*0.0%*	*3.6%*	*4.4%*	--	--	*4.1%*	*Nov-14*
Chartwell Investment Partners Short Duration High Yield	$6,940,016	8.4%	0.0%	3.5%	3.0%	--	--	2.6%	Oct-14
BofA ML - U.S. HY Cash Pay 1-3 Yr BB			*0.0%*	*3.6%*	*4.4%*	--	--	*4.1%*	*Oct-14*
BBgBarc 1-3 Yr BB U.S. Constrained Index			*0.2%*	*3.9%*	*4.5%*	--	--	*4.2%*	*Oct-14*
Total Real Estate	**$6,993,156**	**8.5%**	**1.4%**	**6.9%**	**--**	**--**	**--**	**7.5%**	**Jul-15**
NCREIF ODCE Equal Weighted Index			*2.1%*	*7.8%*	--	--	--	*9.8%*	*Jul-15*
American Core Realty Fund	$6,993,156	8.5%	1.4%	6.9%	--	--	--	7.5%	Jul-15
NCREIF ODCE Equal Weighted Index			*2.1%*	*7.8%*	--	--	--	*9.8%*	*Jul-15*
Total GTAA	**$30,744,060**	**37.4%**	**3.4%**	**13.4%**	**7.5%**	**--**	**--**	**5.7%**	**Mar-13**
65% MSCI World Index/35% CitigroupWGBI			*3.9%*	*17.0%*	*6.7%*	--	--	*7.1%*	*Mar-13*
First Eagle Global Value Fund	$30,744,060	37.4%	3.4%	13.4%	7.5%	--	--	6.2%	Jul-14
65% MSCI World Index/35% CitigroupWGBI			*3.9%*	*17.0%*	*6.7%*	--	--	*5.5%*	*Jul-14*
Total Private Equity	**$340,789**	**0.4%**							
GCM Grosvenor Secondary Opportunities Fund II, L.P.	$340,789	0.4%							

Performance Smmary (Net of Fees) - Annualized

	Market Value	% of Portfolio	Ending December 31, 2017 2017 Q4	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception Return	Since
Total Fund Cash	**$9,554,696**	**11.6%**	**0.2%**	**0.8%**	**0.4%**	**--**	**--**	**0.3%**	**Mar-13**
Cash	$9,554,696	11.6%	0.2%	0.8%	0.4%	--	--	0.3%	Mar-13

Footnotes

- Values, flows and returns for all commingled funds, mutual funds, and partnerships are provided by the firm managing the assets and cannot be verified by IPS.
- The Net of Fees returns in this report are estimated. Fees do not include: the investment consulting fee paid to IPS, investment manager incentive fees, custodian fees, or other administrative costs.

Index Disclosure

- Barclays 1-3 Yr BB U.S. Constrained Index is listed for illustrative purposes only.
- 65% MSCI World Index/35% Citigroup WGBI - Index listed for illustrative purposes only.

ERISA Pension Investment Conference

April 25 – 28, 2017

- **The following investment managers and providers attended and helped to defray the cost of IPS' annual ERISA Pension Investment Conference ("EPIC"). EPIC is an educational conference addressing various issues related to employee benefit plans. IPS does not give preferential treatment to investment managers or any other provider who may pay to attend EPIC.**

Amalgamated Bank of Chicago
American Realty Advisors
ASB Capital Management
Atlanta Capital Management
Baird Advisors / Baird Inv. Mgmt.
BlackRock Financial Mgmt.
Boyd Watterson
Brown Advisory
Chartwell Investment Partners
Christenson Investment Partners
Columbia Partners
Corbin Capital Partners
Corry Capital Advisors
Eaton Vance Management
EnTrustPermal
First Eagle Investment Mgmt.
Foundry Partners
Fred Alger Management
GAMCO Asset Management
Great Lakes Advisors
Grosvenor Capital Management
Hamilton Lane Advisors
Intercontinental Real Estate Corp.
Invesco
Janus Capital
Johnston Asset Management
JP Morgan Asset Management
Kearney Capital Management
Lazard Asset Management
Loomis, Sayles & Company
Lord Abbett
MacKay Shields
McMorgan & Company
MEPT/Bentall Kennedy
National Investment Services
Neuberger Berman
Nuveen Asset Management
Patriot Financial Partners
PENN Capital Management
Post Advisory Group
Principal Global Investors
Rothschild Asset Management
Ryan Labs Asset Management
Segall Bryant & Hamill
Sierra Investment Partners
The Bank of New York Mellon
The Boston Company
Ullico Investment Company
Victory Capital Management
Washington Capital Management
WEDGE Capital Management
Wellington Management Company
Westfield Capital Management

Mid-Atlantic UFCW and Participating Employers Pension Fund

Preliminary Monthly Performance Analysis

Period Ending

January 31, 2018

Summary of Cash Flows

	Last Month	One Year
Beginning Market Value	$82,153,873	$60,899,467
Net Cash Flow	$385,022	$14,109,087
Net Investment Change	$2,495,108	$10,025,447
Ending Market Value	$85,034,002	$85,034,002

Allocation vs. Targets and Policy

	Current Balance	Current Allocation	Policy	Policy Range	Difference	Difference
Large Cap Equity	$20,646,299	24.3%	25.0%	20.0% - 30.0%	-0.7%	-$612,201
Small/Mid Cap Equity	$8,290,650	9.7%	10.0%	5.0% - 15.0%	-0.3%	-$212,750
Short Duration High Yield Fixed Income	$6,950,396	8.2%	10.0%	5.0% - 15.0%	-1.8%	-$1,553,004
Real Estate - Core	$6,993,156	8.2%	10.0%	5.0% - 15.0%	-1.8%	-$1,510,244
Real Estate - Value Add	--	--	5.0%	0.0% - 10.0%	-5.0%	-$4,251,700
Opportunistic Strategies	$3,000,000	3.5%	5.0%	0.0% - 10.0%	-1.5%	-$1,251,700
Private Equity	$340,789	0.4%	5.0%	0.0% - 10.0%	-4.6%	-$3,910,911
GTAA	$31,872,995	37.5%	30.0%	25.0% - 35.0%	7.5%	$6,362,794
Cash	$6,939,717	8.2%	--	--	8.2%	$6,939,717
Total	**$85,034,002**	**100.0%**	**100.0%**			

- Effective date of Policy is TBD.

Gross of Fees

	Ending January 31, 2018			
	Market Value	% of Portfolio	1 Mo	1 Yr
Composite	**$85,034,002**	**100.0%**	**3.0%**	**15.1%**
Total Equity	**$28,936,949**	**34.0%**	**4.9%**	**24.6%**
CRSP US Total Market TR USD			*5.3%*	*25.2%*
Vanguard Index Trust Total Stk Mkt	$20,646,299	24.3%	5.3%	25.4%
CRSP US Total Market TR USD			*5.3%*	*25.2%*
Rothschild Asset Management	$8,290,650	9.7%	3.9%	--
Russell 2500 Value			*1.3%*	*11.1%*
Total Short Duration High Yield	**$6,950,396**	**8.2%**	**0.1%**	**3.6%**
BofA ML - U.S. HY Cash Pay 1-3 Yr BB			*0.2%*	*3.4%*
Chartwell Investment Partners Short Duration High Yield	$6,950,396	8.2%	0.1%	3.6%
BofA ML - U.S. HY Cash Pay 1-3 Yr BB			*0.2%*	*3.4%*
BBgBarc 1-3 Yr BB U.S. Constrained Index			*0.2%*	*3.3%*
Total Real Estate	**$6,993,156**	**8.2%**		
NCREIF ODCE Equal Weighted Index				
American Core Realty Fund	$6,993,156	8.2%		
NCREIF ODCE Equal Weighted Index				
Total GTAA	**$31,872,995**	**37.5%**	**3.7%**	**15.5%**
65% MSCI World Index/35% CitigroupWGBI			*4.0%*	*19.4%*
First Eagle Global Value Fund	$31,872,995	37.5%	3.7%	15.5%
65% MSCI World Index/35% CitigroupWGBI			*4.0%*	*19.4%*
Total Opportunistic Strategies	**$3,000,000**	**3.5%**		
HFRX Event Driven Index				
Corbin ERISA Opportunity Fund	$3,000,000	3.5%		
HFRX Event Driven Index				

Gross of Fees

	Ending January 31, 2018			
	Market Value	% of Portfolio	1 Mo	1 Yr
Total Private Equity	**$340,789**	**0.4%**		
GCM Grosvenor Secondary Opportunities Fund II, L.P.	$340,789	0.4%		
Total Fund Cash	**$6,939,717**	**8.2%**	**0.0%**	**0.8%**
Cash	$6,939,717	8.2%	0.0%	0.8%

Net of Fees

	Ending January 31, 2018			
	Market Value	% of Portfolio	1 Mo	1 Yr
Composite	**$85,034,002**	**100.0%**	**2.9%**	**14.3%**
Total Equity	**$28,936,949**	**34.0%**	**4.9%**	**24.4%**
CRSP US Total Market TR USD			*5.3%*	*25.2%*
Vanguard Index Trust Total Stk Mkt	$20,646,299	24.3%	5.3%	25.2%
CRSP US Total Market TR USD			*5.3%*	*25.2%*
Rothschild Asset Management	$8,290,650	9.7%	3.8%	--
Russell 2500 Value			*1.3%*	*11.1%*
Total Short Duration High Yield	**$6,950,396**	**8.2%**	**0.1%**	**3.1%**
BofA ML - U.S. HY Cash Pay 1-3 Yr BB			*0.2%*	*3.4%*
Chartwell Investment Partners Short Duration High Yield	$6,950,396	8.2%	0.1%	3.1%
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HFRX Event Driven Index				
Corbin ERISA Opportunity Fund	$3,000,000	3.5%		
HFRX Event Driven Index				

Net of Fees

	Ending January 31, 2018			
	Market Value	% of Portfolio	1 Mo	1 Yr
Total Private Equity	**$340,789**	**0.4%**		
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Cash	$6,939,717	8.2%	0.0%	0.8%

Footnotes

- American Core Realty Fund is valued quarterly and market value and returns are as of 12/31/17, plus or minus any flows.
- Grosvenor GCM Secondary Opportunites Fund II is valued quarterly and the market value is as of 9/30/17.
- On January 2, 2018, Corbin was funded with $3.0M from First Eagle (via cash account).

ASSET ALLOCATION
AND FUND STRUCTURE REVIEW

Mid-Atlantic UFCW and Participating Employers Pension Fund

March 2, 2018

INVESTMENT PERFORMANCE SERVICES, LLC

Richard Sichel, Jr. – President

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10 – 20 Years Annualized Expectations

Equity Asset Class	Return	Risk
U.S. Large Cap	7.00%	16.00
U.S. Mid Cap	7.25%	18.00
U.S. Smid Cap	7.38%	21.00
U.S. Small Cap	7.50%	24.00
International Large Cap	7.50%	18.00
International Small Cap	8.00%	22.00
Emerging Markets	9.50%	25.00
Global Equity	7.25%	17.50

Fixed Income Asset Class	Return	Risk
Cash Equivalents	2.00%	0.50
Short-term Gov /Credit	2.50%	2.50
Intermediate Investment Grade	3.00%	4.00
Core Investment Grade	3.25%	5.00
Mortgages	4.00%	4.00
Short Duration High Quality High Yield	5.50%	6.00
High Quality High Yield	6.00%	9.00
Multi-Sector Fixed Income	4.50%	6.00
Short Duration Global Bonds	3.50%	5.50
Core Plus Bonds	3.75%	5.80

Alternatives Asset Class	Return	Risk
Multi-Strategy Hedge Fund of Funds	4.50%	6.00
Opportunistic Strategies	8.00%	8.50
Long Short Equity Hedge Fund of Funds	5.75%	10.00
Global Tactical Asset Allocation	6.75%	12.50
Core Real Estate	7.50%	7.50
Value -Add Real Estate	8.75%	9.50
REITS	7.50%	21.00
Private Equity FOF	10.00%	16.00
Private Equity Secondaries	10.00%	14.00
Infrastructure	7.00%	13.50
Risk Parity	6.25%	16.00
Commodities	3.75%	18.50

- IPS Investment Committee Jan 2018.
- Inflation expectation 2.50%.
- The above chart represents an annualized return forecast for different asset classes using index returns (net of fees). These forecasts are forward-looking assumptions based on reasonable beliefs of the IPS Investment Committee, but are not a guarantee of future performance. Actual results may differ from the forecast above.

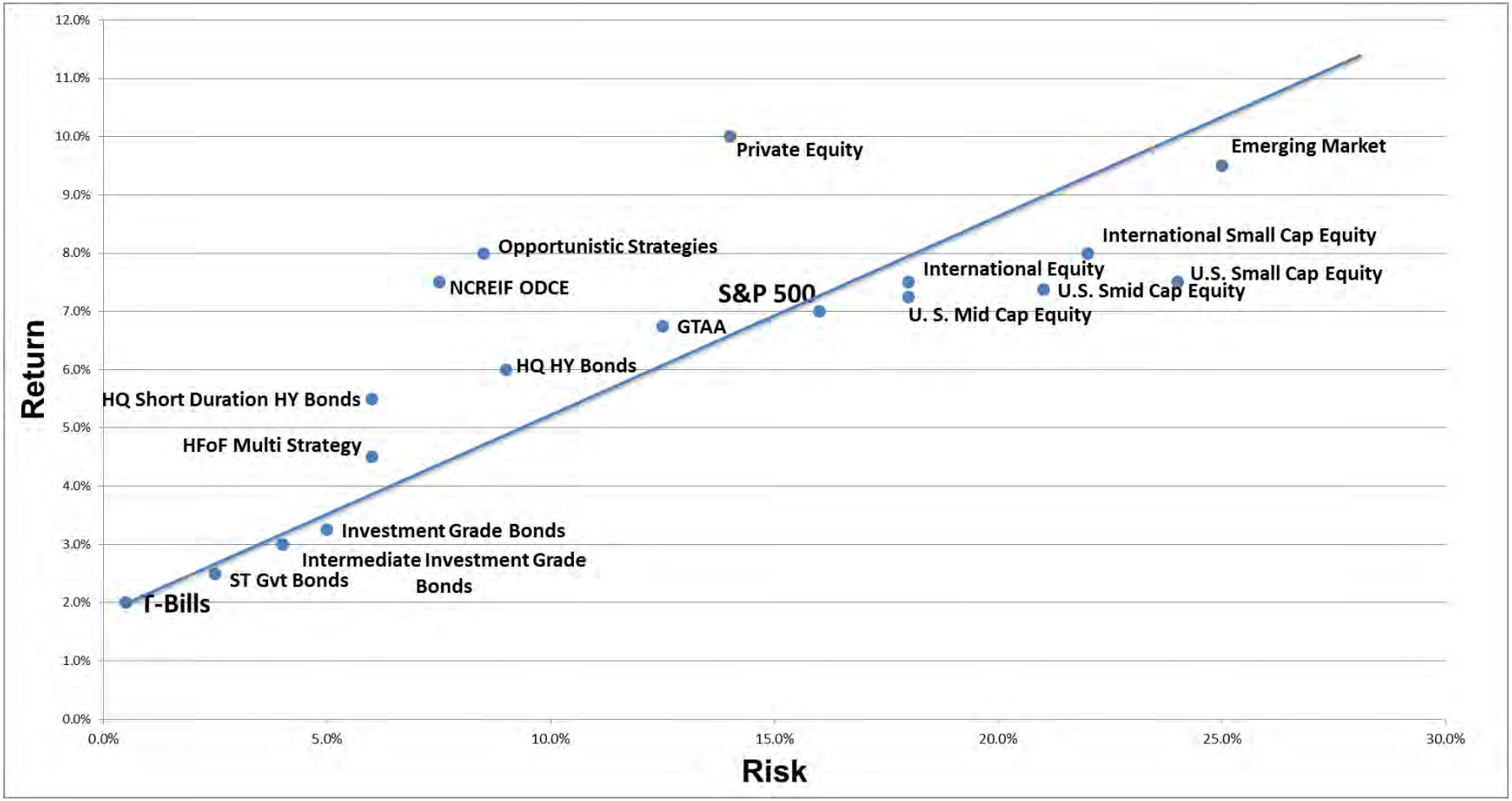
Investment Performance Services, LLC
Model Asset Class Constraints

Total Domestic Equity	60%	Max
Domestic Large Cap Equity	25%	Min
Small, Mid and Smid Cap Equity	20%	Max
International Equity Large Cap	15%	Max
International Small Cap Equity	5%	Max
Fixed Investment Grade (Includes Short Term & Intermediate)	10%	Min
High Quality High Yield Bonds (Includes Short Duration)	20%	Max
Real Estate - Core	15%	Max
Real Estate – Value Add	5%	Max
Hedge Fund of Funds – Multi Strategy	10%	Max
Opportunistic Strategies	5%	Max
Global Tactical Asset Allocation	15%	Max
Private Equity Secondaries	2.5%	Max

The Asset Allocation modeling requires the mathematical construction of an efficient frontier of various portfolios with distinct asset allocations and risk and return characteristics. The modeling process also requires the imposition of constraints, so that the efficient frontier represents a prudently diversified portfolio with adequate consideration of the liquidity needs and investment time horizon. Unconstrained optimization frequently generates allocations that have superior risk/reward characteristics, but the resulting allocations may not be adequately diversified and/or may have high allocations to illiquid investments.

The constraints shown are used for modeling purposes only. They should not be construed as suggested or recommended allocations, or limits on allocations, to any asset class or investment strategy. Each client fund has different facts, circumstances, time horizon, risk tolerance levels, return objectives, investment preferences, cash flows, and liquidity requirements. As such, each client's investment policy may differ materially from the constraints shown above.

IPS 2018 Capital Market Assumptions



Investment Performance Services, LLC
Asset Class Correlations

Assumption table:	Large Stock	Mid Stocks	Smid Stocks	Small Stocks	Internat'l Stocks	Internat'l Small Stocks	T-BILL	ST Gvt/Credit	Interm Core Inv Grade	Core Inv Grade	SD HY Bonds	HQ HY Bonds	RE Core	RE Value Add	PE	HFRI Multi	Opp	GTAA
Return	7.00	7.25	7.38	7.50	7.50	8.00	2.00	2.50	3.00	3.25	5.50	6.00	7.50	8.75	10.00	4.50	8.00	6.75
Risk	16.00	18.00	21.00	24.00	18.00	22.00	0.50	2.50	4.00	5.00	6.00	9.00	7.50	9.50	14.00	6.00	8.50	12.50
Correlations																		
US Large Cap Stocks	1.00																	
US Mid Cap Stocks	0.96	1.00																
US Smid Cap Stocks	0.94	0.97	1.00															
US Small Cap Stocks	0.91	0.95	0.98	1.00														
International Equity	0.89	0.88	0.83	0.79	1.00													
International Small Cap	0.85	0.86	0.82	0.77	0.96	1.00												
Cash	-0.29	-0.31	-0.25	-0.22	-0.30	-0.31	1.00											
Short Term Gvt/Credit	-0.05	-0.04	-0.07	-0.10	0.08	0.10	0.28	1.00										
Intermd Investment Grade Bonds	0.06	0.07	0.01	-0.04	0.16	0.18	0.04	0.80	1.00									
Core Investment Grade Bonds	0.04	0.05	-0.01	-0.06	0.14	0.16	0.01	0.73	0.97	1.00								
Short Duration HY Bonds	0.60	0.68	0.62	0.56	0.65	0.70	-0.28	0.25	0.35	0.31	1.00							
High Quality High Yield Bonds	0.68	0.75	0.70	0.65	0.74	0.75	-0.29	0.15	0.30	0.27	0.93	1.00						
Real Estate - Core	0.13	0.09	0.09	0.10	0.04	0.02	-0.13	-0.33	-0.18	-0.14	-0.16	-0.08	1.00					
Real Estate - Value Add	0.14	0.10	0.10	0.12	0.06	0.04	-0.13	-0.32	-0.17	-0.13	-0.17	-0.08	0.99	1.00				
Private Equity	0.91	0.95	0.98	0.99	0.79	0.77	-0.22	-0.10	-0.04	-0.06	0.56	0.65	0.10	0.12	1.00			
HF of F - Multi Strategy	0.74	0.76	0.71	0.65	0.79	0.82	-0.44	-0.06	0.01	0.00	0.66	0.69	0.10	0.11	0.65	1.00		
Opportunistic Strategies	0.72	0.78	0.74	0.69	0.77	0.78	-0.30	0.15	0.28	0.25	0.92	0.98	-0.10	-0.09	0.69	0.70	1.00	
GTAA	0.94	0.91	0.87	0.82	0.96	0.94	-0.25	0.15	0.25	0.23	0.65	0.73	0.06	0.08	0.82	0.74	0.76	1.00

A Correlation of 1.00 indicates two series move perfectly together while a -1.00 shows they move perfectly opposite one another.

Investment Performance Services, LLC
Asset Allocation Review

Efficient Frontier Report										
Asset	Portfolio 1	Portfolio 2	Portfolio 3	Portfolio 4	Portfolio 5	Portfolio 6	Portfolio 7	Portfolio 8	Portfolio 9	Portfolio 10
US Large Cap Stocks	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	37.50
US Mid Cap Stocks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
US Smid Cap Stocks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
US Small Cap Stocks	0.00	0.00	0.00	0.00	0.00	2.06	4.72	8.86	14.65	20.00
International Equity	0.00	0.00	0.00	0.00	5.50	13.02	15.00	15.00	15.00	15.00
International Small Cap	0.00	0.00	0.00	1.57	5.00	5.00	5.00	5.00	5.00	5.00
Cash	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Short Term Gvt/Credit	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Intermd Investment Grade Bonds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Core Investment Grade Bonds	23.13	19.79	15.06	10.93	10.00	10.00	10.00	10.00	10.00	10.00
Short Duration HY Bonds	20.00	20.00	20.00	20.00	20.00	17.41	8.50	0.00	0.00	0.00
High Quality High Yield Bonds	0.00	0.00	0.00	0.00	0.00	0.00	4.28	8.64	2.85	0.00
Real Estate - Core	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	0.00
Real Estate - Value Add	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Private Equity	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
HF of F - Multi Strategy	3.27	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Opportunistic Strategies	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
GTAA	1.10	7.09	12.44	15.00	7.00	0.00	0.00	0.00	0.00	0.00
Return	6.32	6.49	6.67	6.84	7.01	7.16	7.29	7.42	7.54	7.42
Risk	6.27	6.81	7.36	7.93	8.56	9.31	10.14	11.00	11.89	14.68
Return/Risk	1.01	0.95	0.91	0.86	0.82	0.77	0.72	0.67	0.63	0.51

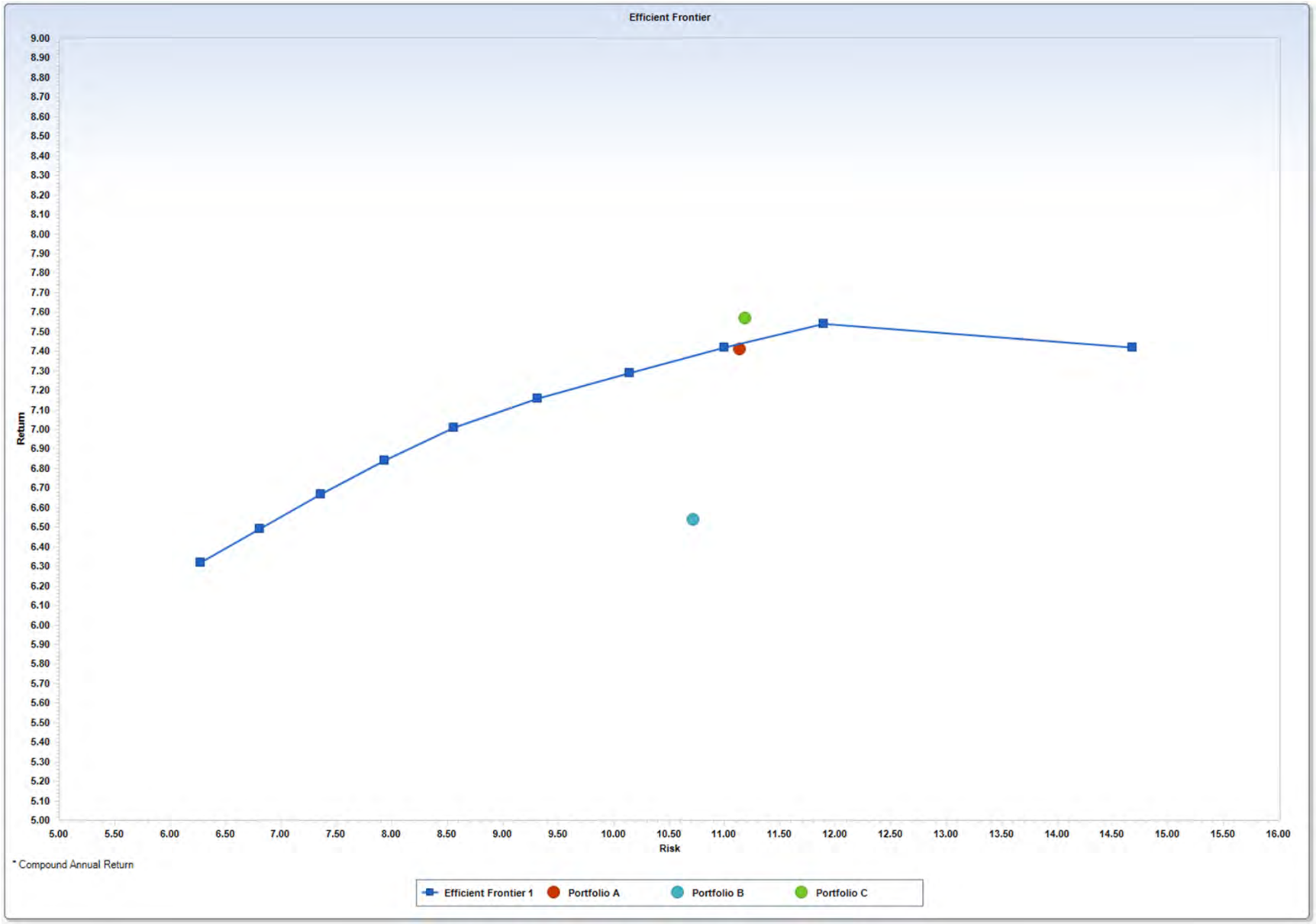
* Compound annual return.
* Returns based on a geometric calculation.

	% Asset Class Target												
	US LC Equity	Smid Cap Equity	Internat'l Eq	Fixed Income Interm	Short Duration HY	Real Estate Core	RE Value Add	Opp	Private Equity	GTAA	Cash	Expected Return	Risk	Comments
Mid-Atlantic UFCW and Participating Employers Pension Fund - A	25.0	10.0	0.0	0.0	10.0	10.0	5.0	5.0	5.0	30.0	0.0	7.41%	11.14	Policy
Actual - B	23.9	9.7	0.0	0.0	8.4	8.5	0.0	0.0	0.4	37.5	11.6	6.54%	10.72	Allocation as of December 31, 2017
Scenario 1 - C	25.0	10.0	0.0	0.0	10.0	10.0	5.0	5.0	10.0	25.0	0.0	7.57%	11.19	Increase private equity; decrease GTAA

Scenarios are shown for illustrative purposes.

The Fund's assumption rate as determined by the plan actuary is 8.00%

Mid-Atlantic UFCW and Participating Employers Pension Fund



Glossary of Investment Terminology

Total Return	The annual return on an investment including appreciation, depreciation and income (interest, dividends, net operating income).
Alpha	The excess return (positive or negative) generated by active portfolio management and security selection, relative to a benchmark.
Beta	A historical measure of an investment's volatility relative to the market. The beta of the market is 1.0 (as represented by a benchmark such as the S&P 500 Index). A beta of greater than 1.0 indicates an investment with greater volatility than the benchmark. A beta of less than 1.0 indicates less volatility than the benchmark.
Standard Deviation	Standard deviation is a statistical measurement of the dispersion of a set of data from its mean. The more spread apart the data are, the greater the standard deviation.
Risk	For an investment portfolio, risk is typically defined as the volatility of the returns, as measured by calculating the standard deviation. The risk does not necessarily indicate the risk of loss, but does indicate the risk of inconsistent returns.
Capture Ratio	Calculates how well a manager performs in a rising or falling market as a percentage of a benchmark. In a rising market, a percentage of 100 or better is preferred, and indicates the manager exceeded the benchmark (upside capture ratio). In a falling market, a percentage of less than 100 is preferred, indicating that the manager lost less than the benchmark (downside capture ratio).
Correlation	A statistical measure of how two asset classes perform in relation to each other. Asset classes with a correlation of 1.0 have perfect positive correlation (exactly the same). Assets with perfect negative correlation of -1.0 will perform equally but in opposite directions.
Efficient Frontier	A series of portfolios with the maximum expected return for any level of risk, which is calculated based on assumptions of risk, return and correlation. These portfolios are shown graphically on a risk and return chart, and represent the most efficient tradeoff between risk and return.
Market Cap	The dollar value of a corporation, which is calculated by multiplying the share price and the number of outstanding shares.
Large Cap	Stocks which typically have a market capitalization of $10 billion or higher.
Mid Cap	Stocks which typically have a market capitalization of $2 to $10 billion.
Small Cap	Stocks which typically have a market capitalization of $2 billion or less.
Geometric Calculation	Geometric Calculations are used when determining an annualized investment return and tends to dampen the effect of very high or very low values. The result is a number that is smaller than (or equal to) the arithmetic average of the values.
Compound Annual Returns	Compound annual returns show the annual investment return, assuming the investment grew at a constant rate, and reflects the impact of the time in the calculation of an investment return.
Return/Risk Ratio	The return/risk ratio is the expected return of an investment divided by the expected standard deviation (risk). When comparing return/risk ratios a higher value is presumed to be better than a lower value