Investment Performance Review Period Ending December 31, 2016

# Killeen Firefighters' Relief & Retirement Fund



AndCo Consulting I (844) 44-ANDCO I AndCoConsulting.com

On the cover of your standard quarterly report, and on all documents we will be sending to you going forward, you will notice **your name** comes before ours. That is not by accident. Everything from the services we provide to how we are structured as an organization is designed to ensure that you, our client, comes first.

We take our role as an independent institutional consulting firm and plan fiduciary very seriously, and we believe this approach and philosophy adds real value to our clients. To ensure that the client always comes first in the service equation and that our fiduciary responsibility is never compromised, the important principles of independence, objectivity and transparency are embodied in our mission and vision statements and define who we are as an organization. They are engrained in our culture and corporate values and used to guide our actions every day.

Over the years, the investment environment has grown more complex and we've seen our staff grow and our expertise and services advance to serve our expanding clientele. To strengthen business continuity and meet the needs of our clients, we recently began a program to broaden employee ownership of our firm. Inherently, as we thought about our mission (*To represent the sole interest of our clients by redefining independence*), vision (*To be a transformational organization viewed as the leader in our industry*), and the passion behind our service culture, we wanted to do something significant that would better reflect who we are as an organization and how we never compromise our client-first mentality and service philosophy.

### Why a Company Rebrand?

After more than a decade of growth and original brand equity, why would a company rebrand now? Though client-first consulting has been a cornerstone of our company since its inception, with the milestone of transitioning majority ownership from our founder to the firm's next generation of leadership, it became the perfect opportunity to reintroduce ourselves to the world as AndCo. We have always believed the assets of our firm were the collective body of individuals working together to serve our clients. It has always been bigger than one or even a handful of people. We feel this rebrand is a better reflection of this belief and conviction along with our mission and vision. Our team members could work at other places but they choose to work at AndCo because they believe this approach is better for clients. Business will continue as usual, as the leadership and team you have come to know and trust will not be impacted by this rebrand.

### Why AndCo?

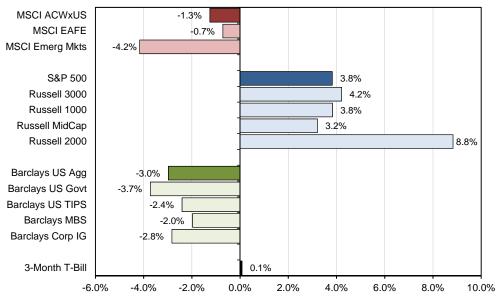
As AndCo, we want your first impression to be our commitment to client-first consulting. Our promise to you spans from our very foundation up to the name on our building. Most importantly, this company rebrand sets the stage for the future of our firm, and your place in it. At AndCo, it is always:



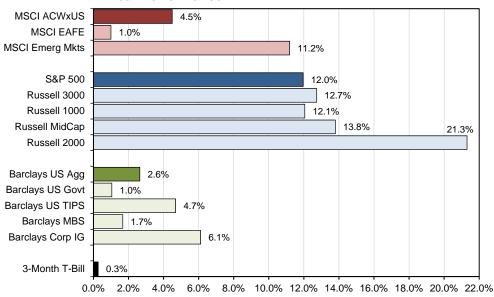
**Our Clients** 

- Broad asset class returns were mixed for the 4th quarter. Domestic equity indices posted positive performance for the quarter, while broad international equity and fixed income benchmarks were negative for the period. The quarter's investment cycle was dominated first by the U.S. presidential election, and then by the largely anticipated Federal Reserve (Fed) interest rate hike in December. The uncertainty that drove equity returns lower during the first half of the quarter gave way to a string of positive macroeconomic data and a Trump victory that drove equity benchmarks, particularly in the U.S., higher through the remainder of the quarter. Trump's platform of strengthening infrastructure, deregulation, and lower personal and corporate taxes drove expectations higher for both domestic growth and inflation. The broad market Russell 3000 Index returned 4.2% for the quarter. The small cap Russell 2000 Index more than doubled performance of other capitalization indices with a return of 8.8% for the quarter and a strong 21.3% for the trailing one-year period.
- International equity market benchmarks stumbled during the quarter with the broad market MSCI ACWI ex U.S. Index posting a return of -1.3% for the period in U.S. dollar (USD) terms. Despite the difficult quarter, the broad market index returned a moderate 4.5% for 2016. Developed markets (-0.7%) outperformed emerging markets (-4.2%) for the quarter as developed market economic data was generally positive. However, emerging markets substantially outperformed developed markets for the one-year period with the MSCI Emerging Markets Index returning 11.2% versus a return of 1.0% for the MSCI EAFE Index.
- The quarter's strong economic backdrop led the Federal Open Market Committee (FOMC) to follow through on investors' expectations and raise short-term interest rates for the first time in 2016. The same events that drove domestic equity markets higher were a headwind for fixed income markets. As a result, the U.S. Treasury yield curve rose dramatically during the quarter with modestly elevated rates at shorter maturities and larger increases in midto-long-term maturities. All investment grade benchmarks were negative for the quarter, but the mortgage-backed securities sector was down less than other investment grade sectors due to its shorter duration. Although the 4<sup>th</sup> quarter took back some of 2016's earlier gains, investment grade benchmarks finished in positive territory for the year. The Bloomberg Barclays Investment Grade Corporate Bond Index was the best performer over the one-year period, advancing a solid 6.1%. Corporate issues benefited from increased demand for yield which led to credit spread compression, especially in lower quality issues.





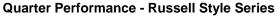
### 1-Year Performance

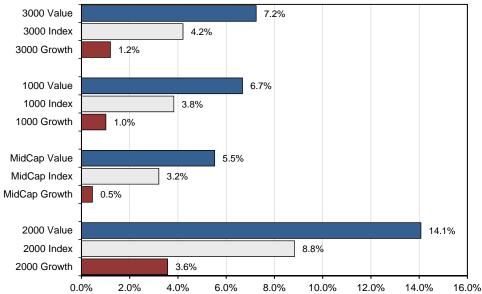




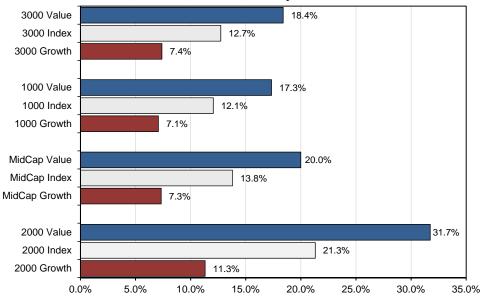
Source: Investment Metrics 2

- U.S. equity index returns were positive across the style and capitalization spectrum for the 4<sup>th</sup> quarter as well as for calendar year 2016. During the quarter, index returns were driven by encouraging economic data including improvements in GDP growth, employment, housing, and consumer confidence being reported throughout the period. Domestic markets continued to rally after the November presidential election with several domestic indices hitting new highs on expectations resulting from Trump's "market-friendly" policy objectives. While the Fed did increase interest rates in December, the market reaction was relatively tame as the rate hike was widely expected.
- Small cap benchmarks posted the quarter's strongest performance for both value and growth issues. At the core, the small cap Russell 2000 Index returned a robust 8.8% for the quarter and a stellar 21.3% for the year. Although still positive, the core large cap Russell 1000 Index returned a lower 3.8% for the quarter and 12.1% for the year. This dispersion is not totally outside of the norm as small cap stocks generally outperform large cap stocks during "risk-on" market expansions. Interestingly, mid cap stocks finished behind both small and large cap issues for the quarter. This is partially due to the Russell Midcap Index's higher allocations to the real estate and utilities sectors, which were two of the worst performing sectors for the quarter.
- Value benchmarks more than doubled their comparable growth benchmarks across the capitalization spectrum for both the quarter and one-year periods. Unlike prior quarters where value index outperformance was driven by exposure to higher yielding "bond proxy" sectors, this quarter's returns were led by exposure to cyclical sectors, particularly financials. Value-style outperformance persists over the one-year period with double-digit returns ranging from an impressive 31.7% for the Russell 2000 Value Index to a still strong 17.3% for the Russell 1000 Value Index. In contrast, growth index performance lagged value results substantially, returning 11.3% and 7.1% for the Russell 2000 Growth and Russell 1000 Growth respectively.
- Domestic equity valuations appear stretched relative to historical levels based on Forward Price/Earnings ratios (P/E), with even the cheapest relative indices trading marginally above historical valuations. The large and midcap growth indices have valuation levels near their respective historical averages, while the remaining indices fall between 110% and 137% of their 15-year averages.





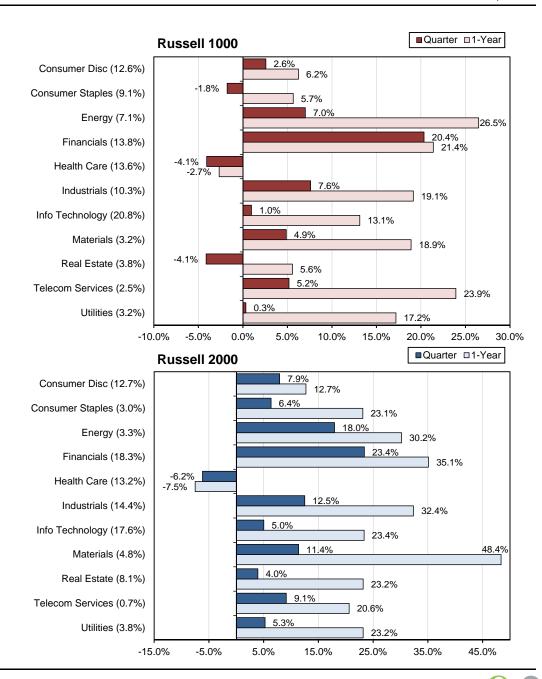
### 1-Year Performance - Russell Style Series





Source: Investment Metrics 3

- Large cap sector performance spanned a range of nearly 25% during the 4th quarter, with results in five of eleven economic sectors outpacing the Russell 1000 Index return, and eight of eleven sectors posting gains for the period. Financials were the clear leader during the quarter, posting a strong return of 20.4%, which nearly tripled the result of any other sector. Financials benefited from expectations for potential deregulation as well as the impact of higher interest rates on future profitability. The industrials (7.6%) and materials (4.9%) sectors also outperformed for the period as Trump's promise for increased investment in U.S. infrastructure brightened the outlook for both sectors. The energy sector (7.0%) also posted a solid gain for the quarter as oil prices rose following an OPEC agreement to cut supply in November. Prices rose further after several non-OPEC countries indicated they would also reduce production. The real estate and health care sectors were the weakest performers for the quarter, both posting -4.1% for the period. Real estate and other "bond proxy" sectors such as consumer staples and utilities were impacted by higher interest rates, reducing the demand for more defensive equity issues. The health care sector's weak performance was more symptomatic of the uncertainty surrounding the future of heath care regulation under a new Administration determined to repeal the Affordable Care Act. Despite some divergence in the 4th quarter, sector performance over the one-year period was robust with ten of eleven sectors posting positive results and seven putting up double-digit gains.
- Small cap sector results were roughly in-line with large caps for the 4<sup>th</sup> quarter, with five of eleven economic sectors outpacing the Russell 2000 Index return for the quarter and ten of eleven sectors posting positive results for the period. Most of the trends observable in large cap index sector performance also impacted the small cap sectors, but to a larger, positive degree. Similar to large cap issues, higher yielding, defensive sectors lagged the more cyclical, economically sensitive sectors. Over the trailing one-year period the materials, financials, industrials, and energy sectors each posted returns in excess of 30%. The sole negative small cap sector for the year was health care with a return of -7.5%.
- Using S&P 500 sector valuations as a proxy for the market, Forward P/E ratios for five GICS sectors were below their long-term averages at quarter-end. The technology and health care sectors were trading at the largest discount to their long-term average P/E ratios. In contrast, the energy and utilities sector valuations were the most extended relative to their historical P/E ratios.





Top 10 Weighted Stocks								
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector				
Apple Inc	2.95%	3.0%	12.5%	Information Technology				
Microsoft Corp	2.19%	8.6%	15.1%	Information Technology				
Exxon Mobil Corp	1.75%	4.3%	19.9%	Energy				
Johnson & Johnson	1.47%	-1.8%	15.3%	Health Care				
JPMorgan Chase & Co	1.46%	30.5%	34.6%	Financials				
Berkshire Hathaway Inc B	1.43%	12.8%	23.4%	Financials				
Amazon.com Inc	1.35%	-10.4%	10.9%	Consumer Discretionary				
General Electric Co	1.35%	7.5%	4.6%	Industrials				
AT&T Inc	1.22%	6.0%	29.9%	Telecommunication Services				
Facebook Inc A	1.20%	-10.3%	9.9%	Information Technology				

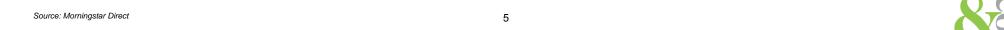
Top 10 Performing Stocks (by Quarter)								
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector				
CVR Energy Inc	0.00%	91.7%	-27.2%	Energy				
CoreCivic Inc	0.01%	79.4%	0.8%	Real Estate				
United States Steel Corp	0.02%	75.4%	319.6%	Materials				
California Resources Corp	0.00%	70.3%	-8.6%	Energy				
NVIDIA Corp	0.25%	56.0%	226.9%	Information Technology				
SVB Financial Group	0.04%	55.3%	44.4%	Financials				
KeyCorp	0.09%	50.9%	42.1%	Financials				
EP Energy Corp A	0.00%	49.5%	49.5%	Energy				
Goldman Sachs Group Inc	0.43%	48.9%	34.9%	Financials				
SLM Corp	0.02%	47.5%	69.0%	Financials				

Bottor	Bottom 10 Performing Stocks (by Quarter)								
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector					
Twilio Inc A	0.00%	-55.2%	N/A	Information Technology					
Puma Biotechnology Inc	0.00%	-54.2%	-60.8%	Health Care					
Community Health Systems Inc	0.00%	-51.6%	-74.5%	Health Care					
Fitbit Inc A	0.00%	-50.7%	-75.3%	Information Technology					
GoPro Inc A	0.00%	-47.8%	-51.6%	Consumer Discretionary					
Hertz Global Holdings Inc	0.01%	-46.3%	-61.8%	Industrials					
GNC Holdings Inc	0.00%	-45.1%	-63.0%	Consumer Discretionary					
Alnylam Pharmaceuticals Inc	0.01%	-44.8%	-60.2%	Health Care					
Juno Therapeutics Inc	0.01%	-37.2%	-57.1%	Health Care					
Groupon Inc	0.01%	-35.5%	8.1%	Consumer Discretionary					

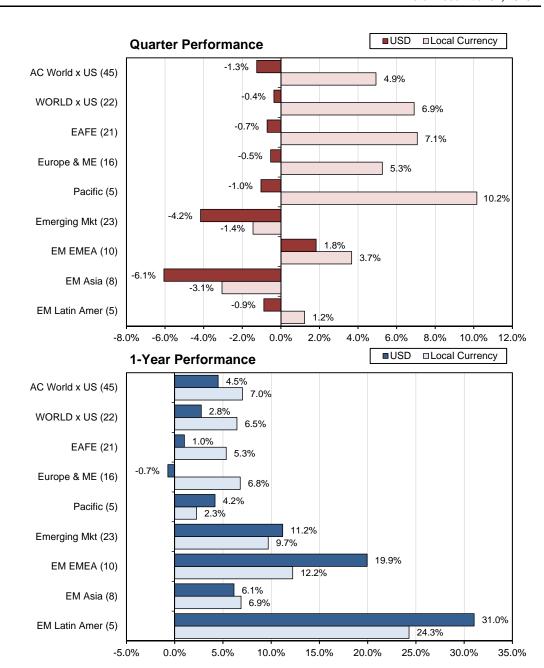
Top 10 Weighted Stocks								
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector				
Advanced Micro Devices Inc	0.45%	64.1%	295.1%	Information Technology				
Microsemi Corp	0.33%	28.6%	65.6%	Information Technology				
Webster Financial Corp	0.26%	43.7%	50.0%	Financials				
Prosperity Bancshares Inc	0.26%	31.4%	53.5%	Financials				
Bank of the Ozarks Inc	0.25%	37.5%	8.0%	Financials				
RSP Permian Inc	0.23%	15.1%	82.9%	Energy				
Curtiss-Wright Corp	0.23%	8.2%	44.4%	Industrials				
EMCOR Group Inc	0.23%	18.8%	48.2%	Industrials				
Aspen Technology Inc	0.23%	16.9%	44.8%	Information Technology				
PrivateBancorp Inc	0.23%	18.0%	32.2%	Financials				

Top 10 Performing Stocks (by Quarter)								
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector				
Wins Finance Holdings Inc	0.01%	508.7%	1400.0%	Financials				
Key Energy Services Inc	0.00%	293.0%	-66.2%	Energy				
Peabody Energy Corp	0.00%	222.6%	-34.9%	Energy				
Altisource Asset Management Corp	0.00%	189.2%	211.8%	Real Estate				
Seventy Seven Energy Inc	0.00%	138.7%	4185.7%	Energy				
AK Steel Holding Corp	0.17%	111.4%	355.8%	Materials				
Era Group Inc	0.02%	110.8%	52.2%	Energy				
NL Industries Inc	0.00%	107.4%	168.1%	Industrials				
Fred's Inc	0.03%	106.1%	15.6%	Consumer Discretionary				
Pier 1 Imports Inc	0.04%	104.8%	77.9%	Consumer Discretionary				

Bottom 10 Performing Stocks (by Quarter)								
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector				
Code Rebel Corp	0.00%	-98.0%	-100.0%	Information Technology				
Republic Airways Holdings Inc	0.00%	-93.4%	-98.5%	Industrials				
Basic Energy Services Inc	0.00%	-92.5%	-97.7%	Energy				
Ophthotech Corp	0.01%	-89.5%	-93.8%	Health Care				
Cempra Inc	0.01%	-88.4%	-91.0%	Health Care				
Violin Memory Inc	0.00%	-88.2%	-98.2%	Information Technology				
Adeptus Health Inc Class A	0.01%	-82.3%	-86.0%	Health Care				
6D Global Technologies Inc	0.00%	-80.0%	-99.7%	Information Technology				
Proteon Therapeutics Inc	0.00%	-79.6%	-87.7%	Health Care				
Anthera Pharmaceuticals Inc	0.00%	-79.4%	-86.0%	Health Care				



- As the USD versus local currency return charts illustrate, the USD's strength was a major headwind for international index performance during the 4th quarter as well as over the trailing one-year period. The primary factor contributing to the return differentials in 2016 was increasing divergence in U.S. monetary policy (tightening) relative to other developed countries (further accommodation). While the U.S. growth prospects support reduced monetary stimulus, economic data in the Eurozone supports a continuation of monetary accommodation to bolster what has been a slow recovery. As such, the European Central Bank (ECB) lengthened its quantitative easing program, originally scheduled to end in March 2017, to December 2017. Although the program was extended, the ECB reduced the size of monthly purchases from \$80 billion euros to \$60 billion euros. This economic divergence was further reinforced after the election as Trump's pro-growth policies and protectionist views on trade, if enacted, favor additional USD strength.
- The 4th quarter's USD performance was negative for both developed (-0.7%) and emerging (-4.2%) markets. While emerging market performance (-1.4%) was also negative in local currency terms for the period, the currency impact was more pronounced in developed market results with the MSCI-EAFE Index's local currency return of 7.1% representing a 7.9% spread relative to the benchmark's USD returns. While USD strength is also evident in the one-year performance of developed markets (1.0% USD vs. 5.3% local), USD emerging market performance of 11.2% marginally outpaced the emerging market local currency return of 9.7%. Japanese equities advanced considerably in local currency terms as a weaker yen was viewed as a major tailwind to its export driven economy. The U.K. also posted a solid guarter in local currency terms on the back of a weakening pound sterling and continued stimulus. Despite their local currency return strength, the USD returns of both countries were negative for the quarter with Japan returning -0.2% and the U.K. returning -0.9%.
- While the 4<sup>th</sup> quarter's emerging market results were negatively impacted by rising yields, a stronger USD, and fears surrounding future U.S. trade and foreign policy, one-year performance in emerging markets was more than double the returns posted by developed markets. Although one-year of outperformance does not represent a trend, emerging market investors are hoping for a continuance of 2016's emerging market performance surge after several years of lagging results relative to domestic and developed international equity markets.



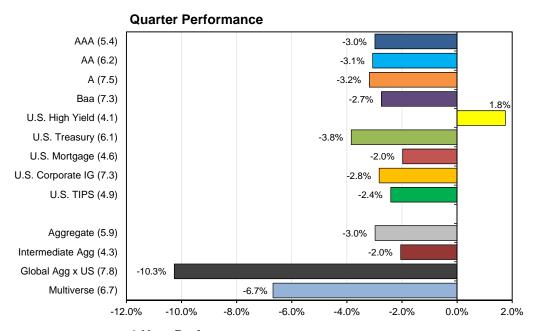


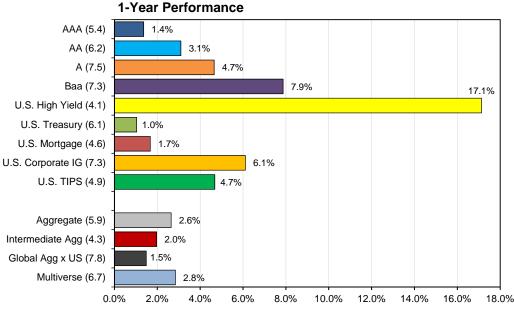
MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Consumer Discretionary	12.5%	1.6%	-1.3%
Consumer Staples	11.2%	-10.3%	-2.8%
Energy	5.5%	10.4%	26.8%
Financials	21.2%	9.5%	-1.7%
Health Care	10.7%	-7.8%	-11.8%
Industrials	14.0%	-1.9%	6.7%
Information Technology	5.5%	-3.2%	3.6%
Materials	7.9%	3.4%	24.3%
Real Estate	3.7%	-7.4%	2.6%
Telecommunication Services	4.5%	-6.9%	-7.3%
Utilities	3.4%	-7.4%	-5.5%
Total	100.0%	-0.7%	1.0%
MSCI - ACWIXUS	Sector Weight	Quarter Return	1-Year Return
Consumer Discretionary	11.5%	-0.9%	-0.6%
Consumer Staples	9.8%	-10.1%	-1.9%
Energy	7.3%	8.3%	31.3%
Financials	23.4%	6.8%	4.0%
Health Care	8.1%	-8.1%	-13.1%
Industrials	11.7%	-2.2%	6.3%
Information Technology	9.3%	-5.0%	10.7%
Materials	8.0%	2.6%	27.6%
Real Estate	3.3%	-7.9%	1.4%
Telecommunication Services	4.7%	-6.7%	-4.1%
Utilities	3.2%	-7.2%	-3.3%
Total	100.0%	-1.3%	4.5%
MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Consumer Discretionary	10.3%	-9.5%	0.9%
Consumer Staples	7.2%	-10.5%	0.4%
Energy	7.9%	8.0%	36.5%
Financials	24.4%	-0.7%	15.0%
Health Care	2.5%	-9.6%	-7.5%
Industrials	5.8%	-6.2%	-1.9%
Information Technology	23.3%	-6.3%	16.8%
Materials	7.4%	4.2%	31.4%
Real Estate	2.6%	-10.5%	-1.8%
Telecommunication Services	5.9%	-6.2%	2.0%
Utilities	2.9%	-6.8%	3.2%

	MSCI-EAFE	MSCI-ACWIXUS	Quarter	1- Year
Country	Weight	Weight	Return	Return
Japan	24.1%	17.0%	-0.2%	2.4%
United Kingdom	18.3%	12.9%	-0.9%	-0.1%
France	10.2%	7.2%	2.9%	4.9%
Germany	9.3%	6.5%	1.5%	2.8%
Switzerland	8.7%	6.1%	-3.9%	-4.9%
Australia	7.4%	5.2%	0.7%	11.5%
Netherlands	3.3%	2.3%	-2.1%	4.8%
Hong Kong	3.3%	2.3%	-9.0%	2.3%
Spain	3.1%	2.2%	2.2%	-1.0%
Sweden	2.8%	2.0%	-0.8%	0.6%
Italy	2.1%	1.5%	10.8%	-10.5%
Denmark	1.7%	1.2%	-8.7%	-15.8%
Singapore	1.2%	0.9%	-3.6%	1.4%
Belgium	1.2%	0.8%	-11.8%	-7.6%
Finland	1.0%	0.7%	-4.4%	-4.7%
Israel	0.7%	0.5%	-11.3%	-24.9%
Norway	0.7%	0.5%	2.4%	13.3%
Ireland	0.5%	0.3%	0.1%	-7.1%
Austria	0.2%	0.1%	6.5%	11.3%
New Zealand	0.2%	0.1%	-10.9%	18.4%
Portugal	0.2%	0.1%	-2.9%	3.6%
Total EAFE Countries	100.0%	70.3%	-0.7%	1.0%
Canada	100.070	7.1%	3.3%	24.6%
Total Developed Countries		77.3%	-0.4%	2.8%
China		6.0%	-7.1%	0.9%
Korea		3.3%	-5.6%	8.8%
Taiwan		2.8%	-2.2%	18.5%
India		1.9%	-8.0%	-1.4%
Brazil		1.7%	2.1%	66.2%
South Africa		1.6%	-4.1%	17.9%
Russia		1.0%	18.6%	54.8%
Mexico		0.8%	-7.9%	-9.2%
Indonesia		0.6%	-7.8%	17.0%
Malaysia		0.6%	-8.4%	-3.9%
Thailand		0.5%	-1.8%	26.6%
Philippines		0.3%	-12.8%	-6.6%
Chile		0.3%	2.2%	15.6%
Poland		0.3%	3.4%	0.1%
Turkey		0.3%	-13.7%	-8.5%
Qatar		0.2%	0.7%	6.3%
United Arab Emirates		0.2%	-1.5%	13.6%
Colombia		0.1%	-2.3%	26.5%
Peru		0.1%	2.5%	55.6%
Greece		0.1%	15.3%	-12.1%
		0.1%	9.3%	35.4%
Hungary Czech Republic				-5.0%
		0.0%	-3.4% -23.3%	-5.0% -11.5%
Egypt Total Emerging Countries				
		22.7%	-4.2%	11.2%
Total ACWIxUS Countries		100.0%	-1.3%	4.5%



- After defying logic and market expectations with solid positive results for most of 2016, fixed income benchmarks fell across various sectors and quality segments during the 4th quarter as the reality of higher interest rates and inflation expectations exerted their powerful impact on yields. On the interest rate front, market rates rose through the quarter as investors prepared for a telegraphed, and ultimately realized, interest rate increase of 25 basis points (bps) by the Fed. The December increase was supported by continued improvement in the U.S. economy, and represented the sole Fed rate increase for 2016. On the inflation front, Donald Trump's victory in the U.S. presidential election also played a role in the quarter's negative fixed income results as market expectations after the victory shifted sentiment toward potentially higher inflation and economic growth.
- Looking through the quality lens, each of the fixed income quality segment benchmarks (with the exception of high yield) finished the 4th quarter down roughly -3%. The high yield (lower quality) benchmark was the only index to post a positive result for the quarter with a return of 1.8%. The high yield index benefited from its lower duration (less interest rate sensitivity) as well as a steady compression in credit spreads that offset the impact of generally higher market yields. Extending the comparison to the one-year period, the quality benchmarks all posted positive results with annual returns displaying an inverse relationship with their quality.
- Examining results on a sector basis shows the nominal Treasury sector feeling the largest impact from the yield curve shift with a 4<sup>th</sup> quarter return of -3.8%. The lower-duration TIPS index returned -2.4% for the quarter. The mortgage sector posted the quarter's best relative result with a return of -2.0% benefiting from its lower duration. Given the previously mentioned negative impact of USD strength on foreign investments, the 4<sup>th</sup> quarter was a particularly difficult quarter for global fixed income markets with the Global Aggregate ex-U.S. index returning -10.3%. Despite the 4<sup>th</sup> quarter's negative index results, each sector and global benchmark posted positive results for the trailing one-year period.
- The Fed stated that future rate increases will be implemented at a measured pace and will be based on an ongoing assessment of current economic data. However, future policy action by the new Trump Administration and global economic developments will likely impact the pace of future interest rate increases as well.



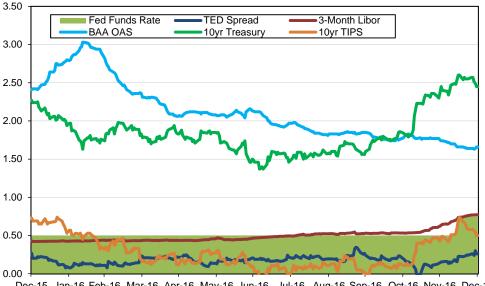




Source: Barclays Capital Live

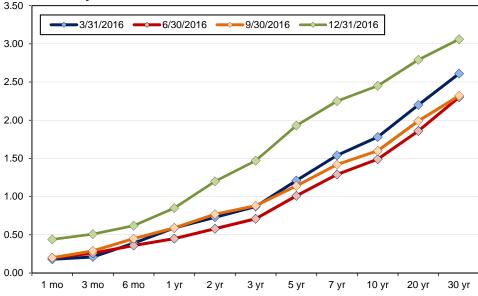
- Much of the index performance detailed in the bar graphs on the previous page is visible on a time series basis by reviewing the line graphs to the right. The '1-Year Trailing Market Rates' chart illustrates that after trading in a tight range for most of the year, the 10-year Treasury yield (green line) rose dramatically over the final months of 2016, closing at a yield (2.45%) near its one-year high. The blue line illustrates changes in the BAA OAS (Option Adjusted Spread). This measure quantifies the additional yield premium that investors require to purchase and hold non-Treasury issues. The steady decline in credit spreads throughout 2016 is equivalent to an interest rate decrease on corporate bonds, which results in a tailwind for corporate bond index returns. While there was some upside momentum in credit spreads early in 2016, they have narrowed by over 1.25% since their high on February 11th.
- The lower graph provides a snapshot of the U.S. Treasury yield curve at each of the last four calendar quarters and clearly illustrates the unrest that materialized in Treasury yields during the 4<sup>th</sup> quarter. While each of the last three quarter-end yield curves show a fairly tight distribution, the December 31<sup>st</sup> reading is higher at all maturities with both short- and long-term rates finishing 2016 near the high end of their respective 12-month trading ranges. This upward shift caused yields to rise an average of 22 bps for maturities of less than one-year, 60 bps for the two- to five-year maturity range, and 81 bps for the seven- to thirty-year maturity range. Greater yield increases at the longer end of the curve represent a "steepening" of the yield curve which conveys market anticipation of higher interest rates in the future.
- Given the magnitude of the increase in yields that occurred during the period, it is no surprise that most fixed income indices finished the quarter in negative territory. In a rising rate environment, it is also expected that longer-duration market indices will fall more than equivalent lower-duration benchmarks. Finally, while global benchmarks are impacted by the same yield and duration factors as domestic benchmarks, they have the additional powerful lever of currency impact. This currency effect can either be an offsetting benefit to negative yield and duration factors in a rising rate environment or an exacerbation of negative performance as it was during the 4th quarter.

### 1-Year Trailing Market Rates



Dec-15 Jan-16 Feb-16 Mar-16 Apr-16 May-16 Jun-16 Jul-16 Aug-16 Sep-16 Oct-16 Nov-16 Dec-16

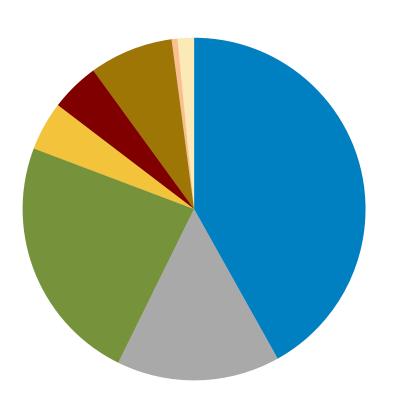
### **Treasury Yield Curve**

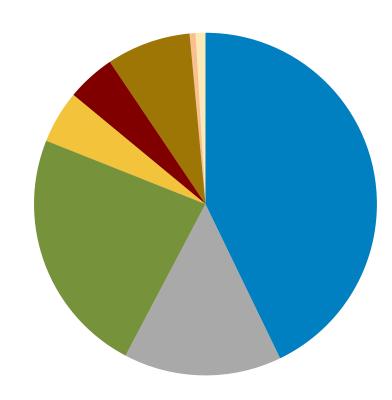




Asset Allocation By Segment as of September 30, 2016 : \$34,907,488

Asset Allocation By Segment as of December 31, 2016 : \$35,150,532



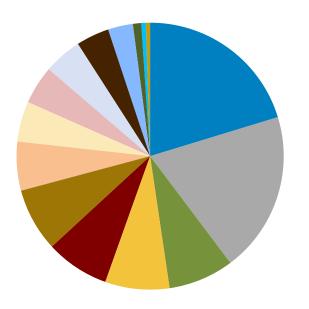


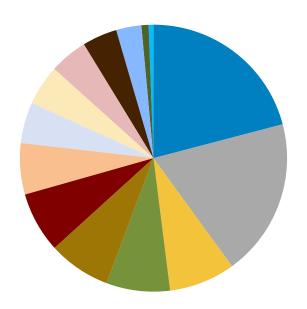
ocation			Allocation		
Segments	Market Value	Allocation	Segments	Market Value	Allocation
■ Domestic Equity	14,625,439	41.9	Domestic Equity	15,056,554	42.8
International Equity	5,372,734	15.4	International Equity	5,231,416	14.9
Domestic Fixed Income	8,191,252	23.5	Domestic Fixed Income	8,193,820	23.3
Global Fixed Income	1,612,904	4.6	Global Fixed Income	1,747,780	5.0
Real Estate	1,613,152	4.6	Real Estate	1,610,673	4.6
Tactical Strategies	2,757,433	7.9	Tactical Strategies	2,788,180	7.9
Private Equity	194,461	0.6	Private Equity	197,409	0.6
Cash Equivalent	540,112	1.5	Cash Equivalent	324,698	0.9



Asset Allocation By Manager as of September 30, 2016 : \$34,907,488

Asset Allocation By Manager as of December 31, 2016 : \$35,150,532





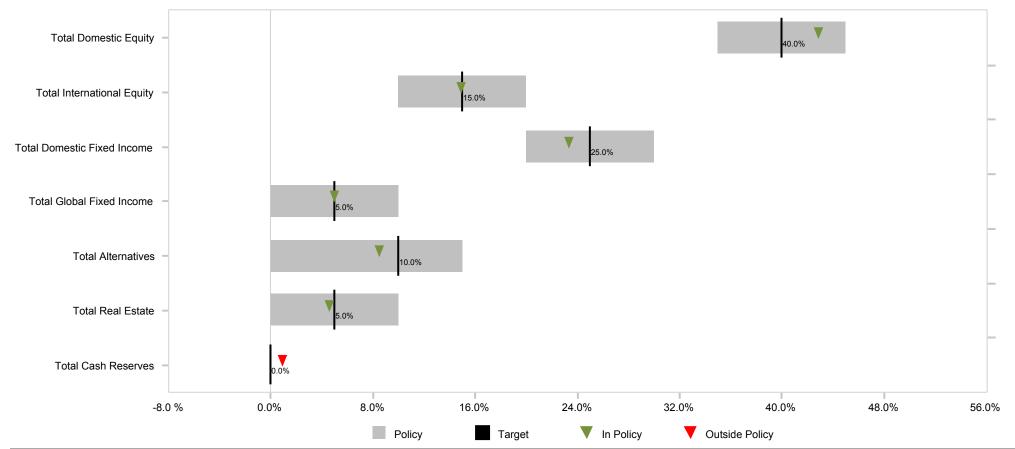
llocation			Allocation		
	Market Value	Allocation		Market Value	Allocation
■ Vanguard Index 500 (VFIAX)	7,077,050	20.3	■ Vanguard Index 500 (VFIAX)	7,347,481	20.9
■ Dodge & Cox Income Fund (DODIX)	6,796,190	19.5	Dodge & Cox Income Fund (DODIX)	6,711,641	19.1
Harbor Capital Appreciation (HNACX)	2,763,874	7.9	Delaware Value Fund (DDVIX)	2,815,699	8.0
Delaware Value Fund (DDVIX)	2,717,824	7.8	Harbor Capital Appreciation (HNACX)	2,710,713	7.7
■ American Funds EuroPacific Gr R6 (RERGX)	2,689,184	7.7	Vanguard International Value (VTRIX)	2,653,788	7.5
Vanguard International Value (VTRIX)	2,683,551	7.7	American Funds EuroPacific Gr R6 (RERGX)	2,577,628	7.3
Vanguard Extended Market (VEXAX)	2,066,691	5.9	Vanguard Extended Market (VEXAX)	2,182,661	6.2
Westwood Income Opportunity Fund (WHGIX)	1,703,381	4.9	Templeton Global Total Return (FTTRX)	1,747,780	5.0
ASB (Real Estate)	1,623,204	4.7	Westwood Income Opportunity Fund (WHGIX)	1,716,040	4.9
■ Templeton Global Total Return (FTTRX)	1,612,904	4.6	ASB (Real Estate)	1,620,732	4.6
■ Crescent Direct Lending Fund	1,395,062	4.0	■ Crescent Direct Lending Fund	1,482,179	4.2
■ PIMCO TacOps Fund (TS)	1,054,052	3.0	PIMCO TacOps Fund (TS)	1,072,140	3.1
■ Portfolio Cash Position	351,712	1.0	■ Portfolio Cash Position	307,442	0.9
Franchise Capital Partners III (PE)	194,461	0.6	Franchise Capital Partners III (PE)	197,409	0.6
First National Cash	178,349	0.5	Frost Bank Cash	6,826	0.0
Frost Bank Cash	-	0.0	First National Cash	371	0.0



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	Asset Allocation \$	Current Allocation (%)	Minimum Allocation (%)	Target Allocation (%)	Maximum Allocation (%)	Target Rebal. (\$)	Differences (%)
Total Fund	35,150,532	100.0		100.0		-	0.0
Total Domestic Equity	15,056,554	42.8	35.0	40.0	45.0	-996,342	2.8
Total International Equity	5,231,416	14.9	10.0	15.0	20.0	41,164	-0.1
Total Domestic Fixed Income	8,193,820	23.3	20.0	25.0	30.0	593,812	-1.7
Total Global Fixed Income	1,747,780	5.0	0.0	5.0	10.0	9,746	0.0
Total Alternatives	2,985,589	8.5	0.0	10.0	15.0	529,464	-1.5
Total Real Estate	1,620,732	4.6	0.0	5.0	10.0	136,795	-0.4
Total Cash Reserves	314,639	0.9	0.0	0.0	0.0	-314,639	0.9

### **Allocation Summary**





### Killeen Firefighters' Relief and Retirement Fund Financial Reconciliation

1 Quarter Ending December 31, 2016

Financial Reconciliation Quarter to Date					••	0.11			
	Market Value 10/01/2016	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Market Value 12/31/2016
Total Equity	19,998,174	-	-	-	-	-	355,281	-65,484	20,287,970
Total Domestic Equity	14,625,439	_	-	_	-	-	254,441	176,674	15,056,554
Vanguard Extended Market (VEXAX)	2,066,691	-	-	-	-	-	12,238	103,732	2,182,661
Vanguard Index 500 (VFIAX)	7,077,050	-	_	_	-	_	46,129	224,302	7,347,481
Harbor Capital Appreciation (HNACX)	2,763,874	-	_	_	-	_	161,588	-214,750	2,710,713
Delaware Value Fund (DDVIX)	2,717,824	-	-	-	-	-	34,485	63,391	2,815,699
Total International Equity	5,372,734	_	-	_	-	-	100,840	-242,159	5,231,416
Vanguard International Value (VTRIX)	2,683,551	-	_	_	-	_	59,326	-89,089	2,653,788
American Funds EuroPacific Gr R6 (RERGX)	2,689,184	-	-	-	-	-	41,515	-153,070	2,577,628
Total Fixed Income	9,804,155	55,191	-	-	-221	-19,418	60,183	41,710	9,941,601
Total Domestic Fixed Income	8,191,252	55,191	_	_	-221	-19,418	47,564	-80,547	8,193,820
Dodge & Cox Income Fund (DODIX)	6,796,190	-	_	_		-	47,564	-132,112	6,711,641
*Crescent Direct Lending Fund	1,395,062	55,191	-	-	-221	-19,418	-	51,565	1,482,179
Total Global Fixed Income	1,612,904	_	_	_	_	_	12,620	122,257	1,747,780
Templeton Global Total Return (FTTRX)	1,612,904	-	-	-	-	-	12,620	122,257	1,747,780
Total Alternatives	2,951,894	-1,440	-	-	-4,116	•	46,203	-6,951	2,985,589
Total Private Equity	194,461	-1,440	_	_	-	_	1,440	2,948	197,409
*Franchise Capital Partners III (PE)	194,461	-1,440	-	-	-	-	1,440	2,948	197,409
Total Tactical Strategies	2,757,433	_	-	_	-4,116	-	44,763	-9,899	2,788,180
PIMCO TacOps Fund (TS)	1,054,052	_	_	_	-4,116	_	33,237	-11,033	1,072,140
Westwood Income Opportunity Fund (WHGIX)	1,703,381	-	-	-	-	-	11,526	1,134	1,716,040
Total Real Estate	1,623,204	-10,051	-	-	-5,081	-	15,140	-2,480	1,620,732
ASB (Real Estate)	1,623,204	-10,051	-	-	-5,081	-	15,140	-2,480	1,620,732
Total Cash Reserves	530,061	-43,700	20,000	-191,152	-	-854	284	-	314,639
Portfolio Cash Position	351,712	-43,700	-	-	-	-854	284	-	307,442
First National Cash	178,349	-	-	-177,979	-	-	-	-	371
Frost Bank Cash	-	-	20,000	-13,174	-	-	-	-	6,826
Total Fund	34,907,488	-	20,000	-191,152	-9,418	-20,272	477,090	-33,205	35,150,532

<sup>\*</sup>Market Value information for Franchise Capital Partners III and Crescent Direct Lending Fund is provided quarterly and reflects data as of the prior quarter end.

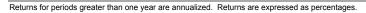


**Financial Reconciliation Fiscal Year to Date** Management **Market Value** Net Other Apprec./ Market Value Contributions **Distributions** Income 01/01/2016 **Transfers** Fees **Expenses** Deprec. 12/31/2016 **Total Equity** 18.347.883 350.000 509.242 1.080.845 20.287.970 **Total Domestic Equity** 13,636,232 408,402 1.011.921 15.056.554 Vanguard Extended Market (VEXAX) 1.879.485 30.923 272.253 2.182.661 Vanguard Index 500 (VFIAX) 6,564,574 146,381 636.527 7,347,481 Harbor Capital Appreciation (HNACX) 2.739.100 161.588 -189.976 2.710.713 Delaware Value Fund (DDVIX) 2,453,072 69,509 293,118 2,815,699 **Total International Equity** 4,711,651 350,000 100,840 68.924 5,231,416 Vanguard International Value (VTRIX) 2,324,495 200,000 59,326 69,967 2,653,788 American Funds EuroPacific Gr R6 (RERGX) 2,387,156 150,000 41,515 -1,0422,577,628 **Total Fixed Income** 9,735,312 -451,684 -221 -66,649 273,782 451,061 9,941,601 8,234,602 356.187 **Total Domestic Fixed Income** -551,684 -221 -66,649 221.585 8.193.820 7,272,199 -962,655 221,585 180,512 Dodge & Cox Income Fund (DODIX) 6,711,641 \*Crescent Direct Lending Fund 962,403 410.971 -221 -66.649 175,675 1,482,179 **Total Global Fixed Income** 1,500,710 100,000 52,197 94.874 1,747,780 Templeton Global Total Return (FTTRX) 1.500.710 100.000 52.197 94.874 1.747.780 **Total Alternatives** 2,933,686 -164,371 -22,585 200,649 38,210 2,985,589 190,572 -9,630 6,390 10,077 **Total Private Equity** 197,409 \*Franchise Capital Partners III (PE) 190,572 -9,630 6,390 10,077 197,409 **Total Tactical Strategies** 2,639,480 -50,974 -22,585 194,126 28,133 2,788,180 PIMCO TacOps Fund (TS) 1,030,621 -50,974-22,585 161,470 -46,392 1,072,140 Westwood Income Opportunity Fund (WHGIX) 1,608,859 32,656 74,525 1,716,040 **Total Real Estate** 1.589.949 -10.169 30.280 10.673 1.620.732 ASB (Real Estate) 1.589.949 -10.169 30.280 10.673 1.620.732 -1.323.894 **Total Cash Reserves** 1.356.766 1.991.011 -1.707.117 -3.400 1.257 16 314.639 Portfolio Cash Position 548.706 -723.894 484.642 -3.2691.257 307.442 First National Cash 808,060 -600,000 1,486,368 -1.693.943 -130 16 371 Frost Bank Cash 20,000 -13,174 6.826 **Total Fund** 32,373,647 1.991.011 -1,707,117 -32.975 -70.049 1.015.209 1.580.805 35,150,532



<sup>\*</sup>Market Value information for Franchise Capital Partners III and Crescent Direct Lending Fund is provided quarterly and reflects data as of the prior quarter end.

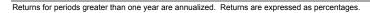
Comparative Performance Trailing Returns													
	Q	ΓR	1 \	′R	2 \	/R	3 \	/R	4 Y	'R	Incep	otion	Inceptior Date
Total Fund (Gross of Fees)	1.28	(26)	7.93	(34)	4.00	(34)	3.54	(89)	4.66	(97)	5.48	(98)	01/01/2010
Total Fund IPS Benchmark	0.46	(64)	7.51	(44)	3.58	(53)	4.56	(52)	6.47	(82)	7.10	(87)	
Difference	0.82		0.42		0.42		-1.02		-1.81		-1.62		
All Public Plans-Total Fund Median	0.76		7.29		3.62		4.60		7.59		7.99		
Total Fund (Net of Fees)	1.25		7.83		3.90		3.42		4.50		5.25		01/01/2010
Total Fund IPS Benchmark	0.46		7.51		3.58		4.56		6.47		7.10		
Difference	0.79		0.32		0.32		-1.14		-1.97		-1.85		
Total Equity	1.45		8.35		3.77		3.61		7.08		7.12		01/01/2010
Total Equity Benchmark	2.77		10.67		4.65		5.77		11.07		10.34		
Difference	-1.32		-2.32		-0.88		-2.16		-3.99		-3.22		
Total Domestic Equity	2.95		10.42		6.45		6.48		12.02		11.05		01/01/2010
Total Domestic Equity Benchmark	4.21		12.74		6.43		8.43		14.23		12.92		
Difference	-1.26		-2.32		0.02		-1.95		-2.21		-1.87		
Vanguard Extended Market (VEXAX)	5.61	(92)	16.13	(79)	N/A		N/A		N/A		4.93	(74)	05/01/2015
S&P Completion Index	5.55	(93)	15.95	(81)	5.86	(67)	6.41	(54)	13.60	(47)	4.77	(77)	
Difference	0.06		0.18		N/A		N/A		N/A		0.16		
IM U.S. SMID Cap Core Equity (MF) Median	8.84		19.96		7.11		6.57		13.28		7.28		
Vanguard Index 500 (VFIAX)	3.82	(46)	11.93	(29)	6.51	(18)	N/A		N/A		8.71	(12)	03/01/2014
S&P 500 Index	3.82	(46)	11.96	(29)	6.54	(18)	8.87	(7)	14.33	(10)	9.05	(7)	
Difference	0.00		-0.03		-0.03		N/A		N/A		-0.34		
IM U.S. Large Cap Core Equity (MF) Median	3.71		10.23		5.12		7.31		12.94		7.39		
Harbor Capital Appreciation (HNACX)	-1.92	(67)	-1.04	(78)	4.80	(30)	6.49	(41)	13.55	(23)	11.62	(36)	01/01/2010
Russell 1000 Growth Index	1.01	(16)	7.08	(7)	6.37	(10)	8.55	(8)	14.31	(11)	13.03	(8)	
Difference	-2.93		-8.12		-1.57		-2.06		-0.76		-1.41		
IM U.S. Large Cap Growth Equity (MF) Median	-1.24		2.00		3.93		6.06		12.46		11.12		
Delaware Value Fund (DDVIX)	3.60	(95)	14.78	(43)	N/A		N/A		N/A		9.28	(9)	07/01/2015
Russell 1000 Value Index	6.68	(58)	17.34	(23)	6.23	(20)	8.59	(7)	14.13	(17)	8.84	(15)	
Difference	-3.08		-2.56		N/A		N/A		N/A		0.44		
IM U.S. Large Cap Value Equity (MF) Median	6.86		14.04		4.79		6.80		12.81		6.27		







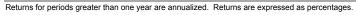
	Q <sup>-</sup>	ΓR	1 \	′R	2 \	<b>Y</b> R	3 \	ΥR	4 \	/R	Ince	otion	Inception Date
Total International Equity	-2.63		2.74		-3.73		-3.79		-2.07		-0.08		01/01/2010
Total International Equity Benchmark	-1.20		5.01		-0.25		-1.32		2.70		3.39		
Difference	-1.43		-2.27		-3.48		-2.47		-4.77		-3.47		
Vanguard International Value (VTRIX)	-1.11	(22)	4.46	(35)	-1.14	(52)	-3.03	(67)	2.73	(46)	2.97	(58)	01/01/2010
Vanguard International Value Hybrid	-1.20	(23)	5.01	(32)	-0.25	(39)	-1.32	(36)	2.70	(46)	3.00	(57)	
Difference	0.09		-0.55		-0.89		-1.71		0.03		-0.03		
IM International Equity (MF) Median	-3.86		1.77		-1.00		-2.10		2.42		3.24		
American Funds EuroPacific Gr R6 (RERGX)	-4.15	(52)	1.01	(18)	N/A		N/A		N/A		3.20	(32)	10/01/2015
MSCI AC World ex USA	-1.20	(6)	5.01	(4)	-0.25	(42)	-1.32	(49)	2.70	(60)	6.73	(12)	
Difference	-2.95		-4.00		N/A		N/A		N/A		-3.53		
IM International Large Cap Growth Equity (MF) Median	-4.14		-0.38		-0.52		-1.41		2.92		2.54		
Total Fixed Income	1.04		7.57		3.94		3.90		2.11		4.30		01/01/2010
Total Fixed Income Benchmark	-3.68		2.56		1.23		2.49		1.32		3.31		
Difference	4.72		5.01		2.71		1.41		0.79		0.99		
Total Domestic Fixed Income	-0.40		7.19		4.25		4.22		2.61		4.06		01/01/2010
Total Domestic Fixed Income Benchmark	-2.98		2.65		1.59		3.03		1.74		3.63		
Difference	2.58		4.54		2.66		1.19		0.87		0.43		
Dodge & Cox Income Fund (DODIX)	-1.24	(3)	5.61	(2)	2.47	(5)	N/A		N/A		2.59	(9)	10/01/2014
Bloomberg Barclays U.S. Aggregate Index	-2.98	(70)	2.65	(59)	1.59	(37)	3.03	(30)	1.74	(35)	2.22	(23)	
Difference	1.74		2.96		0.88		N/A		N/A		0.37		
IM U.S. Broad Market Core Fixed Income (MF) Median	-2.73		2.82		1.45		2.78		1.57		1.88		
*Crescent Direct Lending Fund	3.68		15.09		19.95		N/A		N/A		11.55		10/01/2014
Total Global Fixed Income	8.36		8.81		1.92		N/A		N/A		N/A		11/01/2013
Total Global Fixed Income Benchmark	-7.07		2.09		-0.57		-0.19		-0.79		-0.62		
Difference	15.43		6.72		2.49		N/A		N/A		N/A		
Templeton Global Total Return (FTTRX)	8.36	(1)	8.81	(4)	1.92	(20)	N/A		N/A		0.98	(28)	12/01/2014
Blmbg.Barc. Global Multiverse	-6.68	(76)	2.84	(55)	-0.27	(55)	-0.02	(62)	-0.57	(54)	-0.65	(51)	
Difference	15.04		5.97		2.19		N/A		N/A		1.63		
IM Global Fixed Income (MF) Median	-4.13		3.43		-0.14		0.34		-0.42		-0.62		



<sup>\*</sup>Return information for Franchise Capital Partners III and Crescent Direct Lending Fund is provided quarterly and reflects data as of the prior quarter end.



	Qī	ΓR	1 \	′R	2 `	<b>Y</b> R	3 \	/R	4 \	′R	Ince	otion	Inceptio Date
Total Alternatives	1.19		7.57		5.22		2.43		5.21		3.58		01/01/2010
Total Alternatives Benchmark	1.66		5.31		3.58		3.44		4.24		4.21		
Difference	-0.47		2.26		1.64		-1.01		0.97		-0.63		
*Franchise Capital Partners III (PE)	2.27		8.95		9.09		-1.20		4.07		7.99		07/01/2009
Russell 3000 Index	4.21		12.74		6.43		8.43		14.23		15.17		
Difference	-1.94		-3.79		2.66		-9.63		-10.16		-7.18		
PIMCO TacOps Fund (TS)	2.11		11.74		9.70		N/A		N/A		8.93		07/01/2014
CPI + 5%	1.99		7.20		6.44		6.19		6.29		6.02		
Difference	0.12		4.54		3.26		N/A		N/A		2.91		
Westwood Income Opportunity Fund (WHGIX)	0.74	(30)	6.66	(44)	N/A		N/A		N/A		2.83	(31)	07/01/2015
WW Income Fund Index	-1.55	(79)	5.36	(61)	2.92	(27)	6.34	(7)	6.29	(25)	4.65	(13)	
Difference	2.29		1.30		N/A		N/A		N/A		-1.82		
IM Flexible Portfolio (MF) Median	-0.24		6.19		1.42		2.14		4.39		1.15		
Total Real Estate	0.78		N/A		N/A		N/A		N/A		2.57		07/01/2016
Total Real Estate Benchmark	2.16		N/A		N/A		N/A		N/A		4.39		
Difference	-1.38		N/A		N/A		N/A		N/A		-1.82		
ASB (Real Estate)	0.78	(86)	N/A		N/A		N/A		N/A		2.57	(86)	07/01/2016
NCREIF Fund Index-Open End Diversified Core (EW)	2.16	(55)	9.27	(48)	12.18	(44)	12.21	(64)	12.49	(73)	4.39	(50)	
Difference	-1.38		N/A		N/A	, ,	N/A		N/A		-1.82	. ,	
IM U.S. Open End Private Real Estate (SA+CF) Median	2.21		9.19		12.00		12.66		13.23		4.38		







Comparative Performance Fiscal Year to Date														
	FY		20 <sup>-</sup>		20 <sup>-</sup>		20		20	12	20		20 <sup>-</sup>	10
Total Fund (Gross of Fees)	7.93	(34)	0.21	(46)	2.64	(99)	8.09	(98)	9.23	(96)	-1.19	(80)	12.21	(66)
Total Fund IPS Benchmark	7.51	(44)	-0.21	(57)	6.56	(55)	12.39	(91)	10.66	(87)	2.27	(12)	11.17	(84)
Difference	0.42		0.42		-3.92		-4.30		-1.43		-3.46		1.04	
All Public Plans-Total Fund Median	7.29		0.03		6.76		16.83		12.58		0.20		12.80	
Total Fund (Net of Fees)	7.83		0.12		2.48		7.79		8.82		-1.61		12.08	
Total Fund IPS Benchmark	7.51		-0.21		6.56		12.39		10.66		2.27		11.17	
Difference	0.32		0.33		-4.08		-4.60		-1.84		-3.88		0.91	
Total Equity	8.35		-0.62		3.28		18.23		12.31		-7.13		18.04	
Total Equity Benchmark	10.67		-1.05		8.05		28.60		16.76		-3.01		15.56	
Difference	-2.32		0.43		-4.77		-10.37		-4.45		-4.12		2.48	
Total Domestic Equity	10.42		2.62		6.54		30.43		11.84		-1.60		20.19	
Total Domestic Equity Benchmark	12.74		0.48		12.56		33.55		16.42		1.03		16.93	
Difference	-2.32		2.14		-6.02		-3.12		-4.58		-2.63		3.26	
Vanguard Extended Market (VEXAX)	16.13	(79)	N/A		N/A		N/A		N/A		N/A		N/A	
S&P Completion Index	15.95	(81)	-3.35	(35)	7.50	(24)	38.24	(30)	18.45	(16)	-3.71	(52)	27.46	(25)
Difference	0.18	, ,	N/A	. ,	N/A	. ,	N/A	. ,	N/A	. ,	N/A	, ,	N/A	, ,
IM U.S. SMID Cap Core Equity (MF) Median	19.96		-4.33		5.23		36.27		15.47		-3.60		25.65	
Vanguard Index 500 (VFIAX)	11.93	(29)	1.36	(28)	N/A		N/A		N/A		N/A		N/A	
S&P 500 Index	11.96	(29)	1.38	(28)	13.69	(16)	32.39	(41)	16.00	(39)	2.11	(25)	15.06	(25)
Difference	-0.03		-0.02		N/A		N/A		N/A		N/A		N/A	
IM U.S. Large Cap Core Equity (MF) Median	10.23		-0.43		11.48		31.85		15.41		-0.32		13.16	
Harbor Capital Appreciation (HNACX)	-1.04	(78)	10.99	(6)	9.93	(59)	37.66	(17)	15.69	(43)	0.61	(26)	11.61	(79)
Russell 1000 Growth Index	7.08	(7)	5.67	(49)	13.05	(22)	33.48	(55)	15.26	(47)	2.64	(10)	16.71	(33)
Difference	-8.12		5.32		-3.12		4.18		0.43		-2.03		-5.10	
IM U.S. Large Cap Growth Equity (MF) Median	2.00		5.57		10.52		33.93		14.84		-1.79		15.13	
Delaware Value Fund (DDVIX)	14.78	(43)	N/A		N/A		N/A		N/A		N/A		N/A	
Russell 1000 Value Index	17.34	(23)	-3.83	(51)	13.45	(6)	32.53	(49)	17.51	(25)	0.39	(21)	15.51	(21)
Difference	-2.56		N/A		N/A		N/A		N/A		N/A		N/A	
IM U.S. Large Cap Value Equity (MF) Median	14.04		-3.81		10.80		32.44		15.56		-2.59		12.78	
The Mitchell Group	N/A		N/A		-12.63	(46)	N/A		N/A		N/A		N/A	
Dow Jones Energy Index	N/A		N/A		-21.62	(85)	N/A		N/A		N/A		N/A	
Difference	N/A		N/A		8.99		N/A		N/A		N/A		N/A	
IM Natural Resources Sector (MF) Median	28.94		-23.85		-13.33		25.74		1.70		-8.31		21.01	



Returns for periods greater than one year are annualized. Returns are expressed as percentages.
\*Return information for Franchise Capital Partners III and Crescent Direct Lending Fund is provided quarterly and reflects data as of the prior quarter end.



### **Comparative Performance Total Fund** As of December 31, 2016

	FY	TD	20	15	20	14	20	13	20	12	20	11	20	10
GRT Value Advisor (GRTVX)	N/A		N/A		-0.05	(76)	30.63	(82)	N/A		N/A		N/A	
Russell 2000 Value Index	31.74	(22)	-7.47	(49)	4.22	(33)	34.52	(53)	18.05	(32)	-5.50	(62)	24.50	(62)
Difference	N/A		N/A		-4.27		-3.89		N/A		N/A		N/A	
IM U.S. Small Cap Value Equity (MF) Median	29.62		-7.61		3.10		34.82		15.46		-3.79		25.38	
Morgan Stanley Mid Cap Growth (MPEGX)	N/A		N/A		1.33	(95)	38.35	(20)	9.49	(92)	-6.89	(66)	32.94	(3)
Russell Midcap Growth Index	7.33	(25)	-0.20	(49)	11.90	(12)	35.74	(42)	15.81	(31)	-1.65	(28)	26.38	(43)
Difference	N/A		N/A		-10.57		2.61		-6.32		-5.24		6.56	
IM U.S. Mid Cap Growth Equity (MF) Median	4.71		-0.36		7.28		34.78		14.18		-4.68		25.18	
Total International Equity	2.74		-9.78		-3.91		3.28		19.13		-14.33		5.90	
Total International Equity Benchmark	5.01		-5.25		-3.44		15.78		17.39		-13.33		11.60	
Difference	-2.27		-4.53		-0.47		-12.50		1.74		-1.00		-5.70	
Vanguard International Value (VTRIX)	4.46	(35)	-6.44	(64)	-6.69	(74)	22.15	(28)	20.18	(35)	-14.58	(48)	7.31	(83)
Vanguard International Value Hybrid	5.01	(32)	-5.25	(60)	-3.44	(39)	15.78	(54)	17.39	(64)	-13.33	(36)	8.63	(75)
Difference	-0.55		-1.19		-3.25		6.37		2.79		-1.25		-1.32	
IM International Equity (MF) Median	1.77		-2.78		-4.48		17.37		18.61		-14.89		12.87	
American Funds EuroPacific Gr R6 (RERGX)	1.01	(18)	N/A		N/A		N/A		N/A		N/A		N/A	
MSCI AC World ex USA	5.01	(4)	-5.25	(97)	-3.44	(36)	15.78	(78)	17.39	(67)	-13.33	(46)	11.60	(46)
Difference	-4.00		N/A		N/A		N/A		N/A		N/A		N/A	
IM International Large Cap Growth Equity (MF) Median	-0.38		-0.43		-4.75		19.13		18.97		-13.54		11.17	
Touchstone Emerging Markets Fund (TMEIX)	N/A		N/A		-0.62	(30)	-13.22	(99)	19.27	(46)	-15.20	(14)	N/A	
MSCI Emerging Markets (Net) Index	11.19	(30)	-14.92	(57)	-2.19	(43)	-2.60	(58)	18.23	(56)	-18.42	(36)	18.88	(44)
Difference	N/A		N/A		1.57		-10.62		1.04		3.22		N/A	
IM Emerging Markets Equity (MF) Median	8.30		-14.12		-2.96		-1.45		18.80		-19.51		18.32	



### **Comparative Performance Total Fund** As of December 31, 2016

	FY	TD	20	15	20	14	20	13	20	12	20	11	20	10
Total Fixed Income	7.57		0.44		3.81		-3.06		10.13		2.57		9.32	
Total Fixed Income Benchmark	2.56		-0.08		5.04		-2.12		4.24		7.48		6.40	
Difference	5.01		0.52		-1.23		-0.94		5.89		-4.91		2.92	
Total Domestic Fixed Income	7.19		1.38		4.17		-2.06		7.82		1.68		8.66	
Total Domestic Fixed Income Benchmark	2.65		0.55		5.97		-2.02		4.21		7.84		6.54	
Difference	4.54		0.83		-1.80		-0.04		3.61		-6.16		2.12	
Dodge & Cox Income Fund (DODIX)	5.61	(2)	-0.59	(72)	N/A		N/A		N/A		N/A		N/A	
Bloomberg Barclays U.S. Aggregate Index	2.65	(59)	0.55	(18)	5.97	(26)	-2.02	(52)	4.21	(79)	7.84	(11)	6.54	(68)
Difference	2.96		-1.14		N/A		N/A		N/A		N/A		N/A	
IM U.S. Broad Market Core Fixed Income (MF) Median	2.82		-0.03		5.54		-2.00		5.95		6.68		7.18	
*Crescent Direct Lending Fund	15.09		25.02		N/A		N/A		N/A		N/A		N/A	
Total Global Fixed Income	8.81		-4.53		N/A		N/A		N/A		N/A		N/A	
Total Global Fixed Income Benchmark	2.09		-3.15		0.59		-2.60		4.32		5.64		5.54	
Difference	6.72		-1.38		N/A		N/A		N/A		N/A		N/A	
Templeton Global Total Return (FTTRX)	8.81	(4)	-4.53	(70)	N/A		N/A		N/A		N/A		N/A	
Blmbg.Barc. Global Multiverse	2.84	(55)	-3.29	(41)	0.48	(63)	-2.19	(48)	4.84	(90)	5.55	(23)	5.84	(55)
Difference	5.97		-1.24		N/A		N/A		N/A		N/A		N/A	
IM Global Fixed Income (MF) Median	3.43		-3.80		1.91		-2.47		7.34		4.06		6.00	



	FY	TD	20	15	20 <sup>-</sup>	14	20	13	20	12	20	11	201	10
Total Alternatives	8.39		3.94		-1.90		14.88		-1.85		6.37		3.87	
Total Alternatives Benchmark	5.31		1.88		3.16		6.65		5.51		1.09		6.00	
Difference	3.08		2.06		-5.06		8.23		-7.36		5.28		-2.13	
*Franchise Capital Partners III (PE)	8.95		9.22		-18.97		21.65		3.61		18.41		1.48	
Russell 3000 Index	12.74		0.48		12.56		33.55		16.42		1.03		16.93	
Difference	-3.79		8.74		-31.53		-11.90		-12.81		17.38		-15.45	
Balestra Spectrum (HF) pending redemption	N/A		4.35		0.72		10.68		-5.17		0.77		N/A	
HFRX Global Hedge Fund Index	2.50		-3.64		-0.58		6.72		3.51		-8.87		5.19	
Difference	N/A		7.99		1.30		3.96		-8.68		9.64		N/A	
PIMCO TacOps Fund (TS)	11.74		7.69		N/A		N/A		N/A		N/A		N/A	
CPI + 5%	7.20		5.69		5.70		6.59		6.85		8.22		6.51	
Difference	4.54		2.00		N/A		N/A		N/A		N/A		N/A	
Westwood Income Opportunity Fund (WHGIX)	6.66	(44)	N/A		N/A		N/A		N/A		N/A		N/A	
WW Income Fund Index	5.36	(61)	0.54	(12)	13.51	(3)	6.16	(65)	9.96	(63)	7.30	(3)	13.10	(38)
Difference	1.30		N/A		N/A		N/A		N/A		N/A		N/A	
IM Flexible Portfolio (MF) Median	6.19		-3.61		3.46		11.05		11.35		-1.54		12.13	
Total Real Estate	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Total Real Estate Benchmark	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Difference	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
ASB (Real Estate)	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
NCREIF Fund Index-Open End Diversified Core (EW)	9.27	(48)	15.17	(49)	12.28	(81)	13.34	(62)	11.03	(77)	15.96	(44)	16.14	(46)
Difference	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
IM U.S. Open End Private Real Estate (SA+CF) Median	9.19		15.01		13.66		14.63		12.45		15.78		15.76	



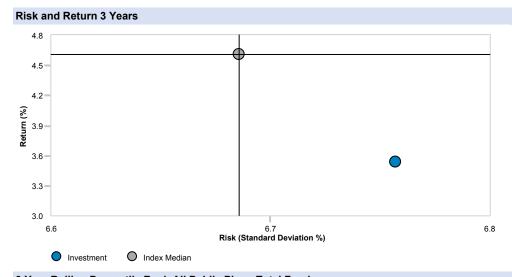
## Comparative Performance - IRR Total Fund As of December 31, 2016

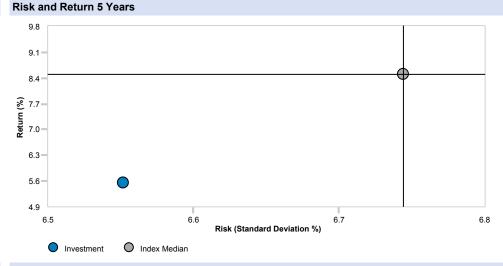
Comparative Performance - IRR							
	QTR	1 YR	2 YR	3 YR	5 YR	Inception	Inception Date
Franchise Capital Partners III (PE)	2.27	8.89	9.28	-4.69	6.35	7.17	06/24/2009
Crescent Direct Lending Fund	2.28	9.29	13.28	N/A	N/A	7.87	10/09/2014

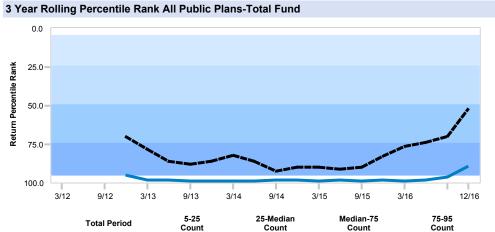


<b>Historical Statist</b>	ics 3 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	3.54	6.76	0.53	N/A	8.00	N/A	4.00
Index Median	4 61	6 69	0.70	N/A	N/A	N/A	N/A

<b>Historical Statist</b>	ics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	5.56	6.55	0.85	N/A	14.00	N/A	6.00
Index Median	8.51	6.74	1.25	N/A	N/A	N/A	N/A







0 (0%)

0 (0%)

0 (0%)

4 (24%)

0 (0%)

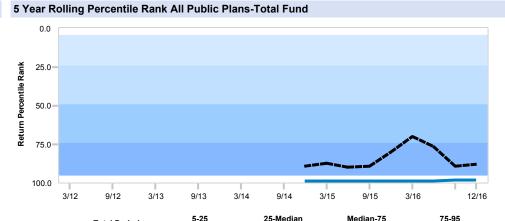
0 (0%)

17

17

Investment

\_\_ Index

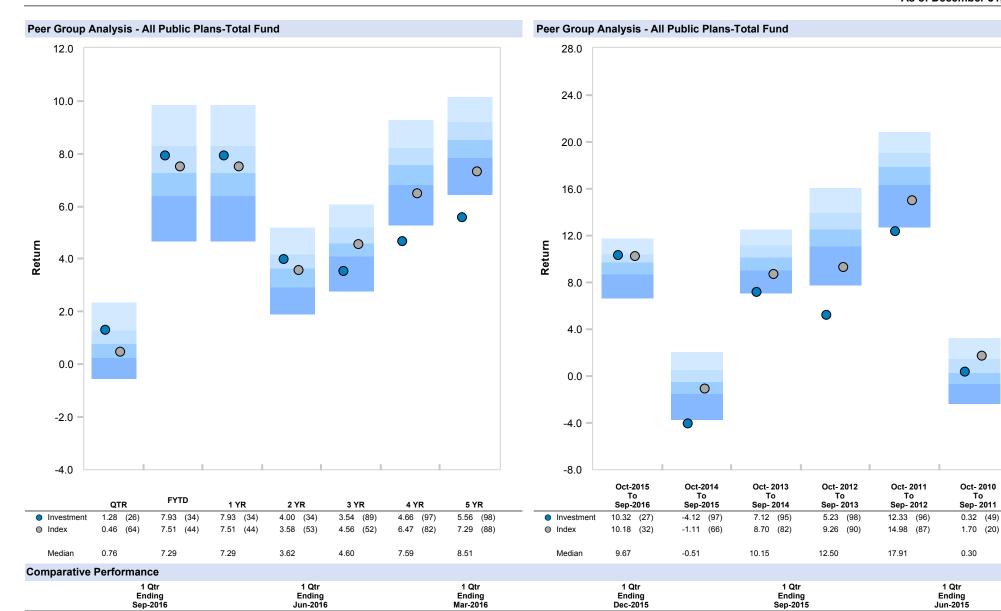


	Total Period	Count	Count	Count	Count
Investment	9	0 (0%)	0 (0%)	0 (0%)	9 (100%)
Index	9	0 (0%)	0 (0%)	1 (11%)	8 (89%)



17 (100%)

13 (76%)



00

-0.01 (41)

-0.11

-0.31 (66)

0

3.53

2.88

2.96 (47)

(17)

-5.51 (70)

-5.03

-4.55 (31)

0.50

1.04

1.67 (18)

(75)

Investment

Median

Index

3.64

3.41

3.21 (59)

(39)

2.31

1.91

1.99 (44)

(25)

#### **Fund Information**

Size of Fund:

Inception:

Final Close:

Type of Fund: Direct Vintage Year: 2013

Strategy Type: Other Management Fee: 1.0% on invested equity capital

Preferred Return:

General Partner: Crescent Direct Lending, LLC

Number of Funds:

Investment Strategy: High Current Income while focusing on preservation of capital through investment primarily in senior secured loans of private U.S. lower-middle-market companies.

### **Cash Flow Summary**

TVPI:

**Capital Committed:** \$2,000,000 Capital Invested: \$2,201,250 Management Fees: \$2,147 Expenses: \$113,351 Interest: **Total Contributions:** \$2,201,250 Remaining Capital Commitment: \$552,934 **Total Distributions:** \$879.102 \$1,482,179 Market Value: **Inception Date:** 10/09/2014 Inception IRR: 7.9

1.1

09/04/2013

09/04/2014





**Fund Information** 

Type of Fund: Partnership Strategy Type: Mezzanine

Size of Fund:

**Inception:** 06/01/2009

Final Close:

Investment Strategy:

Vintage Year: 2009

Management Fee: 2.00% plus 20% Incentive Fee after 8.00% Preferred

Preferred Return: 8.00%

General Partner: Number of Funds:

### **Cash Flow Summary**

 Capital Committed:
 \$1,000,000

 Capital Invested:
 \$911,182

 Management Fees:
 \$37,822

 Expenses:
 \$27,318

 Interest:

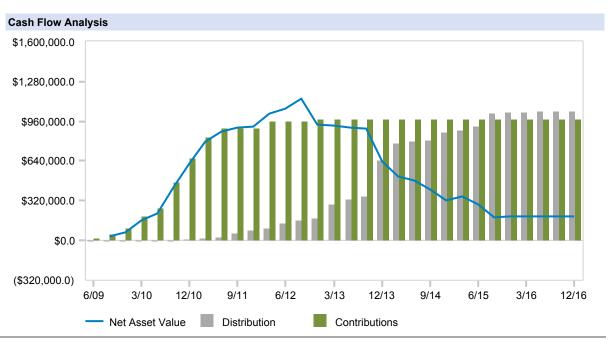
 Total Contributions:
 \$976,322

 Remaining Capital Commitment:
 \$23,678

**Total Distributions:** \$1,037,757 **Market Value:** \$197,409

Inception Date: 06/24/2009
Inception IRR: 7.2

Inception IRR: 7.2 TVPI: 1.3





Comparative Performance Trailing Returns						
	1 YR	3 YR	5 YR	7 YR	10 YR	15 YR
Vanguard Ext Mk Id;Adm (VEXAX)	16.13	6.51	14.65	13.56	7.95	9.31
S&P Completion Index	15.95	6.41	14.55	13.46	7.84	N/A
IM U.S. SMID Cap Core Equity (MF) Median	19.96	6.57	13.73	12.48	7.08	8.69
Vanguard 500 Index;Adm (VFIAX)	11.93	8.84	14.62	12.80	6.94	6.68
S&P 500 Index	11.96	8.87	14.66	12.83	6.95	6.69
IM U.S. Large Cap Core Equity (MF) Median	10.23	7.31	13.40	11.36	6.13	6.03
Harbor:Cap Apprec;Inst (HACAX)	-1.07	6.48	13.96	11.62	8.01	6.28
Russell 1000 Growth Index	7.08	8.55	14.50	13.03	8.33	6.42
IM U.S. Large Cap Growth Equity (MF) Median	2.00	6.06	12.90	11.12	7.19	5.76
Delaware Value;Inst (DDVIX)	14.78	9.15	14.72	14.09	6.81	7.71
Russell 1000 Value Index	17.34	8.59	14.80	12.72	5.72	7.41
IM U.S. Large Cap Value Equity (MF) Median	14.04	6.80	13.54	10.96	5.07	6.62
Vanguard Intl Val;Inv (VTRIX)	4.46	-3.03	6.01	2.97	0.75	5.96
Vanguard International Value Hybrid	5.01	-1.32	5.48	3.00	0.35	5.14
IM International Equity (MF) Median	1.77	-2.10	5.52	3.24	0.97	6.03
American Funds EuPc;A (AEPGX)	0.66	-0.94	6.84	4.00	2.62	6.65
MSCI AC World ex USA	5.01	-1.32	5.48	3.39	1.42	6.33
IM International Large Cap Growth Equity (MF) Median	-0.38	-1.41	6.01	3.99	1.88	5.70
Dodge & Cox Income (DODIX)	5.61	3.46	3.77	4.39	5.05	5.19
Bloomberg Barclays U.S. Aggregate Index	2.65	3.03	2.23	3.63	4.34	4.58
IM U.S. Broad Market Core Fixed Income (MF) Median	2.82	2.78	2.42	3.72	4.12	4.35
Templeton GI Tot Rtn;Adv (TTRZX)	8.66	1.40	5.25	5.71	N/A	N/A
Blmbg.Barc. Global Multiverse	2.84	-0.02	0.49	1.95	3.44	4.96
IM Global Fixed Income (MF) Median	3.43	0.34	1.32	2.32	3.39	4.68
Westwood Income Opp;Inst (WHGIX)	6.66	4.27	6.98	7.94	6.26	N/A
WW Income Fund Index	5.36	6.34	7.02	7.91	5.25	N/A
IM Flexible Portfolio (MF) Median	6.19	2.14	5.99	5.94	4.18	5.17
IIVI FIEXIDIE FOLLIOIIO (IVIF) IVIEUIAII	0.19	2.14	5.99	5.94	4.10	5.17



Comparative Performance Fiscal Year Returns							
	YTD	2015	2014	2013	2012	2011	2010
Vanguard Ext Mk Id;Adm (VEXAX)	16.13	-3.27	7.56	38.37	18.48	-3.59	27.57
S&P Completion Index	15.95	-3.35	7.50	38.24	18.45	-3.71	27.46
IM U.S. SMID Cap Core Equity (MF) Median	19.96	-4.33	5.23	36.27	15.47	-3.60	25.65
Vanguard 500 Index;Adm (VFIAX)	11.93	1.36	13.64	32.33	15.96	2.08	15.05
S&P 500 Index	11.96	1.38	13.69	32.39	16.00	2.11	15.06
IM U.S. Large Cap Core Equity (MF) Median	10.23	-0.43	11.48	31.85	15.41	-0.32	13.16
Harbor:Cap Apprec;Inst (HACAX)	-1.07	10.99	9.93	37.66	15.69	0.61	11.61
Russell 1000 Growth Index	7.08	5.67	13.05	33.48	15.26	2.64	16.71
IM U.S. Large Cap Growth Equity (MF) Median	2.00	5.57	10.52	33.93	14.84	-1.79	15.13
Delaware Value;Inst (DDVIX)	14.78	-0.35	13.69	33.44	14.48	9.14	16.03
Russell 1000 Value Index	17.34	-3.83	13.45	32.53	17.51	0.39	15.51
IM U.S. Large Cap Value Equity (MF) Median	14.04	-3.81	10.80	32.44	15.56	-2.59	12.78
Vanguard Intl Val;Inv (VTRIX)	4.46	-6.44	-6.69	22.15	20.18	-14.58	7.31
Vanguard International Value Hybrid	5.01	-5.25	-3.44	15.78	17.39	-13.33	8.63
IM International Equity (MF) Median	1.77	-2.78	-4.48	17.37	18.61	-14.89	12.87
American Funds EuPc;A (AEPGX)	0.66	-0.82	-2.64	20.15	19.21	-13.58	9.40
MSCI AC World ex USA	5.01	-5.25	-3.44	15.78	17.39	-13.33	11.60
IM International Large Cap Growth Equity (MF) Median	-0.38	-0.43	-4.75	19.13	18.97	-13.54	11.17
Dodge & Cox Income (DODIX)	5.61	-0.59	5.48	0.64	7.94	4.76	7.17
Bloomberg Barclays U.S. Aggregate Index	2.65	0.55	5.97	-2.02	4.21	7.84	6.54
IM U.S. Broad Market Core Fixed Income (MF) Median	2.82	-0.03	5.54	-2.00	5.95	6.68	7.18
Templeton GI Tot Rtn;Adv (TTRZX)	8.66	-4.64	0.62	3.81	19.31	-0.91	15.31
Blmbg.Barc. Global Multiverse	2.84	-3.29	0.48	-2.19	4.84	5.55	5.84
IM Global Fixed Income (MF) Median	3.43	-3.80	1.91	-2.47	7.34	4.06	6.00
Westwood Income Opp;Inst (WHGIX)	6.66	-2.57	9.10	14.49	7.95	7.10	13.77
WW Income Fund Index	5.36	0.54	13.51	6.16	9.96	7.30	13.10
IM Flexible Portfolio (MF) Median	6.19	-3.61	3.46	11.05	11.35	-1.54	12.13



	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
Vanguard Extended Market (VEXAX)	0.10	2,182,661	2,183	0.10 % of Assets
Vanguard Index 500 (VFIAX)	0.05	7,347,481	3,674	0.05 % of Assets
Harbor Capital Appreciation (HNACX)	0.65	2,710,713	17,620	0.65 % of Assets
Delaware Value Fund (DDVIX)	0.74	2,815,699	20,836	0.74 % of Assets
Total Domestic Equity	0.29	15,056,554	44,312	
Vanguard International Value (VTRIX)	0.44	2,653,788	11,677	0.44 % of Assets
American Funds EuroPacific Gr R6 (RERGX)	0.49	2,577,628	12,630	0.49 % of Assets
Total International Equity	0.46	5,231,416	24,307	
Dodge & Cox Income Fund (DODIX)	0.43	6,711,641	28,860	0.43 % of Assets
Crescent Direct Lending Fund	1.35	1,482,179	20,009	1.35 % of Assets
Total Domestic Fixed Income	0.60	8,193,820	48,869	
Templeton Global Total Return (FTTRX)	0.66	1,747,780	11,535	0.66 % of Assets
Total Global Fixed Income	0.66	1,747,780	11,535	
Franchise Capital Partners III (PE)		197,409	-	
Total Private Equity		197,409	-	
PIMCO TacOps Fund (TS)	1.25	1,072,140	13,402	1.25 % of Assets
Westwood Income Opportunity Fund (WHGIX)	0.84	1,716,040	14,415	0.84 % of Assets
Total Tactical Strategies	1.00	2,788,180	27,816	
ASB (Real Estate)	1.25	1,620,732	20,259	1.25 % of First \$5 M 1.00 % Thereafter
Total Real Estate	1.25	1,620,732	20,259	
Total Cash Reserves		314,639	-	
Total Fund	0.50	35,150,532	177,100	



Total Fund Historical Hybrid Composition		Total Equity Portfolio Historical Hybrid Composit	tion	
Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)	
Jan-2010		Jan-2010		
Russell 3000 Index	32.50	Russell 3000 Index	73.00	
MSCI AC World ex USA	16.00	MSCI AC World ex USA	27.00	
Bloomberg Barclays U.S. Aggregate Index	34.50			
Bloomberg Barclays Global Aggregate	7.00			
CPI + 5%	10.00			
Jul-2014		Total Fixed Income Portfolio Historical Hybrid Composition		
Russell 3000 Index	41.50	Allocation Mandate	Weight (%)	
MSCI AC World ex USA	15.00	Jan-2010		
Bloomberg Barclays U.S. Aggregate Index	30.00	Bloomberg Barclays U.S. Aggregate Index	83.00	
Bloomberg Barclays Global Aggregate	5.00	Bloomberg Barclays Global Aggregate	17.00	
HFRX Global Hedge Fund Index	3.50			
CPI + 5%	5.00			

Vanguard International Value Fund Historical Hybrid Composition		Total Alternative Investments Historical Hybri	Total Alternative Investments Historical Hybrid Composition		
Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)		
Jan-1970		Jan-2010			
MSCI EAFE Index	100.00	CPI + 5%	60.00		
		HFRX Global Hedge Fund Index	40.00		
Jun-2010					
MSCI AC World ex USA	100.00				



<b>Total Domestic Equity Historical Hyb</b>	Т	
Allocation Mandate	Weight (%)	A
Jan-2010		J
Russell 3000 Index	100.00	E

Total Domestic Fixed Income Historical Hybrid Composition				
Allocation Mandate	Weight (%)			
Jan-2010				
Bloomberg Barclays U.S. Aggregate Index	100.00			

Total International Equity Historical Hybrid Composition		
Allocation Mandate Weight (%)		
Jan-2010		
MSCI AC World ex USA	100.00	

Total Global Fixed Income Historical Hybrid Composition				
Allocation Mandate	Weight (%)			
Jan-2010				
Bloomberg Barclays Global Aggregate	100.00			

Total Real Estate Portfolio Historical Hybrid Composition				
Allocation Mandate	Weight (%)			
Jun-2016				
NCREIF Fund Index-Open End Diversified Core (EW)	100.00			



- Historical data has been recreated using monthly statements from Fidelity with an inception date of January 1, 2010.
- The Total Fund IPS Benchmark is constructed using the allocations in the new Investment Policy Statement recently approved.



**Active Return** 

- Arithmetic difference between the manager's performance and the designated benchmark return over a specified time period.

Alpha

- A measure of the difference between a portfolio's actual performance and its expected return based on its level of risk as determined by beta. It determines the portfolio's non-systemic return, or its historical performance not explained by movements of the market.

Beta

- A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.

Consistency

- The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. Higher consistency indicates the manager has contributed more to the product's performance.

Distributed to Paid In (DPI)

- The ratio of money distributed to Limited Partners by the fund, relative to contributions. It is calculated by dividing cumulative distributions by paid in capital. This multiple shows the investor how much money they got back. It is a good measure for evaluating a fund later in its life because there are more distributions to measure against.

**Down Market Capture** 

- The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance

**Downside Risk** 

- A measure similar to standard deviation that utilizes only the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. A higher factor is indicative of a riskier product.

**Excess Return** 

- Arithmetic difference between the manager's performance and the risk-free return over a specified time period.

Excess Risk

- A measure of the standard deviation of a portfolio's performance relative to the risk free return.

Information Ratio

- This calculates the value-added contribution of the manager and is derived by dividing the active rate of return of the portfolio by the tracking error. The higher the Information Ratio, the more the manager has added value to the portfolio.

**Public Market Equivalent (PME)** 

- Designs a set of analyses used in the Private Equity Industry to evaluate the performance of a Private Equity Fund against a public benchmark or index.

R-Squared

- The percentage of a portfolio's performance that can be explained by the behavior of the appropriate benchmark. A high R-Squared means the portfolio's performance has historically moved in the same direction as the appropriate benchmark.

Return

- Compounded rate of return for the period.

**Sharpe Ratio** 

- Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is an absolute rate of return per unit of risk. A higher value demonstrates better historical risk-adjusted performance.

**Standard Deviation** 

- A statistical measure of the range of a portfolio's performance. It represents the variability of returns around the average return over a specified time period.

Total Value to Paid In (TVPI)

- The ratio of the current value of remaining investments within a fund, plus the total value of all distributions to date, relative to the total amount of capital paid into the fund to date. It is a good measure of performance before the end of a fund's life

**Tracking Error** 

- This is a measure of the standard deviation of a portfolio's returns in relation to the performance of its designated market benchmark.

**Treynor Ratio** 

- Similar to Sharpe ratio but utilizes beta rather than excess risk as determined by standard deviation. It is calculated by taking the excess rate of return above the risk free rate divided by beta to derive the absolute rate of return per unit of risk. A higher value indicates a product has achieved better historical risk-adjusted performance.

**Up Market Capture** 

- The ratio of average portfolio performance over the designated benchmark during periods of positive returns. A higher value indicates better product performance.



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