

Investment Performance Review
Period Ending March 31, 2019

Delray Beach Firefighters' Retirement System

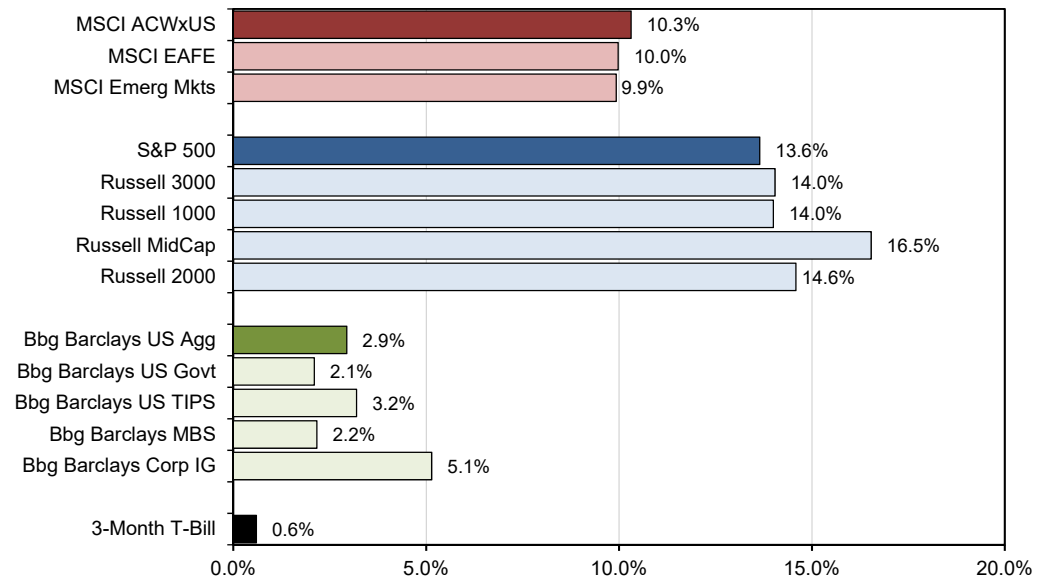


1st Quarter 2019 Market Environment

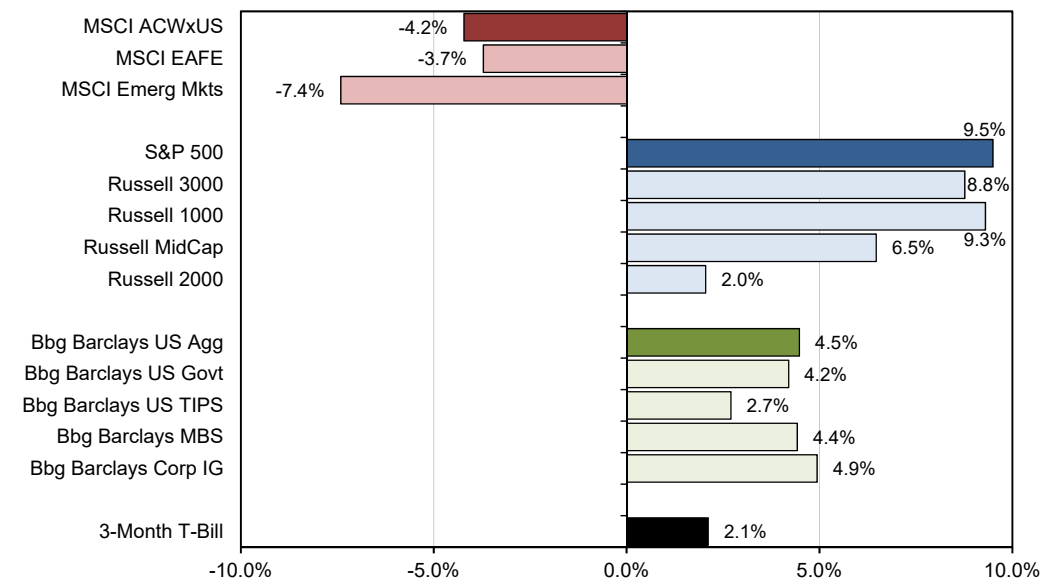


- After a difficult end to 2018, markets rebounded strongly during the 1st quarter of 2019 with higher risk assets posting the greatest returns. Broad international and domestic equity markets had double-digit gains during the period as investors overlooked signs of weakening global growth in favor of increased accommodation in global monetary policy and progress in global trade negotiations. While muted relative to equities, fixed income returns were also positive during the quarter. Within equities, domestic stocks outperformed international markets. US markets pushed higher as the US Federal Reserve (Fed) shifted their stance on monetary policy toward a more accommodative posture, the US and China moved closer to a resolution of their ongoing trade dispute and the partial government shutdown that began in December came to an end. The large cap S&P 500 Index returned 13.6% during the quarter while the small cap Russell 2000 Index gained 14.6% for the period. US equity returns over the 1-year period are positive with the S&P 500 appreciating 9.5% while the Russell 2000 posted a more modest gain of 2.0%.
- Similar to US markets, international equity investors were encouraged by a general easing in central bank monetary policy, including new stimulus measures in Europe and China, as well as the de-escalation of trade tensions with the US. Despite the continued softening in global macroeconomic data and the lack of certainty around Brexit, international equity index returns finished the quarter in positive territory with the MSCI ACWI ex US Index returning 10.3%. The developed market MSCI EAFE Index and the MSCI Emerging Markets Index had similar performance during the 1st quarter returning 10.0% and 9.9% respectively. Despite the strong quarter, returns over the 1-year period remain negative with developed markets falling -3.7%, outperforming emerging markets which fell -7.4%.
- Fixed income securities underperformed equities to start 2019 with the broad market Bloomberg Barclays Aggregate Index returning 2.9%. Interest rates fell for all maturities across the US Treasury Yield Curve as Fed guidance signaled a pause in monetary policy tightening through 2019. Interest rates in the middle of the curve saw the greatest declines causing the curve to invert with shorter-term maturities paying higher interest rates than those in the middle of the curve. This has historically preceded a recession by 6-24 months. Investment grade corporate issues were the best performing securities this quarter, outperforming Treasury and securitized issues. The Bloomberg Barclays Corporate IG Index returned 5.1% for the period, as corporate credit had tailwinds due to its greater interest rate sensitivity, higher yields and tightening credit spreads. Corporate issues also outperformed the other major fixed income sectors over the 1-year period, returning 4.9% versus a 4.5% return for the Bloomberg Barclays Aggregate Index.

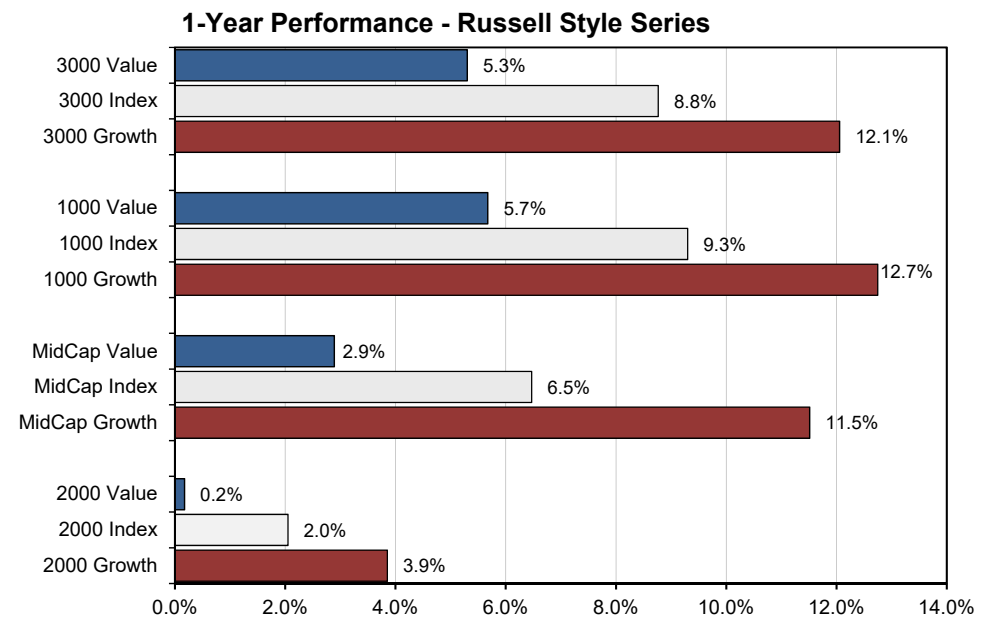
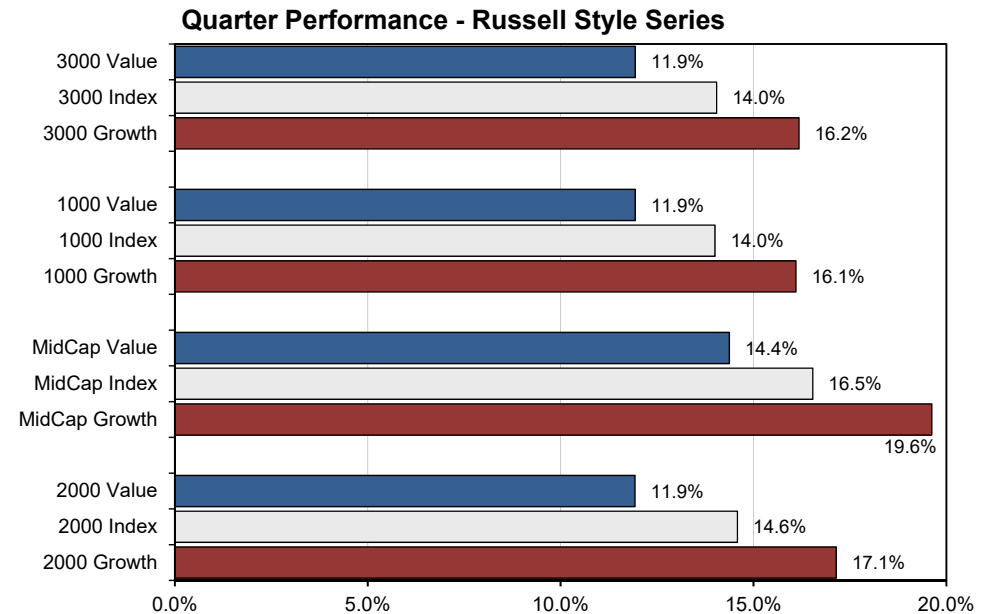
Quarter Performance



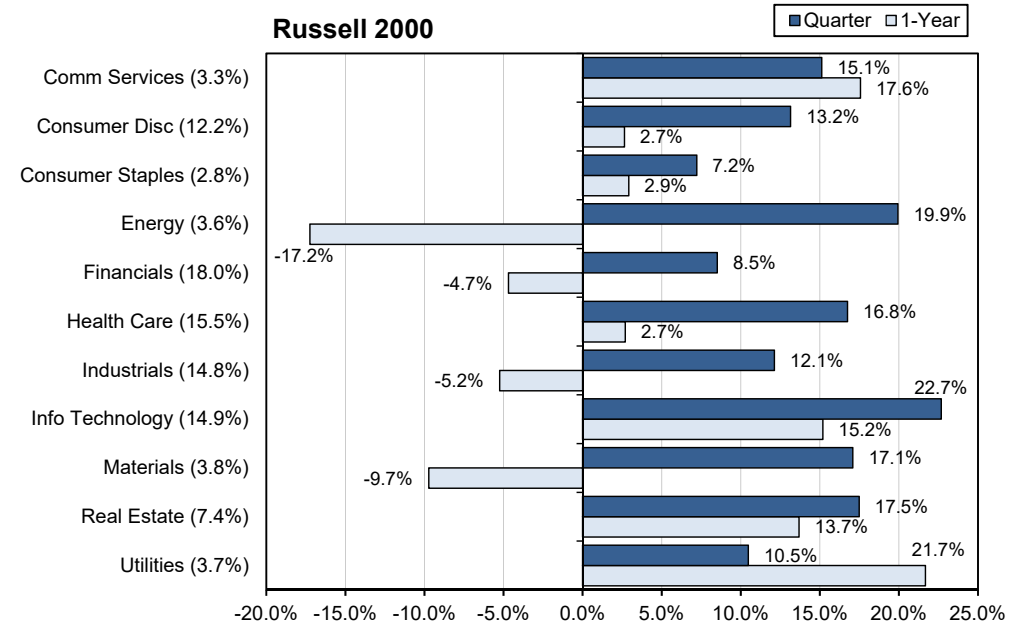
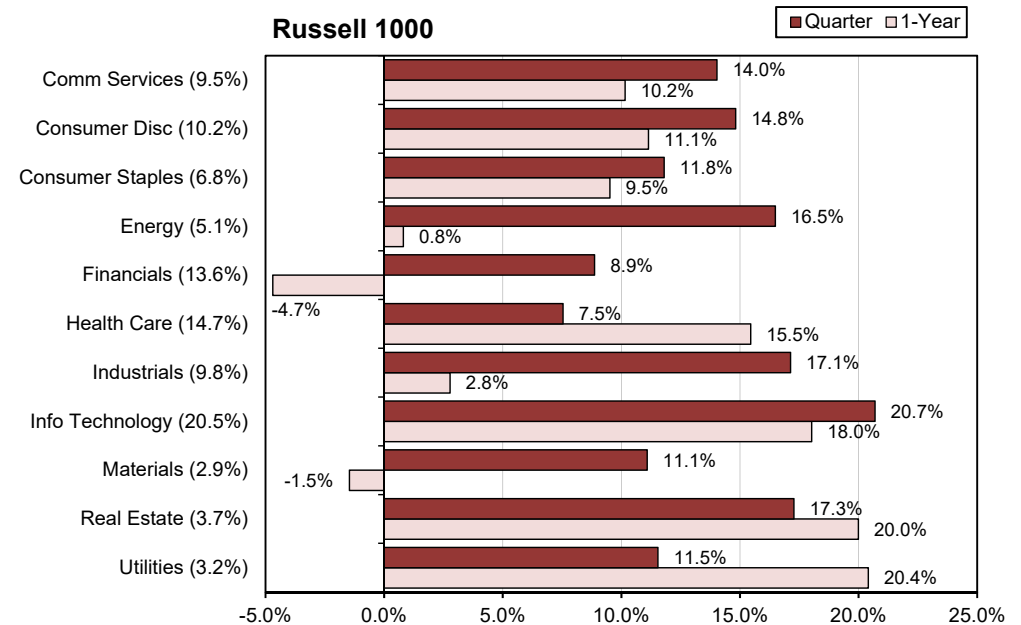
1-Year Performance



- US equity index returns were strongly positive across the style and capitalization spectrum to start the year with all indices posting double digit returns. Macroeconomic data released during the quarter was mixed with disappointing data released late in the quarter for GDP and employment being particularly notable. Even though earnings reported during the period were viewed favorably, many companies provided negative forward earnings guidance due to slowing global growth, trade concerns and the fading effects of US tax reform. However, investor concerns over the economy were overshadowed by positive developments in trade negotiations with China and an accommodative shift in Fed monetary policy. With regards to trade, President Trump delayed the implementation of new Chinese tariffs scheduled for March 1st citing substantial progress in ongoing discussions. Stocks also rallied on Fed guidance to put further monetary policy tightening on hold as they lowered projections for growth and inflation. Lastly, we saw the end of the partial government shutdown that began in December due to a partisan disagreement over funds for the construction of a border wall with Mexico. While the spending bill that passed did not budget for the wall, President Trump declared a national state of emergency later in the quarter in order to secure the needed funding.
- During the quarter, mid cap stocks were the best performers while small cap stocks outperformed large cap equities across growth, value and core indices. The Russell MidCap Index gained 16.5% during the period versus a 14.6% return for the small cap Russell 2000 Index and a 14.0% gain on the large cap Russell 1000 Index. Part of the reason for strength in small cap names is the projected hold on interest rate increases that occurred over 2018 as small and mid-cap companies typically maintain higher percentages of debt than their large cap peers. Small and mid-cap companies are usually more domestically focused which will serve as a tailwind in periods where the US economy is on stronger footing than international markets. It is also not unusual for smaller market cap stocks to outperform in risk-on market environments. When viewed over the most recent 1-year period, large cap stocks outperformed relative to small cap stocks. The Russell 1000 returned 9.3% for the year while the Russell 2000 gained only 2.0%.
- Growth indices outperformed value indices across the market cap spectrum during the 1st quarter. Growth stocks have outperformed value in all but one quarter over the last two years. The Russell MidCap Growth Index was the best performing style index for the period, returning 19.6% for the quarter. The large cap and small cap value indices had the lowest relative returns, both gaining 11.9%. The trend of growth outperformance is also visible over the 1-year period as growth indices have benefitted from larger exposures to technology which has been a large driver of index performance over the last year, as well as a meaningful underweight to financials which has been a relative detractor.



- Sector performance was broadly positive across large cap sectors for the 1st quarter. There were strong gains for all sectors within the Russell 1000 Index during for the period with five sectors outpacing the return of the index. While the rally was broad with nine of eleven sectors posting double digit returns, cyclical sectors such as technology, industrials and energy were some of the best performers through the quarter returning 20.7%, 17.1% and 16.5% respectively. Technology stocks rose on strong earnings and attractive valuations following their 4th quarter 2018 sell off. Energy companies benefitted from a large rebound in oil prices which increased by over 30% during the quarter following an OPEC led supply cut and US sanctions against Iran and Venezuela. Industrial stocks, among others, gained on hopes that trade tensions between the US and China would continue to abate. REITs also had a particularly strong quarter, returning 17.3% as the prospect of lower interest rates acted as a tailwind. Financials and health care stocks were the worst performers during the period returning 8.9% and 7.5% respectively. Health care stocks faced uncertainty around the potential for future regulation following congressional hearings on drug pricing while the prospect of lower earnings due to a muted interest rate environment weighed on financial stocks. Returns over the 1-year period were positive with nine out of eleven sectors posting gains, six of which were over 10%. Utilities, REITs and information technology were the best performers returning 20.4%, 20.0% and 18.0% respectively. Financials and materials posted negative results at -4.7% and -1.5% while energy was only slightly positive at 0.8%.
- Quarterly results for small cap sectors were mixed relative to their large capitalization counterparts with six of eleven sectors outperforming their corresponding large cap equivalents. Like large caps, all eleven sectors produced gains during the period with six of eleven economic sectors outpacing the Russell 2000 Index return for the quarter and nine returning over 10.0%. Similar to large caps, cyclical sectors performed well with technology, energy and materials returning 22.7%, 19.9% and 17.1% respectively. Real estate also did well returning 17.5%. The largest detractors over the period were consumer staples, financials and utilities which still produced gains of 7.2%, 8.5% and 10.5%. Over the trailing 1-year period, returns varied significantly with four sectors posting double digit gains and four losing value. Despite a very strong quarter, energy stocks were the worst performers over the 1-year period, falling a considerable -17.2%, while the defensive utilities sector produced the greatest gains, appreciating 21.7%.



The Market Environment
Top 10 Index Weights & Quarterly Performance for the Russell 1000 & 2000
As of March 31, 2019

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Apple Inc	3.42%	20.9%	14.9%	Information Technology
Microsoft Corp	3.39%	16.6%	30.8%	Information Technology
Amazon.com Inc	2.78%	18.6%	23.0%	Consumer Discretionary
Facebook Inc A	1.50%	27.2%	4.3%	Communication Services
Berkshire Hathaway Inc B	1.48%	-1.6%	0.7%	Financials
Johnson & Johnson	1.42%	9.0%	12.1%	Health Care
Alphabet Inc C	1.36%	13.3%	13.7%	Communication Services
Alphabet Inc A	1.33%	12.6%	13.5%	Communication Services
Exxon Mobil Corp	1.30%	19.8%	12.9%	Energy
JPMorgan Chase & Co	1.27%	4.6%	-5.6%	Financials

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Versum Materials Inc	0.02%	81.9%	34.7%	Information Technology
Coty Inc Class A	0.02%	77.3%	-34.3%	Consumer Staples
Nabors Industries Ltd	0.00%	72.5%	-48.7%	Energy
Sage Therapeutics Inc	0.03%	66.0%	-1.3%	Health Care
Wayfair Inc Class A	0.03%	64.8%	119.8%	Consumer Discretionary
Chipotle Mexican Grill Inc Class A	0.07%	64.5%	119.8%	Consumer Discretionary
Universal Display Corp	0.02%	63.5%	51.7%	Information Technology
Xerox Corp	0.02%	63.1%	15.7%	Information Technology
Floor & Decor Holdings Inc	0.01%	59.2%	-20.9%	Consumer Discretionary
bluebird bio Inc	0.03%	58.6%	-7.9%	Health Care

Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Uniti Group Inc	0.01%	-27.8%	-23.8%	Real Estate
PG&E Corp	0.03%	-25.1%	-59.5%	Utilities
The Kraft Heinz Co	0.07%	-23.2%	-45.1%	Consumer Staples
Realogy Holdings Corp	0.01%	-21.8%	-57.3%	Real Estate
Nu Skin Enterprises Inc Class A	0.01%	-21.5%	-33.7%	Consumer Staples
Biogen Inc	0.18%	-21.4%	-13.7%	Health Care
Centennial Resource Development A	0.01%	-20.2%	-52.1%	Energy
CenturyLink Inc	0.04%	-19.3%	-19.0%	Communication Services
Qurate Retail Inc Class A	0.03%	-18.1%	-36.5%	Consumer Discretionary
Macy's Inc	0.03%	-18.0%	-15.2%	Consumer Discretionary

Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Etsy Inc	0.40%	41.3%	139.6%	Consumer Discretionary
Five Below Inc	0.33%	21.4%	69.4%	Consumer Discretionary
The Trade Desk Inc A	0.32%	70.6%	298.9%	Information Technology
Integrated Device Technology Inc	0.31%	1.2%	60.3%	Information Technology
HubSpot Inc	0.30%	32.2%	53.5%	Information Technology
Planet Fitness Inc A	0.30%	28.2%	81.9%	Consumer Discretionary
Cree Inc	0.29%	33.8%	41.9%	Information Technology
Ciena Corp	0.26%	10.1%	44.2%	Information Technology
Primerica Inc	0.26%	25.4%	27.7%	Financials
Array BioPharma Inc	0.25%	71.1%	49.4%	Health Care

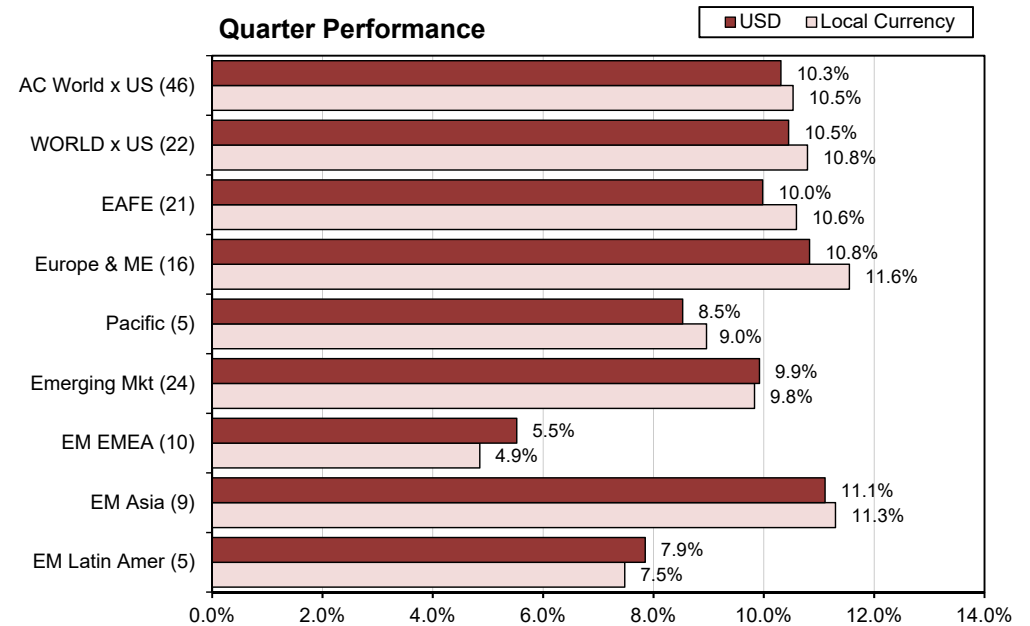
Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Immune Design Corp	0.01%	350.0%	77.3%	Health Care
Diebold Nixdorf Inc	0.04%	344.6%	-28.1%	Information Technology
Constellation Pharmaceuticals Inc	0.01%	237.9%	N/A	Health Care
Flotek Industries Inc	0.01%	197.2%	-46.9%	Materials
Spark Therapeutics Inc	0.18%	191.0%	71.0%	Health Care
Magenta Therapeutics Inc	0.01%	188.9%	N/A	Health Care
ION Geophysical Corp	0.01%	178.8%	-46.7%	Energy
Catalyst Pharmaceuticals Inc	0.02%	165.6%	113.4%	Health Care
VirnetX Holding Corp	0.02%	163.8%	60.3%	Information Technology
Rockwell Medical Inc	0.01%	151.8%	9.2%	Health Care

Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Zomedica Pharmaceuticals Corp	0.00%	-77.0%	-84.2%	Health Care
Aptinyx Inc	0.00%	-75.5%	N/A	Health Care
Alta Mesa Resources Inc Class A	0.00%	-73.5%	-96.7%	Energy
Novavax Inc	0.01%	-70.1%	-73.8%	Health Care
Maxar Technologies Inc	0.01%	-66.3%	-91.0%	Industrials
Solid Biosciences Inc	0.01%	-65.7%	22.7%	Health Care
Achaogen Inc	0.00%	-62.9%	-96.5%	Health Care
EP Energy Corp A	0.00%	-62.9%	-80.6%	Energy
Proteostasis Therapeutics Inc	0.00%	-61.1%	-73.5%	Health Care
Approach Resources Inc	0.00%	-59.4%	-86.4%	Energy

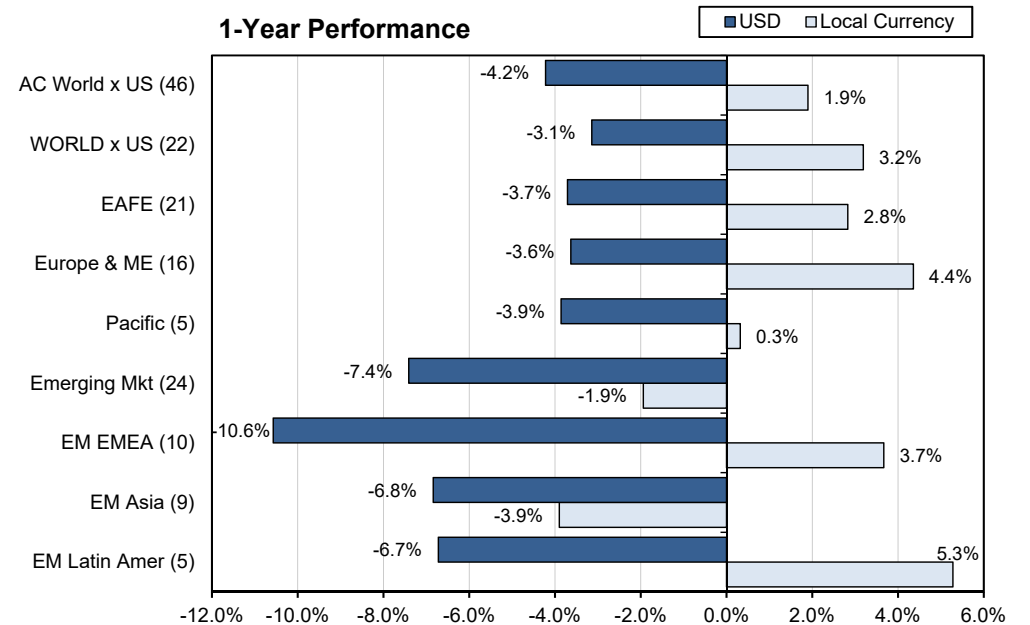


- Broad international equity returns were positive for the quarter in both local currency and USD terms. The MSCI ACWI ex US Index gained 10.5% in local currency terms and 10.3% in USD terms during the 1st quarter. Similar to US markets, international equity investors were encouraged by central bank responses to slowing global growth as they shifted towards more accommodative policies and the improvement in dialogue around global trade. Returns in local currency typically outperformed USD returns in the developed markets, as the USD continued to strengthen against most major developed currencies. While the currency effect was detrimental in developed markets, it acted as a slight tailwind in emerging markets. The USD strength is particularly noticeable over the 1-year period where local currency returns on the MSCI ACWI ex US Index were 1.9%, but after accounting for foreign exchange, translated to a loss of -4.2% for a USD investor.
- Fourth quarter results for developed market international indices were positive in both local currency and USD terms with the MSCI EAFE Index returning 10.6% and 10.0% respectively. Ongoing weakness in global economic reporting pushed major central banks to move toward less restrictive postures around monetary policy. In Europe, the European Central Bank (ECB) announced plans for additional stimulus while putting any future interest rate increases on hold until 2020. The Bank of England (BoE) left policy unchanged as uncertainties around Brexit coincided with a slowing economy. Prime Minister Theresa May held two votes on her withdrawal plan, both of which failed, forcing her to request an extension to the March 29th withdrawal deadline. Data from Japan drew concerns that the country's economy is contracting as corporate earnings, exports, manufacturing, retail sales and inflation all hinted at an economic slowdown. The MSCI EAFE Index returned 2.8% and -3.7% for the last twelve months in local currency and USD terms respectively.
- Emerging markets slightly underperformed relative to developed markets for the 1st quarter, but still appreciated in both local currency and USD terms with the MSCI Emerging Markets Index returning 9.8% and 9.9% respectively. A major tailwind for equity markets was the improvement in trade relations between the US and China. As Chinese economic data appeared to be slowing, the Chinese government also announced continued stimulus in the form of tax cuts, infrastructure investment and lowered the reserve requirement for banks in order to encourage lending. We also saw commodity prices rise over the quarter which is generally beneficial to emerging market countries with rising oil prices helping Russian and Colombian equity returns. In Brazil, President Jair Bolsonaro officially took office. Bolsonaro announced his plan to reform the country's debt laden pension system and promised market friendly economic reforms. One year returns for the MSCI Emerging Market Index were -1.9% in local currency terms and -7.4% in USD terms.

Quarter Performance



1-Year Performance



The Market Environment
US Dollar International Index Attribution & Country Detail
As of March 31, 2019

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.4%	4.3%	-4.5%
Consumer Discretionary	11.0%	7.5%	-10.4%
Consumer Staples	11.8%	12.4%	3.3%
Energy	5.9%	10.4%	4.6%
Financials	18.9%	6.9%	-12.7%
Health Care	11.3%	11.2%	7.4%
Industrials	14.4%	10.6%	-5.4%
Information Technology	6.3%	15.3%	-3.8%
Materials	7.5%	13.2%	-3.0%
Real Estate	3.9%	14.0%	4.2%
Utilities	3.7%	9.0%	8.7%
Total	100.0%	10.0%	-3.7%

MSCI - ACWxUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	7.1%	6.9%	-1.8%
Consumer Discretionary	11.1%	11.2%	-10.3%
Consumer Staples	9.9%	11.2%	1.6%
Energy	7.4%	12.4%	5.2%
Financials	21.6%	7.7%	-9.4%
Health Care	8.4%	11.0%	4.4%
Industrials	11.7%	10.2%	-4.9%
Information Technology	8.4%	14.7%	-7.3%
Materials	7.6%	11.3%	-3.6%
Real Estate	3.5%	14.4%	2.8%
Utilities	3.3%	8.2%	6.1%
Total	100.0%	10.3%	-4.2%

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	12.3%	9.5%	-3.3%
Consumer Discretionary	13.4%	20.8%	-13.2%
Consumer Staples	6.4%	5.3%	-8.4%
Energy	8.1%	12.2%	9.4%
Financials	24.2%	7.2%	-6.0%
Health Care	2.6%	3.6%	-23.4%
Industrials	5.4%	4.8%	-7.6%
Information Technology	14.6%	12.8%	-10.8%
Materials	7.4%	6.9%	-6.2%
Real Estate	3.2%	15.6%	-2.1%
Utilities	2.5%	4.2%	-2.7%
Total	100.0%	9.9%	-7.4%

Country	MSCI-EAFE Weight	MSCI-ACWxUS Weight	Quarter Return	1-Year Return
Japan	24.0%	16.1%	6.7%	-7.8%
United Kingdom	17.1%	11.5%	11.9%	-0.1%
France	11.3%	7.6%	10.7%	-3.7%
Switzerland	8.9%	6.0%	13.1%	7.5%
Germany	8.6%	5.8%	6.9%	-13.7%
Australia	6.9%	4.7%	11.4%	4.5%
Hong Kong	4.1%	2.8%	15.6%	8.0%
Netherlands	3.6%	2.4%	13.6%	-2.3%
Spain	3.0%	2.0%	7.0%	-8.8%
Sweden	2.6%	1.8%	7.4%	-5.1%
Italy	2.4%	1.6%	14.6%	-10.6%
Denmark	1.8%	1.2%	12.8%	-3.2%
Singapore	1.3%	0.9%	6.2%	-6.4%
Finland	1.0%	0.7%	8.0%	-3.6%
Belgium	1.0%	0.7%	16.2%	-15.5%
Norway	0.7%	0.5%	7.0%	-4.4%
Ireland	0.5%	0.4%	11.4%	-11.6%
Israel	0.5%	0.4%	10.1%	9.9%
Austria	0.2%	0.2%	8.4%	-23.0%
New Zealand	0.2%	0.2%	16.7%	18.1%
Portugal	0.2%	0.1%	10.2%	-4.9%
Total EAFE Countries	100.0%	67.1%	10.0%	-3.7%
Canada		6.8%	15.4%	3.1%
Total Developed Countries		73.9%	10.5%	-3.1%
China		8.6%	17.7%	-6.2%
Korea		3.4%	4.9%	-16.7%
Taiwan		3.0%	9.0%	-6.1%
India		2.4%	7.2%	6.8%
Brazil		1.9%	8.1%	-4.2%
South Africa		1.5%	4.4%	-18.0%
Russia		1.0%	12.2%	2.2%
Mexico		0.7%	5.5%	-11.7%
Thailand		0.6%	7.4%	-6.9%
Indonesia		0.6%	4.3%	2.0%
Malaysia		0.6%	0.3%	-13.1%
Poland		0.3%	-0.6%	-5.7%
Philippines		0.3%	7.9%	1.8%
Chile		0.3%	4.1%	-17.5%
Qatar		0.2%	-3.5%	22.2%
United Arab Emirates		0.2%	8.7%	1.3%
Turkey		0.1%	-3.2%	-40.3%
Colombia		0.1%	24.8%	5.3%
Peru		0.1%	11.0%	2.2%
Hungary		0.1%	6.0%	0.5%
Greece		0.1%	12.8%	-23.6%
Czech Republic		0.0%	3.8%	-6.8%
Egypt		0.0%	15.8%	-10.2%
Pakistan		0.0%	8.3%	-36.6%
Total Emerging Countries		26.1%	9.9%	-7.4%
Total ACWxUS Countries		100.0%	10.3%	-4.2%

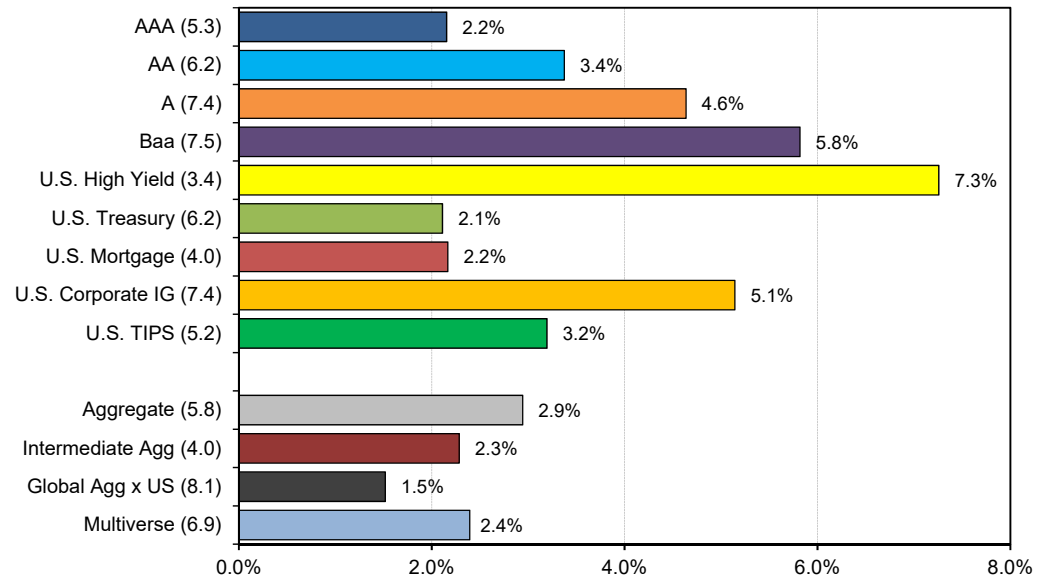
Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD)

As a result of the GICS classification changes on 9/28/2018 and certain associated reporting limitations, sector performance represents backward looking performance for the prior year of each sector's current constituency, post creation of the Communication Services sector.

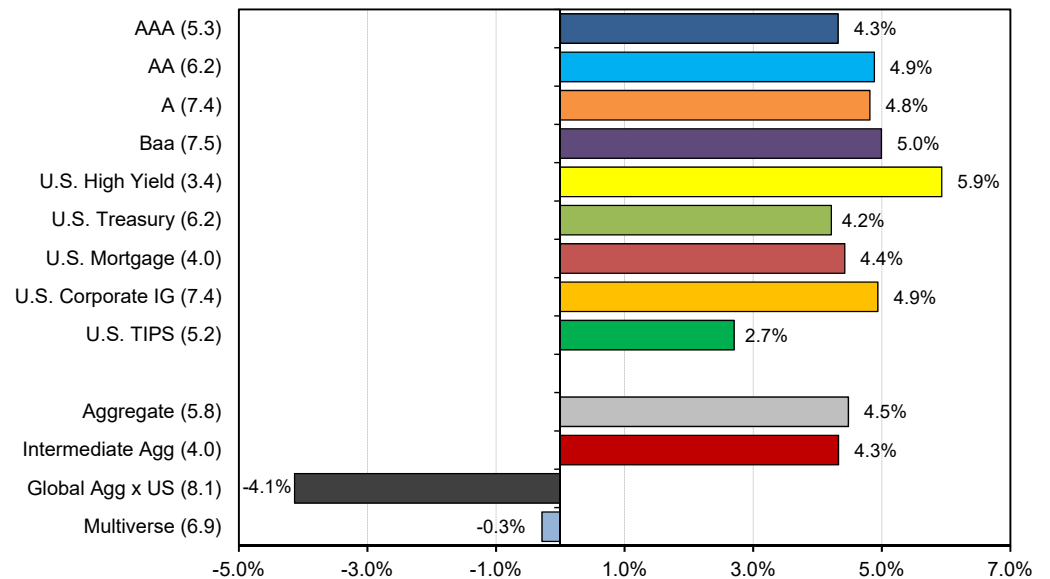


- Broad fixed income benchmarks were positive to start 2019. Following the late 2018 market volatility, the Federal Open Market Committee (FOMC) issued dovish guidance after their January meeting stating that they would be patient in determining future interest rate adjustments. The FOMC also commented on the ongoing balance sheet reduction program, stating that they would be open to changes to the program if market conditions warranted them. Later in March, Fed Chair Jerome Powell communicated that the FOMC is no longer projecting any further interest rate increases through 2019. He also stated that they would begin tapering the roll off from the balance sheet reduction program in May with a plan to halt the program entirely in September. The stoppage of the balance sheet reduction program represents an easing of monetary policy. Interest rates fell across all maturities on the US Treasury Yield Curve with the greatest declines occurring in the mid- and long-term issues. This caused continued inversion in the yield curve with short-term maturities paying higher interest rates than issues in the mid- to long-end of the curve. The difference in yields between the 2-year and 10-year Treasury now sits at just 0.14% with the 30-day T-Bill yielding more than the 10-year bond by 0.02%. Historically, an inverted yield curve has been a leading indicator of a recession in the next 6-24 months. The bellwether Bloomberg Barclays US Aggregate Index posted positive returns for both the 1st quarter and the 1-year period, returning 2.9% and 4.5% respectively.
- Within investment grade credit, lower quality issues outperformed higher quality issues as investors gravitated toward higher risk securities during the quarter. Lower quality issues also benefitted from their higher durations. On an absolute basis, without negating the duration differences in the sub-indices, Baa rated credit was the best performing investment grade credit quality segment returning 5.8% for the quarter, while AAA was the worst performing, returning 2.2%. Despite their relatively low durations, high yield securities posted very strong returns for the quarter, gaining 7.3%, as spreads tightened by 135 basis points on these issues. When viewed over the 1-year period, returns for the various quality segments generally show lower quality securities outperforming higher quality issues by a small margin.
- During the 1st quarter, investment grade corporates outperformed the more defensive Treasury and mortgage backed sectors of the Bloomberg Barclays US Aggregate Index's three broad sectors. Investment grade corporate credit returned 5.1%, as the drop in interest rates benefitted these securities to a greater degree and credit spreads tightened considerably since the end of 2018. This quarter's performance carried through to the 1-year period as corporate credit outperformed both Treasuries and mortgage backed securities. Corporate issues returned 4.9% versus a 4.4% return for mortgages and 4.2% gain on Treasury securities.

Quarter Performance

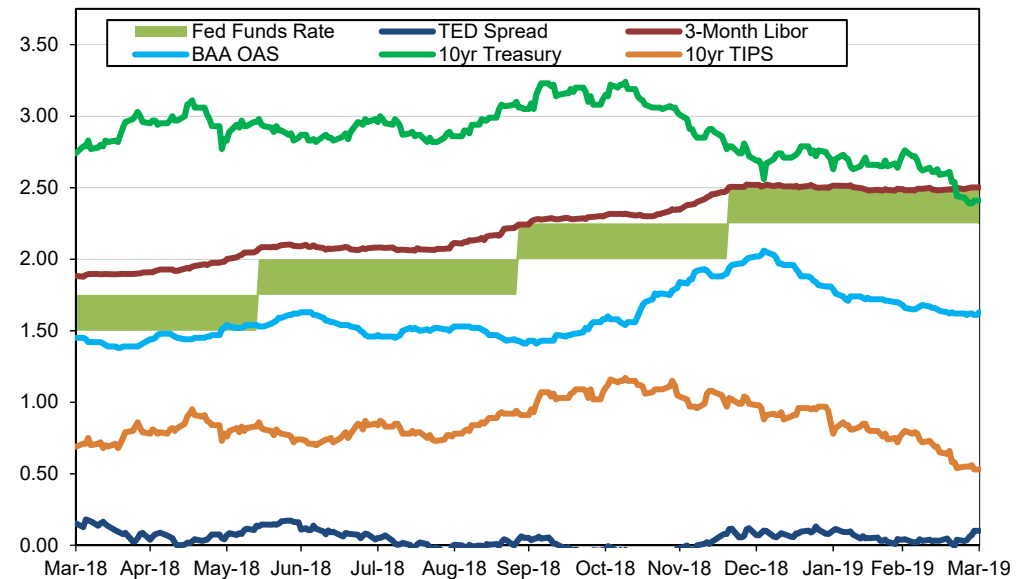


1-Year Performance

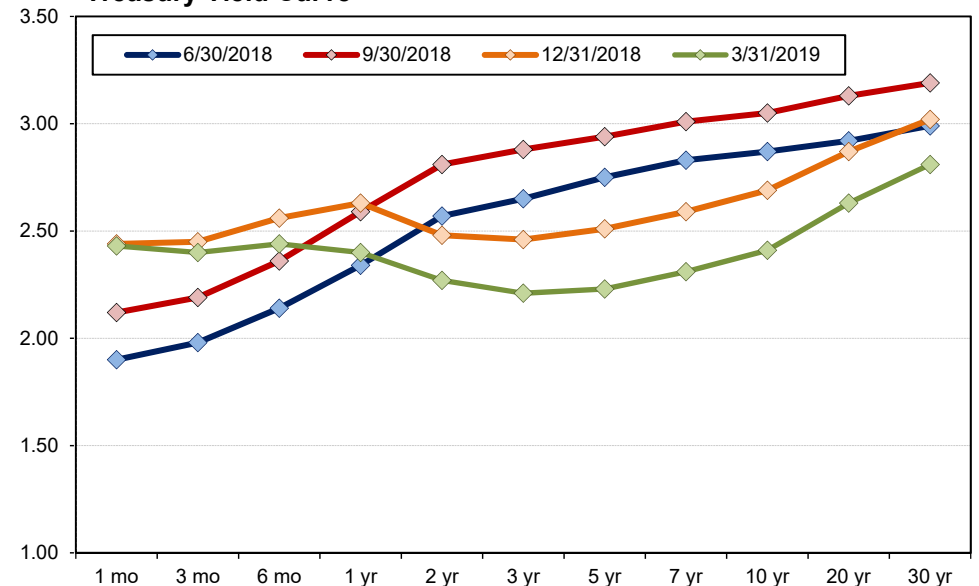


- Global fixed income indices continue to struggle relative to their domestic counterparts, underperforming during the 1st quarter. These indices have lower, or in some cases (Germany, Japan), negative yields and the returns of these indices are also significantly influenced by fluctuations in their currency denomination relative to the USD. The USD has appreciated against most other developed currencies, negatively impacting the returns on global bond indices. The return on global bonds, as represented by the Bloomberg Barclays Global Aggregate ex US Index, was 1.5% and -4.1% for the quarter and 1-year period respectively. As global growth has shown signs of stalling, several international central banks have started to step back from more restrictive postures. Notably, the ECB announced a program to extend loans to European banks in an effort to increase lending and pledged to keep interest rates steady through the end of 2019. China also announced new stimulus to help spur its economy. The Bank of England and the Bank of Japan made no major policy changes during the quarter as they continue to review macroeconomic data within their respective countries.
- 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 the 10-year Treasury yield (green line) fell from recent high's greater than 3.0%, to yields below 2.5% to end the first quarter. 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. This line illustrates a relatively tight range in credit spreads throughout most of 2018, but highlights an abrupt increase during the 4th quarter of 2018 as investors moved to higher quality assets during the quarter's risk-off environment. Subsequently, spreads dropped steadily over the 1st quarter of 2019. This spread tightening is equivalent to an interest rate decrease on corporate bonds, which produces an additional tailwind for corporate bond index returns. These credit spreads have tightened by about 34 basis points over the last three months. The green band across the graph illustrates the gradual increase in the Federal Funds Rate due to the tightening of US monetary policy during 2018. As mentioned, the Fed's current guidance is for zero rate increases in 2019.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four calendar quarters. The downward shift of interest rates as well as a general flattening of the yield curve are clearly visible over the last quarter. As mentioned, the yield curve continues to invert as yields on shorter-term maturities fell less than interest rates in the middle- to long-end of the curve.

1-Year Trailing Market Rates



Treasury Yield Curve



**Delray Beach Fire Pension Plan
Compliance Checklist**

As of March 31, 2019

Total Fund Compliance:	Yes	No	N/A
	1. The Total Plan return equaled or exceeded the 7.25% actuarial earnings assumption over the trailing three and five year periods.		•
2. The Total Plan return equaled or exceeded the total plan benchmark over the trailing three and five year periods.		•	
3. The Total Plan return ranked within the top 40th percentile of its peer group over the trailing three and five year periods.		•	

* Based off gross of fees and public plan peer group.

Total Equity Compliance:	Yes	No	N/A
	1. Total equity returns meet or exceed the benchmark over the trailing three and five year periods.		•
2. Total equity returns ranked within the top 40th percentile of its peer group over the trailing three and five year periods.			•
3. The total equity allocation was less than 70% of the total plan assets at market.	•		
4. Total foreign equity was less than 25% of the total plan assets at market.	•		

Total Fixed Income Compliance:	Yes	No	N/A
	1. Total fixed income returns meet or exceed the benchmark over the trailing three and five year periods.	•	
2. Total fixed income returns ranked within the top 40th percentile of its peer group over the trailing three and five year periods.	•		
3. No more than 15% of the fixed income portfolio was rated below BBB/Baa.	•		

	VG Total Stock Mkt			Boston			Rhumblin R1000G		
	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
1. Manager outperformed the index over the trailing three and five year periods.*			•			•			•
2. Manager ranked within the top 40th percentile over trailing three and five year periods.*			•			•			•
3. Less than four consecutive quarters of under performance relative to the benchmark.			•	•			•		
4. Three and five-year down-market capture ratio less than the index.*			•			•			•
5. Manager reports compliance with PFIA.			•			•			•

	Polen LCG			Lazard			VG Mid-Cap		
	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
1. Manager outperformed the index over the trailing three and five year periods.*			•		•			•	
2. Manager ranked within the top 40th percentile over trailing three and five year periods.*			•		•		•		
3. Less than four consecutive quarters of under performance relative to the benchmark.			•	•			•		
4. Three and five-year down-market capture ratio less than the index.*			•	•				•	
5. Manager reports compliance with PFIA.			•	•					•

*3 years used when 5 years unavailable



**Delray Beach Fire Pension Plan
Compliance Checklist
As of March 31, 2019**

	H.L. Intl Equity			GHA			Templeton Global		
	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
1. Manager outperformed the index over the trailing three and five year periods.*			•			•	•		
2. Manager ranked within the top 40th percentile over trailing three and five year periods.*			•			•	•		
3. Less than four consecutive quarters of under performance relative to the benchmark.	•			•			•		
4. Three and five-year down-market capture ratio less than the index.*			•			•	•		
5. Manager reports compliance with PFIA.			•	•					•

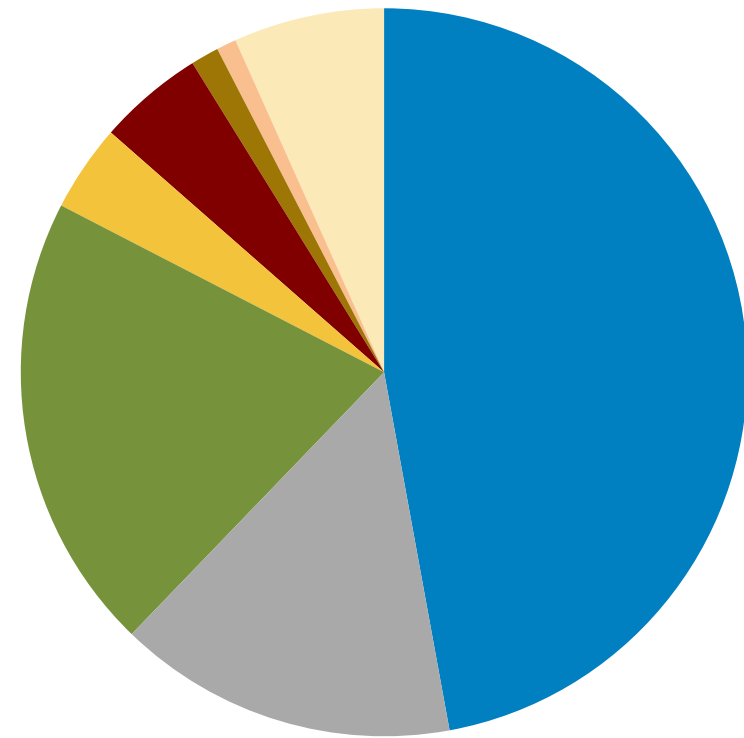
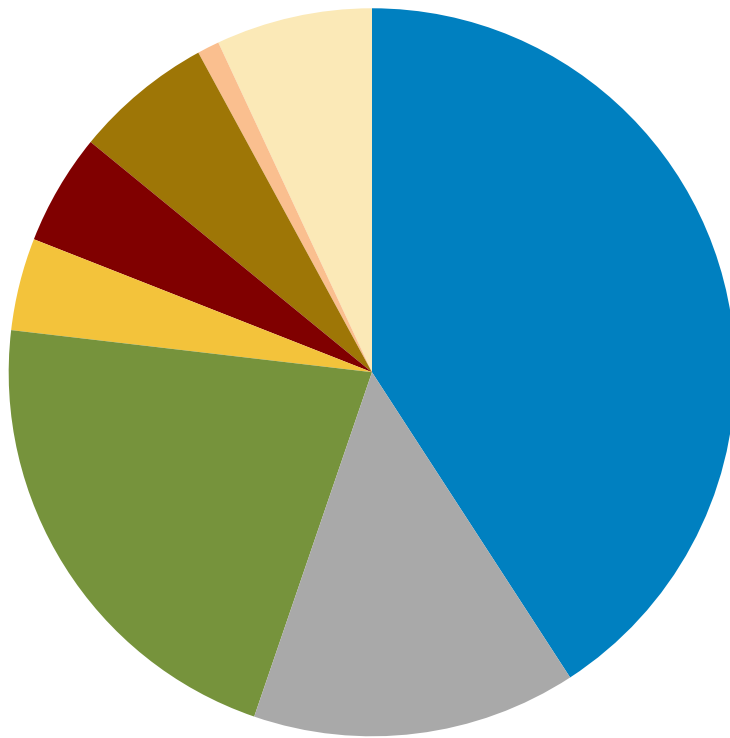
	American Realty								
	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
1. Manager outperformed the index over the trailing three and five year periods.*		•							
2. Manager ranked within the top 40th percentile over trailing three and five year periods.*		•							
3. Less than four consecutive quarters of under performance relative to the benchmark.	•								
4. Three and five-year down-market capture ratio less than the index.*			•						
5. Manager reports compliance with PFIA.			•						

*3 years used when 5 years unavailable



December 31, 2018 : \$100,068,631

March 31, 2019 : \$106,662,942



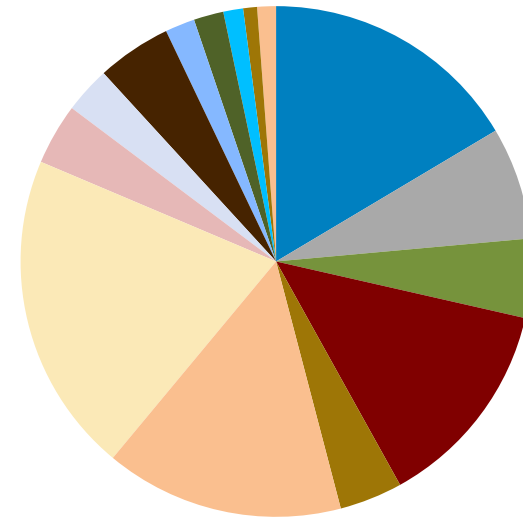
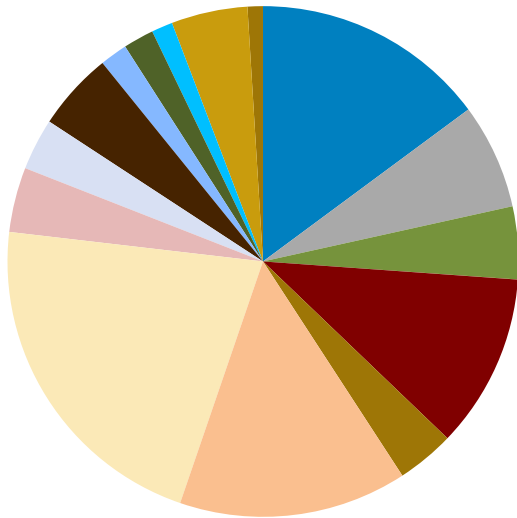
Allocation			Allocation		
	Market Value	Allocation		Market Value	Allocation
■ US Equity	40,853,789	40.8	■ US Equity	50,255,669	47.1
■ International Equity	14,441,308	14.4	■ International Equity	16,116,530	15.1
■ US Fixed Income	21,608,083	21.6	■ US Fixed Income	21,706,710	20.4
■ Global Fixed Income	4,107,510	4.1	■ Global Fixed Income	4,126,449	3.9
■ US Private Real Estate	4,950,415	4.9	■ US Private Real Estate	5,022,573	4.7
■ US Real Return	6,167,002	6.2	■ US Real Return	1,334,552	1.3
■ Cash	978,923	1.0	■ Cash	937,178	0.9
■ US Private Equity	6,961,601	7.0	■ US Private Equity	7,163,280	6.7



Asset Allocation By Manager
Total Fund (Composite)
As of March 31, 2019

December 31, 2018 : \$100,068,631

March 31, 2019 : \$106,662,942



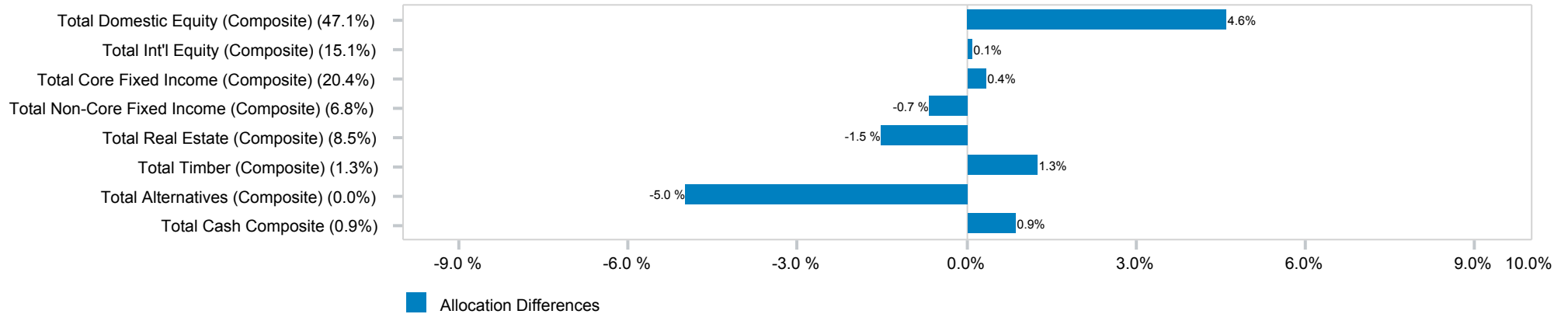
Allocation			Allocation		
	Market Value	Allocation		Market Value	Allocation
■ Boston LCV	14,856,634	14.8	■ Boston LCV	17,537,137	16.4
■ Lazard SMid Cap Core	6,686,454	6.7	■ Lazard SMid Cap Core	7,588,274	7.1
■ Vanguard Mid-Cap Index (VIMAX)	4,601,620	4.6	■ Vanguard Mid-Cap Index (VIMAX)	5,338,607	5.0
■ Sawgrass Large Cap Growth	2,039	0.0	■ Sawgrass Large Cap Growth	-	0.0
■ Polen Capital LCG	11,048,329	11.0	■ Polen Capital LCG	14,273,651	13.4
■ Rhumblin R1000G	3,658,713	3.7	■ Rhumblin R1000G	4,246,897	4.0
■ Harding Loevner Intl Equity (HLMIX)	14,441,308	14.4	■ Harding Loevner Intl Equity (HLMIX)	16,116,530	15.1
■ Garcia Hamilton Fixed Income	21,608,083	21.6	■ Garcia Hamilton Fixed Income	21,706,710	20.4
■ Templeton Global Total Return (FTTRX)	4,107,510	4.1	■ Templeton Global Total Return (FTTRX)	4,126,449	3.9
■ Crescent Direct Lending Levered Fund	3,277,450	3.3	■ Crescent Direct Lending Levered Fund	3,143,745	2.9
■ American Core Realty	4,950,415	4.9	■ American Core Realty	5,022,573	4.7
■ Angelo Gordon Net Lease Realty Fund III, L.P.	1,752,209	1.8	■ Angelo Gordon Net Lease Realty Fund III, L.P.	2,006,905	1.9
■ Dune Real Estate Fund III	1,931,942	1.9	■ Dune Real Estate Fund III	2,012,630	1.9
■ Molpus Woodlands Timber	1,334,552	1.3	■ Molpus Woodlands Timber	1,334,552	1.3
■ Westwood Income Opportunity Fund (WHGIX)	4,832,450	4.8	■ Westwood Income Opportunity Fund (WHGIX)	-	0.0
■ Mutual Fund Cash	3,097	0.0	■ Mutual Fund Cash	3,112	0.0
■ R&D	975,826	1.0	■ R&D	934,066	0.9
■ Vanguard Total Stock Mkt (VTSAX)	-	0.0	■ Vanguard Total Stock Mkt (VTSAX)	1,271,104	1.2



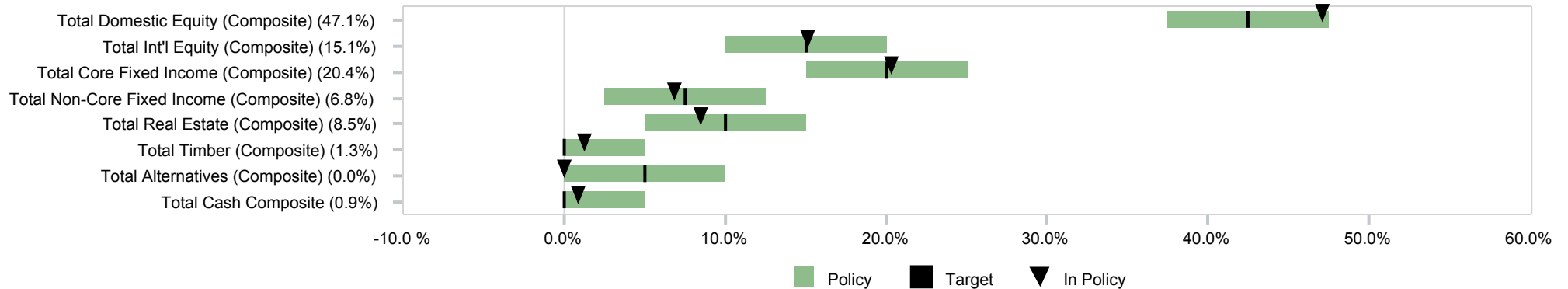
Asset Allocation Compliance
Delray Beach Firefighters' Retirement System Total Fund (Composite)
 As of March 31, 2019

Asset Allocation Compliance

	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Differences (%)	Target Rebal. (\$000)
Total Fund (Composite)	106,662,942	100.00	100.00	0.00	-
Total Domestic Equity (Composite)	50,255,669	47.12	42.50	4.62	-4,923,918
Total Int'l Equity (Composite)	16,116,530	15.11	15.00	0.11	-117,089
Total Core Fixed Income (Composite)	21,706,710	20.35	20.00	0.35	-374,122
Total Non-Core Fixed Income (Composite)	7,270,194	6.82	7.50	-0.68	729,526
Total Real Estate (Composite)	9,042,109	8.48	10.00	-1.52	1,624,185
Total Timber (Composite)	1,334,552	1.25	0.00	1.25	-1,334,552
Total Alternatives (Composite)	-	0.00	5.00	-5.00	5,333,147
Total Cash Composite	937,178	0.88	0.00	0.88	-937,178



Executive Summary



Comparative Performance
Total Fund Trailing Returns
As of March 31, 2019

Comparative Performance																	
	QTR		YTD		FYTD		1 YR		2 YR		3 YR		5 YR		Inception	Inception Date	
Total Fund (Net)	8.61	(40)	8.61	(40)	-0.41	(63)	4.89	(22)	6.68	(15)	7.55	(26)	5.75	(17)	5.17	(52)	10/01/2005
Total Fund Policy	8.94	(30)	8.94	(30)	0.61	(37)	5.79	(13)	7.76	(6)	8.87	(6)	6.96	(5)	6.24	(14)	
Difference	-0.33		-0.33		-1.02		-0.90		-1.08		-1.32		-1.21		-1.07		
IM Mixed-Asset Target Alloc Moderate (MF) Median	8.24		8.24		0.13		2.99		5.30		6.85		4.46		5.25		
Total Fund (Gross)	8.67	(44)	8.67	(44)	-0.26	(71)	5.22	(20)	7.04	(54)	7.96	(67)	6.21	(42)	5.63	(89)	10/01/2005
Total Fund Policy	8.94	(34)	8.94	(34)	0.61	(33)	5.79	(8)	7.76	(21)	8.87	(26)	6.96	(11)	6.24	(60)	
Difference	-0.27		-0.27		-0.87		-0.57		-0.72		-0.91		-0.75		-0.61		
All Public Plans-Total Fund Median	8.48		8.48		0.21		4.12		7.12		8.41		6.02		6.34		
Total Equity	13.61		13.61		-2.59		5.22		9.11		10.43		7.26		6.63		10/01/2005
Total Equity Policy	13.24		13.24		-2.24		5.59		9.90		12.29		7.54		6.33		
Difference	0.37		0.37		-0.35		-0.37		-0.79		-1.86		-0.28		0.30		
Total Domestic Equity	14.32	(42)	14.32	(42)	-1.62	(31)	9.36	(25)	10.07	(47)	11.49	(53)	8.76	(45)	7.58	(53)	10/01/2005
Total Domestic Equity Policy	14.23	(43)	14.23	(43)	-2.25	(39)	8.95	(27)	11.28	(37)	13.64	(28)	10.17	(27)	8.61	(33)	
Difference	0.09		0.09		0.63		0.41		-1.21		-2.15		-1.41		-1.03		
IM U.S. All Cap Equity (SA+CF+MF) Median	13.68		13.68		-3.22		5.87		9.73		11.70		8.37		7.67		
Total Int'l Equity	11.60	(35)	11.60	(35)	-5.19	(79)	-4.86	(55)	6.49	(35)	7.17	(57)	3.02	(61)	3.76	(13)	05/01/2007
Total Int'l Policy	10.31	(63)	10.31	(63)	-2.33	(32)	-4.22	(46)	5.65	(47)	8.09	(38)	2.57	(74)	0.99	(99)	
Difference	1.29		1.29		-2.86		-0.64		0.84		-0.92		0.45		2.77		
IM International Large Cap Core Equity (SA+CF) Median	10.87		10.87		-3.69		-4.62		5.48		7.35		3.31		2.63		
Total Fixed Income	2.14	(95)	2.14	(95)	3.45	(74)	4.06	(53)	3.21	(32)	3.80	(24)	3.77	(11)	5.07	(18)	10/01/2005
Total Fixed Policy	2.94	(78)	2.94	(78)	4.63	(22)	4.48	(31)	2.83	(56)	2.03	(81)	2.74	(55)	4.10	(67)	
Difference	-0.80		-0.80		-1.18		-0.42		0.38		1.77		1.03		0.97		
IM U.S. Broad Market Fixed Income (SA+CF+MF) Median	3.42		3.42		4.15		4.12		2.93		2.75		2.81		4.40		
Total Real Estate	0.98	(90)	0.98	(90)	2.72	(86)	8.39	(41)	9.03	(41)	8.92	(43)	10.60	(45)	4.43	(100)	07/01/2007
NCREIF ODCE	1.68	(66)	1.68	(66)	3.32	(75)	7.73	(69)	7.95	(69)	8.17	(63)	10.34	(62)	5.51	(73)	
Difference	-0.70		-0.70		-0.60		0.66		1.08		0.75		0.26		-1.08		
IM U.S. Open End Private Real Estate (SA+CF) Median	1.93		1.93		3.68		8.23		8.25		8.56		10.54		5.77		
Total Timber	0.00		0.00		4.19		4.54		-2.77		-1.51		1.81		2.88		07/01/2007
NCREIF Timberland Index	N/A		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		N/A		



**Comparative Performance
Total Fund Trailing Returns**

As of March 31, 2019

	QTR		YTD		FYTD		1 YR		2 YR		3 YR		5 YR		Inception	Inception Date
Total Domestic Equity (Composite)	14.32		14.32		-1.62		9.36		10.07		11.49		8.76		7.58	10/01/2005
Vanguard Total Stock Mkt (VTSAX)	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	04/01/2019
CRSP U.S. Total Market TR Index	14.06	(46)	14.06	(46)	-2.20	(38)	8.82	(31)	11.31	(30)	13.53	(28)	10.35	(21)	N/A	
Difference	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
IM U.S. Equity (MF) Median	13.62		13.62		-3.37		5.24		7.85		10.99		7.80		N/A	
Boston LCV	10.75	(72)	10.75	(72)	-4.59	(71)	3.50	(61)	N/A		N/A		N/A		0.90	(60)
Russell 1000 Value Index	11.93	(46)	11.93	(46)	-1.19	(26)	5.67	(36)	6.31	(65)	10.45	(65)	7.72	(59)	2.14	(46)
Difference	-1.18		-1.18		-3.40		-2.17		N/A		N/A		N/A		-1.24	
IM U.S. Large Cap Value Equity (SA+CF) Median	11.76		11.76		-2.95		4.23		7.28		11.10		8.03		1.67	
Total Growth	16.99 (31)		16.99 (31)		3.95 (3)		20.57 (2)		16.12 (56)		13.59 (86)		11.40 (73)		6.32 (97)	07/01/2007
Russell 1000 Growth Index	16.10	(53)	16.10	(53)	-2.34	(61)	12.75	(43)	16.92	(47)	16.53	(43)	13.50	(28)	10.00	(32)
Difference	0.89		0.89		6.29		7.82		-0.80		-2.94		-2.10		-3.68	
IM U.S. Large Cap Growth Equity (SA+CF+MF) Median	16.20		16.20		-1.82		12.12		16.60		16.12		12.51		9.48	
Rhumbline R1000G	16.08	(47)	16.08	(47)	-2.35	(61)	12.73	(48)	N/A		N/A		N/A		11.30	(54)
Russell 1000 Growth Index	16.10	(46)	16.10	(46)	-2.34	(61)	12.75	(48)	16.92	(45)	16.53	(46)	13.50	(38)	11.32	(54)
Difference	-0.02		-0.02		-0.01		-0.02		N/A		N/A		N/A		-0.02	
IM U.S. Large Cap Growth Equity (SA+CF) Median	15.92		15.92		-1.57		12.46		16.19		16.34		12.80		11.70	
Polen Capital LCG	17.27	(28)	17.27	(28)	N/A		N/A		N/A		N/A		N/A		17.27	(28)
Russell 1000 Growth Index	16.10	(46)	16.10	(46)	-2.34	(61)	12.75	(48)	16.92	(45)	16.53	(46)	13.50	(38)	16.10	(46)
Difference	1.17		1.17		N/A		N/A		N/A		N/A		N/A		1.17	
IM U.S. Large Cap Growth Equity (SA+CF) Median	15.92		15.92		-1.57		12.46		16.19		16.34		12.80		15.92	
Lazard SMid Cap Core	14.68	(63)	14.68	(63)	-6.98	(77)	1.75	(71)	6.82	(71)	10.59	(78)	7.84	(75)	12.25	(89)
Russell 2500 Index	15.82	(28)	15.82	(28)	-5.59	(53)	4.48	(39)	8.33	(57)	12.56	(47)	7.79	(76)	13.01	(80)
Difference	-1.14		-1.14		-1.39		-2.73		-1.51		-1.97		0.05		-0.76	
IM U.S. SMID Cap Core Equity (SA+CF) Median	15.02		15.02		-5.56		3.58		8.68		12.50		8.48		13.57	
Vanguard Mid-Cap Index (VIMAX)	16.77	(8)	16.77	(8)	-1.28	(12)	5.98	(16)	9.10	(16)	11.58	(23)	N/A		8.24	(20)
CRSP U.S. Mid Cap TR Index	16.79	(6)	16.79	(6)	-1.26	(12)	5.99	(15)	9.13	(14)	11.63	(22)	8.89	(12)	8.28	(19)
Difference	-0.02		-0.02		-0.02		-0.01		-0.03		-0.05		N/A		-0.04	
IM U.S. Mid Cap Core Equity (MF) Median	14.58		14.58		-3.59		2.76		5.37		9.32		6.19		6.01	
Total Int'l Equity (Composite)	11.60		11.60		-5.19		-4.86		6.49		7.17		3.02		3.76	05/01/2007
Harding Loevner Intl Equity (HLMIX)	11.60	(35)	11.60	(35)	-5.19	(73)	-4.86	(32)	6.49	(31)	N/A		N/A		7.16	(40)
MSCI AC World ex USA (Net)	10.31	(54)	10.31	(54)	-2.33	(48)	-4.22	(26)	5.65	(41)	8.09	(39)	2.57	(50)	7.43	(35)
Difference	1.29		1.29		-2.86		-0.64		0.84		N/A		N/A		-0.27	
IM International Equity (MF) Median	10.53		10.53		-2.60		-7.09		4.99		7.21		2.55		6.58	



**Comparative Performance
Total Fund Trailing Returns**

As of March 31, 2019

	QTR	YTD	FYTD	1 YR	2 YR	3 YR	5 YR	Inception	Inception Date
Total Core Fixed Income	2.50	2.50	3.79	4.07	2.62	2.35	3.19	4.14	10/01/2005
Core Fixed Policy	2.94	2.94	4.63	4.48	2.83	2.03	2.74	4.04	
Difference	-0.44	-0.44	-0.84	-0.41	-0.21	0.32	0.45	0.10	
Garcia Hamilton Fixed Income	2.50 (96)	2.50 (96)	3.79 (95)	4.07 (95)	N/A	N/A	N/A	2.79 (31)	01/01/2018
Blmbg. Barc. U.S. Aggregate Index	2.94 (83)	2.94 (83)	4.63 (55)	4.48 (80)	2.83 (89)	2.03 (89)	2.74 (90)	2.36 (84)	
Difference	-0.44	-0.44	-0.84	-0.41	N/A	N/A	N/A	0.43	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	3.23	3.23	4.65	4.70	3.16	2.54	3.10	2.63	
Total Non-Core Fixed Income	1.08	1.08	2.25	3.66	4.41	7.00	4.90	7.90	07/01/2010
Bloomberg Barclays Global Aggregate	2.20	2.20	3.43	-0.38	3.23	1.49	1.04	2.35	
Difference	-1.12	-1.12	-1.18	4.04	1.18	5.51	3.86	5.55	
Templeton Global Total Return (FTTRX)	1.94 (87)	1.94 (87)	4.24 (18)	2.38 (39)	1.36 (97)	5.24 (3)	2.25 (28)	3.48 (14)	07/01/2011
Blmbg. Barc. Global Multiverse	2.39 (76)	2.39 (76)	3.44 (45)	-0.29 (56)	3.32 (25)	1.85 (67)	1.20 (58)	1.55 (67)	
Difference	-0.45	-0.45	0.80	2.67	-1.96	3.39	1.05	1.93	
IM Global Fixed Income (MF) Median	3.10	3.10	3.22	0.24	2.78	2.25	1.31	1.94	
Total Real Estate (Composite)	0.98	0.98	2.72	8.39	9.03	8.92	10.60	4.43	07/01/2007
American Core Realty	1.74 (65)	1.74 (65)	3.71 (48)	8.20 (53)	8.12 (59)	7.65 (82)	9.82 (81)	5.52 (71)	07/01/2007
NCREIF ODCE	1.68 (66)	1.68 (66)	3.32 (75)	7.73 (69)	7.95 (69)	8.17 (63)	10.34 (62)	5.51 (73)	
Difference	0.06	0.06	0.39	0.47	0.17	-0.52	-0.52	0.01	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.93	1.93	3.68	8.23	8.25	8.56	10.54	5.77	
Total Timber (Composite)	0.00	0.00	4.19	4.54	-2.77	-1.51	1.81	2.88	07/01/2007
Molpus Woodlands Timber	0.00	0.00	4.51	4.85	0.97	1.05	2.34	2.68	06/01/2008
NCREIF Timberland Index	N/A	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	N/A	

^ Some products shown on IRR page.



As of March 31, 2019

Comparative Performance - IRR

	QTR	Inception	Inception Date
Molpus Woodlands Timber	0.00	2.20	06/24/2008
Angelo Gordon Net Lease Realty Fund III, L.P.	0.00	6.43	03/10/2014
Dune Real Estate Fund III	0.00	13.18	11/06/2014
Crescent Direct Lending Levered Fund	0.00	7.56	10/09/2014



Comparative Performance
Total Fund Trailing Returns
As of March 31, 2019

Comparative Performance												
	FYTD	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013	Oct-2011 To Sep-2012	Oct-2010 To Sep-2011			
Total Fund (Net)	-0.41 (63)	8.29 (12)	11.09 (29)	8.82 (50)	-1.22 (28)	10.01 (28)	10.96 (41)	16.79 (51)	1.26 (20)			
Total Fund Policy	0.61 (37)	8.59 (11)	11.90 (17)	10.34 (19)	0.55 (5)	10.23 (25)	10.24 (51)	15.21 (75)	2.15 (12)			
Difference	-1.02	-0.30	-0.81	-1.52	-1.77	-0.22	0.72	1.58	-0.89			
IM Mixed-Asset Target Alloc Moderate (MF) Median	0.13	5.04	9.98	8.78	-2.36	8.34	10.27	16.82	-0.55			
Total Fund (Gross)	-0.26 (71)	8.66 (28)	11.49 (60)	9.41 (64)	-0.72 (50)	10.58 (37)	11.52 (67)	17.35 (52)	1.61 (29)			
Total Fund Policy	0.61 (33)	8.59 (29)	11.90 (52)	10.34 (28)	0.55 (20)	10.23 (44)	10.24 (79)	15.21 (81)	2.15 (22)			
Difference	-0.87	0.07	-0.41	-0.93	-1.27	0.35	1.28	2.14	-0.54			
All Public Plans-Total Fund Median	0.21	7.59	12.01	9.72	-0.78	9.83	12.45	17.45	0.50			
Total Equity	-2.59	13.13	16.40	11.59	-3.61	13.96	21.06	25.94	-0.85			
Total Equity Policy	-2.24	13.60	18.94	13.34	-6.20	11.73	19.62	22.72	-4.71			
Difference	-0.35	-0.47	-2.54	-1.75	2.59	2.23	1.44	3.22	3.86			
Total Domestic Equity	-1.62 (31)	16.10 (45)	14.99 (79)	12.80 (36)	-1.73 (53)	17.23 (34)	22.56 (56)	27.44 (46)	3.01 (16)			
Total Domestic Equity Policy	-2.25 (39)	17.73 (32)	18.62 (46)	14.77 (18)	-1.18 (47)	17.67 (29)	22.03 (60)	29.64 (25)	0.48 (32)			
Difference	0.63	-1.63	-3.63	-1.97	-0.55	-0.44	0.53	-2.20	2.53			
IM U.S. All Cap Equity (SA+CF+MF) Median	-3.22	15.07	18.20	11.48	-1.46	15.77	23.34	26.94	-1.62			
Total Int'l Equity	-5.19 (79)	5.85 (14)	18.68 (69)	7.98 (50)	-8.63 (65)	6.07 (50)	16.67 (89)	21.58 (5)	-10.95 (69)			
Total Int'l Policy	-2.33 (32)	1.76 (60)	19.61 (59)	9.26 (33)	-12.16 (90)	4.77 (63)	16.48 (90)	14.49 (83)	-10.81 (69)			
Difference	-2.86	4.09	-0.93	-1.28	3.53	1.30	0.19	7.09	-0.14			
IM International Large Cap Core Equity (SA+CF) Median	-3.69	2.46	20.20	7.86	-7.08	6.04	22.60	17.31	-9.42			
Total Fixed Income	3.45 (74)	0.99 (12)	3.93 (19)	5.81 (48)	2.09 (44)	6.00 (22)	2.81 (8)	11.79 (14)	3.12 (76)			
Total Fixed Policy	4.63 (22)	-1.22 (64)	0.07 (84)	5.19 (68)	2.94 (17)	3.96 (74)	-2.35 (90)	5.75 (84)	5.96 (9)			
Difference	-1.18	2.21	3.86	0.62	-0.85	2.04	5.16	6.04	-2.84			
IM U.S. Broad Market Fixed Income (SA+CF+MF) Median	4.15	-0.91	1.29	5.72	1.83	4.74	-0.97	7.75	4.40			
Total Real Estate	2.72 (86)	10.10 (27)	9.82 (31)	9.06 (97)	14.70 (62)	12.33 (69)	8.10 (100)	13.00 (46)	14.11 (90)			
NCREIF ODCE	3.32 (75)	8.82 (59)	7.81 (60)	10.62 (69)	14.71 (62)	12.39 (68)	12.47 (67)	11.77 (63)	18.03 (44)			
Difference	-0.60	1.28	2.01	-1.56	-0.01	-0.06	-4.37	1.23	-3.92			
IM U.S. Open End Private Real Estate (SA+CF) Median	3.68	9.04	8.29	11.32	15.45	12.78	13.18	12.87	16.96			
Total Timber	4.19	-9.38	0.28	6.48	6.70	9.49	4.51	-5.86	3.87			
NCREIF Timberland Index	N/A	4.00	3.28	3.28	9.26	10.38	9.68	2.25	0.26			
Difference	N/A	-13.38	-3.00	3.20	-2.56	-0.89	-5.17	-8.11	3.61			
Total Alternatives	N/A	4.94	8.16	9.11	-3.68	6.84	-9.88	-8.55	-0.85			
Alternatives Policy	1.69	8.07	9.04	10.41	1.10	7.56	-3.91	-2.59	1.58			
Difference	N/A	-3.13	-0.88	-1.30	-4.78	-0.72	-5.97	-5.96	-2.43			



**Comparative Performance
Total Fund Trailing Returns**

As of March 31, 2019

	FYTD	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013	Oct-2011 To Sep-2012	Oct-2010 To Sep-2011
Total Domestic Equity (Composite)	-1.62	16.10	14.99	12.80	-1.73	17.23	22.56	27.44	3.01
Vanguard Total Stock Mkt (VTSAX)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRSP U.S. Total Market TR Index	-2.20 (38)	17.62 (31)	18.64 (40)	14.99 (27)	-0.55 (46)	17.77 (23)	21.59 (55)	29.96 (29)	0.46 (32)
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM U.S. Equity (MF) Median	-3.37	13.29	17.48	12.13	-0.92	13.74	22.53	27.33	-1.87
Macquarie (Delaware Value)	N/A	N/A	12.49 (89)	19.29 (10)	-3.67 (57)	21.59 (17)	24.74 (41)	29.80 (34)	6.36 (7)
Russell 1000 Value Index	-1.19 (26)	9.45 (77)	15.12 (75)	16.19 (26)	-4.42 (64)	18.89 (43)	22.30 (60)	30.92 (26)	-1.89 (62)
Difference	N/A	N/A	-2.63	3.10	0.75	2.70	2.44	-1.12	8.25
IM U.S. Large Cap Value Equity (SA+CF) Median	-2.95	11.72	17.89	13.22	-3.29	18.40	23.76	28.16	-0.98
Boston LCV	-4.59 (71)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Value Index	-1.19 (26)	9.45 (77)	15.12 (75)	16.19 (26)	-4.42 (64)	18.89 (43)	22.30 (60)	30.92 (26)	-1.89 (62)
Difference	-3.40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM U.S. Large Cap Value Equity (SA+CF) Median	-2.95	11.72	17.89	13.22	-3.29	18.40	23.76	28.16	-0.98
Total Growth	3.95 (3)	22.19 (74)	14.70 (95)	7.63 (88)	4.20 (36)	18.19 (40)	18.74 (62)	29.37 (35)	8.43 (2)
Russell 1000 Growth Index	-2.34 (61)	26.30 (38)	21.94 (31)	13.76 (20)	3.17 (49)	19.15 (28)	19.27 (56)	29.19 (36)	3.78 (22)
Difference	6.29	-4.11	-7.24	-6.13	1.03	-0.96	-0.53	0.18	4.65
IM U.S. Large Cap Growth Equity (SA+CF+MF) Median	-1.82	24.87	20.28	11.16	3.07	17.24	19.73	27.44	0.80
Rhumblin R1000G	-2.35 (61)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Growth Index	-2.34 (61)	26.30 (36)	21.94 (37)	13.76 (23)	3.17 (55)	19.15 (40)	19.27 (63)	29.19 (39)	3.78 (30)
Difference	-0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM U.S. Large Cap Growth Equity (SA+CF) Median	-1.57	24.38	20.82	11.64	3.61	18.18	20.25	27.65	1.38
Sawgrass Large Cap Growth	4.72 (4)	21.72 (66)	14.70 (92)	7.63 (87)	4.20 (40)	18.19 (50)	18.74 (69)	29.37 (38)	N/A
Russell 1000 Growth Index	-2.34 (61)	26.30 (36)	21.94 (37)	13.76 (23)	3.17 (55)	19.15 (40)	19.27 (63)	29.19 (39)	3.78 (30)
Difference	7.06	-4.58	-7.24	-6.13	1.03	-0.96	-0.53	0.18	N/A
IM U.S. Large Cap Growth Equity (SA+CF) Median	-1.57	24.38	20.82	11.64	3.61	18.18	20.25	27.65	1.38
Polen Capital LCG	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Growth Index	-2.34 (61)	26.30 (36)	21.94 (37)	13.76 (23)	3.17 (55)	19.15 (40)	19.27 (63)	29.19 (39)	3.78 (30)
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM U.S. Large Cap Growth Equity (SA+CF) Median	-1.57	24.38	20.82	11.64	3.61	18.18	20.25	27.65	1.38
Lazard SMid Cap Core	-6.98 (77)	13.70 (69)	20.53 (25)	10.26 (88)	4.02 (40)	11.99 (36)	31.12 (33)	30.14 (52)	-9.00 (97)
Russell 2500 Index	-5.59 (53)	16.19 (57)	17.79 (71)	14.44 (35)	0.38 (74)	8.97 (72)	29.79 (58)	30.93 (41)	-2.22 (71)
Difference	-1.39	-2.49	2.74	-4.18	3.64	3.02	1.33	-0.79	-6.78
IM U.S. SMID Cap Core Equity (SA+CF) Median	-5.56	16.28	18.86	12.61	2.28	11.29	30.27	30.24	-0.86



**Comparative Performance
Total Fund Trailing Returns**

As of March 31, 2019

	FYTD		Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013	Oct-2011 To Sep-2012	Oct-2010 To Sep-2011
Vanguard Mid-Cap Index (VIMAX)	-1.28	(12)	13.42 (30)	15.30 (49)	12.63 (39)	N/A	N/A	N/A	N/A	N/A
CRSP U.S. Mid Cap TR Index	-1.26	(12)	13.44 (30)	15.33 (47)	12.68 (37)	1.76 (20)	15.94 (14)	28.08 (40)	26.23 (50)	-0.18 (21)
Difference	-0.02		-0.02	-0.03	-0.05	N/A	N/A	N/A	N/A	N/A
IM U.S. Mid Cap Core Equity (MF) Median	-3.59		10.82	15.25	11.65	-1.26	12.56	27.41	26.17	-3.68
Total Int'l Equity (Composite)	-5.19		5.85	18.68	7.98	-8.63	6.07	16.67	21.58	-10.95
Harding Loevner Intl Equity (HLMIX)	-5.19	(73)	5.85 (10)	18.65 (58)	N/A	N/A	N/A	N/A	N/A	N/A
MSCI AC World ex USA (Net)	-2.33	(48)	1.76 (34)	19.61 (48)	9.26 (51)	-12.16 (64)	4.77 (43)	16.48 (56)	14.49 (65)	-10.81 (38)
Difference	-2.86		4.09	-0.96	N/A	N/A	N/A	N/A	N/A	N/A
IM International Equity (MF) Median	-2.60		0.08	19.36	9.33	-8.76	4.27	17.81	16.20	-12.09



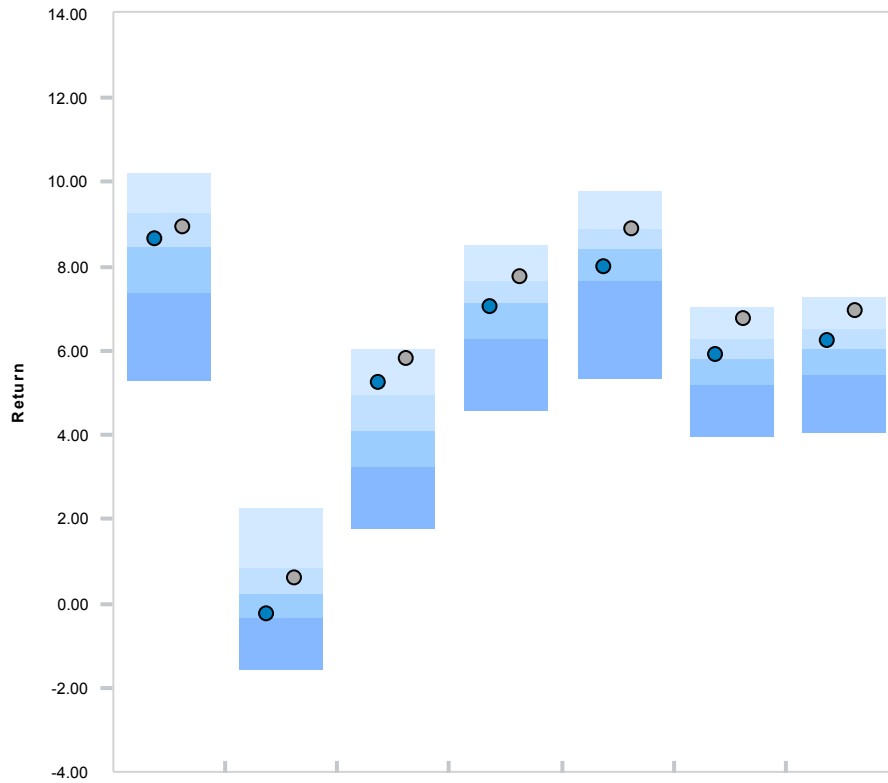
**Comparative Performance
Total Fund Trailing Returns**

As of March 31, 2019

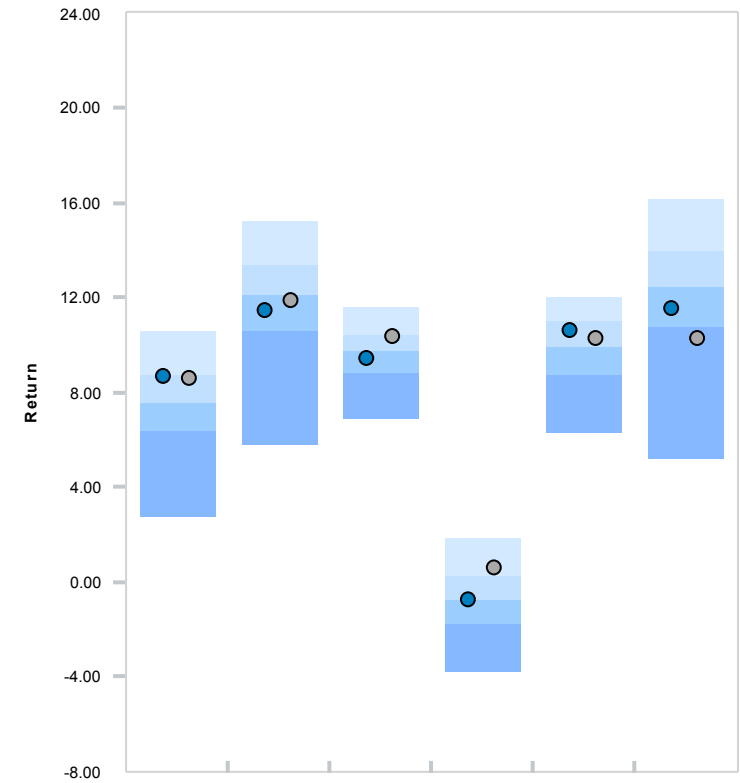
	FYTD	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013	Oct-2011 To Sep-2012	Oct-2010 To Sep-2011
Total Core Fixed Income	3.79	-0.67	0.82	5.78	3.88	4.40	-1.26	7.71	4.42
Core Fixed Policy	4.63	-1.22	0.07	5.19	2.94	3.96	-1.68	5.16	5.26
Difference	-0.84	0.55	0.75	0.59	0.94	0.44	0.42	2.55	-0.84
Garcia Hamilton Fixed Income	3.79 (95)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Blmbg. Barc. U.S. Aggregate Index	4.63 (55)	-1.22 (89)	0.07 (87)	5.19 (81)	2.94 (60)	3.96 (81)	-1.68 (80)	5.16 (91)	5.26 (49)
Difference	-0.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	4.65	-0.74	0.62	5.67	3.02	4.51	-1.22	6.62	5.26
Mutual of America Core Fixed	N/A	N/A	0.82 (39)	5.78 (44)	3.88 (7)	4.43 (53)	-1.01 (39)	7.24 (38)	N/A
Blmbg. Barc. U.S. Aggregate Index	4.63 (55)	-1.22 (89)	0.07 (87)	5.19 (81)	2.94 (60)	3.96 (81)	-1.68 (80)	5.16 (91)	5.26 (49)
Difference	N/A	N/A	0.75	0.59	0.94	0.47	0.67	2.08	N/A
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	4.65	-0.74	0.62	5.67	3.02	4.51	-1.22	6.62	5.26
Total Non-Core Fixed Income	2.25	4.97	11.18	6.07	-2.56	9.33	11.74	24.76	-3.22
Bloomberg Barclays Global Aggregate	3.43	-1.31	-1.26	8.83	-3.26	1.19	-2.64	5.07	4.00
Difference	-1.18	6.28	12.44	-2.76	0.70	8.14	14.38	19.69	-7.22
Templeton Global Total Return (FTTRX)	4.24 (18)	-1.90 (66)	13.82 (1)	2.64 (94)	-8.23 (95)	5.71 (22)	5.29 (2)	15.90 (3)	N/A
Blmbg. Barc. Global Multiverse	3.44 (45)	-1.32 (51)	-0.56 (77)	9.23 (25)	-3.56 (42)	1.40 (79)	-2.22 (56)	5.57 (81)	3.85 (11)
Difference	0.80	-0.58	14.38	-6.59	-4.67	4.31	7.51	10.33	N/A
IM Global Fixed Income (MF) Median	3.22	-1.29	1.02	7.42	-3.85	3.37	-1.81	7.17	1.74
Total Real Estate (Composite)	2.72	10.10	9.82	9.06	14.70	12.33	8.10	13.00	14.11
American Core Realty	3.71 (48)	8.50 (66)	7.52 (67)	9.04 (97)	13.98 (69)	12.49 (64)	12.27 (70)	11.56 (65)	16.11 (65)
NCREIF ODCE	3.32 (75)	8.82 (59)	7.81 (60)	10.62 (69)	14.71 (62)	12.39 (68)	12.47 (67)	11.77 (63)	18.03 (44)
Difference	0.39	-0.32	-0.29	-1.58	-0.73	0.10	-0.20	-0.21	-1.92
IM U.S. Open End Private Real Estate (SA+CF) Median	3.68	9.04	8.29	11.32	15.45	12.78	13.18	12.87	16.96
Total Timber (Composite)	4.19	-9.38	0.28	6.48	6.70	9.49	4.51	-5.86	3.87
Amsouth Timber Fund	N/A	-15.26	-0.52	6.12	11.73	7.98	3.85	-1.33	2.00
NCREIF Timberland Index	N/A	4.00	3.28	3.28	9.26	10.38	9.68	2.25	0.26
Difference	N/A	-19.26	-3.80	2.84	2.47	-2.40	-5.83	-3.58	1.74
Molpus Woodlands Timber	4.51	-2.66	1.18	6.08	1.64	10.96	5.25	-10.32	5.68
NCREIF Timberland Index	N/A	4.00	3.28	3.28	9.26	10.38	9.68	2.25	0.26
Difference	N/A	-6.66	-2.10	2.80	-7.62	0.58	-4.43	-12.57	5.42
Alternatives									
Westwood Income Opportunity Fund (WHGIX)	N/A	4.94 (36)	8.14 (60)	9.20 (40)	-3.83 (46)	N/A	N/A	N/A	N/A
Alternatives Policy	1.69 (23)	8.07 (18)	9.04 (50)	10.41 (24)	1.10 (11)	7.56 (55)	-3.91 (95)	-2.59 (100)	1.58 (24)
Difference	N/A	-3.13	-0.90	-1.21	-4.93	N/A	N/A	N/A	N/A
IM Flexible Portfolio (MF) Median	-0.38	3.38	9.03	8.56	-4.23	8.00	8.24	15.70	-0.87



Peer Group Analysis - All Public Plans-Total Fund



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Total Fund (Composite)	8.67 (44)	-0.26 (71)	5.22 (20)	7.04 (54)	7.96 (67)	5.88 (48)	6.21 (42)
● Total Fund Policy	8.94 (34)	0.61 (33)	5.79 (8)	7.76 (21)	8.87 (26)	6.76 (11)	6.96 (11)
Median	8.48	0.21	4.12	7.12	8.41	5.82	6.02



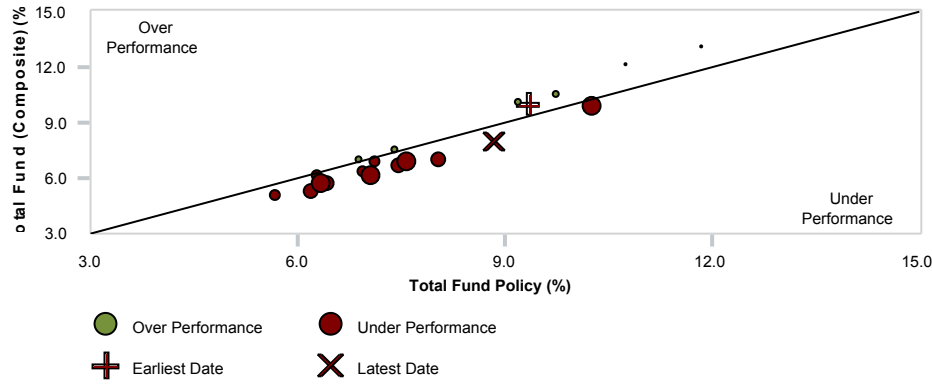
	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013
● Total Fund (Composite)	8.66 (28)	11.49 (60)	9.41 (64)	-0.72 (49)	10.58 (36)	11.52 (68)
● Total Fund Policy	8.59 (29)	11.90 (53)	10.34 (28)	0.55 (19)	10.23 (44)	10.24 (80)
Median	7.59	12.15	9.77	-0.79	9.92	12.46

Comparative Performance

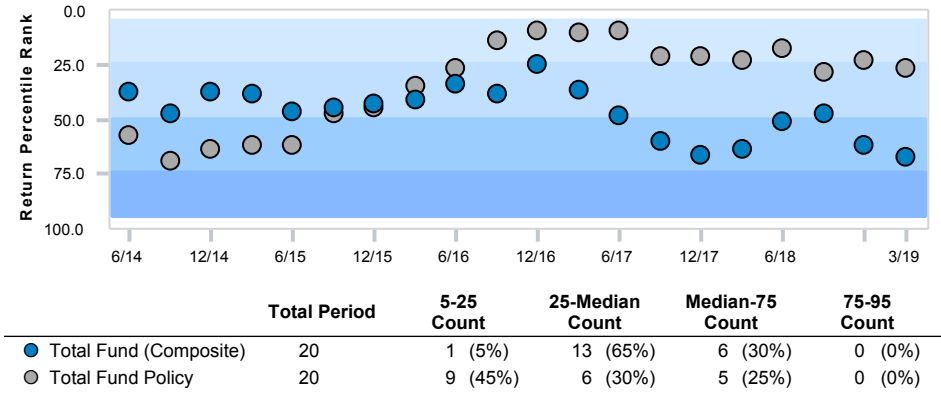
	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017
Total Fund (Composite)	-8.22 (61)	3.54 (14)	1.89 (18)	-0.29 (52)	3.29 (74)	3.21 (67)
Total Fund Policy	-7.65 (46)	3.50 (15)	1.60 (32)	-0.65 (78)	3.94 (30)	3.39 (55)
All Public Plans-Total Fund Median	-7.75	2.70	1.19	-0.27	3.64	3.46



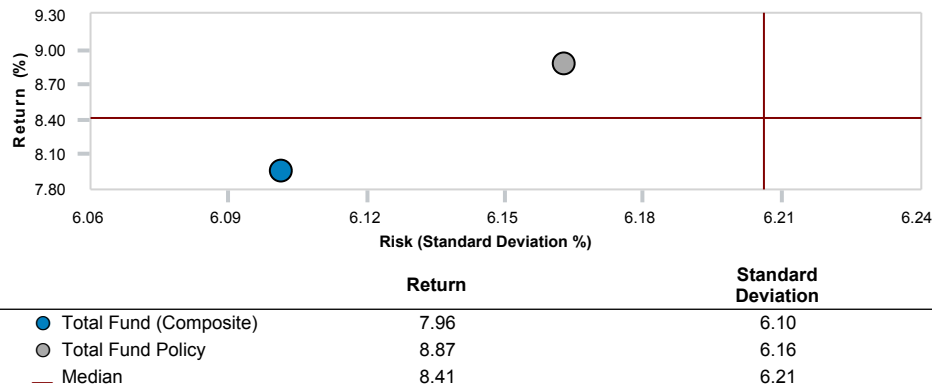
3 Yr Rolling Under/Over Performance - 5 Years



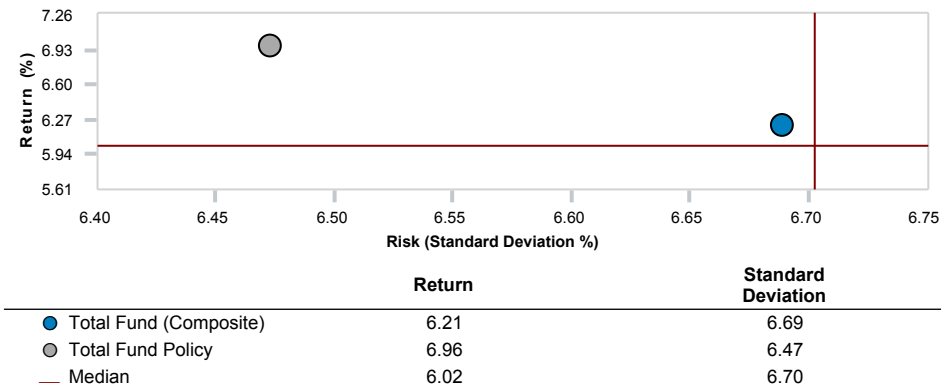
3 Yr Rolling Percentile Ranking - 5 Years



Peer Group Scattergram - 3 Years



Peer Group Scattergram - 5 Years



Historical Statistics - 3 Years

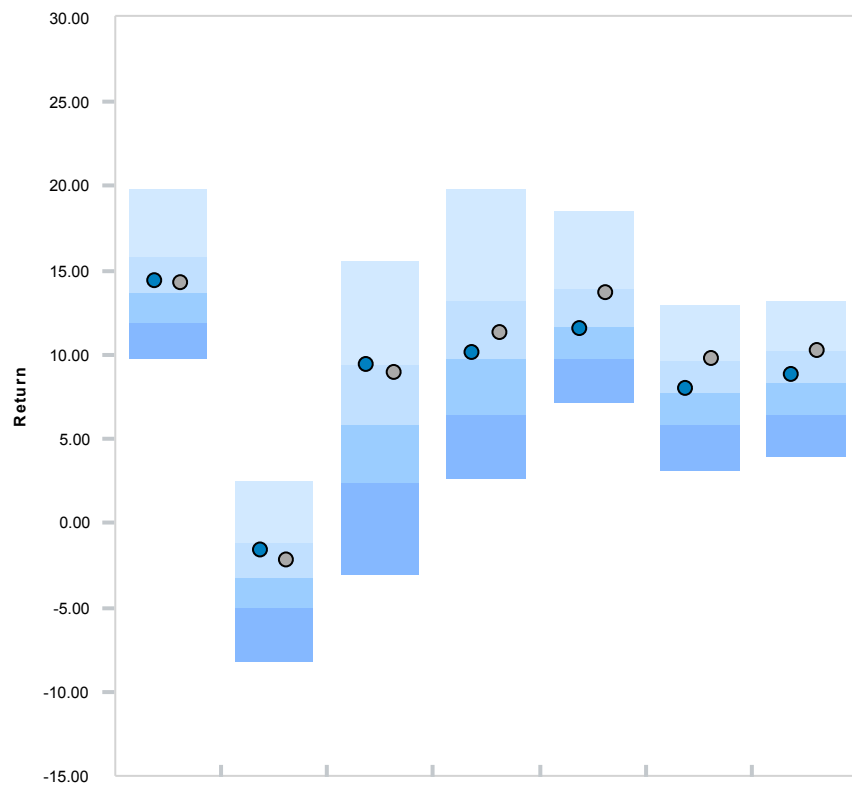
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Fund (Composite)	1.08	93.36	99.15	-0.62	-0.78	1.10	0.97	4.23
Total Fund Policy	0.00	100.00	100.00	0.00	N/A	1.22	1.00	4.08

Historical Statistics - 5 Years

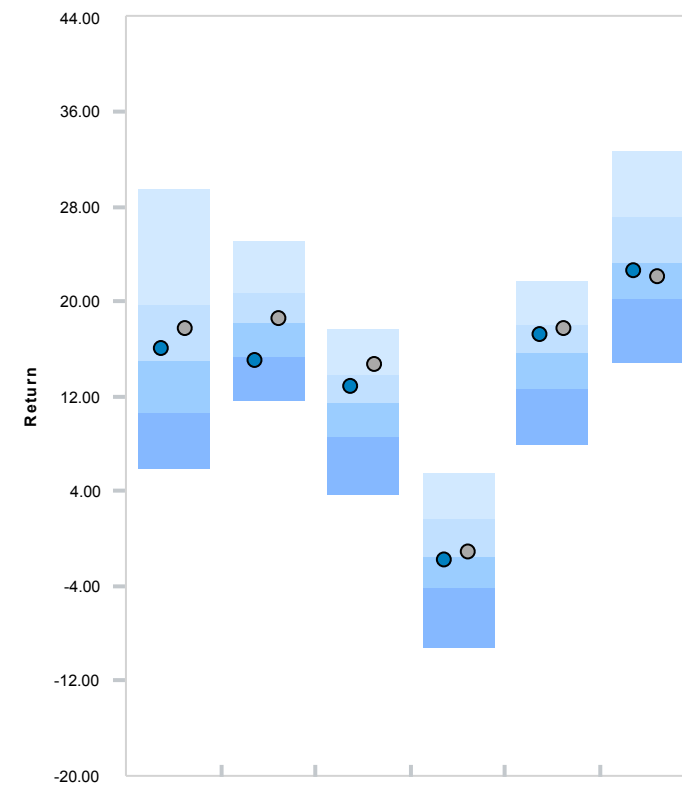
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Fund (Composite)	0.94	95.75	112.07	-0.86	-0.75	0.83	1.02	4.26
Total Fund Policy	0.00	100.00	100.00	0.00	N/A	0.97	1.00	3.85



Peer Group Analysis - IM U.S. All Cap Equity (SA+CF+MF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Total Domestic Equity	14.32 (42)	-1.62 (31)	9.36 (25)	10.07 (47)	11.49 (53)	7.93 (47)	8.76 (45)
● Total Domestic Equity Policy	14.23 (43)	-2.25 (39)	8.95 (27)	11.28 (37)	13.64 (28)	9.74 (24)	10.17 (27)
Median	13.68	-3.22	5.87	9.73	11.70	7.76	8.37



	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013
● Total Domestic Equity	16.10 (45)	14.99 (79)	12.80 (36)	-1.73 (53)	17.23 (34)	22.56 (56)
● Total Domestic Equity Policy	17.73 (32)	18.62 (46)	14.77 (18)	-1.18 (47)	17.67 (29)	22.03 (60)
Median	15.07	18.20	11.48	-1.46	15.77	23.34

Comparative Performance

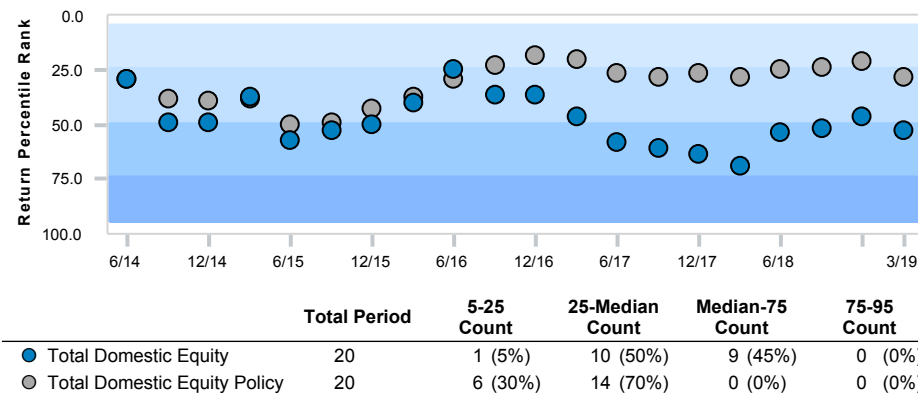
	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017
Total Domestic Equity	-13.94 (35)	6.44 (44)	4.44 (23)	-1.22 (66)	5.74 (57)	4.19 (55)
Total Domestic Equity Policy	-14.43 (43)	7.06 (32)	4.11 (28)	-0.70 (56)	6.37 (40)	4.50 (48)
IM U.S. All Cap Equity (SA+CF+MF) Median	-14.88	5.91	2.84	-0.51	6.01	4.36



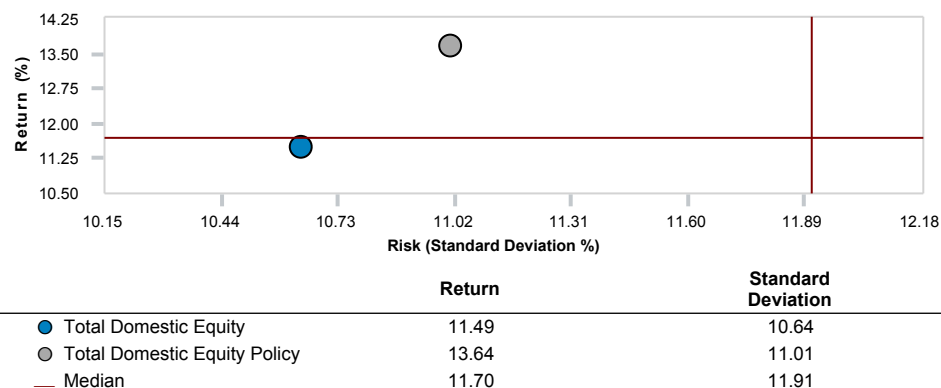
3 Yr Rolling Under/Over Performance - 5 Years



3 Yr Rolling Percentile Ranking - 5 Years



Peer Group Scattergram - 3 Years



Peer Group Scattergram - 5 Years



Historical Statistics - 3 Years

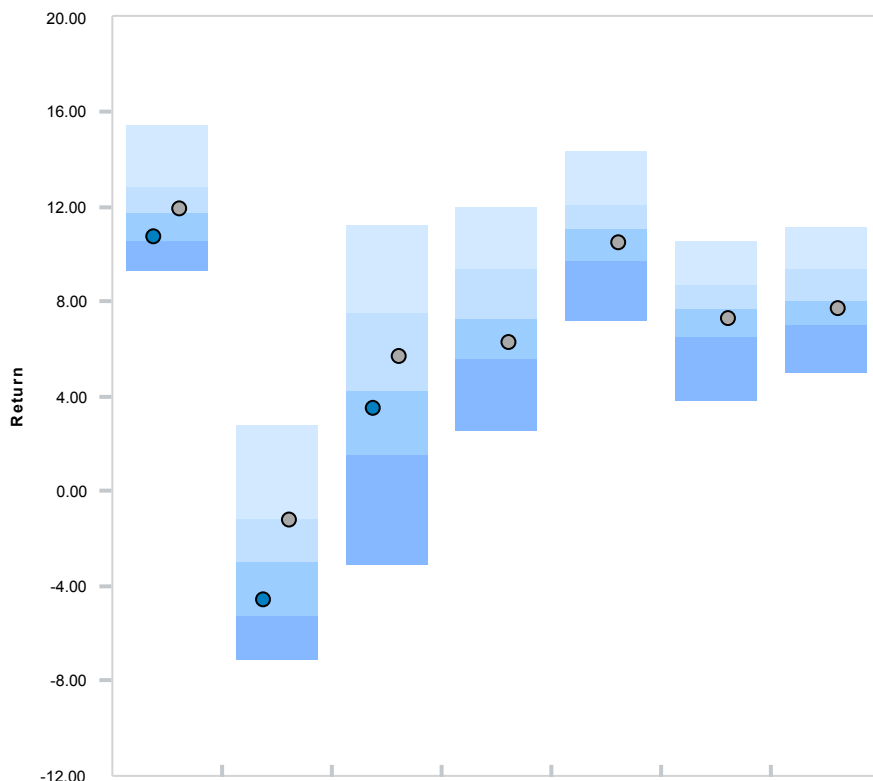
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Domestic Equity	1.95	90.04	97.69	-1.31	-1.01	0.97	0.95	7.33
Total Domestic Equity Policy	0.00	100.00	100.00	0.00	N/A	1.12	1.00	7.41

Historical Statistics - 5 Years

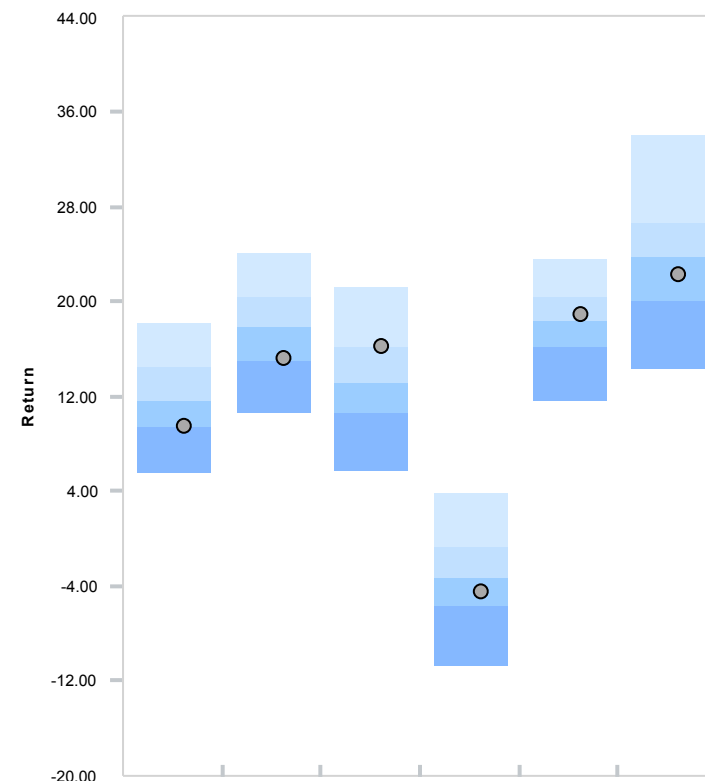
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Domestic Equity	1.99	89.48	92.22	-0.59	-0.69	0.77	0.92	7.04
Total Domestic Equity Policy	0.00	100.00	100.00	0.00	N/A	0.84	1.00	7.32



Peer Group Analysis - IM U.S. Large Cap Value Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Boston LCV	10.75 (72)	-4.59 (71)	3.50 (61)	N/A	N/A	N/A	N/A
● Russell 1000 Value Index	11.93 (46)	-1.19 (26)	5.67 (36)	6.31 (65)	10.45 (65)	7.32 (57)	7.72 (59)
Median	11.76	-2.95	4.23	7.28	11.10	7.67	8.03



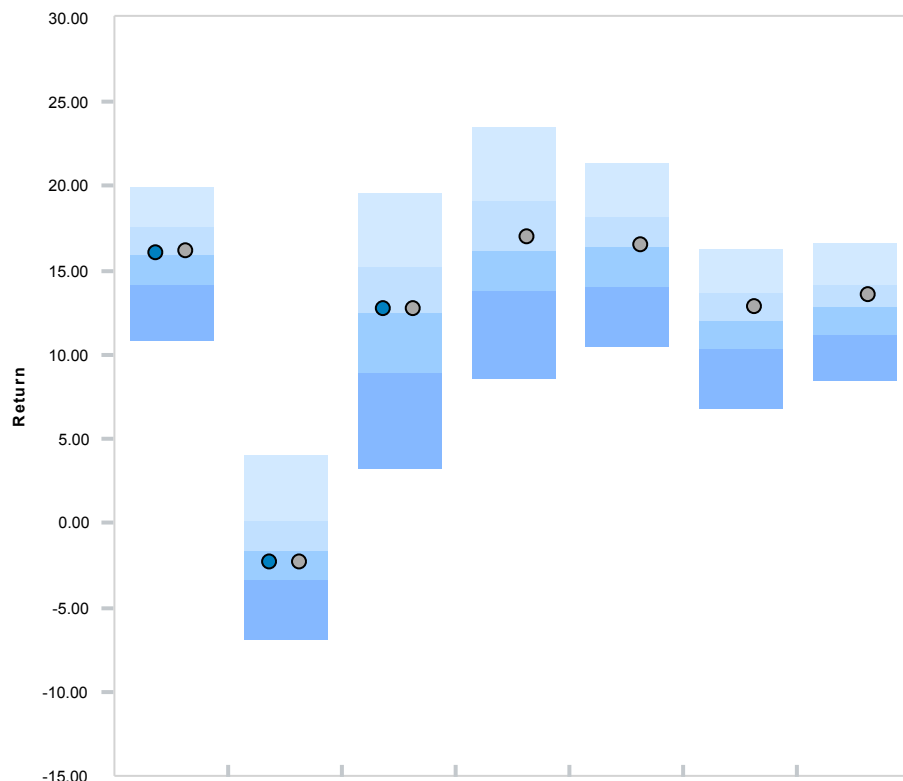
	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013
● Boston LCV	N/A	N/A	N/A	N/A	N/A	N/A
● Russell 1000 Value Index	9.45 (77)	15.12 (75)	16.19 (26)	-4.42 (64)	18.89 (43)	22.30 (60)
Median	11.72	17.89	13.22	-3.29	18.40	23.76

Comparative Performance

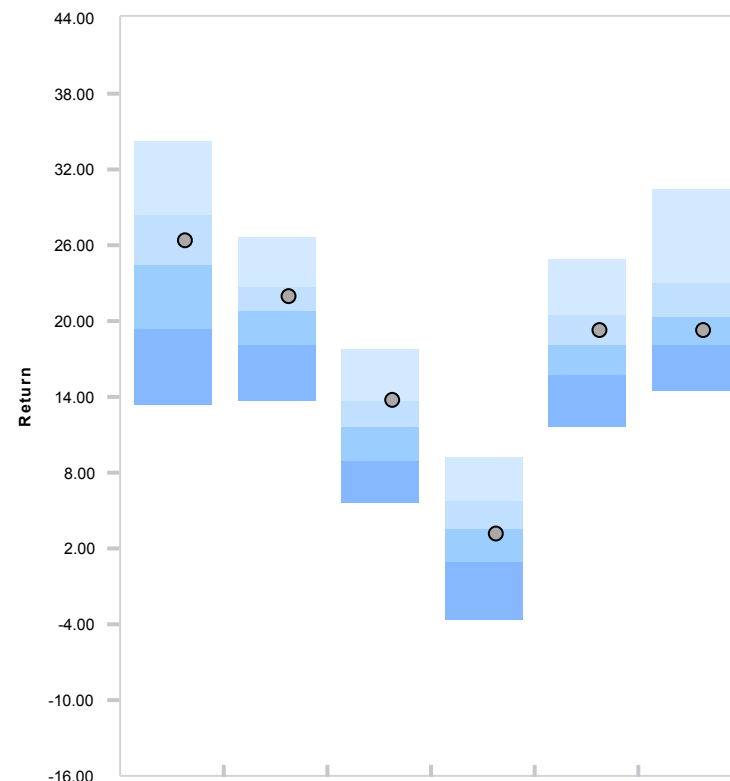
	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017
Boston LCV	-13.85 (56)	6.11 (40)	2.23 (35)	-2.29 (60)	N/A	N/A
Russell 1000 Value Index	-11.72 (29)	5.70 (50)	1.18 (66)	-2.83 (74)	5.33 (76)	3.11 (80)
IM U.S. Large Cap Value Equity (SA+CF) Median	-13.55	5.70	1.73	-1.98	6.32	4.09



Peer Group Analysis - IM U.S. Large Cap Growth Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Rhumblin R1000G	16.08 (47)	-2.35 (61)	12.73 (48)	N/A	N/A	N/A	N/A
● Russell 1000 Growth I	16.10 (46)	-2.34 (61)	12.75 (48)	16.92 (45)	16.53 (46)	12.86 (38)	13.50 (38)
Median	15.92	-1.57	12.46	16.19	16.34	12.02	12.80



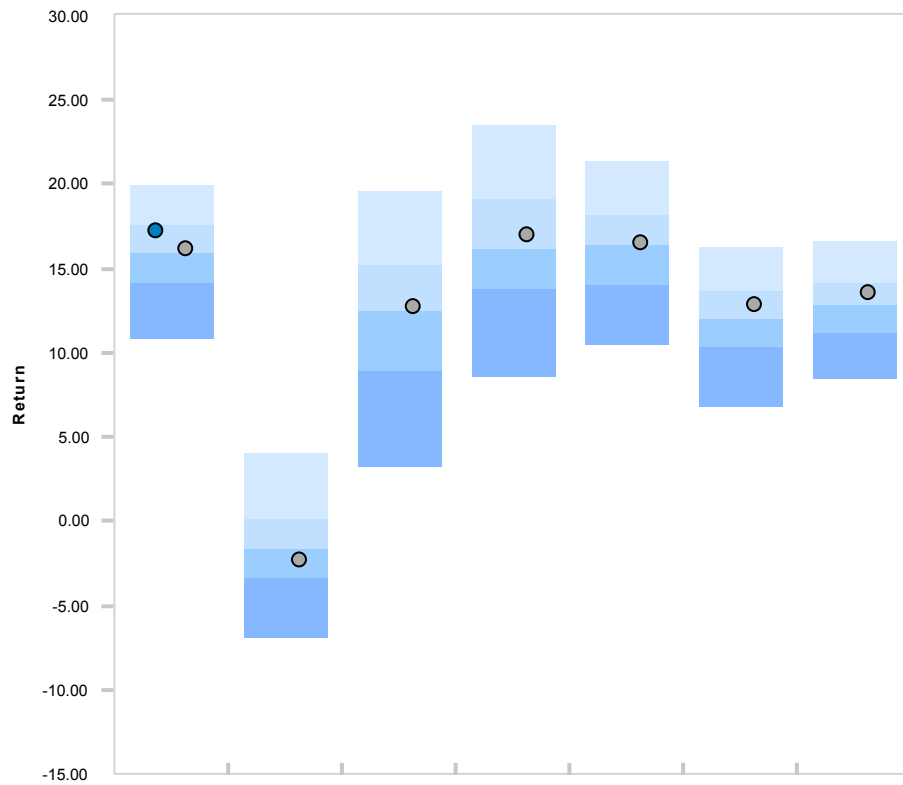
	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013
● Rhumblin R1000G	N/A	N/A	N/A	N/A	N/A	N/A
● Russell 1000 Growth I	26.30 (36)	21.94 (37)	13.76 (23)	3.17 (55)	19.15 (40)	19.27 (63)
Median	24.38	20.82	11.64	3.61	18.18	20.25

Comparative Performance

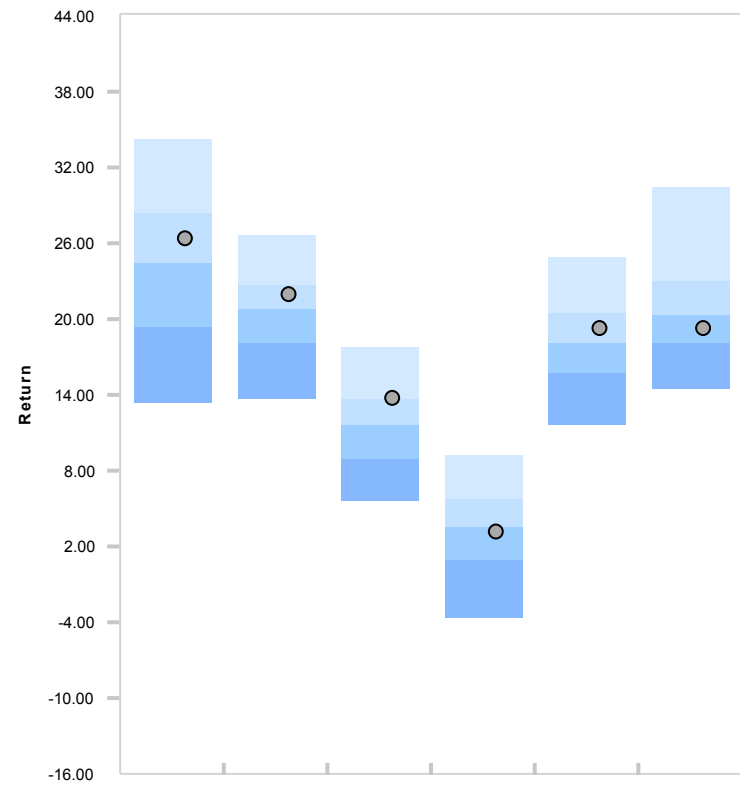
	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017
Rhumblin R1000G	-15.87 (62)	9.16 (23)	5.76 (42)	1.41 (61)	N/A	N/A
Russell 1000 Growth Index	-15.89 (62)	9.17 (23)	5.76 (42)	1.42 (61)	7.86 (21)	5.90 (35)
IM U.S. Large Cap Growth Equity (SA+CF) Median	-14.99	8.13	5.31	2.07	6.90	5.41



Peer Group Analysis - IM U.S. Large Cap Growth Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Polen Capital LCG	17.27 (28)	N/A	N/A	N/A	N/A	N/A	N/A
● Russell 1000 Growth I	16.10 (46)	-2.34 (61)	12.75 (48)	16.92 (45)	16.53 (46)	12.86 (38)	13.50 (38)
Median	15.92	-1.57	12.46	16.19	16.34	12.02	12.80



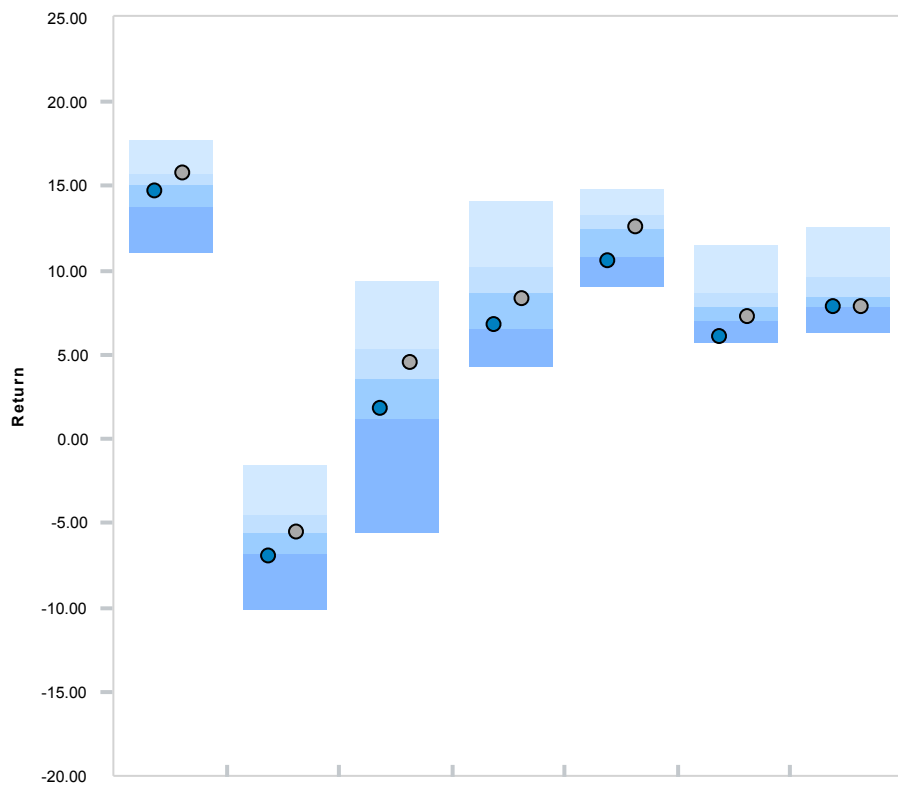
	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013
● Polen Capital LCG	N/A	N/A	N/A	N/A	N/A	N/A
● Russell 1000 Growth I	26.30 (36)	21.94 (37)	13.76 (23)	3.17 (55)	19.15 (40)	19.27 (63)
Median	24.38	20.82	11.64	3.61	18.18	20.25

Comparative Performance

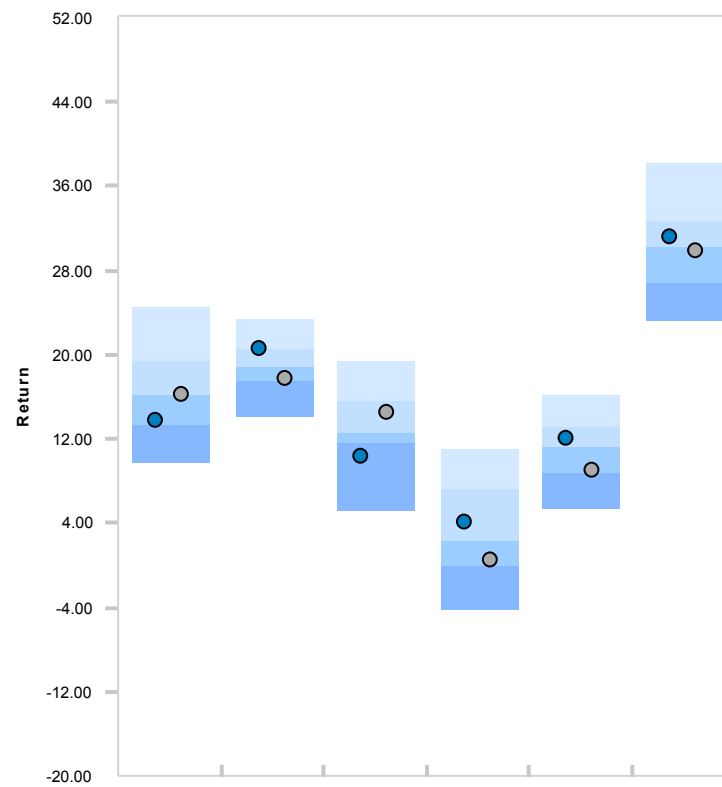
	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017
Polen Capital LCG	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Growth Index	-15.89 (62)	9.17 (23)	5.76 (42)	1.42 (61)	7.86 (21)	5.90 (35)
IM U.S. Large Cap Growth Equity (SA+CF) Median	-14.99	8.13	5.31	2.07	6.90	5.41



Peer Group Analysis - IM U.S. SMID Cap Core Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Lazard SMid Cap Core	14.68 (63)	-6.98 (77)	1.75 (71)	6.82 (71)	10.59 (78)	6.00 (86)	7.84 (75)
● Russell 2500 Index	15.82 (28)	-5.59 (53)	4.48 (39)	8.33 (57)	12.56 (47)	7.22 (73)	7.79 (76)
Median	15.02	-5.56	3.58	8.68	12.50	7.88	8.48



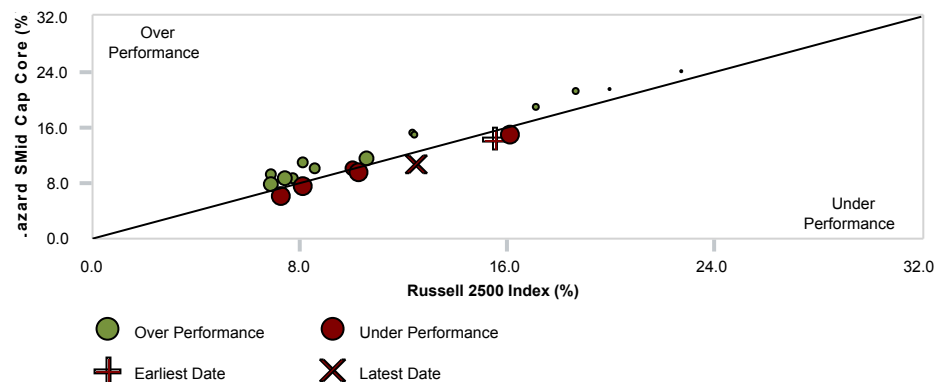
	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013
● Lazard SMid Cap Core	13.70 (69)	20.53 (25)	10.26 (88)	4.02 (40)	11.99 (36)	31.12 (33)
● Russell 2500 Index	16.19 (57)	17.79 (71)	14.44 (35)	0.38 (74)	8.97 (72)	29.79 (58)
Median	16.28	18.86	12.61	2.28	11.29	30.27

Comparative Performance

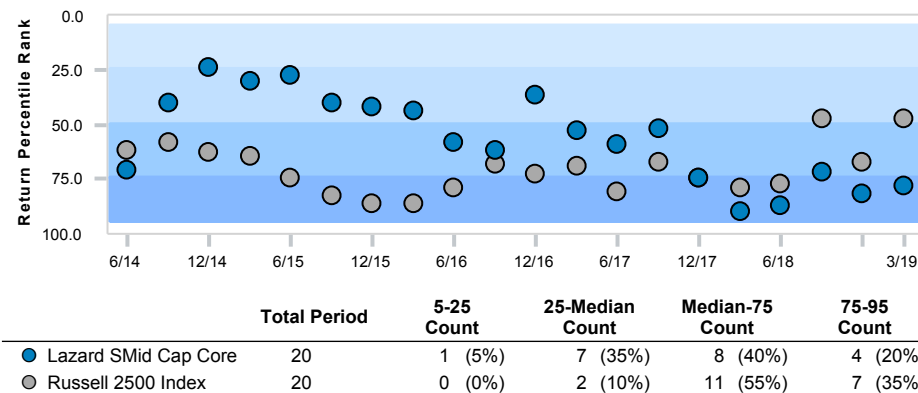
	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017
Lazard SMid Cap Core	-18.89 (70)	3.43 (75)	5.76 (29)	-0.98 (85)	4.98 (68)	4.40 (55)
Russell 2500 Index	-18.49 (64)	4.70 (55)	5.71 (33)	-0.24 (65)	5.24 (56)	4.74 (48)
IM U.S. SMID Cap Core Equity (SA+CF) Median	-18.23	4.80	4.67	0.17	5.46	4.72



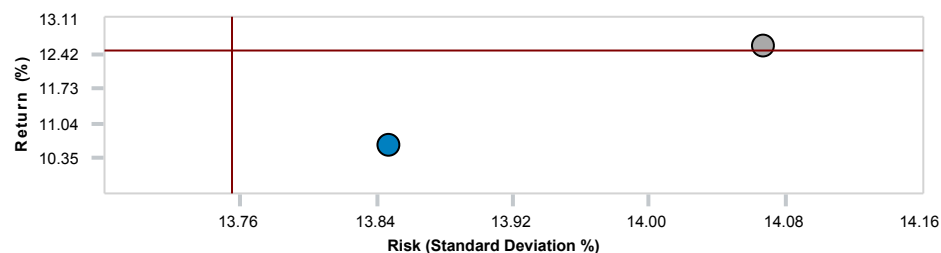
3 Yr Rolling Under/Over Performance - 5 Years



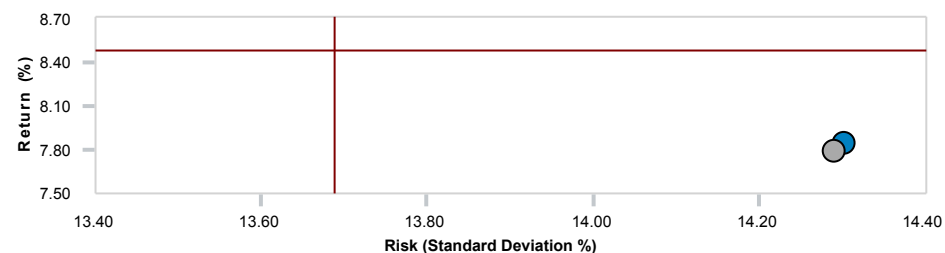
3 Yr Rolling Percentile Ranking - 5 Years



Peer Group Scattergram - 3 Years



Peer Group Scattergram - 5 Years



Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Lazard SMid Cap Core	3.42	89.91	94.40	-1.22	-0.53	0.71	0.95	9.62
Russell 2500 Index	0.00	100.00	100.00	0.00	N/A	0.83	1.00	9.34

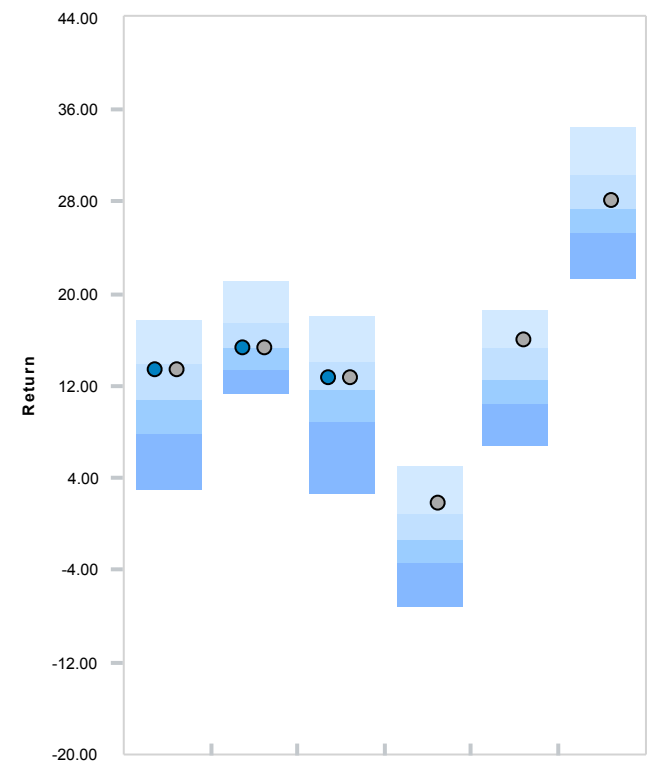
Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Lazard SMid Cap Core	3.22	98.13	96.68	0.26	0.02	0.55	0.98	9.70
Russell 2500 Index	0.00	100.00	100.00	0.00	N/A	0.55	1.00	9.60



Peer Group Analysis - IM U.S. Mid Cap Core Equity (MF)

No data found.



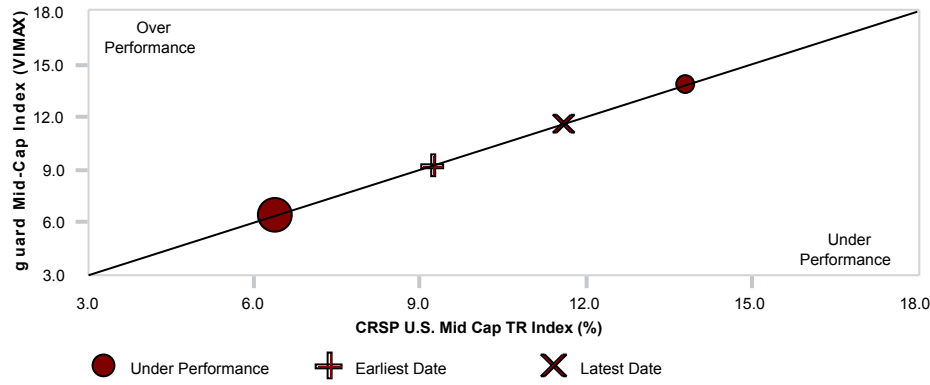
	Oct-2017 To Sep- 2018	Oct-2016 To Sep- 2017	Oct-2015 To Sep- 2016	Oct-2014 To Sep- 2015	Oct-2013 To Sep- 2014	Oct-2012 To Sep- 2013
● Vanguard Mid-Cap Index (VIMAX)	3.42 (30)	5.30 (49)	2.63 (39)	N/A	N/A	N/A
● CRSP U.S. Mid Cap TR Index	3.44 (30)	5.33 (47)	2.68 (37)	1.76 (20)	5.94 (14)	8.08 (40)
Median	0.82	5.25	1.65	-1.26	2.56	7.41

Comparative Performance

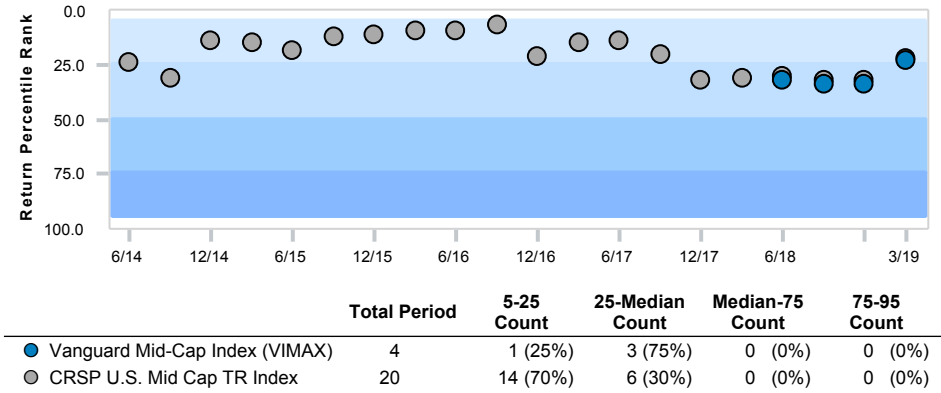
	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017
Vanguard Mid-Cap Index (VIMAX)	-15.46 (47)	4.66 (40)	2.57 (41)	0.01 (20)	5.64 (43)	3.43 (50)
CRSP U.S. Mid Cap TR Index	-15.46 (47)	4.65 (41)	2.58 (39)	0.03 (19)	5.65 (42)	3.43 (50)
IM U.S. Mid Cap Core Equity (MF) Median	-15.76	4.11	2.31	-1.27	5.43	3.43



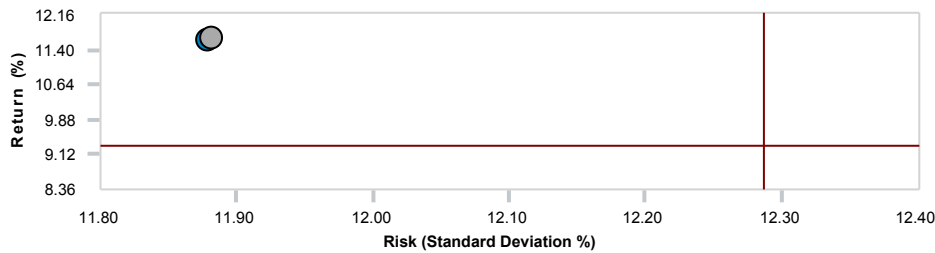
3 Yr Rolling Under/Over Performance - 5 Years



3 Yr Rolling Percentile Ranking - 5 Years

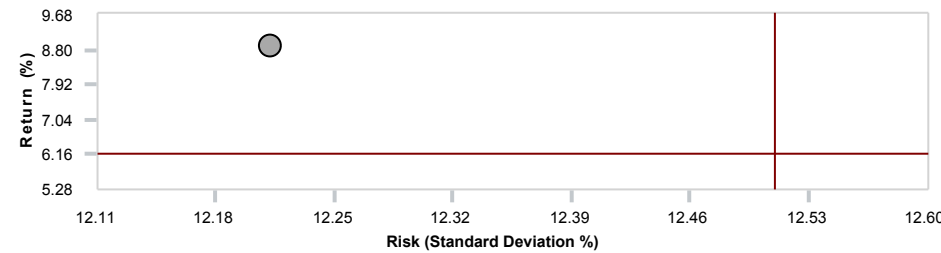


Peer Group Scattergram - 3 Years



	Return	Standard Deviation
● Vanguard Mid-Cap Index (VIMAX)	11.58	11.88
● CRSP U.S. Mid Cap TR Index	11.63	11.88
— Median	9.32	12.29

Peer Group Scattergram - 5 Years



	Return	Standard Deviation
● Vanguard Mid-Cap Index (VIMAX)	N/A	N/A
● CRSP U.S. Mid Cap TR Index	8.89	12.21
— Median	6.19	12.51

Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Vanguard Mid-Cap Index (VIMAX)	0.02	99.85	100.08	-0.03	-1.63	0.89	1.00	8.05
CRSP U.S. Mid Cap TR Index	0.00	100.00	100.00	0.00	N/A	0.89	1.00	8.05

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Vanguard Mid-Cap Index (VIMAX)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRSP U.S. Mid Cap TR Index	0.00	100.00	100.00	0.00	N/A	0.70	1.00	8.01



Fund Information

Fund Name : Vanguard Index Funds: Vanguard Mid-Cap Index Fund; Admiral Shares
 Fund Family : Vanguard Group Inc
 Ticker : VIMAX
 Inception Date : 11/12/2001
 Fund Assets : \$40,666 Million
 Portfolio Turnover : 16%

Portfolio Assets : \$105,151 Million
 Portfolio Manager : Butler/Johnson
 PM Tenure : 2001--2016
 Fund Style : IM U.S. Mid Cap Core Equity (MF)
 Style Benchmark : CRSP U.S. Mid Cap TR Index

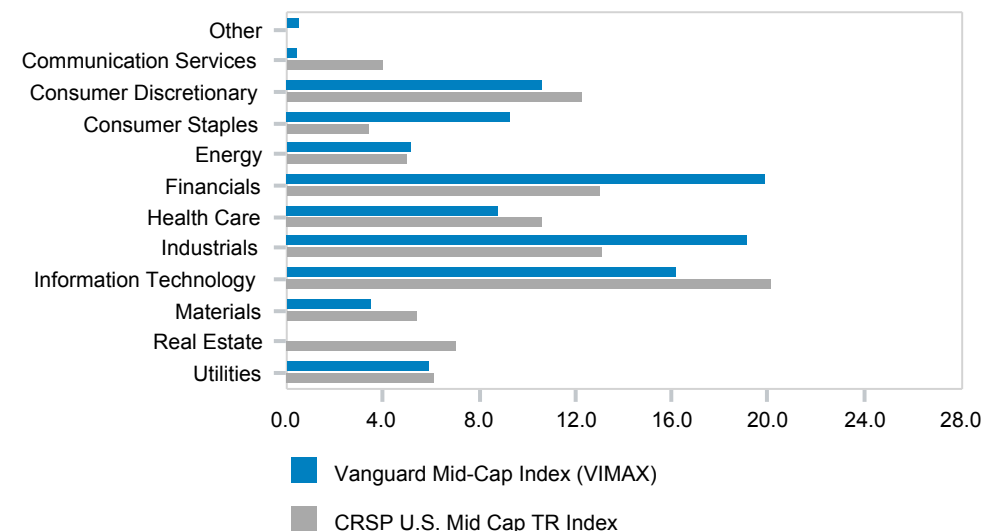
Portfolio Characteristics As of 02/28/2019

	Portfolio	Benchmark
Total Securities	367	361
Avg. Market Cap (\$)	16,415,015,550	12,086,160,030
Price/Earnings (P/E)	29.08	20.83
Price/Book (P/B)	5.65	2.91
Dividend Yield	2.39	1.65
Annual EPS	27.02	4.15
5 Yr EPS	12.24	11.99
3 Yr EPS Growth	15.79	N/A
Beta (3 Years, Monthly)	1.00	1.00

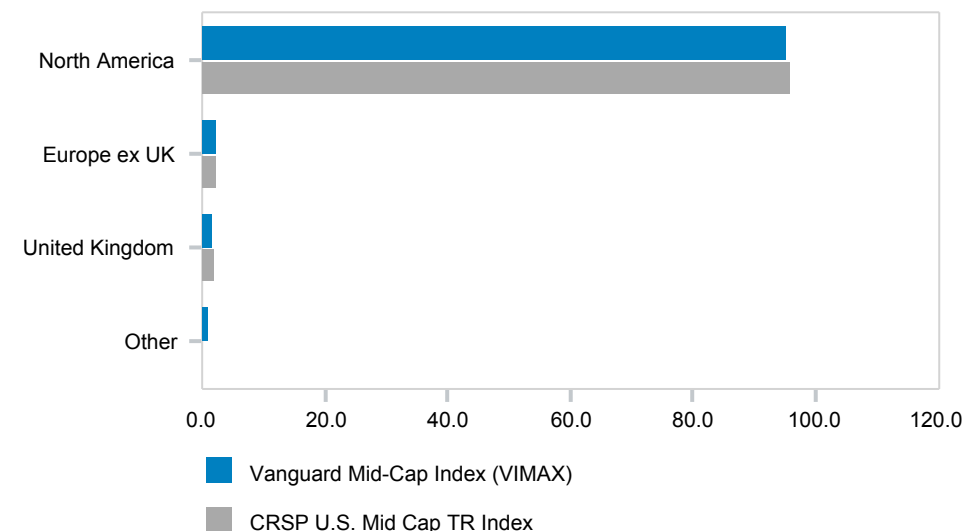
Top Ten Securities As of 02/28/2019

Autodesk Inc ORD	0.9 %
Edwards Lifesciences Corp ORD	0.8 %
Fiserv Inc ORD	0.8 %
Roper Technologies Inc ORD	0.8 %
Red Hat Inc ORD	0.8 %
Xilinx Inc ORD	0.8 %
Worldpay Inc ORD	0.7 %
Amphenol Corp ORD	0.7 %
Moody's Corp ORD	0.7 %
ONEOK Inc ORD	0.6 %

Sector Weights As of 02/28/2019



Region Weights As of 02/28/2019



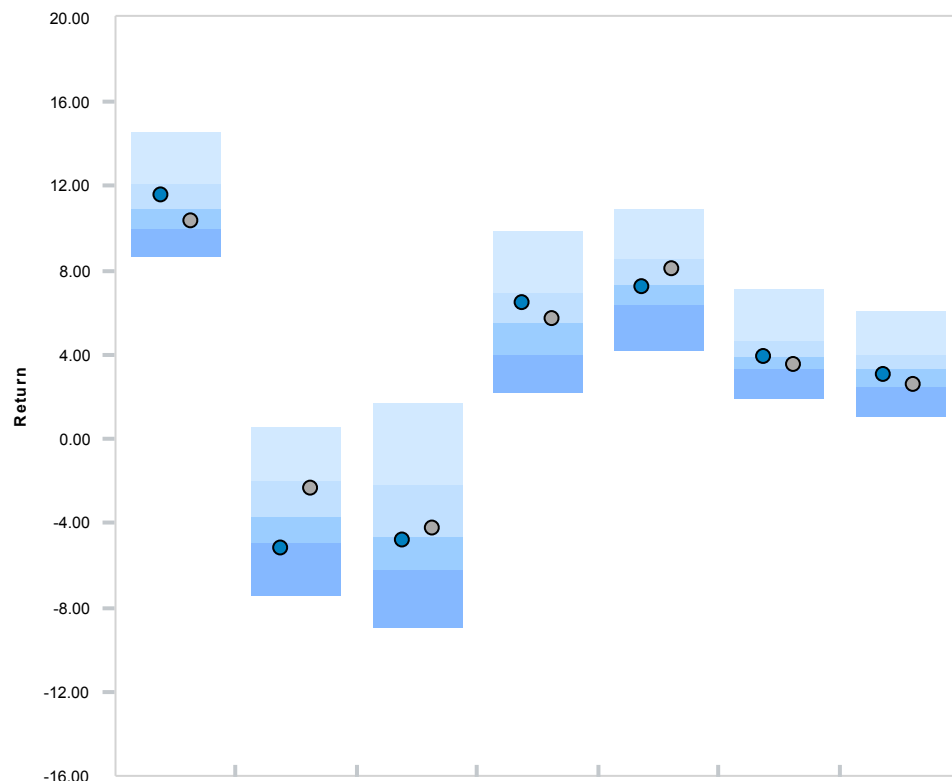
Statistics provided by Lipper. Most recent available data shown.



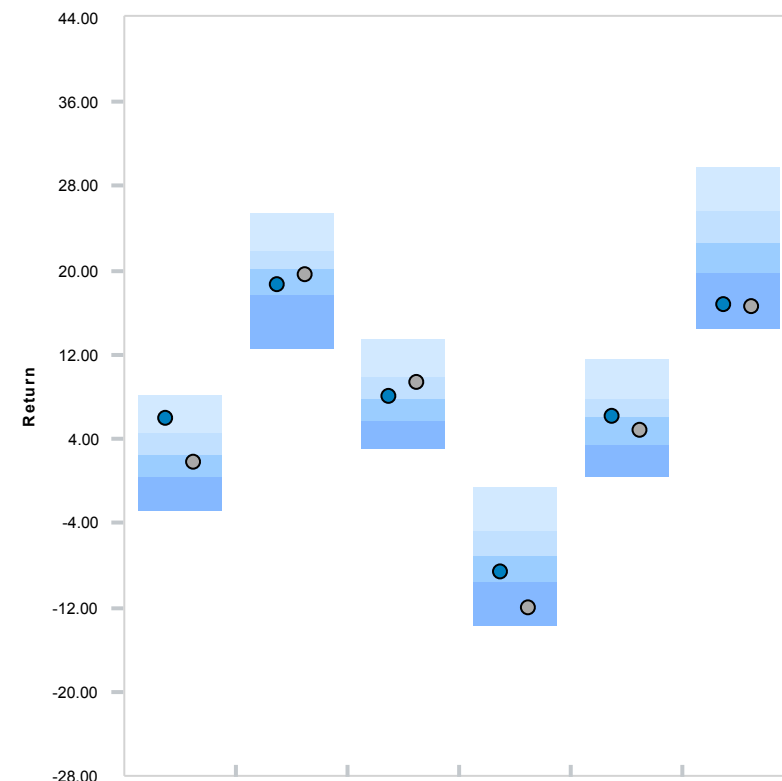
Page Intentionally Left Blank



Peer Group Analysis - IM International Large Cap Core Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Total Int'l Equity	11.60 (35)	-5.19 (79)	-4.86 (55)	6.49 (35)	7.17 (57)	3.94 (48)	3.02 (61)
● Total Int'l Policy	10.31 (63)	-2.33 (32)	-4.22 (46)	5.65 (47)	8.09 (38)	3.48 (71)	2.57 (74)
Median	10.87	-3.69	-4.62	5.48	7.35	3.91	3.31



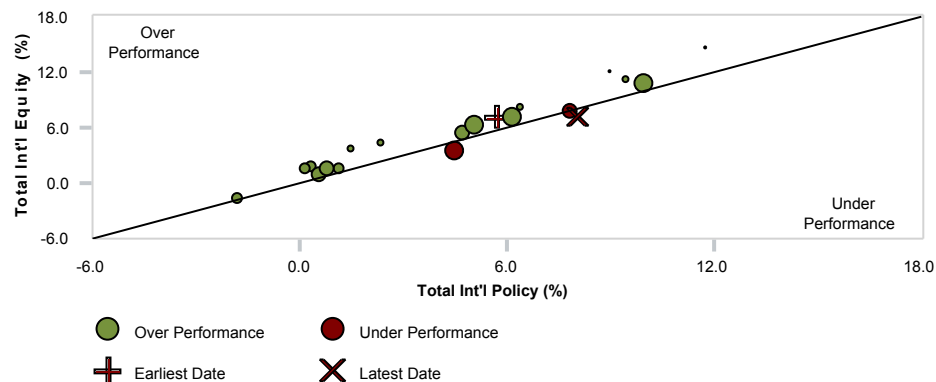
	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013
● Total Int'l Equity	5.85 (14)	18.68 (69)	7.98 (50)	-8.63 (65)	6.07 (50)	16.67 (89)
● Total Int'l Policy	1.76 (60)	19.61 (59)	9.26 (33)	-12.16 (90)	4.77 (63)	16.48 (90)
Median	2.46	20.20	7.86	-7.08	6.04	22.60

Comparative Performance

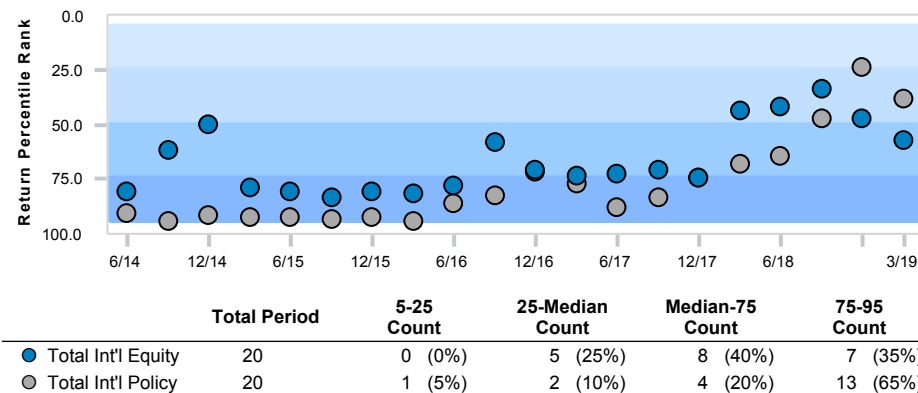
	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017
Total Int'l Equity	-15.04 (85)	1.67 (29)	-1.30 (41)	0.92 (9)	4.52 (35)	5.98 (49)
Total Int'l Policy	-11.46 (21)	0.71 (62)	-2.61 (70)	-1.18 (60)	5.00 (24)	6.16 (45)
IM International Large Cap Core Equity (SA+CF) Median	-13.18	1.01	-1.83	-0.86	4.25	5.95



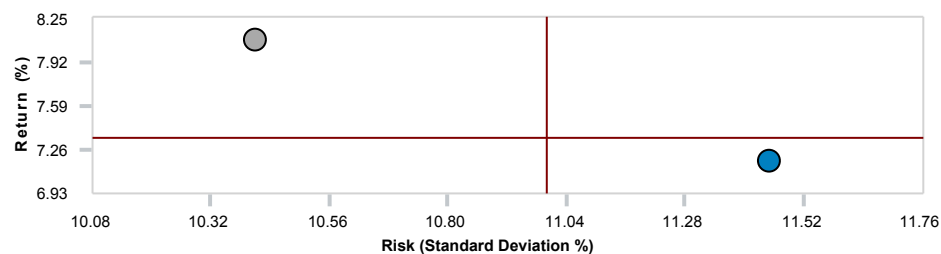
3 Yr Rolling Under/Over Performance - 5 Years



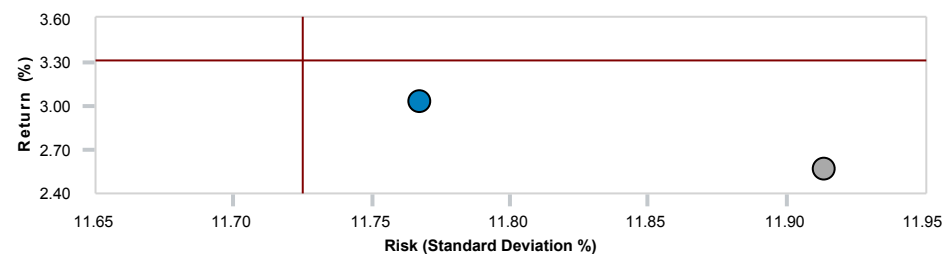
3 Yr Rolling Percentile Ranking - 5 Years



Peer Group Scattergram - 3 Years



Peer Group Scattergram - 5 Years



Historical Statistics - 3 Years

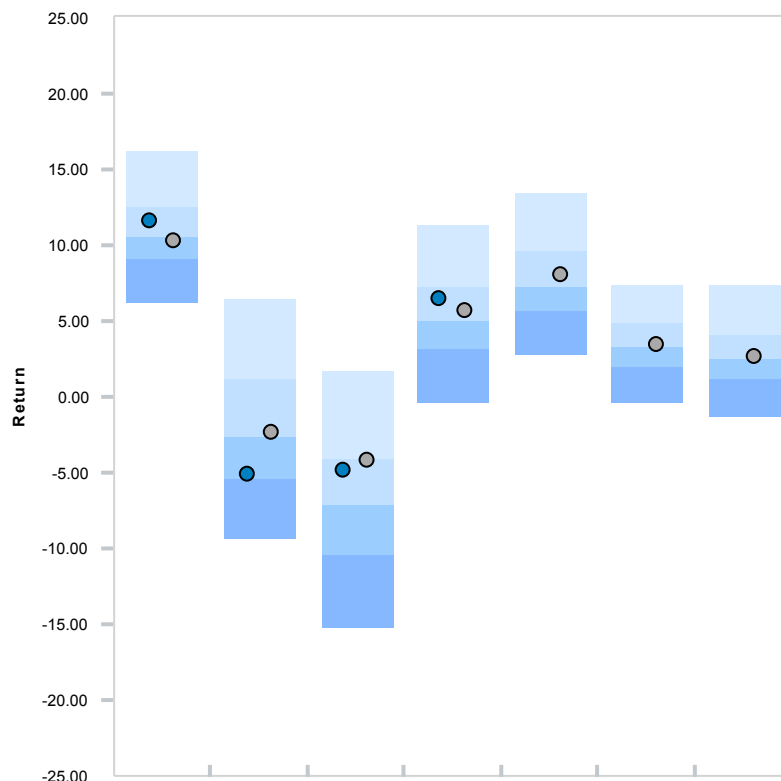
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Int'l Equity	4.04	96.90	101.36	-0.98	-0.18	0.56	1.03	8.04
Total Int'l Policy	0.00	100.00	100.00	0.00	N/A	0.69	1.00	6.78

Historical Statistics - 5 Years

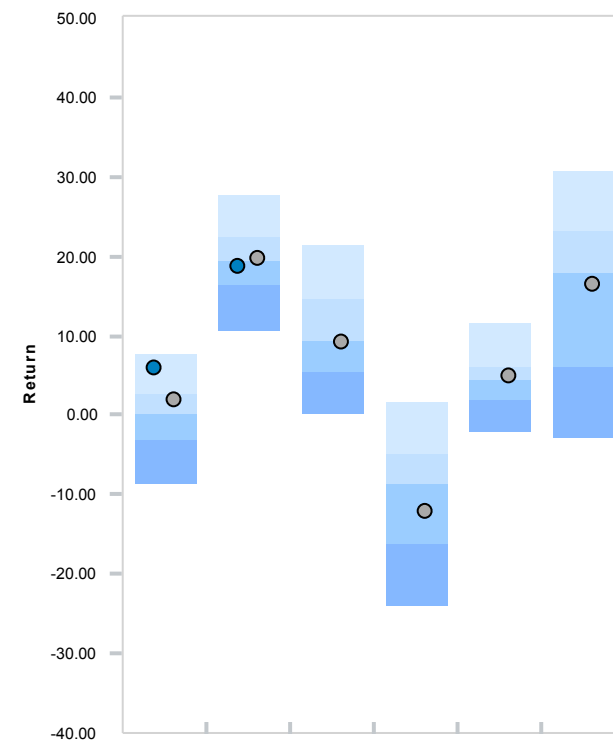
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Int'l Equity	3.77	94.61	90.48	0.64	0.11	0.25	0.94	8.25
Total Int'l Policy	0.00	100.00	100.00	0.00	N/A	0.21	1.00	8.06



Peer Group Analysis - IM International Equity (MF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Harding Loevner Intl Equity (HLMIX)	11.60 (35)	-5.19 (73)	-4.86 (32)	6.49 (31)	N/A	N/A	N/A
● MSCI AC World ex USA (Net)	10.31 (54)	-2.33 (48)	-4.22 (26)	5.65 (41)	8.09 (39)	3.48 (46)	2.57 (50)
Median	10.53	-2.60	-7.09	4.99	7.21	3.25	2.55



	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013
● Harding Loevner Intl Equity (HLMIX)	5.85 (10)	8.65 (58)	N/A	N/A	N/A	N/A
● MSCI AC World ex USA (Net)	1.76 (34)	9.61 (48)	9.26 (51)	2.16 (64)	4.77 (43)	6.48 (56)
Median	0.08	9.36	9.33	8.76	4.27	7.81

Comparative Performance

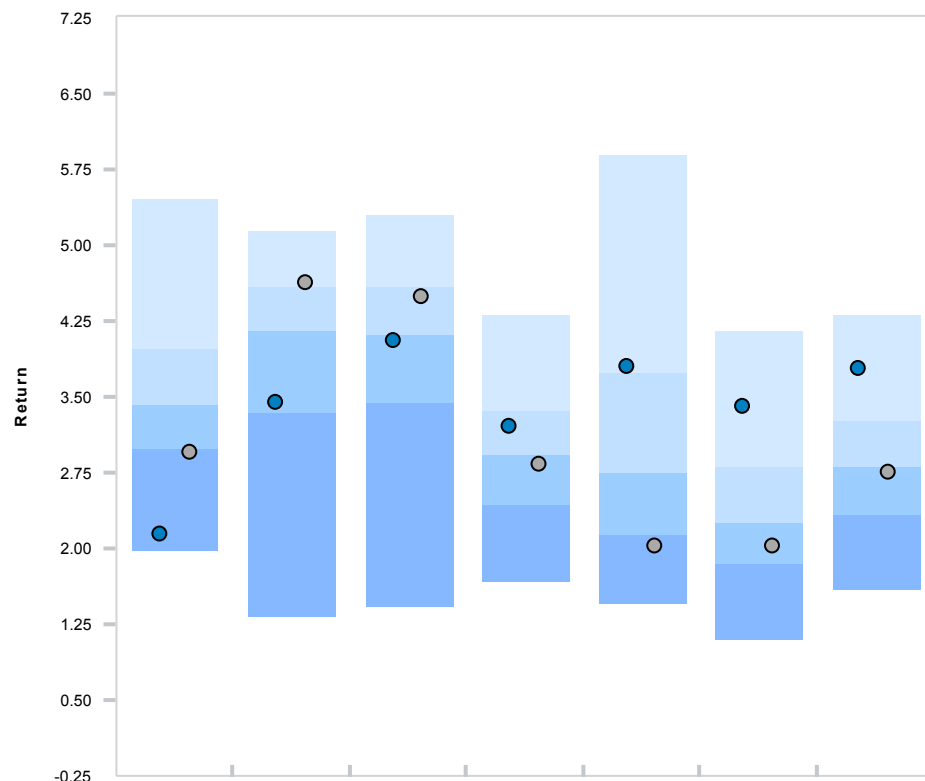
	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017
Harding Loevner Intl Equity (HLMIX)	-15.04 (80)	1.67 (13)	-1.30 (22)	0.92 (36)	4.52 (53)	5.98 (54)
MSCI AC World ex USA (Net)	-11.46 (44)	0.71 (31)	-2.61 (41)	-1.18 (76)	5.00 (45)	6.16 (51)
IM International Equity (MF) Median	-12.23	-0.27	-3.33	-0.07	4.67	6.20



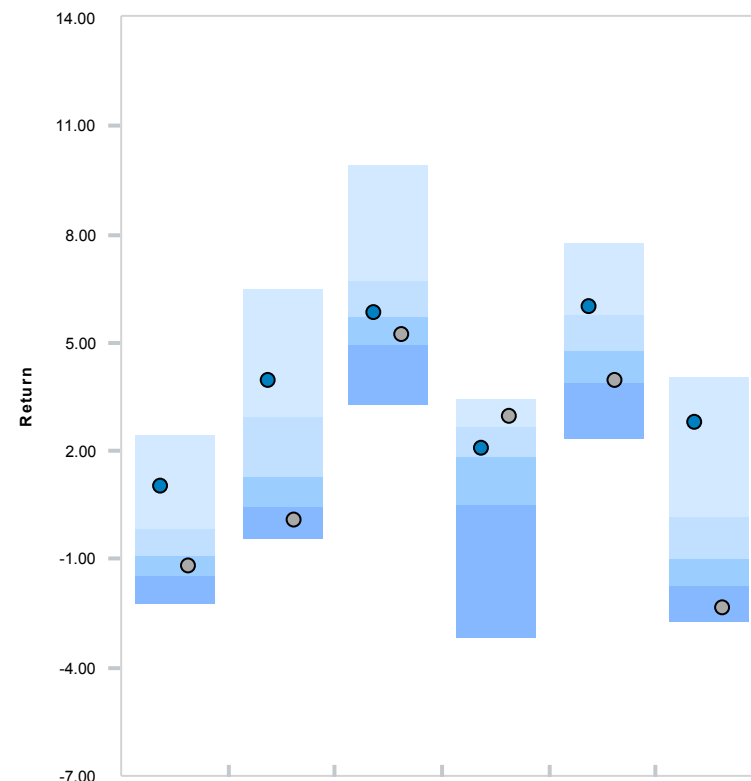
Page Intentionally Left Blank



Peer Group Analysis - IM U.S. Broad Market Fixed Income (SA+CF+MF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Total Fixed Income	2.14 (95)	3.45 (74)	4.06 (53)	3.21 (32)	3.80 (24)	3.39 (13)	3.77 (11)
● Total Fixed Policy	2.94 (78)	4.63 (22)	4.48 (31)	2.83 (56)	2.03 (81)	2.01 (66)	2.74 (55)
Median	3.42	4.15	4.12	2.93	2.75	2.26	2.81



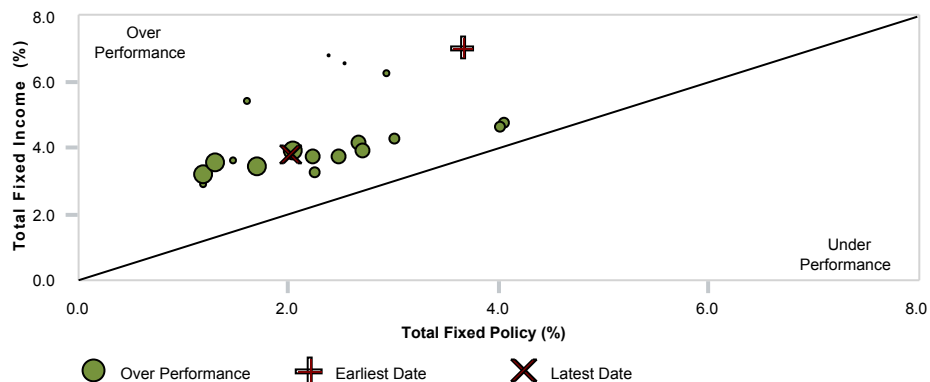
	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013
● Total Fixed Income	0.99 (12)	3.93 (19)	5.81 (48)	2.09 (44)	6.00 (22)	2.81 (8)
● Total Fixed Policy	-1.22 (64)	0.07 (84)	5.19 (68)	2.94 (17)	3.96 (74)	-2.35 (90)
Median	-0.91	1.29	5.72	1.83	4.74	-0.97

Comparative Performance

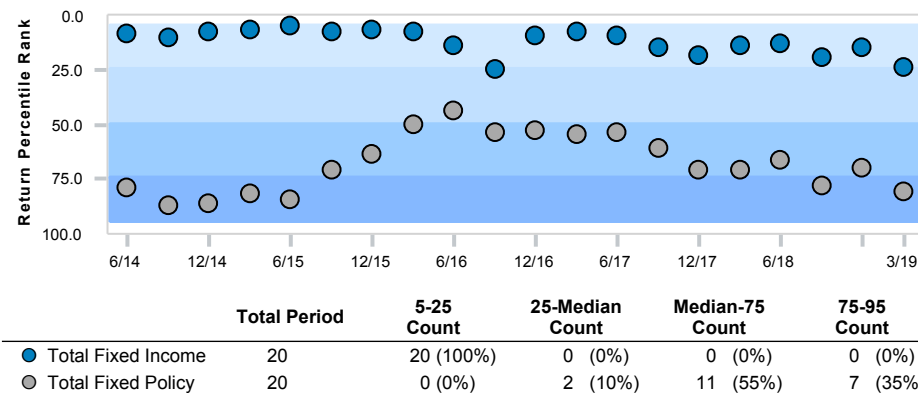
	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017
Total Fixed Income	1.28 (26)	0.46 (35)	0.13 (15)	0.21 (5)	0.18 (82)	0.87 (66)
Total Fixed Policy	1.64 (9)	0.02 (79)	-0.16 (39)	-1.46 (65)	0.39 (59)	0.85 (69)
IM U.S. Broad Market Fixed Income (SA+CF+MF) Median	0.71	0.26	-0.24	-1.33	0.45	0.99



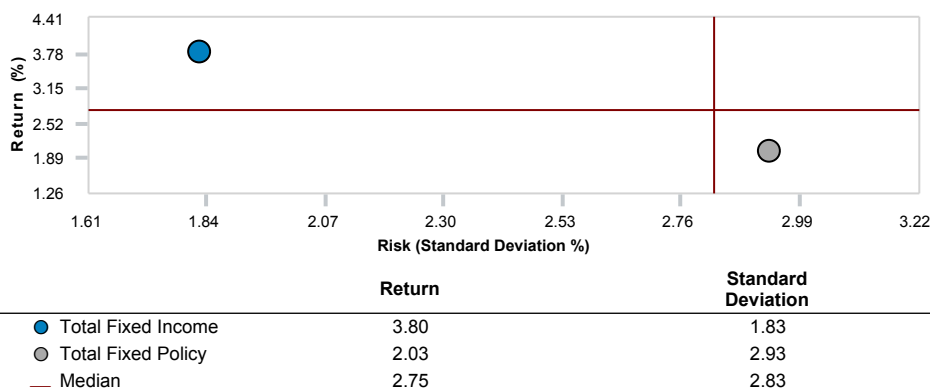
3 Yr Rolling Under/Over Performance - 5 Years



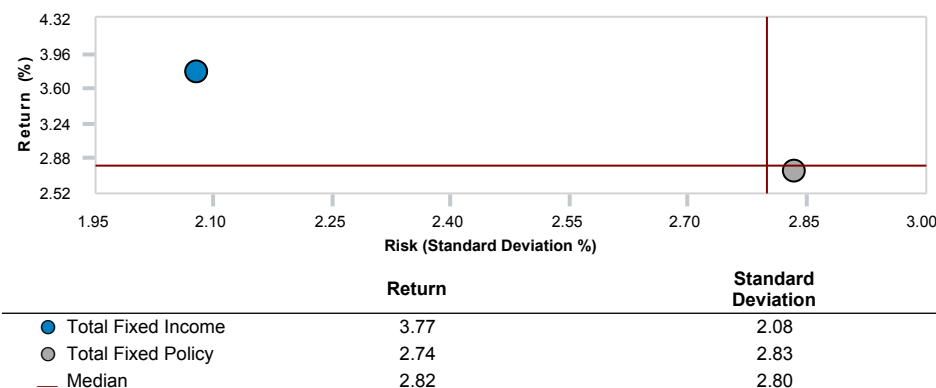
3 Yr Rolling Percentile Ranking - 5 Years



Peer Group Scattergram - 3 Years



Peer Group Scattergram - 5 Years



Historical Statistics - 3 Years

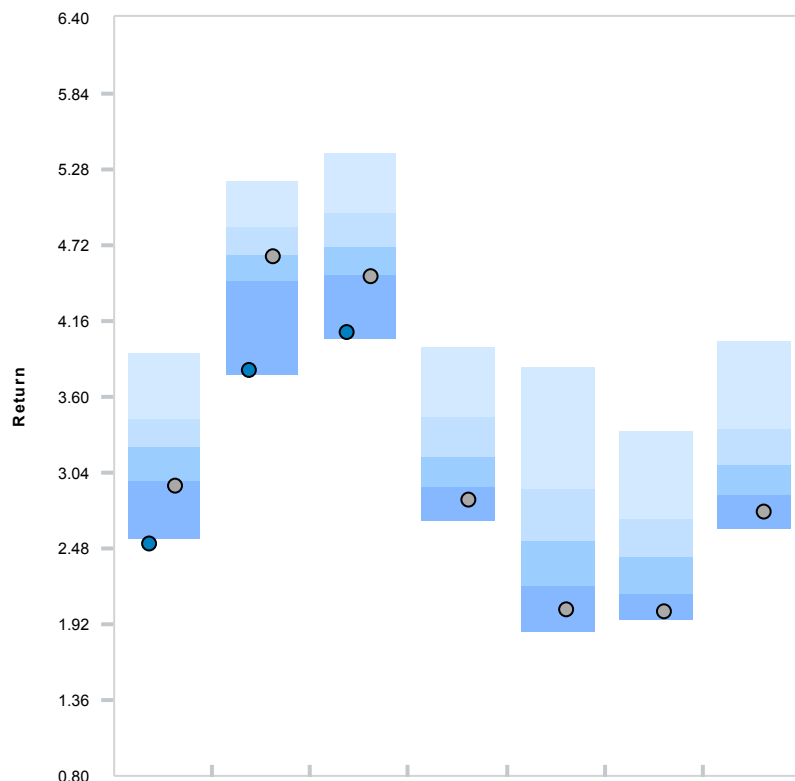
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Fixed Income	1.88	77.02	0.52	2.78	0.91	1.42	0.49	0.89
Total Fixed Policy	0.00	100.00	100.00	0.00	N/A	0.31	1.00	1.85

Historical Statistics - 5 Years

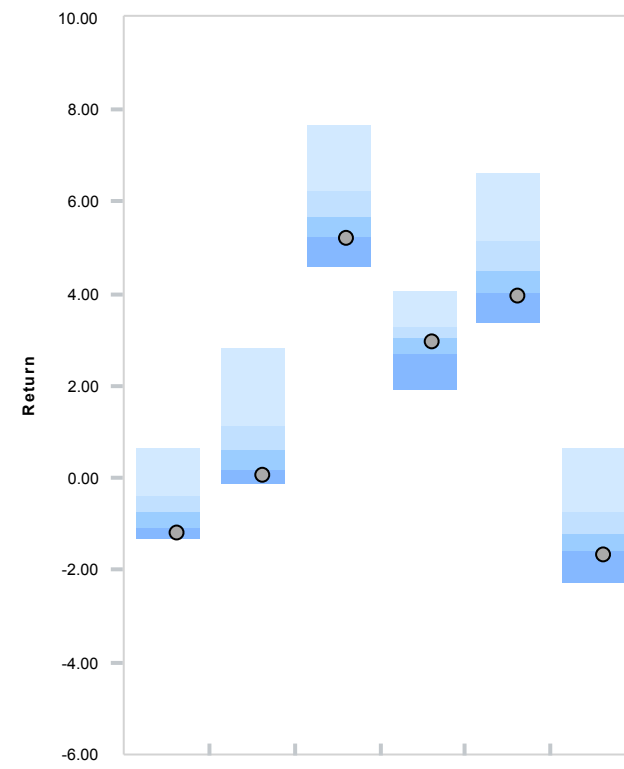
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Fixed Income	1.78	79.92	20.15	2.18	0.55	1.45	0.57	0.93
Total Fixed Policy	0.00	100.00	100.00	0.00	N/A	0.72	1.00	1.63



Peer Group Analysis - IM U.S. Broad Market Core Fixed Income (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Garcia Hamilton Fixed Income	2.50 (96)	3.79 (95)	4.07 (95)	N/A	N/A	N/A	N/A
● Blmbg. Barc. U.S. Aggregate Index	2.94 (83)	4.63 (55)	4.48 (80)	2.83 (89)	2.03 (89)	2.01 (90)	2.74 (90)
Median	3.23	4.65	4.70	3.16	2.54	2.42	3.10



	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013
● Garcia Hamilton Fixed Income	N/A	N/A	N/A	N/A	N/A	N/A
● Blmbg. Barc. U.S. Aggregate Index	1.22 (89)	0.07 (87)	5.19 (81)	2.94 (60)	3.96 (81)	1.68 (80)
Median	0.74	0.62	5.67	3.02	4.51	1.22

Comparative Performance

	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017
Garcia Hamilton Fixed Income	1.25 (66)	-0.19 (95)	0.47 (4)	-0.54 (6)	N/A	N/A
Blmbg. Barc. U.S. Aggregate Index	1.64 (23)	0.02 (83)	-0.16 (73)	-1.46 (68)	0.39 (80)	0.85 (77)
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	1.40	0.18	-0.09	-1.37	0.51	0.93



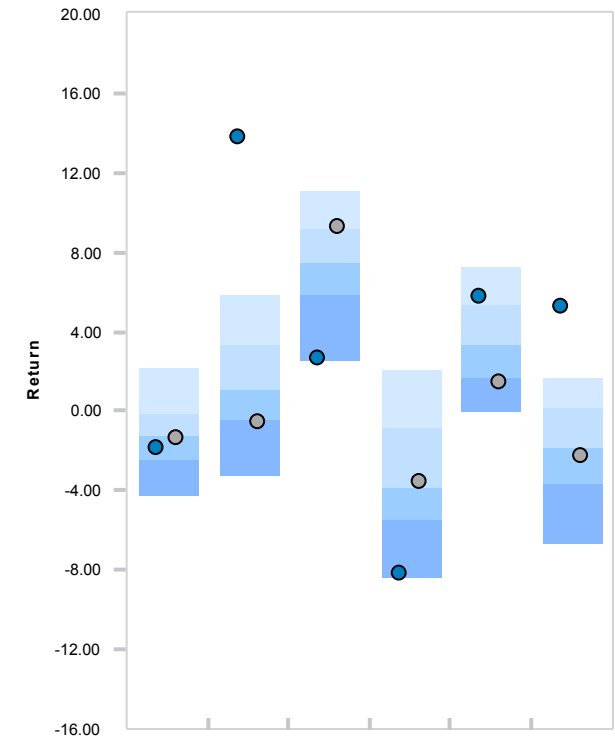
Page Intentionally Left Blank



Peer Group Analysis - IM Global Fixed Income (MF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Templeton Global Tol Return (FTTRX)	1.94 (87)	4.24 (18)	2.38 (39)	1.36 (97)	5.24 (3)	2.69 (18)	2.25 (28)
● Blmbg. Barc. Global Multiverse	2.39 (76)	3.44 (45)	-0.29 (56)	3.32 (25)	1.85 (67)	2.47 (28)	1.20 (58)
Median	3.10	3.22	0.24	2.78	2.25	1.96	1.31



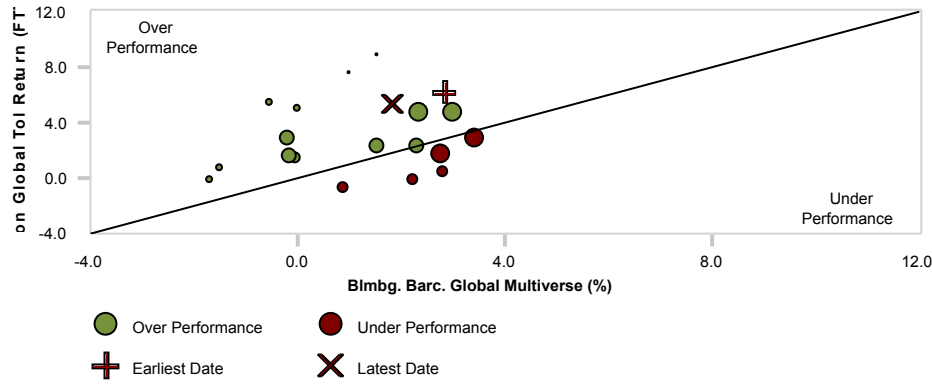
	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013
● Templeton Global Tol Return (FTTRX)	1.90 (66)	3.82 (1)	2.64 (94)	8.23 (95)	5.71 (22)	5.29 (2)
● Blmbg. Barc. Global Multiverse	1.32 (51)	0.56 (77)	9.23 (25)	3.56 (42)	1.40 (79)	2.22 (56)
Median	1.29	1.02	7.42	3.85	3.37	1.81

Comparative Performance

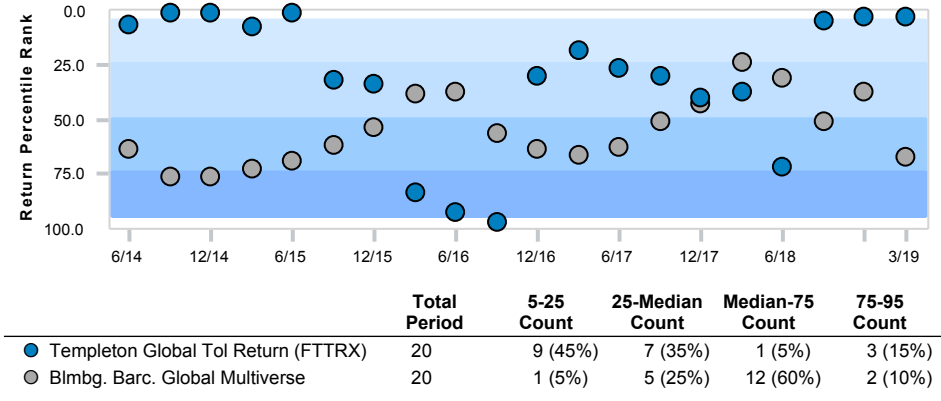
	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017
Templeton Global Tol Return (FTTRX)	2.26 (1)	1.38 (5)	-3.13 (55)	1.64 (27)	-1.73 (100)	1.46 (60)
Blmbg. Barc. Global Multiverse	1.02 (23)	-0.80 (66)	-2.83 (53)	1.30 (34)	1.06 (17)	1.88 (24)
IM Global Fixed Income (MF) Median	0.35	-0.39	-2.29	0.80	0.66	1.59



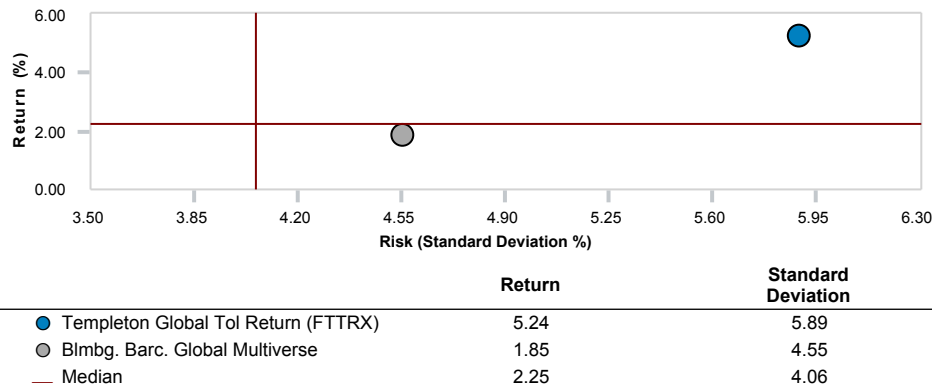
3 Yr Rolling Under/Over Performance - 5 Years



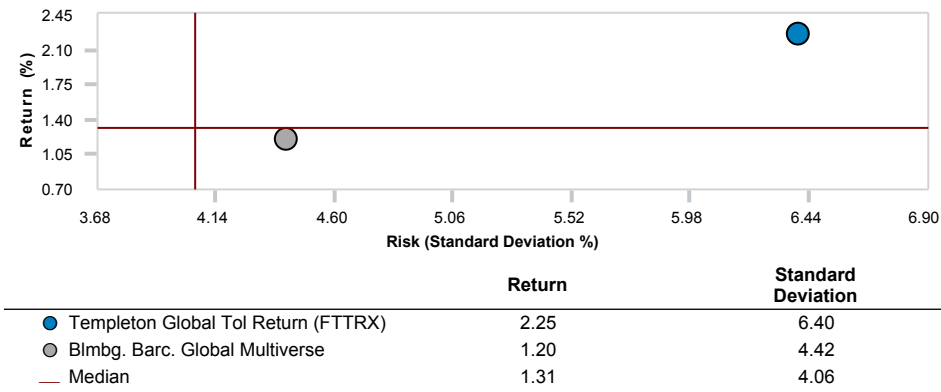
3 Yr Rolling Percentile Ranking - 5 Years



Peer Group Scattergram - 3 Years



Peer Group Scattergram - 5 Years



Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Templeton Global Tol Return (FTTRX)	8.07	21.69	-70.43	5.90	0.42	0.69	-0.23	3.29
Blmbg. Barc. Global Multiverse	0.00	100.00	100.00	0.00	N/A	0.17	1.00	3.20

Historical Statistics - 5 Years

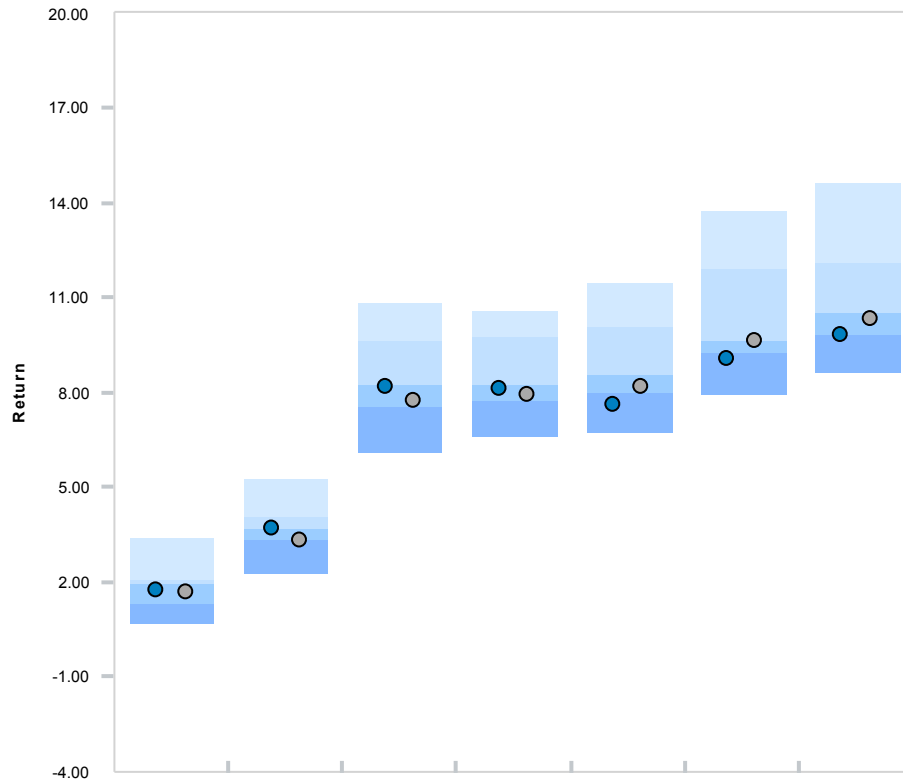
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Templeton Global Tol Return (FTTRX)	7.82	12.64	-29.95	2.48	0.15	0.27	-0.02	4.05
Blmbg. Barc. Global Multiverse	0.00	100.00	100.00	0.00	N/A	0.13	1.00	3.10



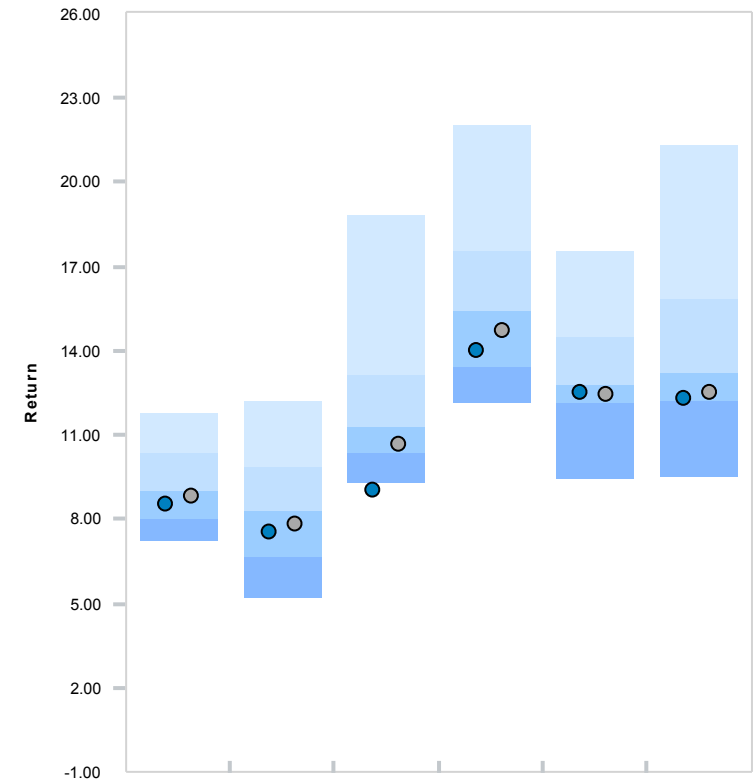
Page Intentionally Left Blank



Peer Group Analysis - IM U.S. Open End Private Real Estate (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
American Core Realty	1.74 (65)	3.71 (48)	8.20 (53)	8.12 (59)	7.65 (82)	9.05 (82)	9.82 (81)
NCREIF ODCE	1.68 (66)	3.32 (75)	7.73 (69)	7.95 (69)	8.17 (63)	9.62 (58)	10.34 (62)
Median	1.93	3.68	8.23	8.25	8.56	9.65	10.54



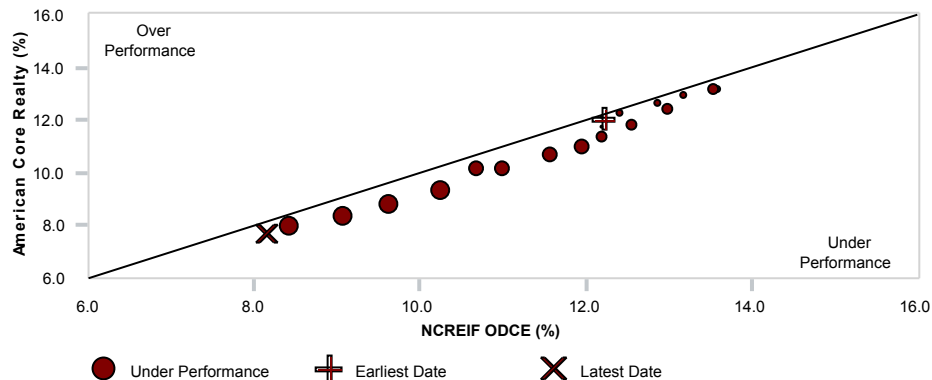
	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013
American Core Realty	8.50 (66)	7.52 (67)	9.04 (97)	13.98 (69)	12.49 (64)	12.27 (70)
NCREIF ODCE	8.82 (59)	7.81 (60)	10.62 (69)	14.71 (62)	12.39 (68)	12.47 (67)
Median	9.04	8.29	11.32	15.45	12.78	13.18

Comparative Performance

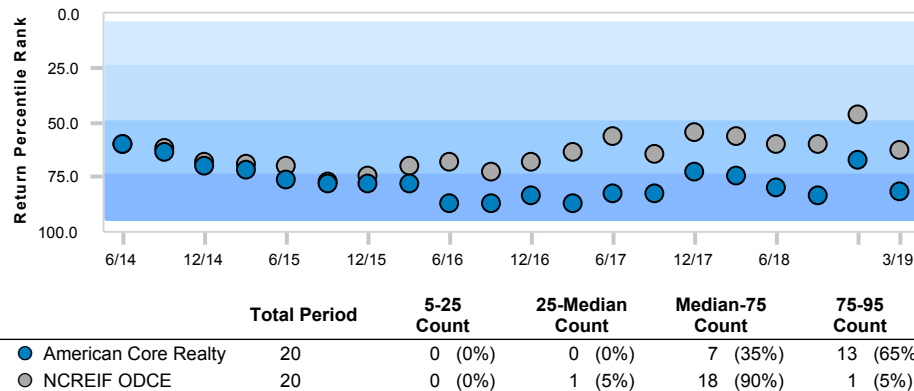
	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017
American Core Realty	1.94 (28)	2.19 (47)	2.09 (66)	2.23 (45)	1.73 (87)	1.88 (42)
NCREIF ODCE	1.62 (65)	2.09 (54)	2.13 (61)	2.17 (55)	2.15 (57)	1.89 (42)
IM U.S. Open End Private Real Estate (SA+CF) Median	1.76	2.10	2.22	2.21	2.25	1.75



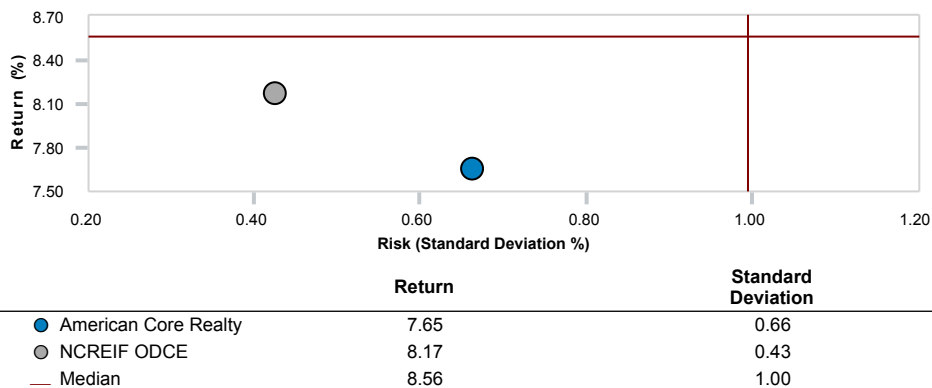
3 Yr Rolling Under/Over Performance - 5 Years



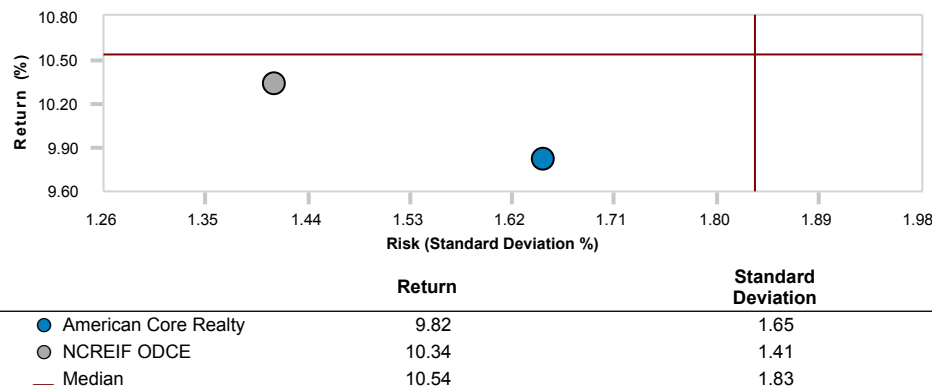
3 Yr Rolling Percentile Ranking - 5 Years



Peer Group Scattergram - 3 Years



Peer Group Scattergram - 5 Years



Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
American Core Realty	0.90	93.82	N/A	0.18	-0.55	2.03	0.92	0.00
NCREIF ODCE	0.00	100.00	N/A	0.00	N/A	2.08	1.00	0.00

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
American Core Realty	1.03	95.24	N/A	0.03	-0.46	2.08	0.95	0.00
NCREIF ODCE	0.00	100.00	N/A	0.00	N/A	2.14	1.00	0.00



Page Intentionally Left Blank



Delray Beach Firefighters' Retirement System
Illiquid Investments
March 31, 2018

	Market Value	Uncalled Capital Commitment	QTD IRR	Inception IRR	Inception Date	Expected Termination
*Angelo Gordon Net Lease Realty Fund III, L.P.	\$1,554,942.00	\$609,800	0	6.15	3/10/2014	4/1/2027
*Crescent Direct Lending Levered Fund	\$3,753,970.00	\$850,985	0	7.5	10/9/2014	12/1/2022
*Dune Real Estate Fund III	\$2,028,131.00	\$362,618	0	13.41	11/6/2014	12/1/2024
*Amsouth Timber Fund	\$1,317,360.00	\$0	0	3.87	6/22/2007	12/1/2018
*Molpus Woodlands Timber	\$1,354,959.00	\$0	0	2.09	6/24/2008	5/2018-5/2022

* Market Value as of 12-31-2017

Market Value includes contributions & distributions since end of period.



Benchmark History
Investment Policy Benchmarks
As of March 31, 2019

Total Fund Policy			
Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)
Jan-1978		Oct-2013	
S&P 500 Index	65.00	Wilshire 5000 Total Market Index (full-cap) Index	35.00
Blmbg. Barc. U.S. Gov't/Credit	30.00	MSCI AC World ex USA (Net)	15.00
FTSE 3 Month T-Bill	5.00	Blmbg. Barc. U.S. Aggregate Index	27.50
Apr-2007		NCREIF ODCE	5.00
Blmbg. Barc. U.S. Gov't/Credit	30.00	Quadrant Custom Policy	5.00
Blmbg. Barc. U.S. TIPS 1-10 Year	5.00	NCREIF Timberland Index	5.00
S&P 500 Index	60.00	CPI+5%	7.50
MSCI EAFE (Net) Index	5.00	May-2014	
Oct-2007		Wilshire 5000 Total Market Index (full-cap) Index	35.00
MSCI EAFE (Net) Index	10.00	MSCI AC World ex USA (Net)	15.00
Bloomberg Barclays Intermed Aggregate Index	30.00	Blmbg. Barc. U.S. Aggregate Index	27.50
Blmbg. Barc. U.S. TIPS 1-10 Year	5.00	NCREIF ODCE	10.00
Russell 3000 Index	50.00	NCREIF Timberland Index	5.00
NCREIF Property Index	5.00	CPI+5%	7.50
Jan-2010		Jul-2015	
MSCI AC World ex USA (Net)	15.00	Wilshire 5000 Total Market Index (full-cap) Index	35.00
Blmbg. Barc. U.S. Aggregate Index	30.00	MSCI AC World ex USA (Net)	15.00
Bloomberg Barclays U.S. TIPS Index	5.00	Blmbg. Barc. U.S. Aggregate Index	27.50
Russell 3000 Index	45.00	NCREIF ODCE	10.00
NCREIF Property Index	5.00	NCREIF Timberland Index	5.00
Jul-2010		Alternatives Policy	7.50
Wilshire 5000 Total Market Index (full-cap) Index	35.00	Nov-2015	
MSCI AC World ex USA (Net)	15.00	Wilshire 5000 Total Market Index (full-cap) Index	42.50
Blmbg. Barc. U.S. Aggregate Index	25.00	MSCI AC World ex USA (Net)	15.00
Bloomberg Barclays U.S. TIPS Index	5.00	Blmbg. Barc. U.S. Aggregate Index	27.50
NCREIF ODCE	5.00	NCREIF ODCE	10.00
Barclay BTOP 50	5.00	Alternatives Policy	5.00
Quadrant Custom Policy	5.00		
NCREIF Timberland Index	5.00		



Benchmark History
Investment Policy Benchmarks
As of March 31, 2019

Total Equity Policy	
Allocation Mandate	Weight (%)
Oct-2005	
S&P 500 Index	95.00
FTSE 3 Month T-Bill	5.00
Apr-2007	
FTSE 3 Month T-Bill	5.00
S&P 500 Index	85.00
MSCI EAFE (Net) Index	10.00
Oct-2007	
MSCI EAFE (Net) Index	15.00
Russell 3000 Index	85.00
Jan-2010	
MSCI AC World ex USA (Net)	25.00
Russell 3000 Index	75.00
Jul-2010	
MSCI AC World ex USA (Net)	45.00
Wilshire 5000 Total Market Index (full-cap) Index	55.00
Nov-2015	
MSCI AC World ex USA (Net)	25.00
Wilshire 5000 Total Market Index (full-cap) Index	75.00

Domestic Equity Policy	
Allocation Mandate	Weight (%)
Oct-2005	
S&P 500 Index	100.00
Oct-2007	
Russell 3000 Index	100.00
Jul-2010	
Wilshire 5000 Total Market Index (full-cap) Index	100.00

Total Int'l Policy	
Allocation Mandate	Weight (%)
Jan-1970	
MSCI EAFE (Net) Index	100.00
Jan-2010	
MSCI AC World ex USA (Net)	100.00
Alternatives Policy	
Allocation Mandate	Weight (%)
Aug-2010	
Barclay BTOP 50	100.00
Nov-2013	
CPI+5%	100.00
Jul-2015	
S&P 500 Index	50.00
Blmbg. Barc. U.S. Aggregate Index	50.00

Total Fixed Policy	
Allocation Mandate	Weight (%)
Oct-2005	
Blmbg. Barc. U.S. Gov't/Credit	95.00
FTSE 3 Month T-Bill	5.00
Jan-2007	
Blmbg. Barc. U.S. Gov't/Credit	85.00
Blmbg. Barc. U.S. TIPS 1-10 Year	15.00
Oct-2007	
Blmbg. Barc. U.S. TIPS 1-10 Year	15.00
Bloomberg Barclays Intermed Aggregate Index	85.00
Jan-2010	
Bloomberg Barclays U.S. TIPS Index	15.00
Blmbg. Barc. U.S. Aggregate Index	85.00
Oct-2013	
Blmbg. Barc. U.S. Aggregate Index	100.00



Delray Beach Firefighters' Retirement System

Fee Analysis

As of March 31, 2019

	Market Value (\$)	Estimated Annual Fee (\$)	Estimated Annual Fee (%)	Fee Schedule
Vanguard Total Stock Mkt (VTSAX)	1,271,104	508	0.04	0.04 % of Assets
Boston LCV	17,537,137	96,454	0.55	0.55 % of First \$25 M 0.45 % of Next \$25 M 0.35 % of Next \$50 M 0.25 % Thereafter
Rhumblin R1000G	4,246,897	1,699	0.04	0.04 % of Assets
Polen Capital LCG	14,273,651	85,642	0.60	0.60 % of Assets
Lazard SMid Cap Core	7,588,274	56,912	0.75	0.75 % of Assets
Vanguard Mid-Cap Index (VIMAX)	5,338,607	4,271	0.08	0.08 % of Assets
Harding Loevner Intl Equity (HLMIX)	16,116,530	135,379	0.84	0.84 % of Assets
Garcia Hamilton Fixed Income	21,706,710	54,267	0.25	0.25 % of Assets
Templeton Global Total Return (FTTRX)	4,126,449	27,647	0.67	0.67 % of Assets
American Core Realty	5,022,573	55,248	1.10	1.10 % of Assets
Total Fund (Composite)	106,662,942	518,027	0.49	



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.



AndCo compiled this report for the sole use of the client for which it was prepared. AndCo is responsible for evaluating the performance results of the Total Fund along with the investment advisors by comparing their performance with indices and other related peer universe data that is deemed appropriate. AndCo uses the results from this evaluation to make observations and recommendations to the client.

AndCo uses time-weighted calculations which are founded on standards recommended by the CFA Institute. The calculations and values shown are based on information that is received from custodians. AndCo analyzes transactions as indicated on the custodian statements and reviews the custodial market values of the portfolio. As a result, this provides AndCo with a reasonable basis that the investment information presented is free from material misstatement. This methodology of evaluating and measuring performance provides AndCo with a practical foundation for our observations and recommendations. Nothing came to our attention that would cause AndCo to believe that the information presented is significantly misstated.

This performance report is based on data obtained by the client's custodian(s), investment fund administrator, or other sources believed to be reliable. While these sources are believed to be reliable, the data providers are responsible for the accuracy and completeness of their statements. Clients are encouraged to compare the records of their custodian(s) to ensure this report fairly and accurately reflects their various asset positions.

The strategies listed may not be suitable for all investors. We believe the information provided here is reliable, but do not warrant its accuracy or completeness. Past performance is not an indication of future performance. Any information contained in this report is for informational purposes only and should not be construed to be an offer to buy or sell any securities, investment consulting, or investment management services.

Additional information included in this document may contain data provided by from index databases, public economic sources and the managers themselves.

This document may contain data provided by Bloomberg Barclays. Bloomberg Barclays Index data provided by way of Barclays Live.

This document may contain data provided by Standard and Poor's. Nothing contained within any document, advertisement or presentation from S&P Indices constitutes an offer of services in jurisdictions where S&P Indices does not have the necessary licenses. All information provided by S&P Indices is impersonal and is not tailored to the needs of any person, entity or group of persons. Any returns or performance provided within any document is provided for illustrative purposes only and does not demonstrate actual performance. Past performance is not a guarantee of future investment results.

This document may contain data provided by MSCI, Inc. Copyright MSCI, 2017. Unpublished. All Rights Reserved. This information may only be used for your internal use, may not be reproduced or disseminated in any form and may not be used to create any financial instruments or products or any indices. This information is provided on an "as is" basis and the user of this information assumes the entire risk of any use it may make or permit to be made of this information. Neither MSCI, any of its affiliates or any other person involved in or related to compiling, computing or creating this information makes any express or implied warranties or representations with respect to such information or the results to be obtained by the use thereof, and MSCI, its affiliates and each such other person hereby expressly disclaim all warranties (including, without limitation, all warranties of originality, accuracy, completeness, timeliness, non-infringement, merchantability and fitness for a particular purpose) with respect to this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any other person involved in or related to compiling, computing or creating this information have any liability for any direct, indirect, special, incidental, punitive, consequential or any other damages (including, without limitation, lost profits) even if notified of, or if it might otherwise have anticipated, the possibility of such damages.

This document may contain data provided by Russell Investment Group. Russell Investment Group is the source owner of the data contained or reflected in this material and all trademarks and copyrights related thereto. The material may contain confidential information and unauthorized use, disclosure, copying, dissemination or redistribution is strictly prohibited. This is a user presentation of the data. Russell Investment Group is not responsible for the formatting or configuration of this material or for any inaccuracy in presentation thereof.

This document may contain data provided by Morningstar. All rights reserved. Use of this content requires expert knowledge. It is to be used by specialist institutions only. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied, adapted or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information, except where such damages or losses cannot be limited or excluded by law in your jurisdiction. Past financial performance is not guarantee of future results.



Putting clients first.



CHICAGO | CLEVELAND | DALLAS | DETROIT | ORLANDO | PITTSBURGH | RENO | TULSA

AndCo Consulting | (844) 44-ANDCO | *AndCoConsulting.com*