

Investment Performance Review
Period Ending December 31, 2018

Southfield Employees' Retirement System



4th Quarter 2018 Market Environment

As we start 2019, we first want to say “Thank you” for giving AndCo the opportunity to serve you. On behalf of our entire organization, we are extremely grateful for our client partnerships and we will continue working hard to maintain your trust and confidence. Our mission statement reads – “To represent the sole interest of our clients by redefining independence”. We’re happy to report we remain steadfast in this core belief and continue to build an organization and service model that is singularly focused and independent. This helps ensure all recommendations are truly in the best interest of our valued clients. We believe this approach will drive value for our client partnerships long into the future.

AndCo also remains committed to delivering high quality, customized services. As we start 2019, we are 89 employees strong advising approximately \$90 billion in client assets - both record highs for AndCo. In 2018 we hired 7 new team members including one consultant, two research professionals, one additional compliance officer, one technology administrator and two team members within our client solutions group. All hires were made to better service our clients.

2019 will represent another year of reinvestment in the organization to better serve our clients and make AndCo stronger. For example, we have already hired a new Senior Research Analyst bringing our dedicated research team to 15 professionals. As 2019 progresses, we are targeting additional hires in research, software development, content creation and our client solutions group. We will also be partnering with an external firm this year to conduct an in-depth client assessment to help ensure we are meeting the evolving needs of our clients and exceeding their service expectations. There will be more information regarding this survey from the firm and your consultant over the coming months.

Finally, we just completed our annual Firmwide retreat. This retreat was a great opportunity for our firm to spend time together with colleagues and get a clear understanding of where the company is going, and more importantly, why we’re headed in that direction. Since the inception of AndCo, the idea has been to make the firm a multigenerational organization owned and managed by its employees. As a result, since 2015, along with the strategic elements of our annual retreat, we also started the process of announcing new partners of the firm to foster this succession plan and today we have 8 partners controlling 100% of the company.

The evolution of our firm would not be possible without great partners like you. Our name reminds us who we work for every day: “Our Client” &Co. You will always be first in our service approach. As we continue to discuss updates with our firm, please know every decision is made by asking “How does this benefit our clients?” If it doesn’t benefit you, we don’t do it, it’s that simple. We know our clients are facing many challenges and we want to be there to help get you through all environments. We are honored and humbled you have chosen AndCo as your partner. We don’t take that relationship for granted and will continue to work tirelessly to exceed your expectations.

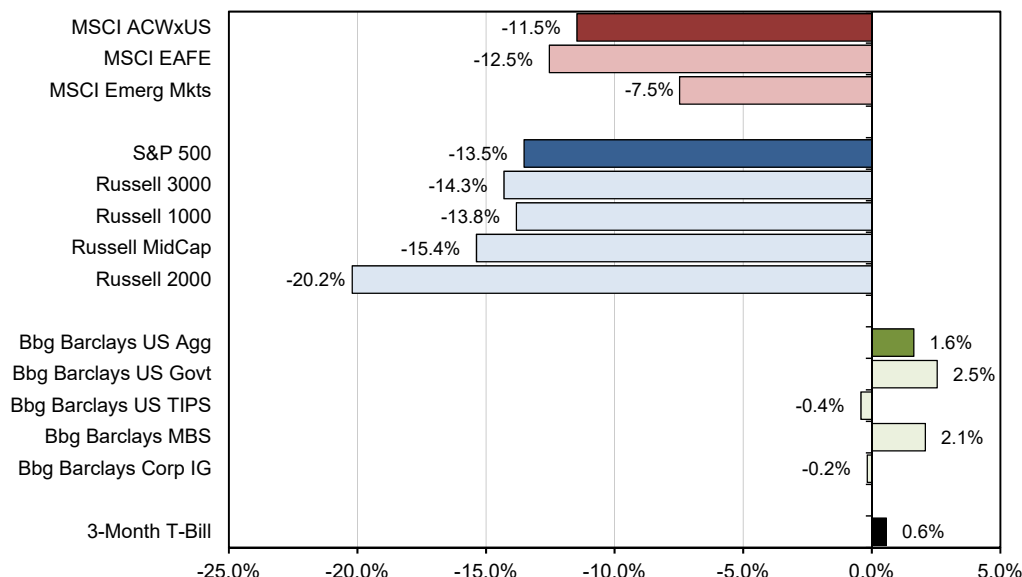
On behalf of AndCo, thank you for your valued partnership and the opportunity to serve you.



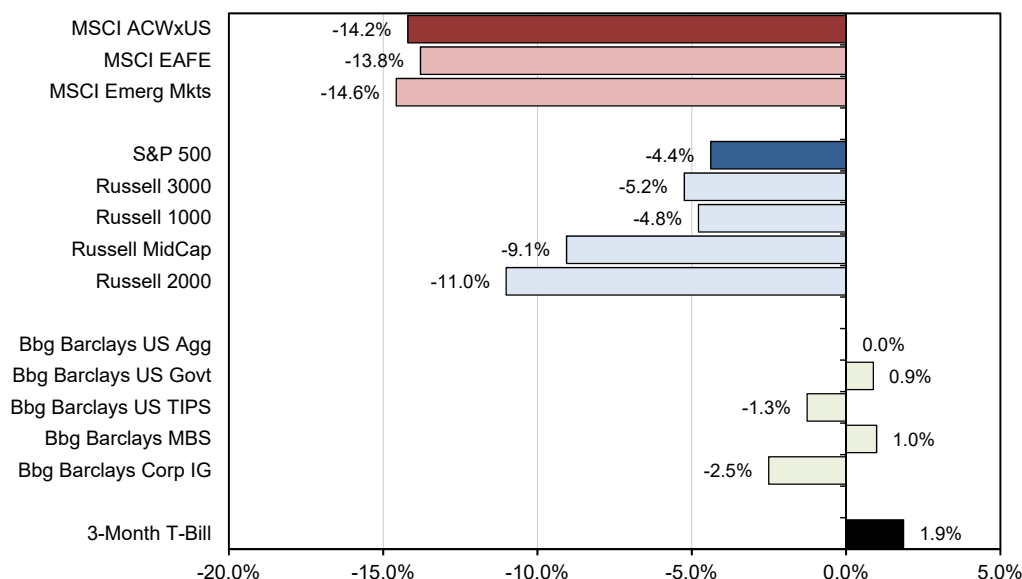
Mike Welker, CFA®
President/CEO

- Markets were volatile to end the 2018 calendar year. Both international and domestic equity markets had considerable losses during the 4th quarter while fixed income returns were muted, but outperformed relative to equities. Within equities, domestic stocks trailed international markets, reversing the 2018 trend of US market strength. Trade tensions between the US and China, midterm elections in US Congress, the effects of ongoing monetary policy tightening by the Federal Reserve (Fed), federal debt ceiling negotiations and the subsequent partial government shutdown outweighed generally positive corporate earnings and macroeconomic data reported during the quarter. The large cap S&P 500 Index returned -13.5% during the quarter while the small cap Russell 2000 Index fell by over 20% for the period. The drop in equity prices over the last three months was enough to take the returns for major US equity indices into negative territory for the 2018 calendar year. Returns over the 1-year period were -4.4% and -11.0% for the S&P 500 and Russell 2000 respectively.
- Similar to US equities, international equity index returns finished the quarter in negative territory with the MSCI ACWI ex US Index returning -11.5%. International markets faced headwinds from softening global macroeconomic data, tightening global monetary policy, uncertainty around Brexit negotiations, turmoil surrounding global trade relations, falling commodity prices and continued US Dollar (USD) strength. The developed market MSCI EAFE Index fell -12.5% during the 4th quarter, ending the year down -13.8%. Emerging markets performed well by comparison, only losing -7.5% during the quarter. Despite the 4th quarter outperformance, returns for emerging market equities trailed developed markets over the 1-year period with the MSCI Emerging Markets Index returning -14.6% versus a -13.8% return for the MSCI EAFE Index.
- Fixed income securities outperformed equities through both the 4th quarter and calendar year 2018 with the broad market Bloomberg Barclays Aggregate Index returning 1.6% and 0.0% respectively. Interest rates on the US Treasury Yield Curve continued their 2018 flattening trend as short-term rates increased to near-term highs while long-term rates fell during the quarter. Some of the increase in short-term rates can be attributed to the late December Fed interest rate hike. This marked the fourth Fed interest rate increase of 2018. This movement in rates did lead to some short-term rates being higher than those of longer dated maturities. More conservative fixed income sectors such as Treasuries and mortgage backed securities outperformed during the quarter and for the year as investors moved toward the relative safety these securities provide while widening credit spreads acted as a headwind to corporate issues.

Quarter Performance

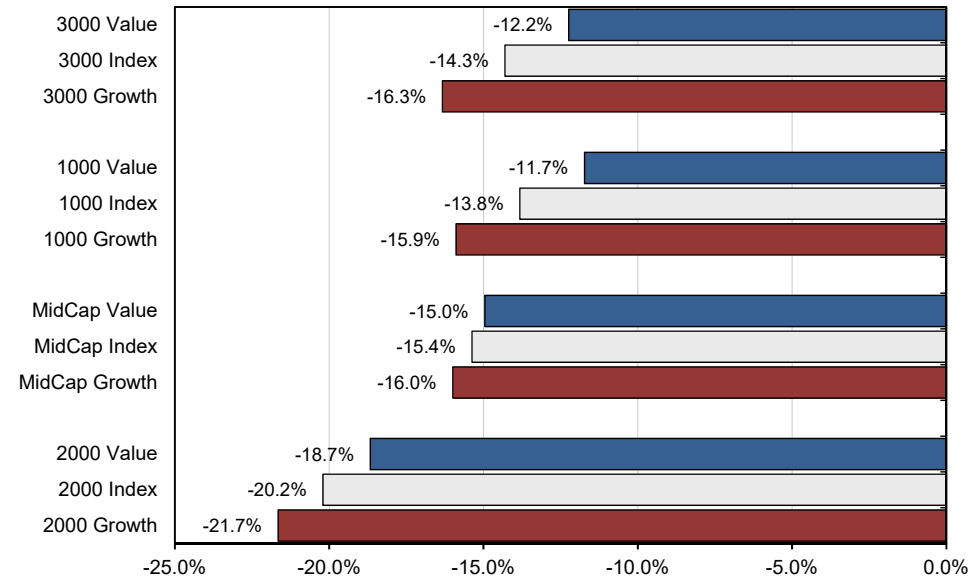


1-Year Performance

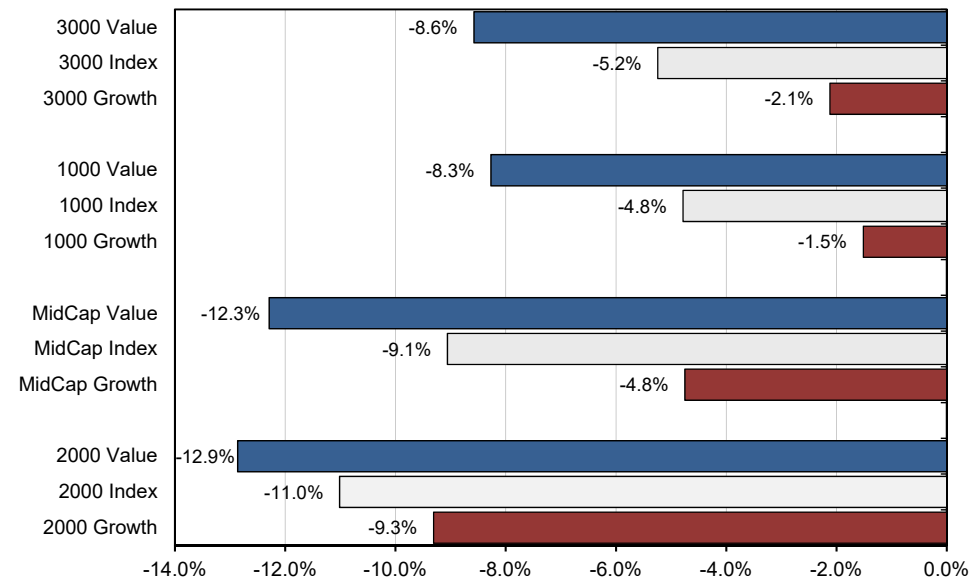


- US equity index returns were strongly negative across the style and capitalization spectrum during the 4th quarter of 2018. Despite these negative results, there was positive data in GDP, unemployment, wage growth, retail sales, and corporate earnings during the period. These positive economic factors were offset by softening data in housing, consumer confidence and manufacturing, tightening monetary policy, negative guidance for future corporate earnings and signs of slowing global growth which all contributed to the heavy selling in equities. Investors also considered the effects of ongoing trade negotiations, especially between the US and China, and the results of the US congressional midterm elections which likely reduced the chances of any major policy changes or new fiscal stimulus measures. The effects of partisan politics was particularly evident at the end of the quarter as budget negotiations between Democrats and Republicans collapsed over disagreement around the inclusion of funds for a border wall with Mexico, leading to a partial government shutdown to end the year.
- During the quarter, large cap stocks outperformed mid and small cap equities across growth, value and core indices. The large cap Russell 1000 Index fell -13.8% during the 4th quarter versus a -20.2% drop for the Russell 2000 Index. Part of the reason for weakness in small cap names is the steady increase in interest rates that occurred over 2018 as small cap companies typically maintain a higher percentage of debt than their large cap peers. Small cap names are also typically more volatile than larger companies and they have historically underperformed during market downturns. Similar to the most recent quarter, large cap stocks outperformed relative to small caps through calendar year 2018. The Russell 1000 returned -4.8% for the 1-year periods compared to a -11.0% return for the Russell 2000.
- Value indices outperformed growth indices across the market cap spectrum during the 4th quarter, reversing a year-to-date trend of growth stock outperformance. The large cap Russell 1000 Value Index was the best performing style index for the period, returning -11.7% for the quarter, while the Russell 2000 Growth Index was the worst performer, returning -21.7%. Value benchmarks tend to outperform in down markets as they benefit from their relative safety and higher dividend yields. Despite the short-term underperformance, growth benchmarks continue to outperform over the 1-year period, however, many of the sector exposures that drove growth stock outperformance during the first three quarters of the year, such as technology and consumer discretionary, were relative detractors during the 4th quarter.

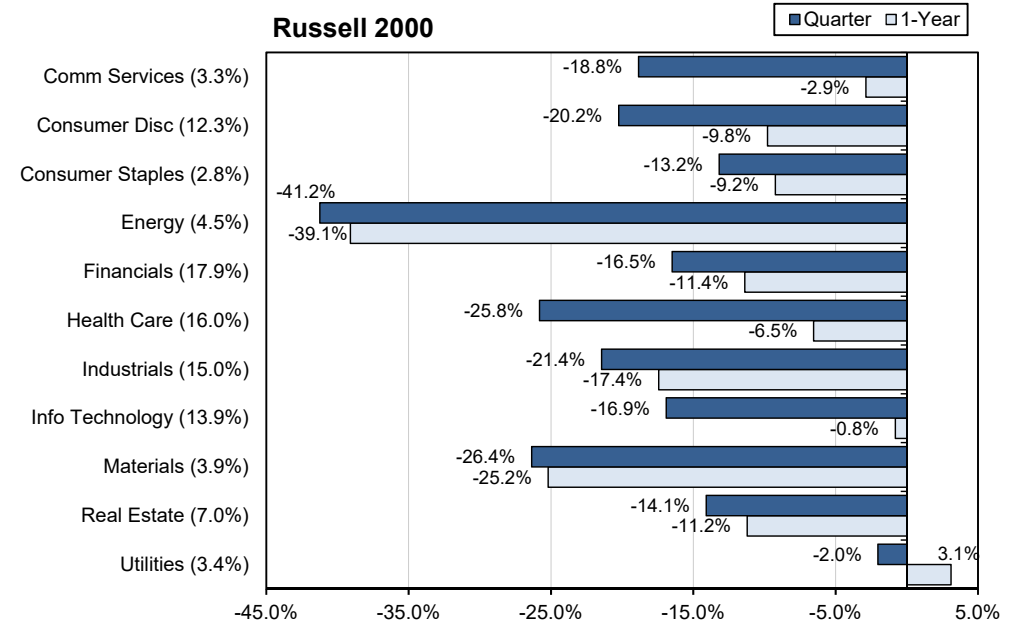
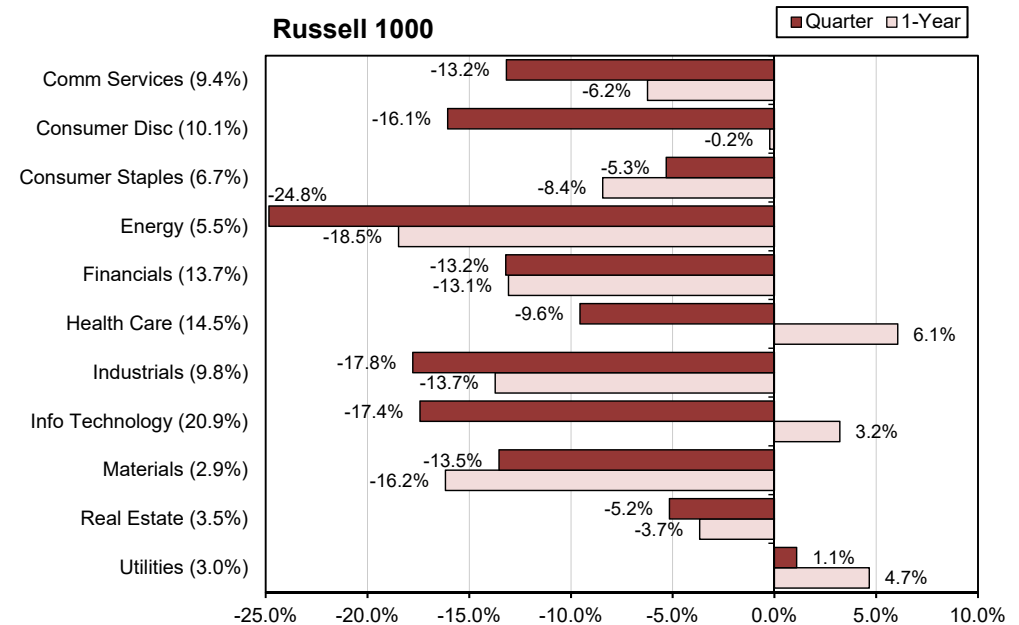
Quarter Performance - Russell Style Series



1-Year Performance - Russell Style Series



- Both S&P Dow Jones Indices and MSCI made changes to the Global Industry Classification Standard (GICS) sector configurations of their indices, creating a new GICS sector classification called Communication Services which replaced the Telecommunications sector on September 28, 2018. The Communication Services sector is comprised of companies in the Telecommunications sector, as well as certain companies formerly classified as Consumer Discretionary and Information Technology. As a result, the sector, went from a weighting of about 2% of the Russell 1000 Index to almost 10% post reclassification. Notable names now classified under Communication Services include Netflix, Alphabet, Facebook and Disney. This is just the second change to the GICS classifications since 1999.
- Sector performance was broadly positive across large cap sectors for the 4th quarter. All sectors within the Russell 1000 Index with the exception of the utilities sector posted negative returns for the period with seven sectors outpacing the return on the index. Cyclical sectors such as energy, industrials and technology were the worst performers through the quarter returning -24.8%, -17.8% and -17.4% respectively. Energy companies were hurt by a steep decline in oil prices during the quarter while technology and industrial companies fell on negative guidance for future earnings. More defensive, higher dividend paying sectors such as utilities, REITs and consumer staples were the strongest performing sectors with returns of 1.1%, -5.2% and -5.3% respectively. Only three sectors (health care, utilities, technology) posted positive results over the 1-year period with the remaining sectors losing ground during the calendar year.
- Quarterly results for small cap sectors were generally lower relative to their large capitalization counterparts. All eleven sectors had negative returns during the period with six of eleven economic sectors outpacing the Russell 2000 Index return for the quarter. Energy, materials and healthcare posted the worst returns for the period returning -41.2%, -26.4% and -25.8% respectively. Similar to large caps, defensive sectors performed well with utilities, consumer staples and real estate detracting the least returning -2.0%, -13.2% and -14.1% respectively. Over the trailing 1-year period, only utilities posted a gain returning 3.1%. Energy stocks were the worst performers in 2018, falling a considerable -41.2%.
- Using S&P 500 sector valuations as a proxy for the market, forward P/E ratios for three of the eleven GICS sectors were higher than their long-term averages at quarter-end. Using these historical P/E measures, the utilities, consumer discretionary and real estate sectors appear the most extended. In contrast the financials, technology and energy sectors were trading at a discount to their long-term average P/E ratios.



The Market Environment
Top 10 Index Weights & Quarterly Performance for the Russell 1000 & 2000
As of December 31, 2018

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Microsoft Corp	3.27%	-11.2%	20.3%	Information Technology
Apple Inc	3.24%	-29.9%	-5.4%	Information Technology
Amazon.com Inc	2.59%	-25.0%	28.4%	Consumer Discretionary
Berkshire Hathaway Inc B	1.68%	-4.6%	3.0%	Financials
Johnson & Johnson	1.47%	-6.0%	-5.1%	Health Care
JPMorgan Chase & Co	1.39%	-12.9%	-6.6%	Financials
Alphabet Inc Class C	1.34%	-13.2%	-1.0%	Communication Services
Alphabet Inc A	1.32%	-13.4%	-0.8%	Communication Services
Facebook Inc A	1.32%	-20.3%	-25.7%	Communication Services
Exxon Mobil Corp	1.23%	-19.0%	-15.1%	Energy

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Tesaro Inc	0.01%	90.3%	-10.4%	Health Care
Red Hat Inc	0.13%	28.9%	46.2%	Information Technology
Virtu Financial Inc A	0.00%	27.1%	45.9%	Financials
Tesla Inc	0.19%	25.7%	6.9%	Consumer Discretionary
SCANA Corp	0.03%	23.2%	23.1%	Utilities
Tribune Media Co A	0.02%	18.9%	9.7%	Communication Services
MarketAxess Holdings Inc	0.03%	18.6%	5.6%	Financials
ARRIS International PLC	0.02%	17.6%	19.0%	Information Technology
United States Cellular Corp	0.00%	16.1%	38.1%	Communication Services
Newmont Mining Corp	0.08%	15.2%	-6.2%	Materials

Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Weatherford International PLC	0.00%	-79.4%	-86.6%	Energy
Nabors Industries Ltd	0.00%	-66.8%	-69.3%	Energy
Extraction Oil & Gas Inc	0.00%	-62.0%	-70.0%	Energy
Adient PLC	0.01%	-61.4%	-80.4%	Consumer Discretionary
Whiting Petroleum Corp	0.01%	-57.2%	-14.3%	Energy
Kosmos Energy Ltd	0.00%	-56.5%	-40.6%	Energy
Chesapeake Energy Corp	0.01%	-53.2%	-47.0%	Energy
Conduent Inc	0.01%	-52.8%	-34.2%	Information Technology
NVIDIA Corp	0.33%	-52.4%	-30.8%	Information Technology
SM Energy Co	0.01%	-50.8%	-29.6%	Energy

Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Integrated Device Technology Inc	0.35%	3.0%	62.9%	Information Technology
Etsy Inc	0.32%	-7.4%	132.6%	Consumer Discretionary
Five Below Inc	0.31%	-21.3%	54.3%	Consumer Discretionary
Haemonetics Corp	0.29%	-12.7%	72.3%	Health Care
Ciena Corp	0.27%	8.5%	62.0%	Information Technology
Planet Fitness Inc A	0.26%	-0.8%	54.8%	Consumer Discretionary
Idacorp Inc	0.26%	-5.6%	4.6%	Utilities
HubSpot Inc	0.26%	-16.7%	42.2%	Information Technology
LivaNova PLC	0.25%	-26.2%	14.5%	Health Care
Cree Inc	0.24%	13.0%	15.2%	Information Technology

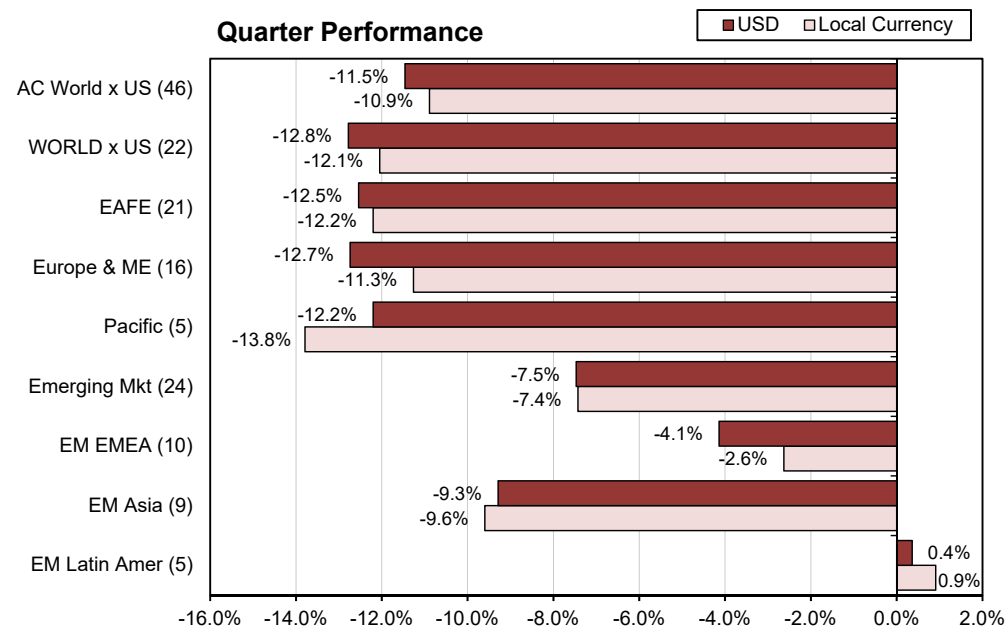
Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Electro Scientific Industries Inc	0.05%	71.7%	39.8%	Information Technology
Fluent Inc	0.01%	67.4%	3.4%	Communication Services
Mitek Systems Inc	0.02%	53.3%	20.8%	Information Technology
Arsanis Inc	0.00%	43.2%	-81.8%	Health Care
Inovalon Holdings Inc	0.05%	41.1%	-5.5%	Health Care
K12 Inc	0.05%	40.1%	55.9%	Consumer Discretionary
Investment Technology Group Inc	0.05%	39.9%	59.0%	Financials
Eidos Therapeutics Inc	0.01%	37.9%	N/A	Health Care
Belmond Ltd Class A	0.13%	37.2%	104.3%	Consumer Discretionary
Pacific Biosciences of California Inc	0.06%	36.8%	180.3%	Health Care

Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Synergy Pharmaceuticals Inc	0.00%	-93.3%	-94.9%	Health Care
Sanchez Energy Corp	0.00%	-88.3%	-94.9%	Energy
Sienna Biopharmaceuticals Inc	0.00%	-84.3%	-87.2%	Health Care
Cloud Peak Energy Inc	0.00%	-84.1%	-91.8%	Energy
Selecta Biosciences Inc	0.00%	-82.9%	-72.9%	Health Care
Clearside Biomedical Inc	0.00%	-82.6%	-84.7%	Health Care
Key Energy Services Inc	0.00%	-81.9%	-82.4%	Energy
AAC Holdings Inc	0.00%	-81.7%	-84.4%	Health Care
PHI Inc Non-Voting Shares	0.00%	-80.2%	-84.0%	Energy
Bristow Group Inc	0.00%	-80.0%	-82.0%	Energy

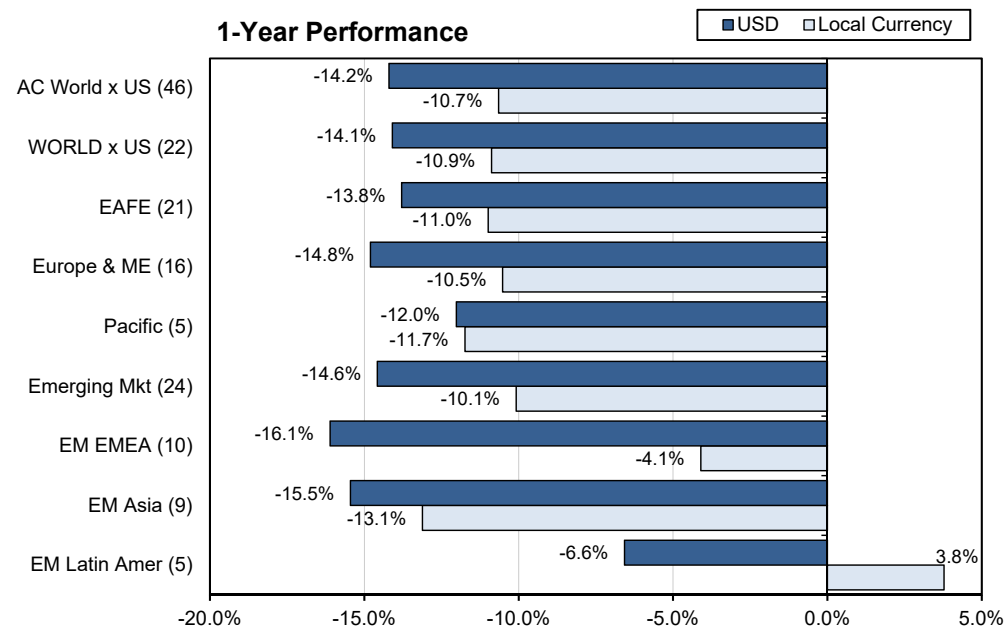


- Broad international equity returns were negative for the quarter in both local currency and USD terms. Geopolitical concerns, weakening economic data and the tightening of global monetary policy drove most of the negative performance. The USD also continued to strengthen against most currencies for the period which provided a headwind for USD based investors. The MSCI ACWI ex US Index fell -10.9% in local currency terms and -11.5% in USD terms during the 4th quarter. Returns for international indices were also broadly negative over the 1-year period in both local currency and USD terms with the MSCI ACWI ex US returning -10.7% and -14.2% respectively.
- Fourth quarter results for developed market international indices were negative in both local currency and USD terms with the MSCI EAFE Index returning -12.2% and -12.5% respectively. Returns were dampened for US investors as the USD continued to appreciate against most currencies, pushing returns lower. Global economic reporting during the quarter fueled concerns that global growth was beginning to slow. Japanese economic data faced headwinds from several natural disasters and data out of Europe was generally disappointing. Investors also weighed the effects of several significant political events in Europe including riots in France, ongoing budget negotiations between Italy and the EU and uncertainty around Brexit. Concerns over a “no deal” Brexit grew during the quarter as the draft withdrawal agreement presented by UK Prime Minister Theresa May was poorly received leading to a wave of cabinet resignations, a delay in the parliamentary vote and a “no confidence” vote which she ultimately won. The MSCI EAFE Index returned -11.0% and -13.8% for the last twelve months in local currency and USD terms respectively.
- Emerging markets outperformed relative to developed markets for the 4th quarter, but still declined in both local currency and USD terms with the MSCI Emerging Markets Index returning -7.4% and -7.5% respectively. Returns in emerging markets were hurt by the continued uncertainty surrounding trade relations between the US and China as both countries agreed to a 90-day hold on any new tariffs to allow for continued negotiations. Chinese economic data also appeared to be slowing during the quarter prompting the announcement of additional monetary and fiscal stimulus. The election of President Andres Manuel Lopez Obrador hurt returns in Mexico as investors feared the potential ramifications of his nationalist campaign promises. In contrast, Brazil was one of the few bright spots during the quarter as market participants looked favorably on the election of President Jair Bolsonaro in anticipation of market friendly economic reforms, including reforms associated with the country's bloated state pension system which has weighed heavily on the country's debt load. One year returns for the MSCI Emerging Market Index were -10.1% in local currency terms and -14.6% in USD terms.

Quarter Performance



1-Year Performance



The Market Environment
US Dollar International Index Attribution & Country Detail
As of December 31, 2018

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.6%	-7.7%	-12.1%
Consumer Discretionary	11.2%	-14.2%	-16.1%
Consumer Staples	11.6%	-8.4%	-10.8%
Energy	5.9%	-17.5%	-7.2%
Financials	19.5%	-13.7%	-20.1%
Health Care	11.2%	-10.3%	-4.3%
Industrials	14.3%	-14.6%	-15.7%
Information Technology	6.0%	-16.7%	-15.6%
Materials	7.4%	-15.2%	-17.5%
Real Estate	3.7%	-5.4%	-9.9%
Utilities	3.8%	-0.1%	1.1%
Total	100.0%	-12.5%	-13.8%

MSCI - ACWIXUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	7.6%	-5.5%	-11.9%
Consumer Discretionary	10.6%	-14.1%	-20.2%
Consumer Staples	9.9%	-7.4%	-11.2%
Energy	7.3%	-16.3%	-8.1%
Financials	22.2%	-10.7%	-16.8%
Health Care	8.4%	-11.2%	-6.2%
Industrials	11.7%	-13.7%	-15.1%
Information Technology	8.0%	-14.6%	-17.6%
Materials	7.7%	-13.4%	-15.9%
Real Estate	3.4%	-3.8%	-11.6%
Utilities	3.4%	0.5%	-0.9%
Total	100.0%	-11.5%	-14.2%

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	14.1%	-3.7%	-14.9%
Consumer Discretionary	10.4%	-13.5%	-32.5%
Consumer Staples	6.7%	-4.6%	-13.7%
Energy	8.0%	-10.6%	4.7%
Financials	24.8%	-0.9%	-8.7%
Health Care	2.8%	-16.2%	-20.9%
Industrials	5.5%	-3.8%	-12.6%
Information Technology	14.2%	-12.7%	-19.3%
Materials	7.7%	-10.8%	-11.6%
Real Estate	3.0%	1.4%	-17.2%
Utilities	2.7%	3.6%	-3.8%
Total	100.0%	-7.5%	-14.6%

Country	MSCI-EAFE Weight	MSCI-ACWIXUS Weight	Quarter Return	1- Year Return
Japan	24.6%	16.6%	-14.2%	-12.9%
United Kingdom	16.9%	11.4%	-11.8%	-14.2%
France	11.1%	7.5%	-15.1%	-12.8%
Germany	8.8%	6.0%	-15.5%	-22.2%
Switzerland	8.7%	5.8%	-8.9%	-9.1%
Australia	6.9%	4.7%	-10.0%	-12.0%
Hong Kong	3.9%	2.6%	-4.5%	-7.8%
Netherlands	3.4%	2.3%	-11.0%	-13.1%
Spain	3.1%	2.1%	-8.7%	-16.2%
Sweden	2.7%	1.8%	-14.2%	-13.7%
Italy	2.3%	1.5%	-11.8%	-17.8%
Denmark	1.8%	1.2%	-9.8%	-15.4%
Singapore	1.4%	0.9%	-6.7%	-9.4%
Finland	1.0%	0.7%	-14.7%	-3.4%
Belgium	1.0%	0.6%	-18.5%	-26.9%
Norway	0.7%	0.5%	-18.1%	-8.6%
Ireland	0.5%	0.4%	-17.7%	-25.3%
Israel	0.5%	0.4%	-14.4%	-5.5%
Austria	0.2%	0.2%	-20.7%	-27.4%
New Zealand	0.2%	0.2%	-6.6%	-4.0%
Portugal	0.2%	0.1%	-14.3%	-11.1%
Total EAFE Countries	100.0%	67.5%	-12.5%	-13.8%
Canada		6.5%	-15.3%	-17.2%
Total Developed Countries		74.0%	-12.8%	-14.1%
China		7.9%	-10.7%	-18.9%
Korea		3.6%	-13.1%	-20.9%
Taiwan		3.0%	-13.7%	-8.9%
India		2.4%	2.5%	-7.3%
Brazil		2.0%	13.4%	-0.5%
South Africa		1.6%	-3.8%	-24.8%
Russia		1.0%	-9.0%	-0.7%
Mexico		0.7%	-18.8%	-15.5%
Malaysia		0.6%	-5.8%	-6.0%
Thailand		0.6%	-10.2%	-5.5%
Indonesia		0.6%	9.7%	-9.2%
Poland		0.3%	-3.0%	-12.9%
Philippines		0.3%	5.3%	-16.5%
Qatar		0.3%	8.4%	29.8%
Chile		0.3%	-8.7%	-19.7%
United Arab Emirates		0.2%	-5.5%	-7.7%
Turkey		0.2%	4.8%	-41.4%
Colombia		0.1%	-19.0%	-11.5%
Peru		0.1%	-2.9%	1.6%
Hungary		0.1%	5.9%	-6.1%
Greece		0.1%	-16.0%	-36.8%
Czech Republic		0.0%	-8.7%	-4.5%
Egypt		0.0%	-9.4%	-14.0%
Pakistan		0.0%	-22.4%	-34.8%
Total Emerging Countries		26.0%	-7.5%	-14.6%
Total ACWIXUS Countries		100.0%	-11.5%	-14.2%

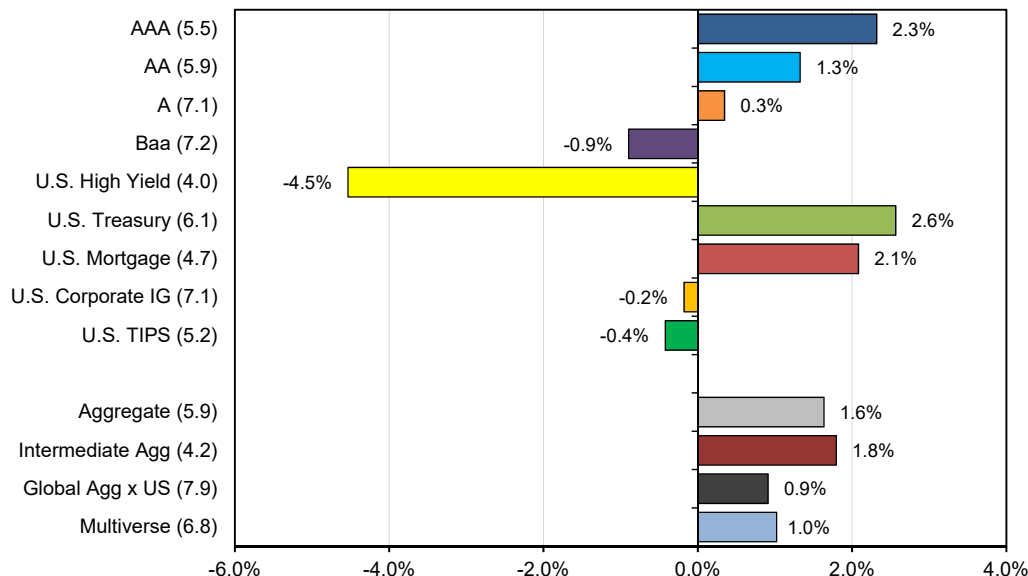
Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD)

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.

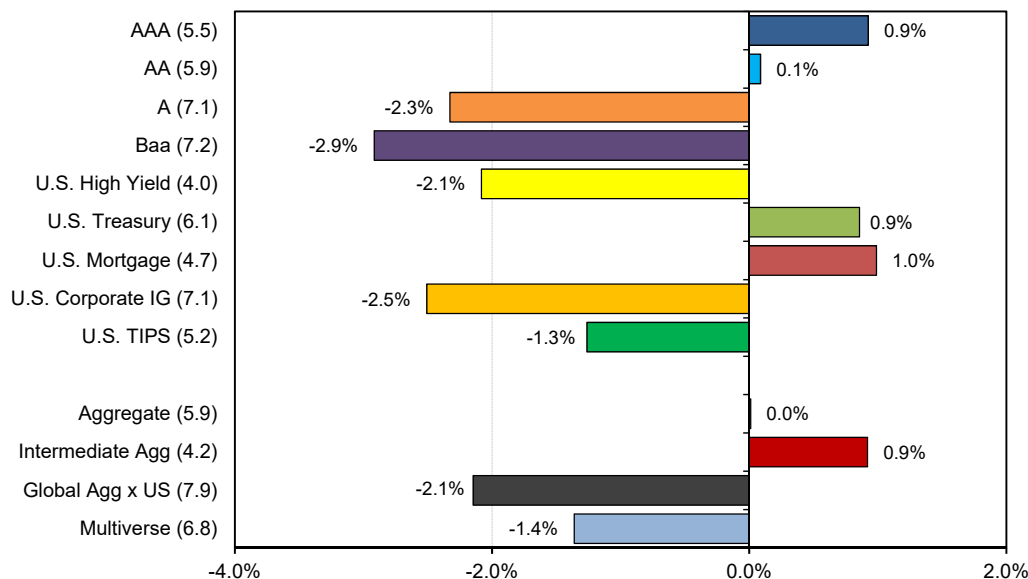


- Broad fixed income benchmarks had mixed results during the 4th quarter. Interest rates rose across short-term maturities, but fell on those on the middle and long end of the US Treasury Yield Curve. The Federal Open Market Committee (FOMC), decided to increase short-term interest rates by 25 basis points at their December meeting citing the strength of the US economy which caused an increase in short-term interest rates, but equity market volatility led market participants toward less volatile assets, pushing rates lower on maturities greater than 1-year. This was the fourth rate hike of 2018. The current Fed Funds Rate target range sits at 2.25%-2.50%. This caused continued flattening in the yield curve with some moderate inversion, which happens when short-term maturities have greater yields than long-term securities, in the middle of curve. The difference in yields between the 2-year and 10-year Treasury now sits at just 0.21%. Historically, an inverted yield curve has signaled a greater probability of a recession. The Fed is also continuing the reduction of the size of its balance sheet by slowing its pace of reinvestment as the securities it holds mature. However, the Fed did lower its guidance for future rate increases in 2019 following a reduction in expectations for GDP and inflation. The Fed is now projecting just two additional interest rate increases in 2019. The Bloomberg Barclays US Aggregate Index was positive during the quarter, posting a 1.6% return, but was flat, returning 0.0% over the 1-year period.
- Within investment grade credit, higher quality issues outperformed lower quality issues as investors preferred more conservative securities. On an absolute basis, without negating the duration differences in the sub-indices, AAA rated credit was the best performing investment grade credit quality segment returning 2.3% for the quarter, while Baa was the worst performing, falling -0.9%. High yield debt trailed investment grade credit as spreads widened the most for these issues, returning -4.5%. Returns are mixed for the investment grade quality segments when viewed over the 1-year period with higher quality issues outperforming lower quality securities. High yield performed well relative to lower quality investment grade debt due to the relatively strong returns experienced during the first three quarters of 2018.
- During the 4th quarter, the more defensive Treasury and mortgage backed sectors of the Bloomberg Barclays US Aggregate Index's three broad sectors were the best performers returning 2.6% and 2.1% respectively. Investment grade corporate credit underperformed, returning -0.2%, as credit spreads widened considerably during the period. This trend carried through to the 1-year period as both Treasuries and mortgage backed securities outperformed both investment grade and high yield corporate debt. Calendar year 2018 performance for the Treasury, mortgage backed and investment grade corporate issues was 0.9%, 1.0% and -2.5% respectively. US TIPS returned -0.4% and -1.3% for the 4th quarter and 1-year period.

Quarter Performance

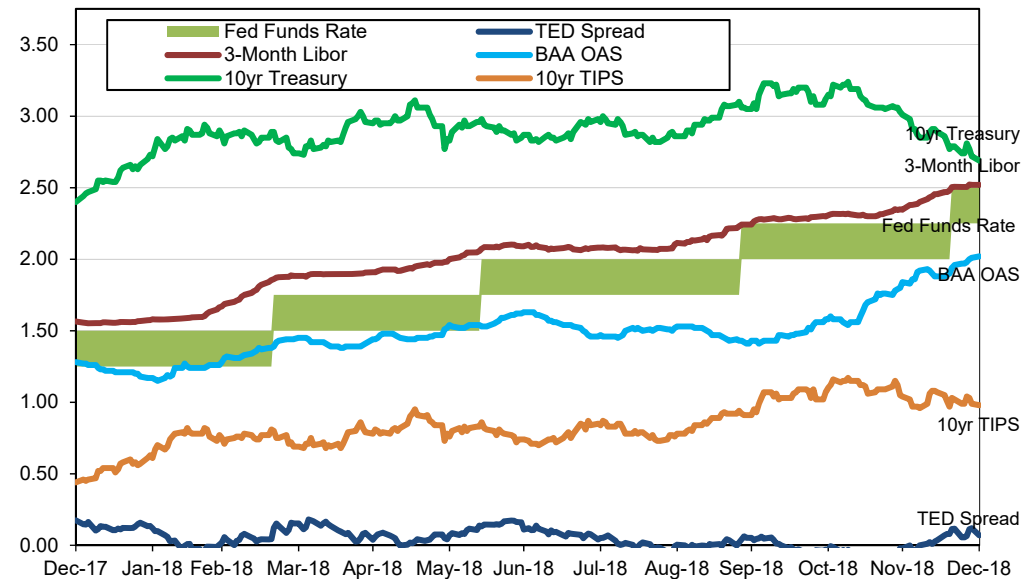


1-Year Performance

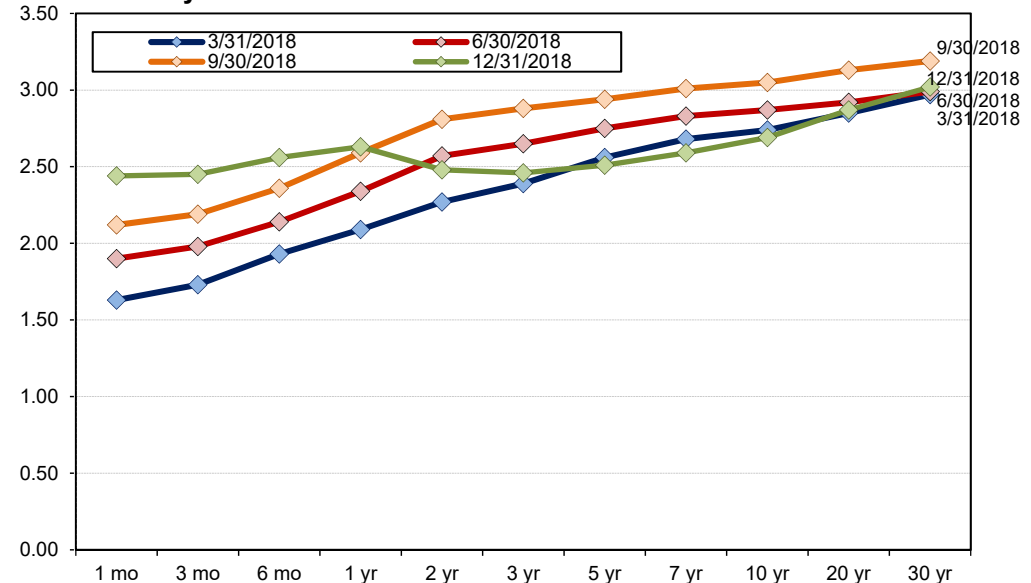


- Global fixed income indices continue to struggle relative to their domestic counterparts, underperforming during the 4th quarter. These indices have lower yields and the returns of these indices are also significantly influenced by fluctuations in their currency denomination relative to the USD. During the 4th quarter the USD strengthened against most other 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 0.9% and -2.1% for the quarter and 1-year period respectively. As the global economy continues to recover, several international central banks have started to move toward less accommodative postures. Notably, the ECB, began to slow its monthly bond purchase program in September, reducing new purchases to 15 billion euro per month from 30 billion euro per month and ended the program entirely at year end. However, they have indicated a continuation of reinvestment in maturing securities and would likely not raise interest rates from current levels until summer 2019. 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 during the 4th quarter after rising steadily through most of the year as investors moved to safe haven assets during the period, ending the year at 2.69%. 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 as investors moved to higher quality assets. This increase is equivalent to an interest rate increase on corporate bonds, which produces an additional headwind for corporate bond index returns. These credit spreads have widened by about 59 basis points over the last 3-months. The green band across the graph illustrates the gradual increase in the Federal Funds Rate (four increases in the last twelve months) due to the continued tightening of US monetary policy.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four calendar quarters. As mentioned, the yield curve continues to flatten as yields on shorter-term maturities have risen more than interest rates on the long end of the curve. The upward momentum of interest rates as well as a general flattening of the yield curve are clearly visible over the last twelve months with some minor inversion visible in the middle of the yield curve.

1-Year Trailing Market Rates



Treasury Yield Curve



Southfield Employees Retirement System
Total Fund Asset Allocation Compliance Summary

December 31, 2018

Total Portfolio Compliance Summary							
	December 31, 2018 Market Value \$	Current Allocation %	Target Allocation %	Range Allocation %	Act 314 Limit %	Compliance within Ranges	Compliance w/314 Limits
Total Portfolio (excluding Unfunded Commitments)	102,389,695.11	100.0%	100.0%				
Total Equity (14)	67,704,379.88	66.1%	63.5%	53.0% - 70.0%	70.0%	YES	YES
Domestic Equity (14)	50,663,424.51	49.5%	48.0%	43.0% - 53.0%	70.0%	YES	YES
International Equity (14)	17,040,955.37	16.6%	15.5%	10.0% - 20.0%	70.0%	YES	YES
Total US Fixed Income (17 & 17.1.a.iii)	14,538,086.32	14.2%	22.0%	15.0% - 30.0%	100.0%	NO	YES
US Investment Grade Fixed Income (17)	9,362,242.90	9.1%	15.0%	10.0% - 25.0%	100.0%	NO	YES
US Non-Investment Grade Fixed Income (17.1.a.iii)	5,175,843.42	5.1%	5.0%	0.0% - 10.0%	100.0%	YES	YES
Total Non US Fixed Income (20k)	3,273,974.58	3.2%	2.0%	0.0% - 10.0%	20.0%	YES	YES
Total Real Estate (18 & 19)	7,698,667.25	7.5%	6.0%	0.0% - 10.0%	20.0%	YES	YES
Alternative Investments (20d)	8,140,341.69	8.0%	8.5%	0.0% - 10.0%	20.0%	YES	YES
Short Term/Cash Reserves	1,034,245.39	1.0%	0.0%	0.0% - 5.0%	N/A	YES	YES



EXECUTIVE SUMMARY: 4Q 2018

Market Summary:

The US equity market plummeted during the 4th quarter and volatility returned. The sell off may be attributed to several factors, including the Federal Reserve's forecasts for several rate increases in 2019, the slowing global economy, persistent trade tensions with China, politics (midterm elections and federal debt ceiling standoff), and other concerns. The decline was broad based with most sectors falling by double digits during the quarter; larger companies survived the best (S&P 500 down 13.5%), followed by mid-caps and small-caps. The international equity markets fared slightly better (MSCI EAFE -12.5% and MSCI Emerging Markets -7.5%); however, these markets did not keep pace with the US markets over the summer and significantly lagged over the full year. The fixed income market managed a modest gain during the quarter (BB US Aggregate 1.6%). Treasuries and mortgages led as investors focused on safety; corporate bonds struggled, as they were influenced by the equity markets. The Federal Reserve hiked interest rates for a fourth time this year in December and the yield curve continued to flatten (short term rates rising faster than longer term rates); at quarter end the Fed Funds Rate was 2.25% - 2.50%. In late December the Fed softened their language on future rate increases and the equity market rallied.

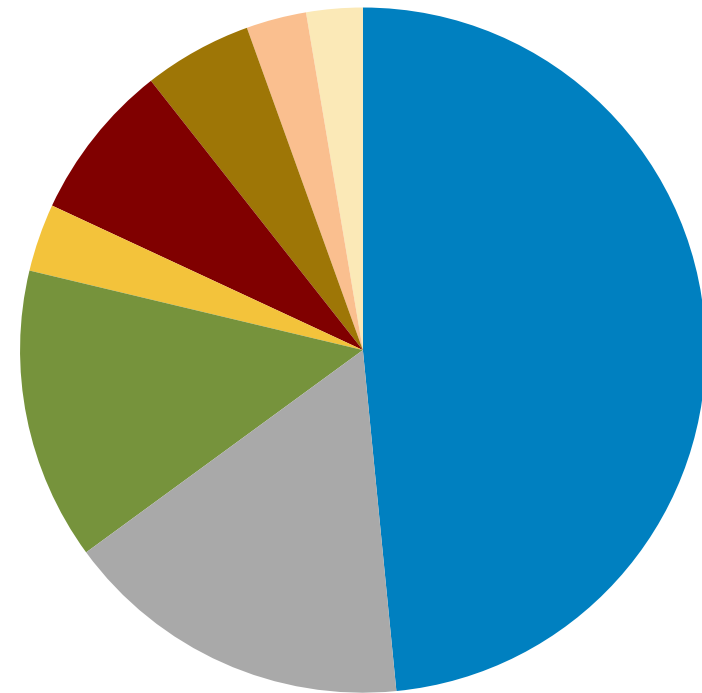
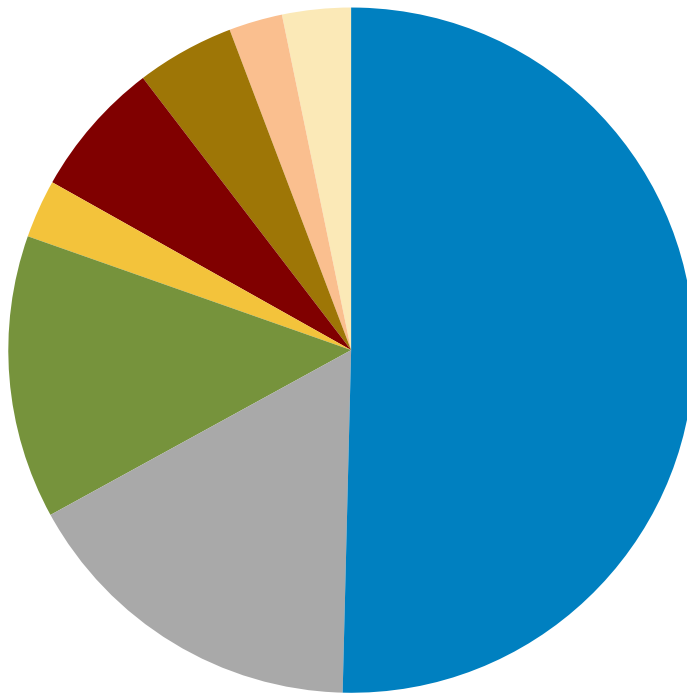
Conclusions/Recommendations:

1. The Total Fund returned -10.37% during the quarter, trailing the Policy Index by 1.00% and ranking in the bottom half of the Public Fund universe. The Fund was hindered by the significant allocation to small and mid cap stocks and weak performance from several of the active managers, particularly QMA (mid cap), LSV (intl equity), and Bloomfield II (direct lending).
2. The Total Fund posted a return of -6.01% over the past year, under performing the Policy Index and ranking in the bottom half of the peer group. Longer-term, the Fund has performed very well, generally exceeding the Policy Index and ranking in the top third of the peer group.
3. Champlain out performed the Russell Mid Cap Index and ranked near the top of their peer group. The manager benefited from strong stock selection within the Information Technology and Consumer Discretionary sectors. Over the past year the manager has exceeded their benchmark by 13.6%.
4. Bloomfield Capital II struggled this quarter. The manager has returned over 60% of the capital during the last 12 months; the remaining portfolio contains some challenging loans and due to the smaller capital base, these loans have a larger impact on performance.
5. Metropolitan and BTG/RMK have not yet reported their fourth quarter 2018 results (about 3% of the portfolio); these strategies will have minimal impact on the Total Fund. As of 12/31/18, the Plan has outstanding investment commitments with Bloomfield Capital V.

The Fund was slightly below the minimum allocation to domestic fixed income (9.1% vs. 10.0%); see AndCo's rebalancing recommendation on the Asset/Manager Summary handout. We did not detect any other violations of investment policies

Asset Allocation By Segment as of
September 30, 2018 : \$116,601,968

Asset Allocation By Segment as of
December 31, 2018 : \$102,389,695



Allocation			Allocation		
Segments	Market Value	Allocation	Segments	Market Value	Allocation
Domestic Equity	58,764,746	50.4	Domestic Equity	49,600,413	48.4
International Equity	19,378,026	16.6	International Equity	16,904,115	16.5
Domestic Fixed Income	15,593,445	13.4	Domestic Fixed Income	14,110,866	13.8
Global Fixed Income	3,217,690	2.8	Global Fixed Income	3,273,975	3.2
Real Estate	7,532,420	6.5	Real Estate	7,640,474	7.5
Hedge Fund	5,393,645	4.6	Hedge Fund	5,234,608	5.1
Other Illiquid Asset	2,943,958	2.5	Other Illiquid Asset	2,905,733	2.8
Cash Equivalent	3,778,038	3.2	Cash Equivalent	2,719,510	2.7

Financial Reconciliation
Total Fund
1 Quarter Ending December 31, 2018

Financial Reconciliation								
	Market Value 10/01/2018	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Return On Investment	Market Value 12/31/2018
Total Domestic Equity	60,368,006	-	2,804	-	-75,664	-3,564	-9,628,158	50,663,425
Comerica S&P 500 Index Fund	25,610,824	-	-	-	-3,468	-	-3,448,345	22,159,010
Champlain MC Equity	8,616,335	-	-	-	-18,309	-1,117	-989,880	7,607,029
QMA US MC Equity	7,745,397	-	-	-	-8,800	-	-1,421,074	6,315,524
SouthernSun SC	12,161,447	-	2,804	-	-30,590	-1,600	-2,660,922	9,471,138
Walhausen & Co. SMID Value	6,234,003	-	-	-	-14,497	-847	-1,107,936	5,110,724
Total International Equity	19,728,452	18,662	-	-	-37,012	-1,301	-2,667,847	17,040,955
LSV International LCV	9,880,807	18,662	-	-	-18,662	-	-1,401,905	8,478,902
WCM Focused Growth International	9,847,645	-	-	-	-18,350	-1,301	-1,265,942	8,562,053
Total Fixed Income	19,136,667	-1,510,324	-	-	-7,943	-1,504	195,165	17,812,061
Pacific Fixed Income	9,958,682	-733,000	-	-	-7,943	-1,504	146,008	9,362,243
Bloomfield Capital Income Fund II	1,739,033	-696,667	-	-	-	-	-79,458	962,908
Bloomfield Capital Income Fund III	4,221,262	-80,658	-	-	-	-	72,330	4,212,935
Templeton Global Bond R6 (FBNRX)	3,217,690	-	-	-	-	-	56,285	3,273,975
Total Real Estate	7,589,926	-	-	-	-18,908	-	127,649	7,698,667
AEW Core Property Trust	6,747,827	-	-	-	-18,908	-	127,649	6,856,568
Metropolitan Real Estate V	842,099	-	-	-	-	-	-	842,099
Total Timber Funds	2,943,958	-38,224	-	-	-	-	-	2,905,733
RMK Timberland US Fund	2,071,600	-38,224	-	-	-	-	-	2,033,376
RMK Timberland Intl Fund	872,358	-	-	-	-	-	-	872,358
Total Hedge Fund of Funds	5,393,645	-	-	-	-	-	-159,037	5,234,608
Magnitude Institutional	2,776,336	-	-	-	-	-	-65,916	2,710,420
Titan Masters Int'l Fund	2,617,309	-	-	-	-	-	-93,121	2,524,188
Cash Account	1,441,314	1,529,887	1,166,531	-3,021,601	-	-58,130	-23,754	1,034,245
Total Fund	116,601,968	-	1,169,335	-3,021,601	-139,526	-64,499	-12,155,982	102,389,695

*Other expenses represent any professional fees outside of the management fee (custody, consultant, attorney, and admin).



Comparative Performance

Trailing Returns

As of December 31, 2018

Comparative Performance																	
	QTR		FYTD		1 YR		3 YR		5 YR		7 YR		10 YR		Inception		Inception Date
Total Fund	-10.37	(93)	-7.48	(94)	-6.01	(88)	6.27	(31)	4.38	(69)	8.46	(15)	10.49	(2)	7.26	(10)	06/01/1997
Total Fund Policy	-9.37	(80)	-6.54	(84)	-5.15	(73)	6.10	(37)	5.00	(39)	8.16	(23)	9.32	(16)	7.53	(6)	
Difference	-1.00		-0.94		-0.86		0.17		-0.62		0.30		1.17		-0.27		
All Public Plans-Total Fund Median	-8.36		-5.37		-4.33		5.79		4.80		7.53		8.47		6.50		
Total Domestic Equity	-15.96	(55)	-11.92	(60)	-10.06	(66)	7.19	(50)	4.79	(62)	10.61	(55)	13.07	(38)	8.33	(76)	02/01/1992
Total Domestic Equity Policy	-16.61	(61)	-12.18	(62)	-8.37	(56)	8.29	(35)	6.63	(37)	11.67	(37)	13.06	(39)	9.76	(39)	
Difference	0.65		0.26		-1.69		-1.10		-1.84		-1.06		0.01		-1.43		
IM U.S. Equity (SA+CF+MF) Median	-15.48		-10.27		-7.43		7.12		5.70		10.85		12.40		9.28		
Total International Equity	-13.53	(65)	-11.17	(38)	-11.77	(17)	5.63	(35)	3.38	(16)	7.99	(16)	8.06	(39)	1.55	(35)	12/01/2007
Total International Equity Policy	-12.54	(54)	-11.35	(41)	-13.79	(30)	2.87	(63)	0.53	(59)	5.75	(45)	6.32	(68)	0.19	(63)	
Difference	-0.99		0.18		2.02		2.76		2.85		2.24		1.74		1.36		
IM International Equity (SA+CF+MF) Median	-12.16		-12.22		-15.76		3.87		0.95		5.45		7.38		0.76		
Total Fixed Income	1.06	(80)	2.03	(7)	2.62	(1)	5.89	(1)	4.93	(1)	4.10	(3)	N/A		5.37	(18)	03/01/2009
Total Fixed Income Policy	1.64	(24)	1.66	(42)	0.01	(62)	2.06	(85)	2.52	(84)	2.10	(94)	3.48	(93)	3.67	(93)	
Difference	-0.58		0.37		2.61		3.83		2.41		2.00		N/A		1.70		
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	1.40		1.60		0.07		2.48		2.86		2.63		4.41		4.59		
Total Real Estate	1.68	(72)	3.11	(96)	7.06	(95)	7.75	(84)	9.77	(84)	5.45	(100)	N/A		5.45	(100)	01/01/2012
Total Real Estate Policy	1.37	(92)	3.07	(96)	6.72	(100)	7.21	(91)	9.33	(93)	9.74	(93)	7.49	(42)	9.74	(93)	
Difference	0.31		0.04		0.34		0.54		0.44		-4.29		N/A		-4.29		
IM U.S. Open End Private Real Estate (SA+CF) Median	1.80		4.15		8.71		8.66		10.82		11.57		7.34		11.57		
Total Hedge Fund of Funds	-2.95		-2.18		2.67		1.73		N/A		N/A		N/A		1.49		08/01/2015
HFRI FOF: Diversified Index	-4.67		-4.10		-3.36		1.23		1.38		2.93		3.18		0.18		
Difference	1.72		1.92		6.03		0.50		N/A		N/A		N/A		1.31		
Total Timber Funds	0.00		1.32		1.70		-0.40		-2.73		N/A		N/A		-0.86		08/01/2012
Total Timber Policy	0.97		2.00		3.44		3.22		4.98		6.04		3.83		6.36		
Difference	-0.97		-0.68		-1.74		-3.62		-7.71		N/A		N/A		-7.22		

** All History prior to 3/31/2015, obtained from prior consultant.**

LP Real Estate and Timber Funds separate accounts are presented on the IRR page.



Comparative Performance

Trailing Returns

As of December 31, 2018

	QTR		FYTD		1 YR		3 YR		5 YR		7 YR		10 YR		Inception		Inception Date
Total Domestic Equity	-15.96	(55)	-11.92	(60)	-10.06	(66)	7.19	(50)	4.79	(62)	10.61	(55)	13.07	(38)	8.33	(76)	02/01/1992
Total Domestic Equity Policy	-16.61	(61)	-12.18	(62)	-8.37	(56)	8.29	(35)	6.63	(37)	11.67	(37)	13.06	(39)	9.76	(39)	
Difference	0.65		0.26		-1.69		-1.10		-1.84		-1.06		0.01		-1.43		
IM U.S. Equity (SA+CF+MF) Median	-15.48		-10.27		-7.43		7.12		5.70		10.85		12.40		9.28		
Comerica S&P 500 Index Fund	-13.47	(42)	-6.80	(36)	-4.35	(37)	9.25	(32)	8.50	(37)	12.70	(47)	13.15	(45)	7.60	(62)	04/01/2006
S&P 500 Index	-13.52	(44)	-6.85	(38)	-4.38	(38)	9.26	(31)	8.49	(37)	12.70	(47)	13.12	(47)	7.56	(65)	
Difference	0.05		0.05		0.03		-0.01		0.01		0.00		0.03		0.04		
IM U.S. Large Cap Core Equity (SA+CF) Median	-13.83		-7.66		-5.20		8.47		8.15		12.63		13.05		7.71		
Champlain MC Equity	-11.50	(4)	-4.01	(3)	4.54	(2)	N/A		N/A		N/A		N/A		9.19	(1)	08/01/2017
Russell Midcap Index	-15.37	(27)	-11.14	(29)	-9.06	(34)	7.04	(60)	6.26	(43)	11.49	(52)	14.03	(53)	-1.16	(34)	
Difference	3.87		7.13		13.60		N/A		N/A		N/A		N/A		10.35		
IM U.S. Mid Cap Core Equity (SA+CF) Median	-17.21		-13.69		-11.02		7.65		6.10		11.53		14.16		-2.28		
QMA US MC Equity	-18.37	(84)	-16.17	(97)	-15.29	(91)	N/A		N/A		N/A		N/A		-5.36	(95)	08/01/2017
Russell Midcap Index	-15.37	(27)	-11.14	(29)	-9.06	(34)	7.04	(60)	6.26	(43)	11.49	(52)	14.03	(53)	-1.16	(34)	
Difference	-3.00		-5.03		-6.23		N/A		N/A		N/A		N/A		-4.20		
IM U.S. Mid Cap Core Equity (SA+CF) Median	-17.21		-13.69		-11.02		7.65		6.10		11.53		14.16		-2.28		
SouthernSun SC	-21.91	(89)	-22.68	(100)	-24.95	(100)	1.81	(100)	-3.91	(100)	5.12	(100)	11.39	(96)	6.97	(98)	04/01/2008
Russell 2000 Index	-20.20	(63)	-17.35	(61)	-11.01	(55)	7.36	(57)	4.41	(72)	10.44	(78)	11.97	(89)	7.95	(81)	
Difference	-1.71		-5.33		-13.94		-5.55		-8.32		-5.32		-0.58		-0.98		
IM U.S. Small Cap Core Equity (SA+CF) Median	-19.71		-16.55		-10.73		7.73		5.48		11.46		13.56		8.92		
Walthausen & Co. SMID Value	-17.80	(59)	-15.29	(58)	-12.04	(38)	6.70	(39)	N/A		N/A		N/A		6.56	(51)	10/01/2015
Russell 2500 Value Index	-17.12	(39)	-14.91	(53)	-12.36	(41)	6.59	(42)	4.16	(58)	10.00	(67)	11.62	(85)	6.96	(44)	
Difference	-0.68		-0.38		0.32		0.11		N/A		N/A		N/A		-0.40		
IM U.S. SMID Cap Value Equity (SA+CF) Median	-17.55		-14.86		-12.98		5.69		4.61		10.70		13.03		6.59		

** All History prior to 3/31/2015, obtained from prior consultant.**

LP Real Estate and Timber Funds separate accounts are presented on the IRR page.



Comparative Performance

Trailing Returns

As of December 31, 2018

	QTR		FYTD		1 YR		3 YR		5 YR		7 YR		10 YR		Inception		Inception Date
Total International Equity	-13.53	(65)	-11.17	(38)	-11.77	(17)	5.63	(35)	3.38	(16)	7.99	(16)	8.06	(39)	1.55	(35)	12/01/2007
Total International Equity Policy	-12.54	(54)	-11.35	(41)	-13.79	(30)	2.87	(63)	0.53	(59)	5.75	(45)	6.32	(68)	0.19	(63)	
Difference	-0.99		0.18		2.02		2.76		2.85		2.24		1.74		1.36		
IM International Equity (SA+CF+MF) Median	-12.16		-12.22		-15.76		3.87		0.95		5.45		7.38		0.76		
LSV International LCV	-14.19	(77)	-12.64	(64)	-16.98	(73)	3.48	(54)	1.13	(49)	6.90	(36)	7.34	(54)	3.66	(79)	01/01/2006
MSCI EAFE Index	-12.50	(44)	-11.26	(46)	-13.36	(38)	3.38	(57)	1.00	(51)	6.24	(52)	6.81	(59)	3.47	(83)	
Difference	-1.69		-1.38		-3.62		0.10		0.13		0.66		0.53		0.19		
IM International Large Cap Value Equity (SA+CF) Median	-12.88		-11.94		-14.64		3.66		1.03		6.30		7.45		4.21		
WCM Focused Growth International	-12.86	(29)	-9.65	(15)	-5.96	(4)	8.26	(6)	6.18	(8)	9.40	(14)	N/A		8.87	(10)	11/01/2011
MSCI EAFE (Net) Index	-12.54	(28)	-11.35	(24)	-13.79	(42)	2.87	(62)	0.53	(88)	5.75	(89)	6.32	(96)	4.74	(92)	
Difference	-0.32		1.70		7.83		5.39		5.65		3.65		N/A		4.13		
IM International Growth Equity (SA+CF) Median	-14.78		-14.24		-15.13		4.02		2.35		7.31		9.03		6.38		

** All History prior to 3/31/2015, obtained from prior consultant.**

LP Real Estate and Timber Funds separate accounts are presented on the IRR page.



Comparative Performance

Trailing Returns

As of December 31, 2018

	QTR	FYTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	Inception Date
Total Fixed Income	1.06 (80)	2.03 (7)	2.62 (1)	5.89 (1)	4.93 (1)	4.10 (3)	N/A	5.37 (18)	03/01/2009
Total Fixed Income Policy	1.64 (24)	1.66 (42)	0.01 (62)	2.06 (85)	2.52 (84)	2.10 (94)	3.48 (93)	3.67 (93)	
Difference	-0.58	0.37	2.61	3.83	2.41	2.00	N/A	1.70	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	1.40	1.60	0.07	2.48	2.86	2.63	4.41	4.59	
 Pacific Fixed Income	 1.59 (33)	 1.65 (42)	 -0.01 (66)	 3.01 (11)	 2.85 (51)	 2.46 (66)	 3.84 (79)	 5.24 (66)	 06/01/1997
Blmbg. Barc. U.S. Aggregate Index	1.64 (24)	1.66 (42)	0.01 (62)	2.06 (85)	2.52 (84)	2.10 (94)	3.48 (93)	4.97 (92)	
Difference	-0.05	-0.01	-0.02	0.95	0.33	0.36	0.36	0.27	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	1.40	1.60	0.07	2.48	2.86	2.63	4.41	5.39	
 Templeton Global Bond R6 (FBNRX)	 1.75 (10)	 2.79 (1)	 1.57 (7)	 N/A	 N/A	 N/A	 N/A	 -0.32 (98)	 04/01/2017
Blmbg. Barc. Global Multiverse	1.02 (23)	0.22 (37)	-1.36 (41)	2.99 (37)	1.20 (53)	1.22 (72)	2.77 (69)	2.41 (15)	
Difference	0.73	2.57	2.93	N/A	N/A	N/A	N/A	-2.73	
IM Global Fixed Income (MF) Median	0.33	-0.08	-1.76	2.68	1.27	1.71	3.49	1.47	
 Total Real Estate	 1.68 (72)	 3.11 (96)	 7.06 (95)	 7.75 (84)	 9.77 (84)	 5.45 (100)	 N/A	 5.45 (100)	 01/01/2012
Total Real Estate Policy	1.37 (92)	3.07 (96)	6.72 (100)	7.21 (91)	9.33 (93)	9.74 (93)	7.49 (42)	9.74 (93)	
Difference	0.31	0.04	0.34	0.54	0.44	-4.29	N/A	-4.29	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.80	4.15	8.71	8.66	10.82	11.57	7.34	11.57	
 AEW Core Property Trust	 1.89 (37)	 3.57 (82)	 7.72 (82)	 8.06 (73)	 9.82 (82)	 N/A	 N/A	 10.23 (86)	 10/01/2012
NCREIF Fund Index-ODCE (VW)	1.76 (61)	3.88 (59)	8.35 (63)	8.24 (70)	10.41 (65)	10.99 (67)	7.00 (61)	10.94 (69)	
Difference	0.13	-0.31	-0.63	-0.18	-0.59	N/A	N/A	-0.71	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.80	4.15	8.71	8.66	10.82	11.57	7.34	11.61	
 Total Hedge Fund of Funds	 -2.95	 -2.18	 2.67	 1.73	 N/A	 N/A	 N/A	 1.49	 08/01/2015
HFRI FOF: Diversified Index	-4.67	-4.10	-3.36	1.23	1.38	2.93	3.18	0.18	
Difference	1.72	1.92	6.03	0.50	N/A	N/A	N/A	1.31	
 Magnitude Institutional	 -2.37	 -1.35	 1.59	 2.16	 N/A	 N/A	 N/A	 2.39	 08/01/2015
HFRI FOF: Diversified Index	-4.67	-4.10	-3.36	1.23	1.38	2.93	3.18	0.18	
Difference	2.30	2.75	4.95	0.93	N/A	N/A	N/A	2.21	
 Titan Masters Int'l Fund	 -3.56	 -3.06	 3.85	 1.27	 N/A	 N/A	 N/A	 0.28	 08/01/2015
HFRI FOF: Diversified Index	-4.67	-4.10	-3.36	1.23	1.38	2.93	3.18	0.18	
Difference	1.11	1.04	7.21	0.04	N/A	N/A	N/A	0.10	

** All History prior to 3/31/2015, obtained from prior consultant.**

LP Real Estate and Timber Funds separate accounts are presented on the IRR page.



Comparative Performance - IRR

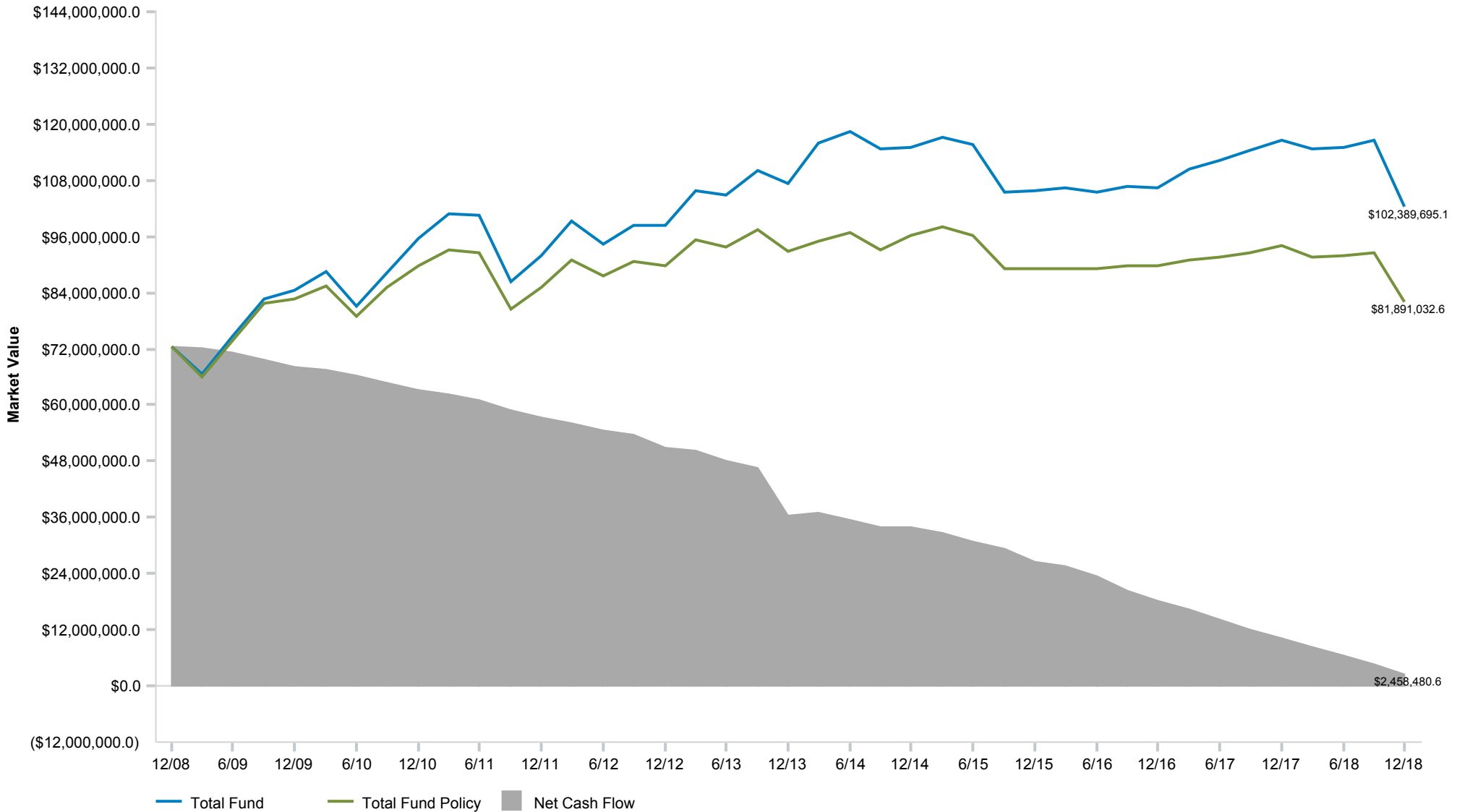
As of December 31, 2018

Comparative Performance - IRR								
	QTR	FYTD	1 YR	3 YR	5 YR	7 YR	Since Inception Ending Dec-2018	Inception Date
Bloomfield Capital Income Fund II	-4.57	-3.29	-1.14	7.36	N/A	N/A	8.09	12/22/2014
Bloomfield Capital Income Fund III	1.74	3.68	7.59	N/A	N/A	N/A	9.98	12/31/2016
Metropolitan Real Estate V	0.00	-0.37	2.45	6.06	9.97	9.48	8.96	11/30/2011
RMK Timberland US Fund	0.00	4.94	10.52	3.73	1.97	N/A	3.74	10/31/2012
RMK Timberland Intl Fund	0.00	-6.34	-14.49	-7.78	-10.10	N/A	-9.10	11/21/2012



Schedule of Investable Assets
Total Fund
10 Years Ending December 31, 2018

Schedule of Investable Assets

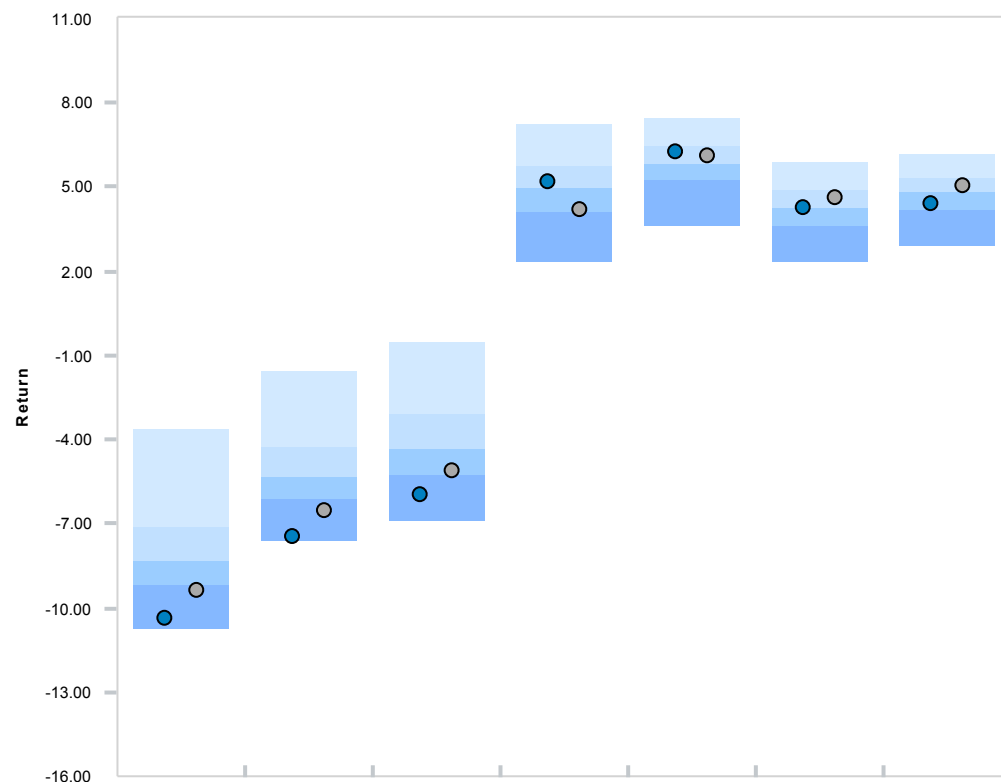


Schedule of Investable Assets

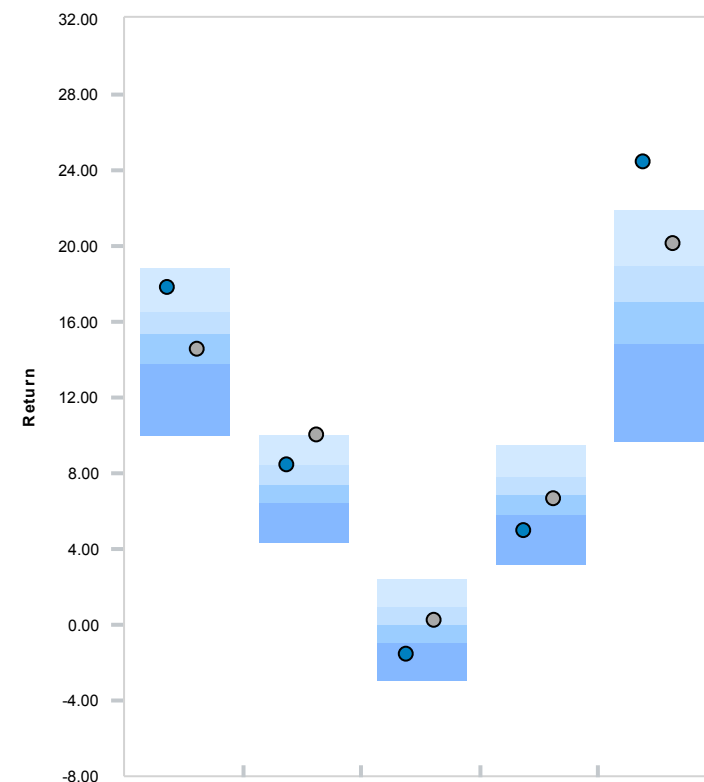
Periods Ending	Beginning Market Value \$	Contributions \$	Withdrawals \$	Gain/Loss \$	Net Cash Flow \$	Ending Market Value \$
10 YR	72,391,366	104,694,472	174,627,357	99,931,215	-69,932,885	102,389,695



Plan Sponsor Peer Group Analysis - All Public Plans-Total Fund



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Total Fund	-10.37 (93)	-7.48 (94)	-6.01 (88)	5.21 (44)	6.27 (31)	4.25 (50)	4.38 (69)
● Total Fund Policy	-9.37 (80)	-6.54 (84)	-5.15 (73)	4.21 (73)	6.10 (37)	4.59 (36)	5.00 (39)
Median	-8.36	-5.37	-4.33	4.99	5.79	4.25	4.80

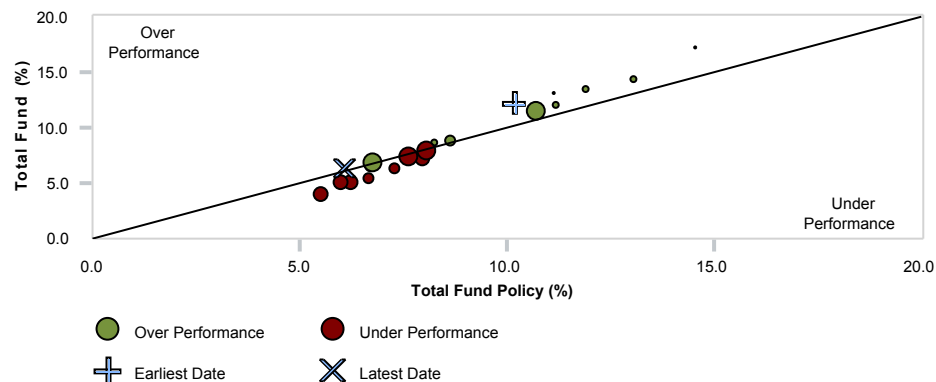


	2017	2016	2015	2014	2013
● Total Fund	17.76 (10)	8.43 (24)	-1.58 (85)	4.92 (85)	24.38 (2)
● Total Fund Policy	14.48 (65)	9.99 (6)	0.18 (47)	6.66 (55)	20.12 (14)
Median	15.35	7.36	0.03	6.82	17.04

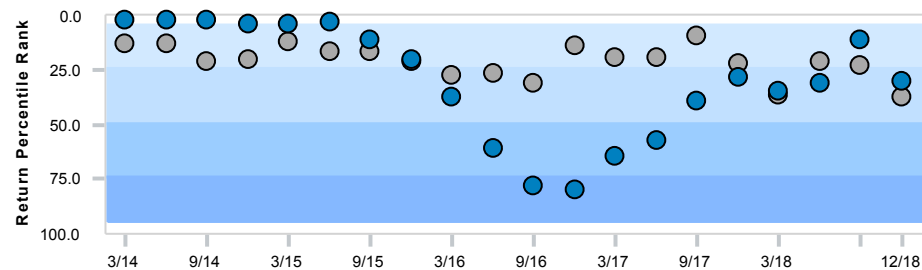
Comparative Performance

	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	1 Qtr Ending Jun-2017
Total Fund	3.22 (44)	1.79 (32)	-0.19 (44)	3.68 (53)	4.02 (14)	3.36 (21)
Total Fund Policy	3.13 (49)	2.06 (21)	-0.56 (71)	3.68 (53)	3.47 (46)	2.78 (61)
All Public Plans-Total Fund Median	3.09	1.43	-0.27	3.71	3.43	2.93

3 Yr Rolling Under/Over Performance - 5 Years

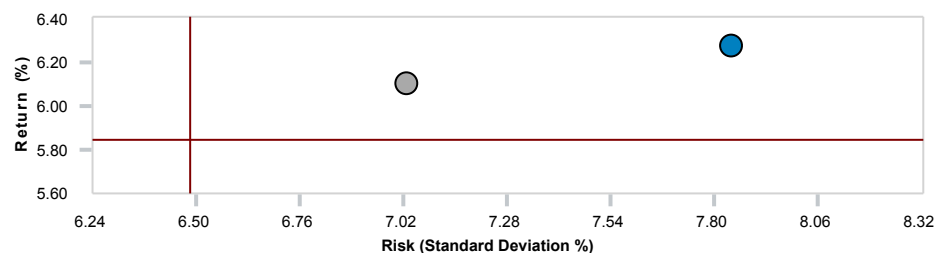


3 Yr Rolling Percentile Ranking - 5 Years



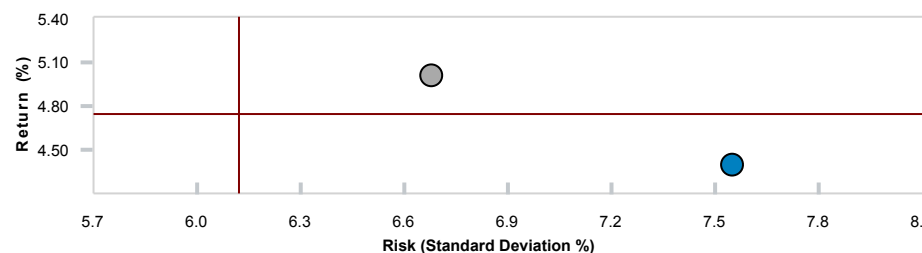
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Total Fund	20	9 (45%)	6 (30%)	3 (15%)	2 (10%)
Total Fund Policy	20	15 (75%)	5 (25%)	0 (0%)	0 (0%)

Peer Group Scattergram - 3 Years



	Return	Standard Deviation
Total Fund	6.27	7.84
Total Fund Policy	6.10	7.03
Median	5.84	6.48

Peer Group Scattergram - 5 Years



	Return	Standard Deviation
Total Fund	4.38	7.55
Total Fund Policy	5.00	6.68
Median	4.75	6.12

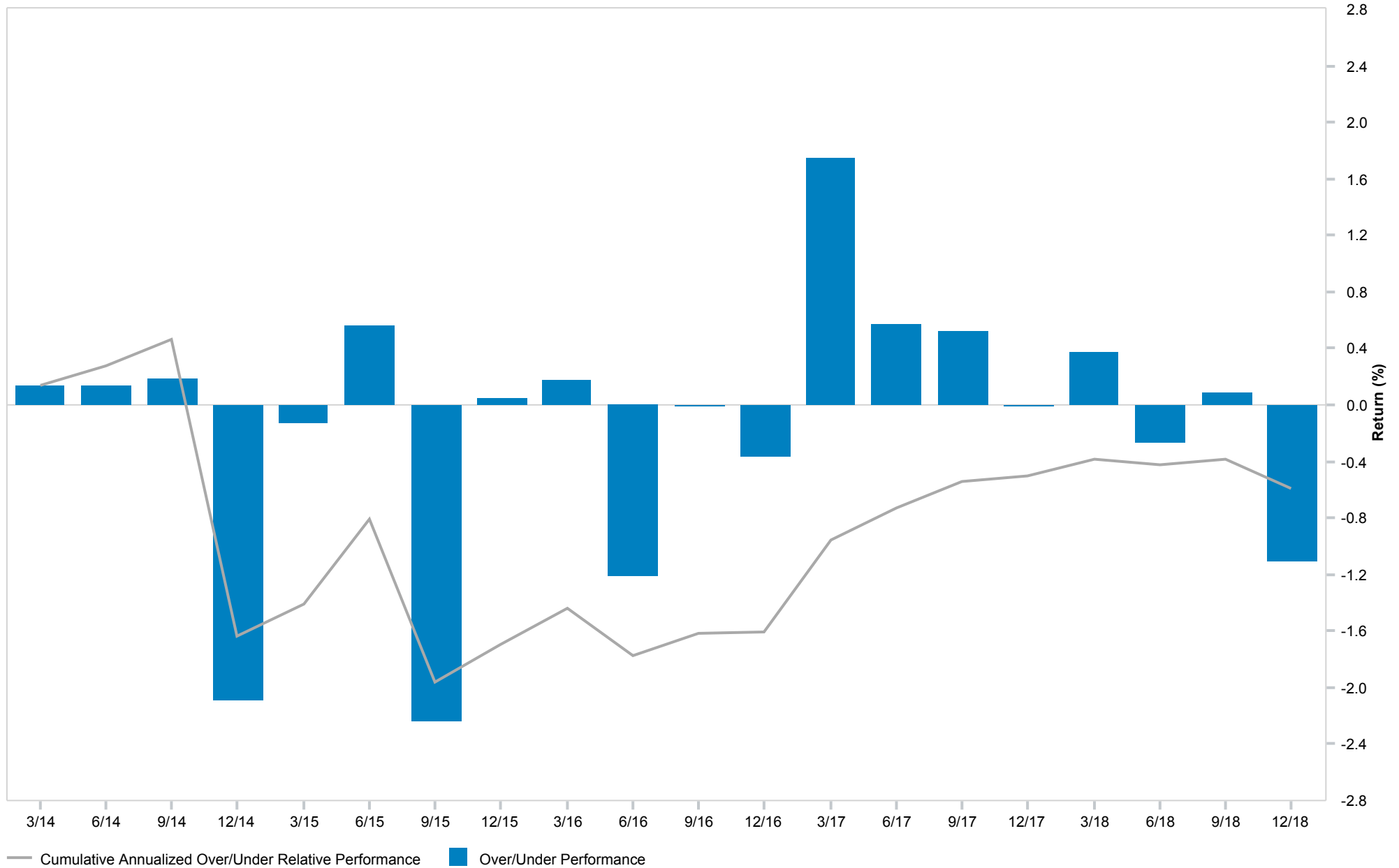
Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Fund	1.51	104.56	106.29	-0.39	0.15	0.68	1.10	5.99
Total Fund Policy	0.00	100.00	100.00	0.00	N/A	0.72	1.00	5.42

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Fund	1.79	98.49	111.28	-1.05	-0.30	0.52	1.10	5.78
Total Fund Policy	0.00	100.00	100.00	0.00	N/A	0.67	1.00	4.93

Relative Performance



Calculation based on quarterly periodicity.
 Benchmark: 65% MSCI ACWi / 35% Barclays Global Agg



Comerica S&P 500 - Portfolio Description

- Strategy: S&P 500 Index Fund
- Vehicle: Commingled Fund
- Objective: To replicate the S&P 500
- Annual fees: .10% on first \$5M
.08% on next \$20M
.06% on next \$25M
- Benchmark: S&P 500 Index

Comerica S&P 500 - Strategy Details

The 500 Index Strategy seeks to provide investment results generally corresponding to the aggregate price and dividend performance of the publicly traded common stocks in the large- capitalization sector of the U.S. equity market. The fund pursues this objective by investing primarily in the 500 common stocks that compose the S&P 500 Index.

Champlain MidCap Equity - Portfolio Description

- Strategy: Mid Cap Equity
- Vehicle: Separately Managed Account
- Objective: To outperform the Russell Midcap Index
- Annual fees: .85% on first \$50MM
.75% on next \$50MM
.65% over \$100M
- Benchmark: Russell Midcap Index

Champlain MidCap Equity - Strategy Details

Champlain's mid cap strategy invests in a broadly diversified portfolio of approximately 50 to 75 common stocks of medium sized companies, and to a lesser extent small and large sized companies, which have attractive long-term fundamentals, appreciation potential, and valuations. They believe that investing in companies with sustainable competitive advantages, durable business models, sound balance sheets, credible and sincere management, and that are trading at valuations deemed reasonable by the team, can, over time, provide attractive returns with less risk than the overall market. Their investment processes are focused on absolute returns and avoiding large losses, which they believe is critical to wealth creation.

QMA Midcap Equity - Portfolio Description

- Strategy: US Mid Cap Fore Equity
- Vehicle: Commingled Account
- Objective: To outperform the Russell Midcap Index
- Annual fees: .45% on first \$50MM
.40% over \$50M
- Benchmark: Russell Midcap Index

QMA Midcap Equity - Strategy Details

At QMA, they believe that an adaptive, bottom-up, systematic investment process based on fundamental insights is the most efficient way to exploit market inefficiencies and add value. On a daily basis they assess the relative attractiveness of their universe, scoring stocks according to fundamentals most relevant to their growth characteristics-more emphasis on valuation for slowly growing companies and indicators of future growth prospects for faster growing companies. These scores form the basis of the construction process whereby they focus risk on a breadth of exposures most likely to produce alpha and limit exposures to uncompensated off-benchmark risk. Rebalancing is done with experienced judgment to maintain desired portfolio alpha exposures and risk limits and with careful attention to trading costs.

SouthernSun Smallcap Equity - Portfolio Description

- Strategy: Small Cap
- Vehicle: Separately Managed Account
- Objective: To outperform the Russell 2000 Index
- Annual fees: 1.00% on first \$15M
- 0.85% over \$15M
- Benchmark: Russell 2000 Index

SouthernSun Smallcap Equity - Strategy Details

The Small Cap strategy targets companies with market caps of \$500 million to \$3.5 billion at time of initial purchase. While idea generation may come from traditional screening, new names are often sourced through research on existing portfolio holdings, industry trade publications, and industry conferences. The Investment Team relies almost solely on internally conducted research for idea generation. This strategy is generally closed to new investors.

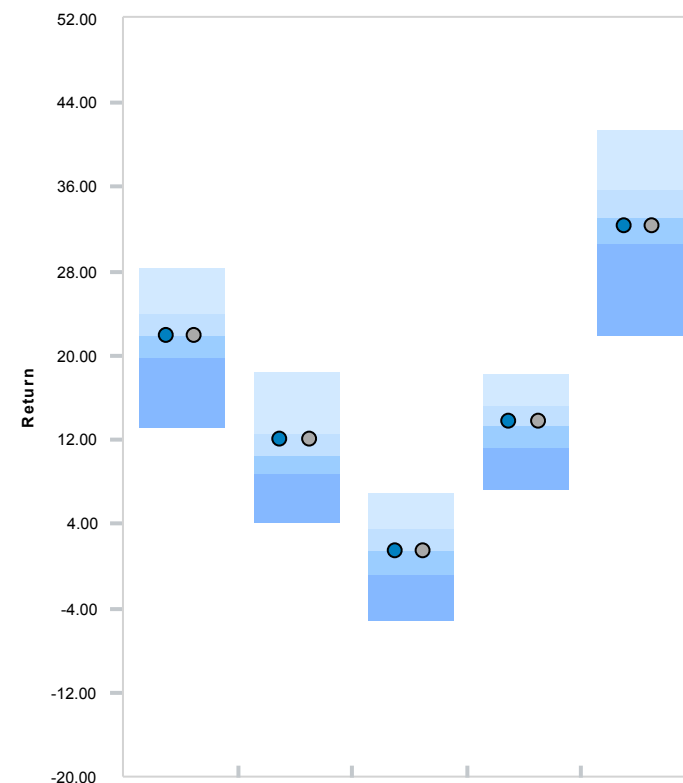
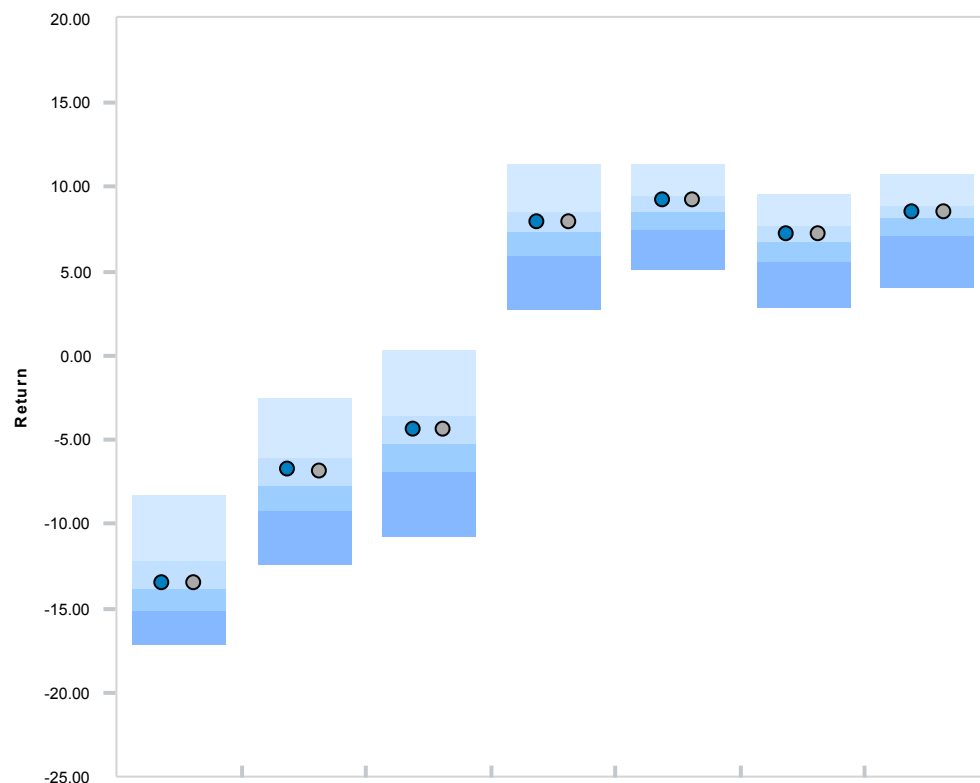
Walhausen SMID Value Equity - Portfolio Description

- Strategy: Select Value (SMID)
- Vehicle: Separately Managed Account
- Objective: To outperform the Russell 2500 Index
- Annual fees: 1.00% of Assets
- Benchmark: Russell 2500 Index

Walhausen SMID Value Equity - Strategy Details

This portfolio is constructed to provide strong returns with moderate volatility. It incorporates 40-50 equally weighted holdings, broadly diversified across industry sectors. Positions are reduced when they begin to exceed 3.0% of the portfolio. Companies included in the portfolio have a market capitalization between \$700 million and \$7.0 billion. The majority (about 80%) of the portfolio is with companies which have consistently high returns on capital, ample free cash flow, well proven management and sell at moderate valuations. Many of these stocks are frequently too dull to attract much "Wall Street" attention and thus have carried low valuations and lower volatility. The remaining 20% of the fund is invested in "Special Situations." For these stocks a focused approach is utilized to find 8-10 names with unusual potential returns. The goal is for both parts of the strategy to outperform over the market cycle, and to deliver annualized returns 200 basis points above the Russell 2500 Value index.

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



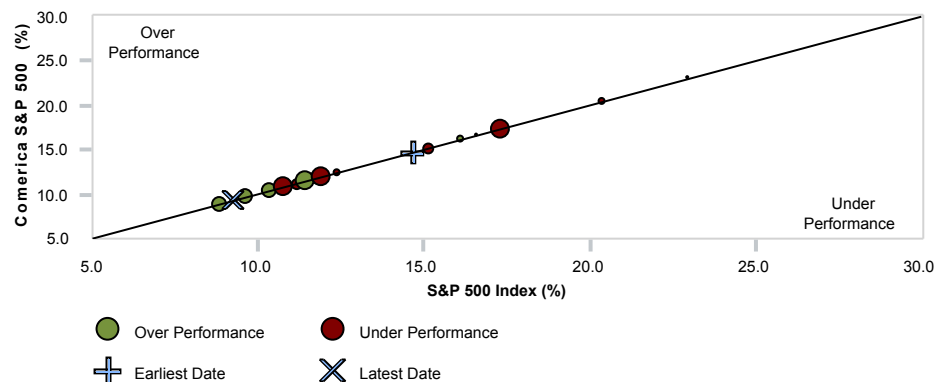
	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Comerica S&P 500	-13.47 (42)	-6.80 (36)	-4.35 (37)	7.94 (37)	9.25 (32)	7.24 (38)	8.50 (37)
● S&P 500 Index	-13.52 (44)	-6.85 (38)	-4.38 (38)	7.93 (37)	9.26 (31)	7.23 (39)	8.49 (37)
Median	-13.83	-7.66	-5.20	7.37	8.47	6.79	8.15

	2017	2016	2015	2014	2013
● Comerica S&P 500	21.80 (52)	11.94 (34)	1.44 (50)	13.66 (45)	32.30 (61)
● S&P 500 Index	21.83 (50)	11.96 (34)	1.38 (52)	13.69 (44)	32.39 (60)
Median	21.83	10.52	1.43	13.42	32.98

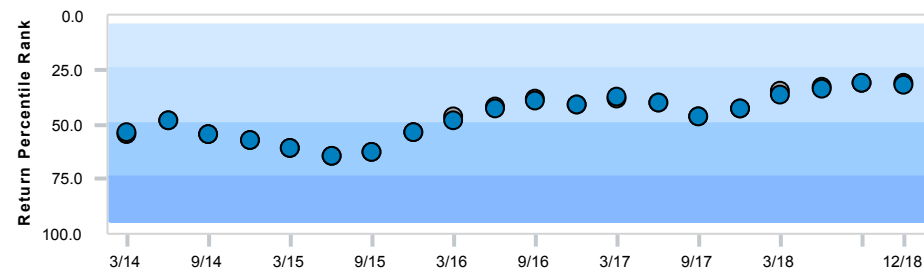
Comparative Performance

	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	1 Qtr Ending Jun-2017
Comerica S&P 500	7.70 (35)	3.43 (34)	-0.77 (66)	6.63 (53)	4.48 (59)	3.08 (46)
S&P 500 Index	7.71 (34)	3.43 (33)	-0.76 (64)	6.64 (51)	4.48 (59)	3.09 (45)
IM U.S. Large Cap Core Equity (SA+CF) Median	7.13	2.90	-0.44	6.65	4.63	2.97

3 Yr Rolling Under/Over Performance - 5 Years

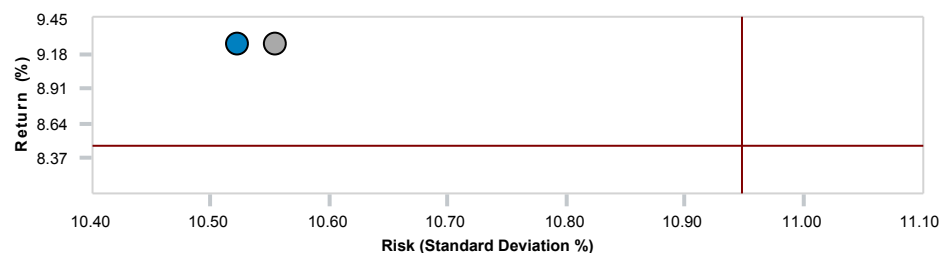


3 Yr Rolling Percentile Ranking - 5 Years



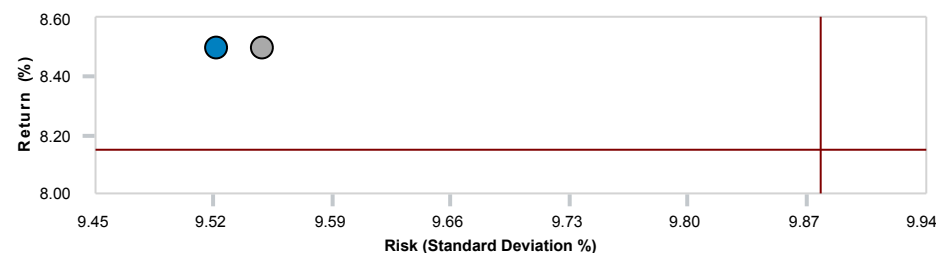
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Comerica S&P 500	20	0 (0%)	13 (65%)	7 (35%)	0 (0%)
S&P 500 Index	20	0 (0%)	13 (65%)	7 (35%)	0 (0%)

Peer Group Scattergram - 3 Years



	Return	Standard Deviation
Comerica S&P 500	9.25	10.52
S&P 500 Index	9.26	10.55
Median	8.47	10.95

Peer Group Scattergram - 5 Years



	Return	Standard Deviation
Comerica S&P 500	8.50	9.52
S&P 500 Index	8.49	9.55
Median	8.15	9.88

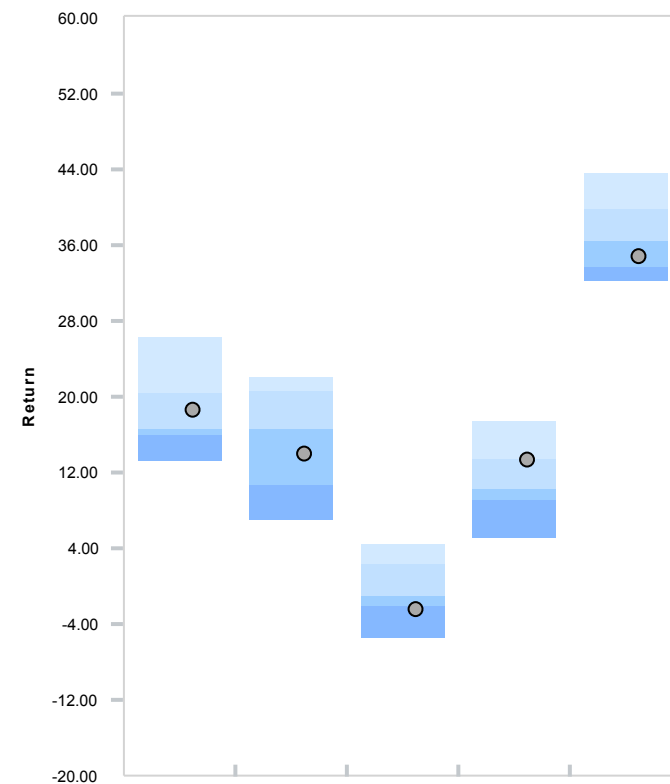
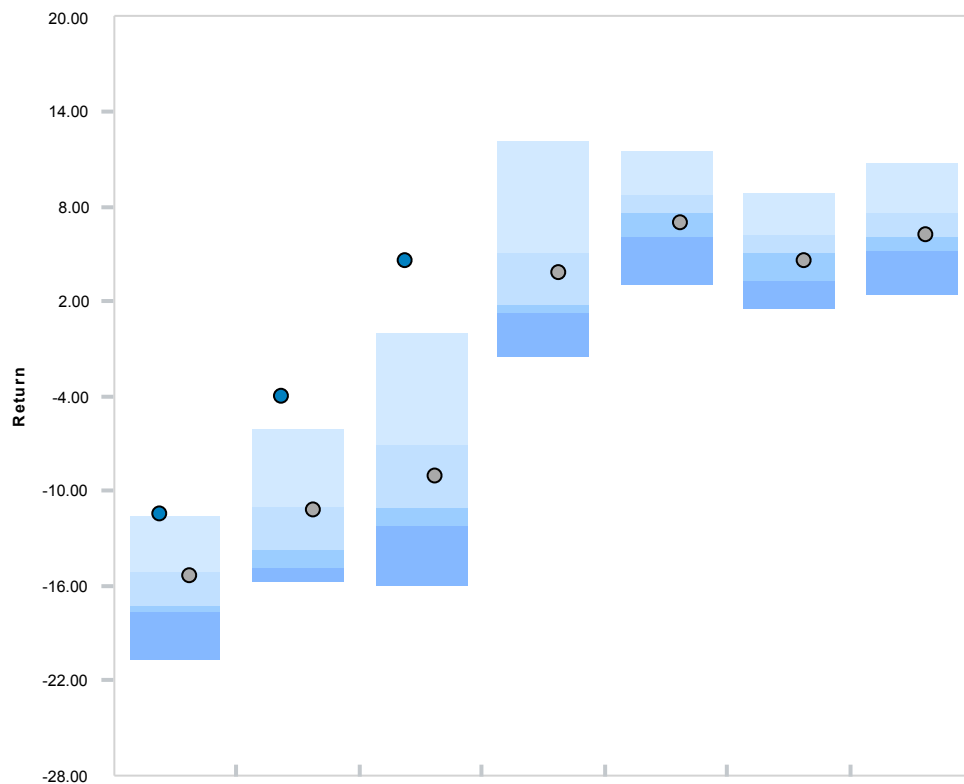
Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Comerica S&P 500	0.03	99.89	99.84	0.01	-0.17	0.78	1.00	7.64
S&P 500 Index	0.00	100.00	100.00	0.00	N/A	0.78	1.00	7.66

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Comerica S&P 500	0.03	99.96	99.91	0.01	0.05	0.75	1.00	7.09
S&P 500 Index	0.00	100.00	100.00	0.00	N/A	0.75	1.00	7.11

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



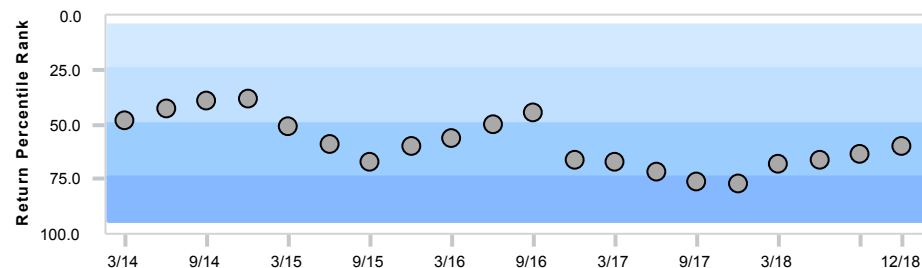
Comparative Performance

	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	1 Qtr Ending Jun-2017
Champlain MC Equity	8.46 (2)	3.95 (43)	4.77 (6)	6.35 (44)	N/A	N/A
Russell Midcap Index	5.00 (36)	2.82 (59)	-0.46 (40)	6.07 (68)	3.47 (49)	2.70 (35)
IM U.S. Mid Cap Core Equity (SA+CF) Median	4.37	3.64	-0.76	6.27	3.42	1.98

3 Yr Rolling Under/Over Performance - 5 Years

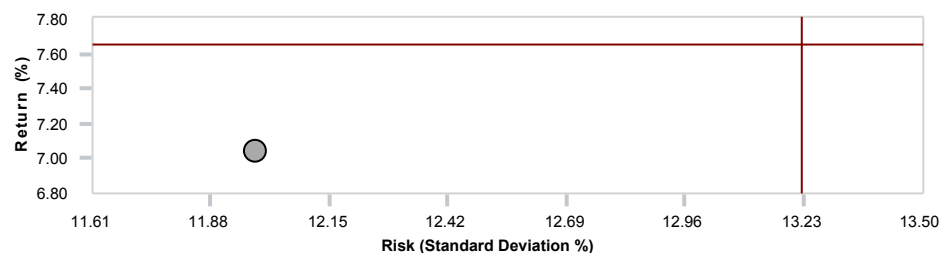
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3 Yr Rolling Percentile Ranking - 5 Years



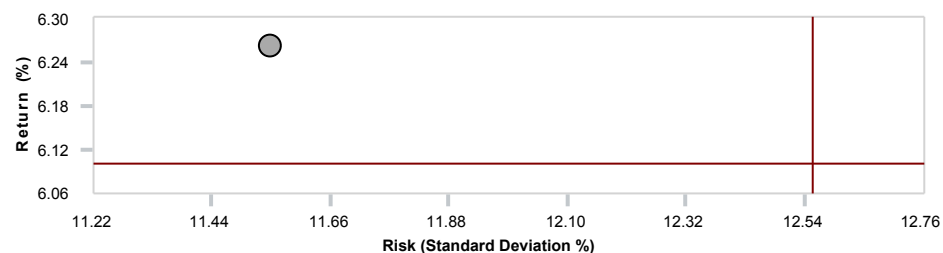
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Champlain MC Equity	0	0	0	0	0
Russell Midcap Index	20	0 (0%)	6 (30%)	12 (60%)	2 (10%)

Peer Group Scattergram - 3 Years



	Return	Standard Deviation
Champlain MC Equity	N/A	N/A
Russell Midcap Index	7.04	11.98
Median	7.65	13.23

Peer Group Scattergram - 5 Years



	Return	Standard Deviation
Champlain MC Equity	N/A	N/A
Russell Midcap Index	6.26	11.55
Median	6.10	12.56

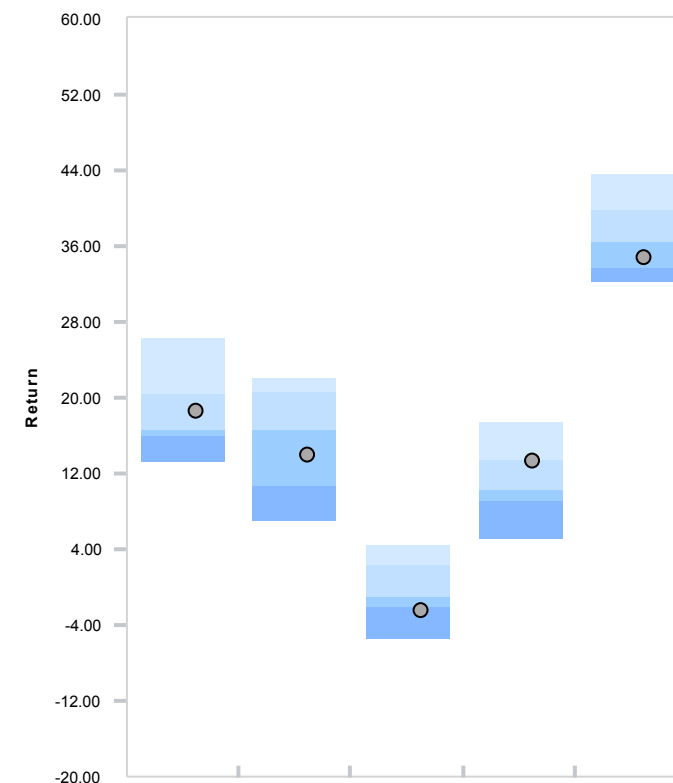
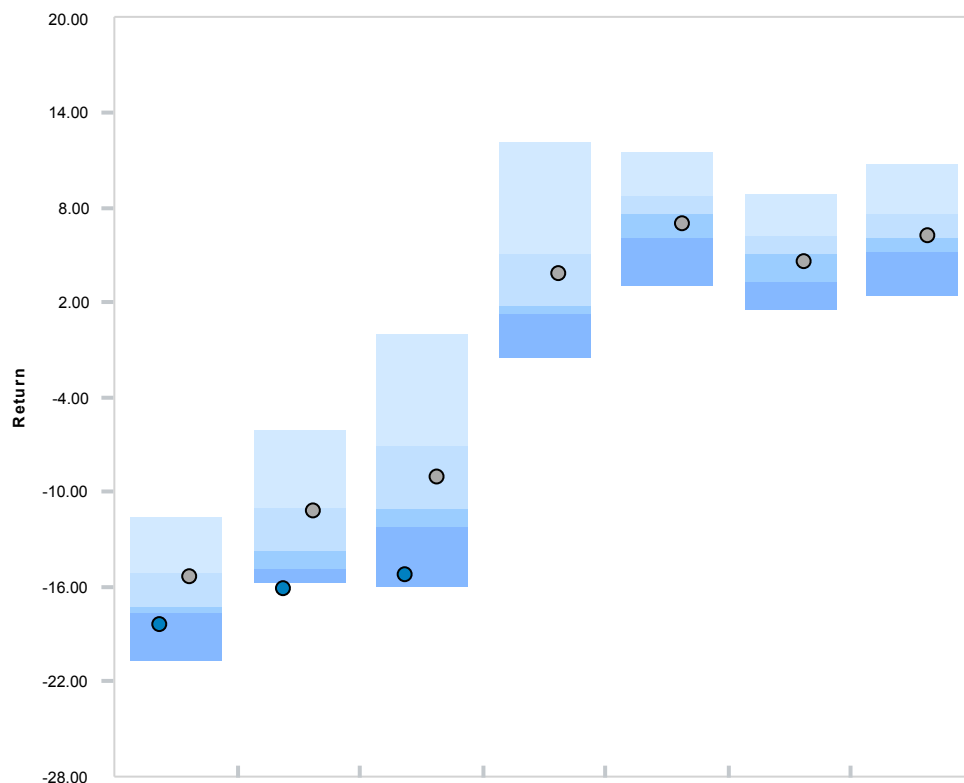
Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Champlain MC Equity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell Midcap Index	0.00	100.00	100.00	0.00	N/A	0.55	1.00	8.92

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Champlain MC Equity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell Midcap Index	0.00	100.00	100.00	0.00	N/A	0.53	1.00	7.98

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



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● QMA US MC Equity	-18.37 (84)	-16.17 (97)	-15.29 (91)	N/A	N/A	N/A	N/A
● Russell Midcap Index	-15.37 (27)	-11.14 (29)	-9.06 (34)	3.82 (34)	7.04 (60)	4.59 (62)	6.26 (43)
Median	-17.21	-13.69	-11.02	1.87	7.65	5.12	6.10

	2017	2016	2015	2014	2013
● QMA US MC Equity	N/A	N/A	N/A	N/A	N/A
● Russell Midcap Index	18.52 (35)	13.80 (61)	-2.44 (82)	13.22 (28)	34.76 (67)
Median	16.66	16.68	-0.97	10.25	36.49

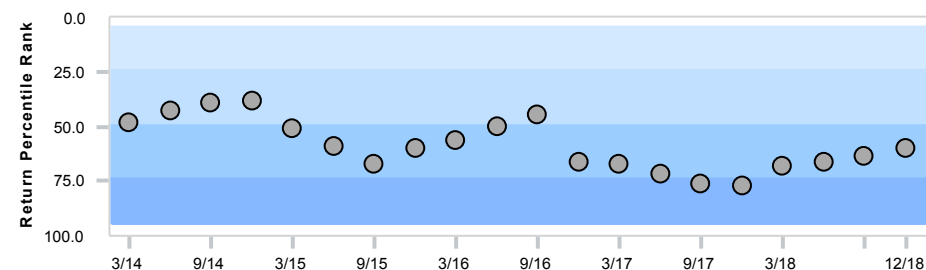
Comparative Performance

	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	1 Qtr Ending Jun-2017
QMA US MC Equity	2.69 (95)	2.16 (78)	-1.08 (68)	6.18 (65)	N/A	N/A
Russell Midcap Index	5.00 (36)	2.82 (59)	-0.46 (40)	6.07 (68)	3.47 (49)	2.70 (35)
IM U.S. Mid Cap Core Equity (SA+CF) Median	4.37	3.64	-0.76	6.27	3.42	1.98

3 Yr Rolling Under/Over Performance - 5 Years

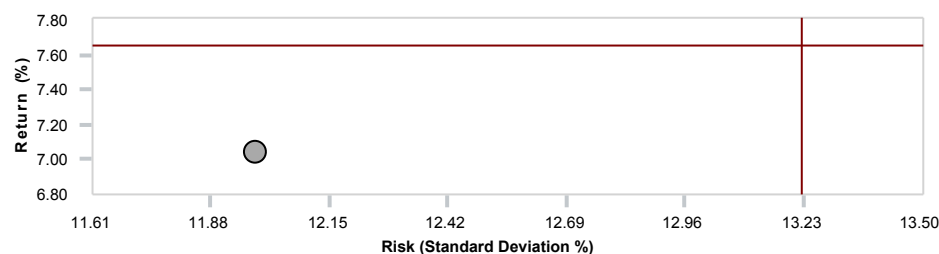
No data found.

3 Yr Rolling Percentile Ranking - 5 Years



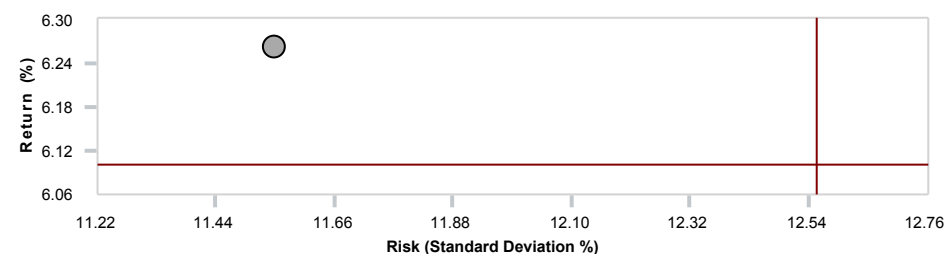
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
QMA US MC Equity	0	0	0	0	0
Russell Midcap Index	20	0 (0%)	6 (30%)	12 (60%)	2 (10%)

Peer Group Scattergram - 3 Years



	Return	Standard Deviation
QMA US MC Equity	N/A	N/A
Russell Midcap Index	7.04	11.98
Median	7.65	13.23

Peer Group Scattergram - 5 Years



	Return	Standard Deviation
QMA US MC Equity	N/A	N/A
Russell Midcap Index	6.26	11.55
Median	6.10	12.56

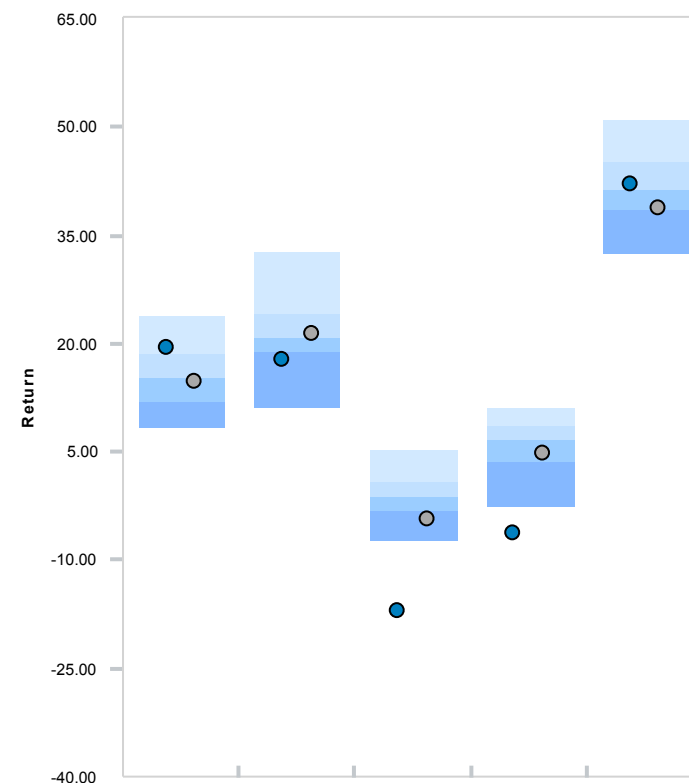
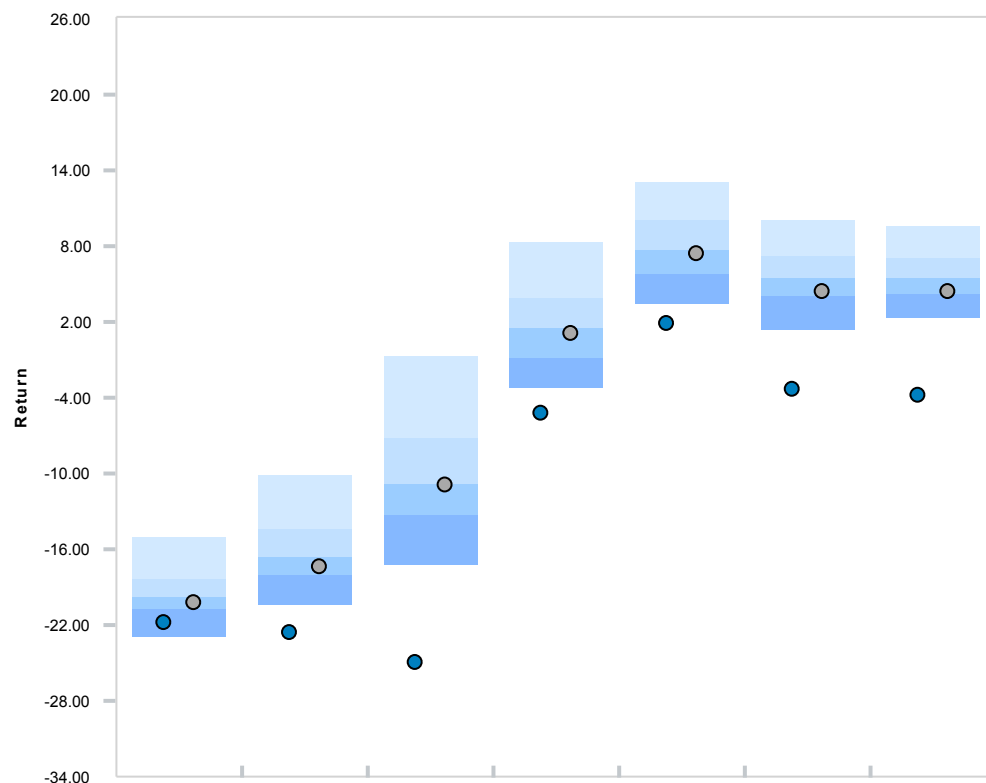
Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
QMA US MC Equity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell Midcap Index	0.00	100.00	100.00	0.00	N/A	0.55	1.00	8.92

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
QMA US MC Equity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell Midcap Index	0.00	100.00	100.00	0.00	N/A	0.53	1.00	7.98

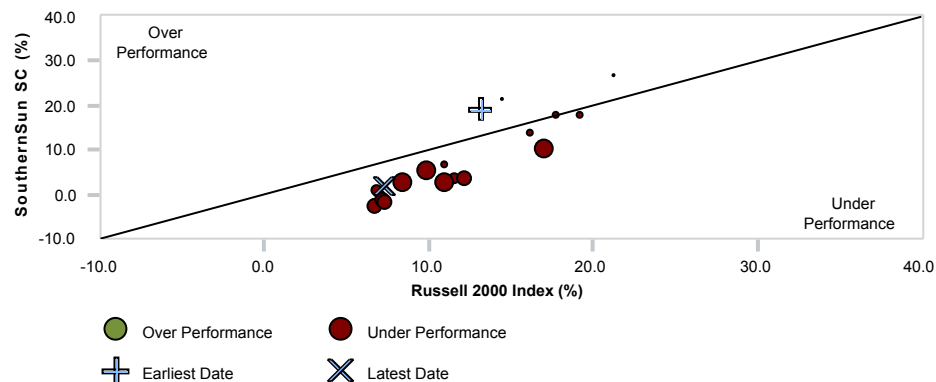
Peer Group Analysis - IM U.S. Small Cap Core Equity (SA+CF)



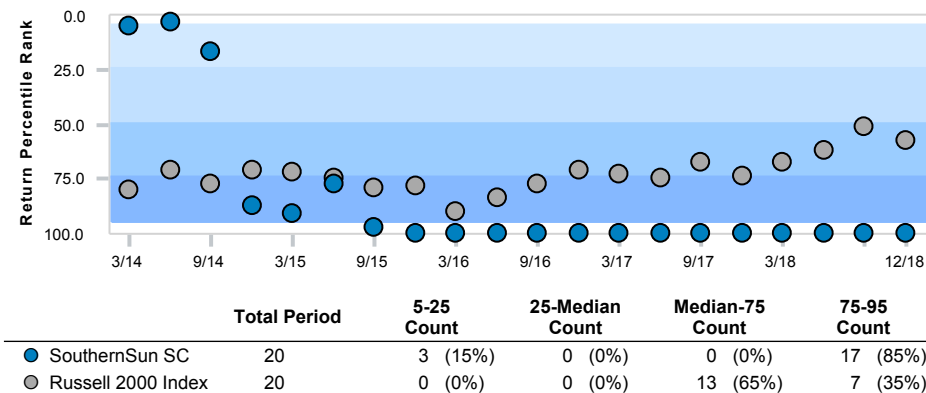
Comparative Performance

	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	1 Qtr Ending Jun-2017
SouthernSun SC	-0.99 (99)	3.41 (97)	-6.14 (100)	1.52 (94)	6.67 (27)	1.93 (56)
Russell 2000 Index	3.58 (63)	7.75 (30)	-0.08 (51)	3.34 (59)	5.67 (47)	2.46 (48)
IM U.S. Small Cap Core Equity (SA+CF) Median	4.01	6.69	-0.08	3.62	5.56	2.29

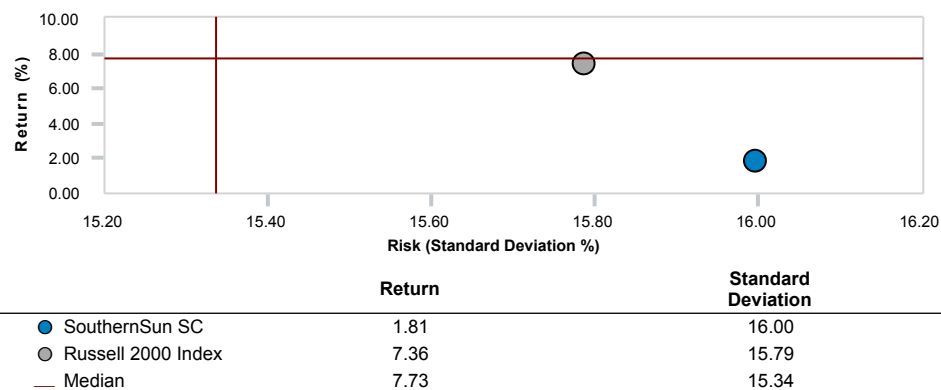
3 Yr Rolling Under/Over Performance - 5 Years



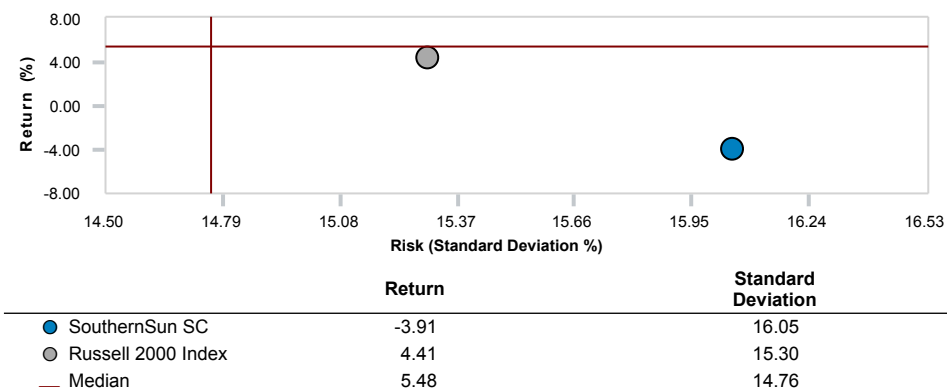
3 Yr Rolling Percentile Ranking - 5 Years



Peer Group Scattergram - 3 Years



Peer Group Scattergram - 5 Years



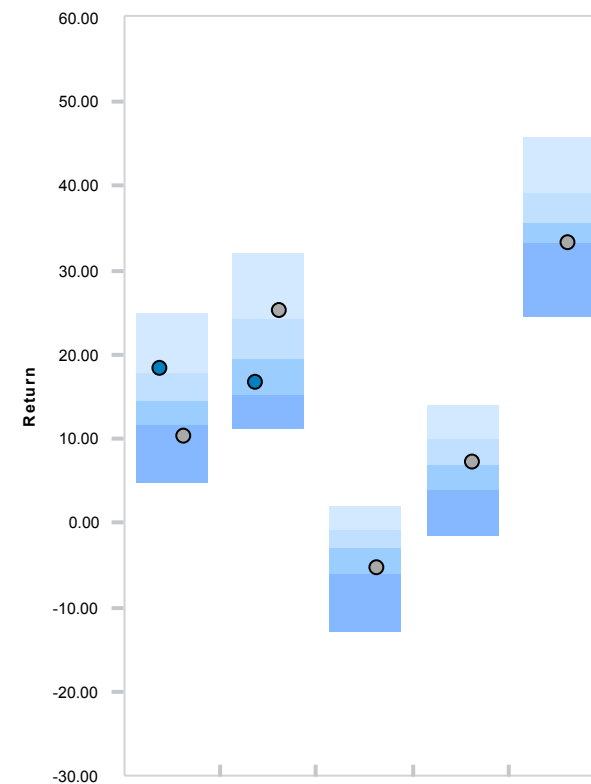
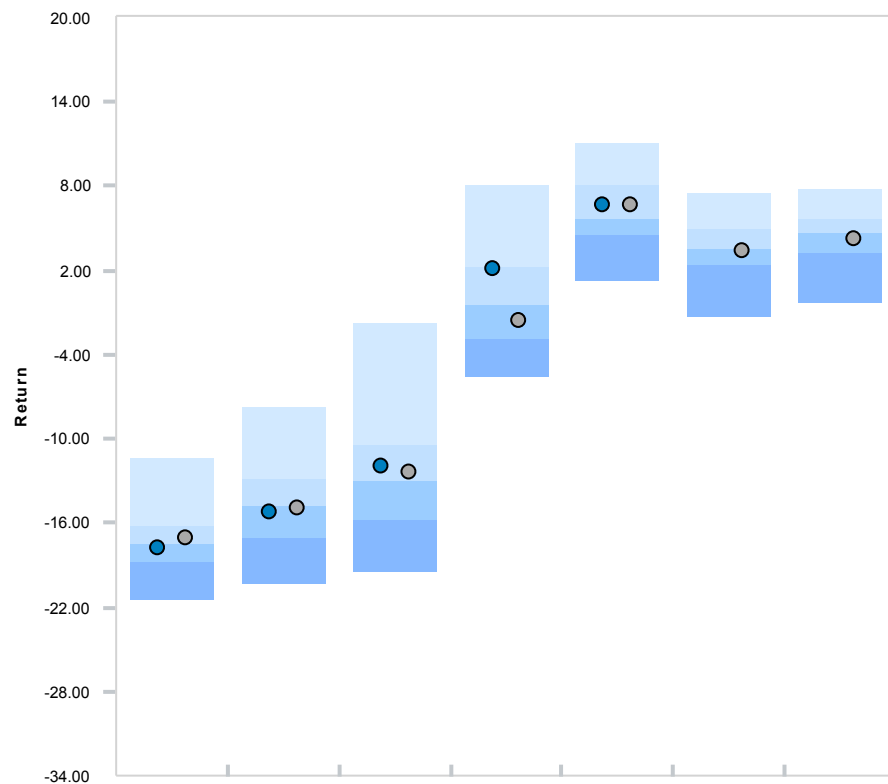
Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
SouthernSun SC	7.19	79.30	102.37	-4.45	-0.74	0.13	0.91	11.68
Russell 2000 Index	0.00	100.00	100.00	0.00	N/A	0.47	1.00	11.34

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
SouthernSun SC	8.30	70.68	107.64	-7.39	-0.99	-0.20	0.90	12.23
Russell 2000 Index	0.00	100.00	100.00	0.00	N/A	0.32	1.00	10.85

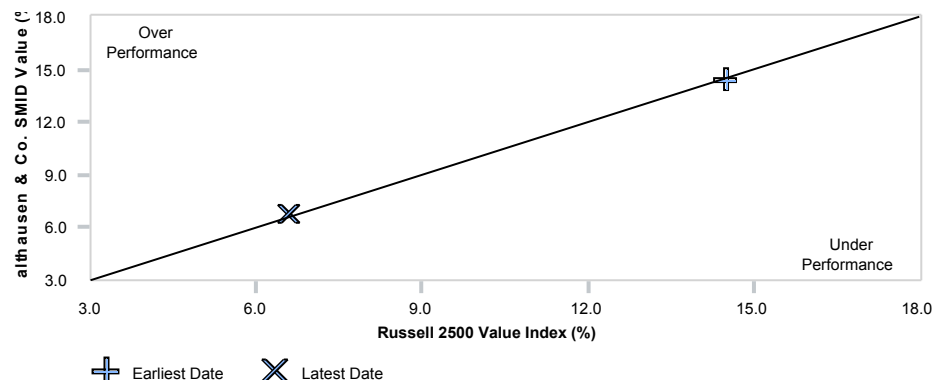
Peer Group Analysis - IM U.S. SMID Cap Value Equity (SA+CF)



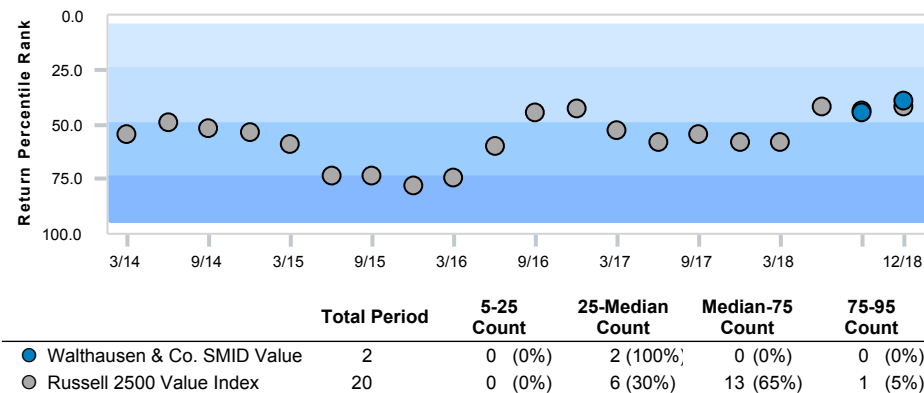
Comparative Performance

	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	1 Qtr Ending Jun-2017
Walthausen & Co. SMID Value	3.05 (48)	4.62 (23)	-0.75 (35)	5.08 (50)	4.35 (39)	3.74 (10)
Russell 2500 Value Index	2.67 (55)	5.80 (13)	-2.65 (82)	4.25 (66)	3.83 (58)	0.32 (71)
IM U.S. SMID Cap Value Equity (SA+CF) Median	2.93	3.10	-1.36	4.97	3.94	1.61

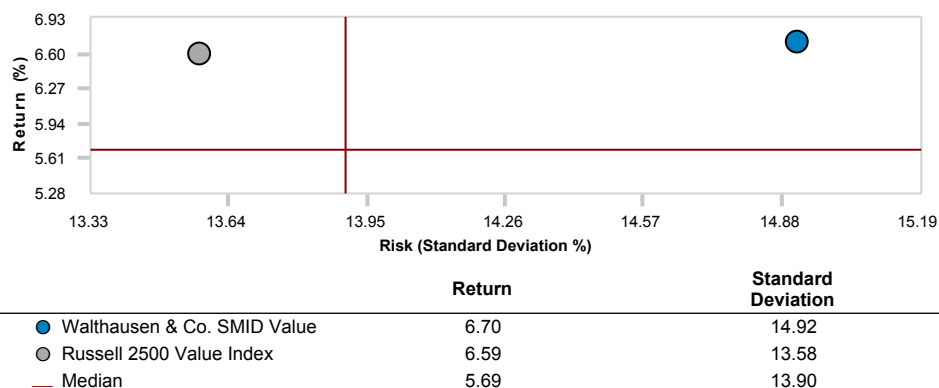
3 Yr Rolling Under/Over Performance - 5 Years



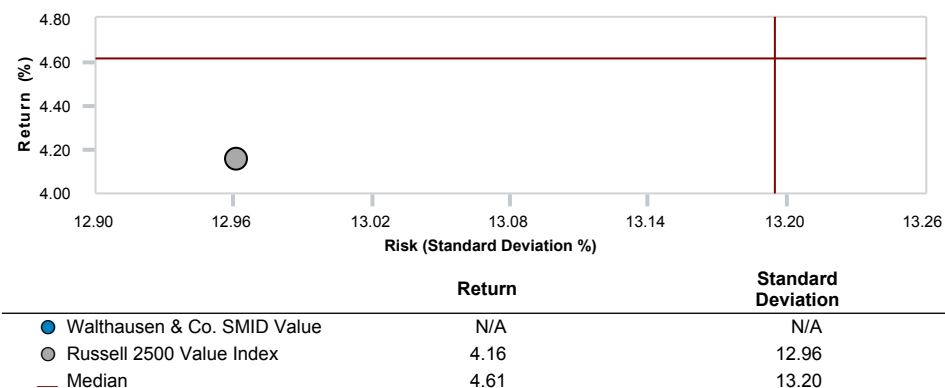
3 Yr Rolling Percentile Ranking - 5 Years



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
Walthausen & Co. SMID Value	4.03	100.34	98.26	-0.14	0.07	0.44	1.06	10.35
Russell 2500 Value Index	0.00	100.00	100.00	0.00	N/A	0.47	1.00	9.60

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Walthausen & Co. SMID Value	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 2500 Value Index	0.00	100.00	100.00	0.00	N/A	0.33	1.00	9.07

LSV International - Portfolio Description

- Strategy: International Large Cap Value Equity
- Vehicle: Commingled Fund
- Objective: To outperform the MSCI EAFE Index
- Annual fees: .75% on first \$25M
• .65% on next \$25M
- Benchmark: MSCI EAFE Index

LSV International - Strategy Details

The International Large Cap Value Equity strategy's primary emphasis is the use of quantitative techniques to select individual securities in what would be considered a bottom-up approach. A risk control discipline limits the over- or under-exposure of the portfolio to industry concentrations. Value factors and security selection dominate sector/industry factors as explanators of performance. The portfolio decision making process is strictly quantitative and driven by (1) a proprietary model which ranks securities based on fundamental measures of value and indicators of near-term appreciation potential and, (2) a risk control process that controls for residual benchmark risk while maximizing the expected return of the portfolio. There is no subjective modification applied to the results of the process. This leads to a high degree of consistency in the practical application of our investment philosophy.

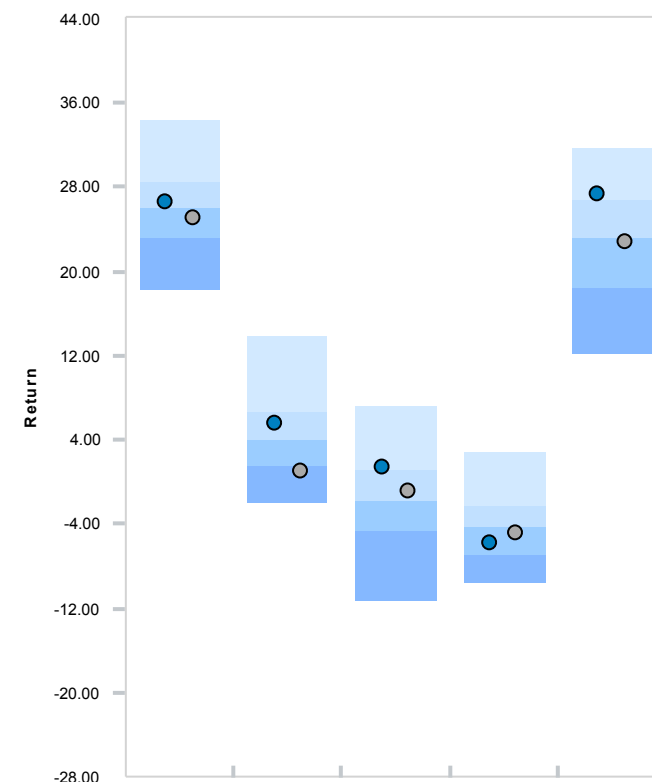
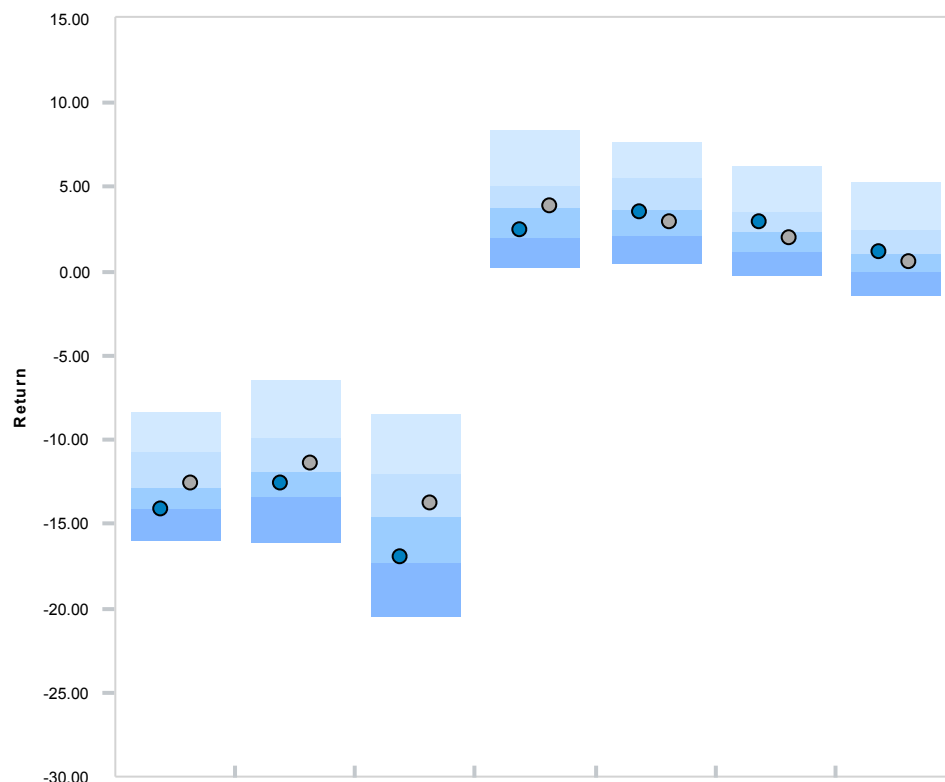
WCM Intl Growth - Portfolio Description

- Strategy: Focused Growth International
- Vehicle: Separately Managed Account
- Objective: To outperform the MSCI EAFE Index
- Annual fees: 1.00% on all assets
- Benchmark: MSCI EAFE Index

WCM Intl Growth - Strategy Details

This is a concentrated, large cap, quality, international growth product. They are distinct from the broad international indices with a traditional growth bias, seeking select quality growth businesses from conventional growth sectors. That combined with a concentrated focus (between 25-40) means the product will have investment characteristics distinct from any broad international benchmark. The product includes mega-, large- and mid-cap international shares from developed and emerging markets. The investment process includes top-down thematic analysis and bottom-up fundamental stock selection. They focus on each company's business model (economic moat), corporate culture, management, and valuation (using conservative DCF models). Currency hedging is not utilized in this strategy but careful attention is paid to region, country, and currency exposures. The projected annual turnover is 15-35%, suggesting tax efficiency for tax-sensitive clients.

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



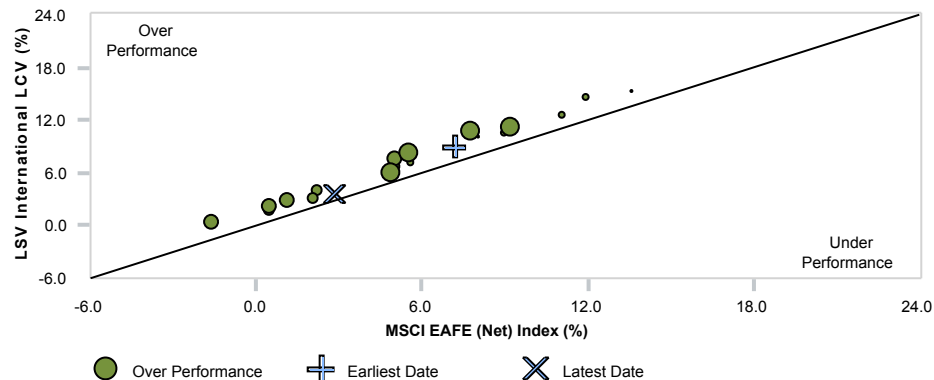
	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● LSV International LCV	-14.19 (77)	-12.64 (64)	-16.98 (73)	2.49 (65)	3.48 (54)	2.94 (39)	1.13 (49)
● MSCI EAFE (Net) Index	-12.54 (46)	-11.35 (46)	-13.79 (43)	3.82 (49)	2.87 (63)	1.94 (62)	0.53 (63)
Median	-12.88	-11.94	-14.64	3.70	3.66	2.34	1.03

	2017	2016	2015	2014	2013
● LSV International LCV	26.52 (43)	5.49 (34)	1.32 (24)	-5.80 (66)	27.30 (19)
● MSCI EAFE (Net) Index	25.03 (58)	1.00 (81)	-0.81 (39)	-4.90 (59)	22.78 (54)
Median	26.02	4.10	-1.92	-4.28	23.24

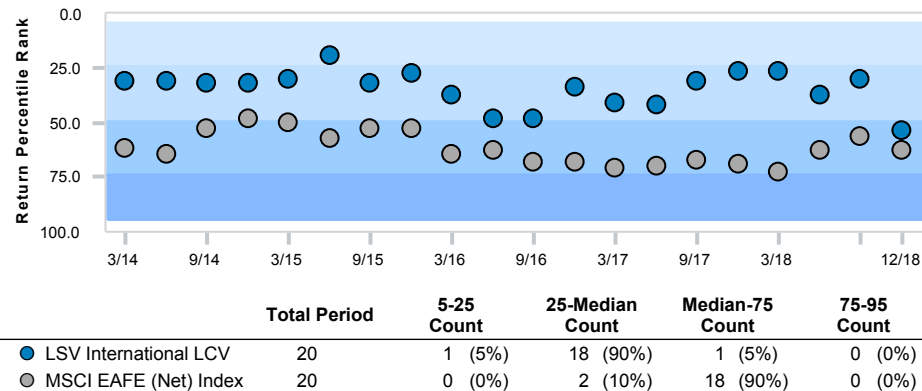
Comparative Performance

	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	1 Qtr Ending Jun-2017
LSV International LCV	1.80 (21)	-3.84 (86)	-1.16 (48)	3.38 (74)	7.29 (18)	6.70 (33)
MSCI EAFE (Net) Index	1.35 (34)	-1.24 (21)	-1.53 (62)	4.23 (51)	5.40 (59)	6.12 (47)
IM International Large Cap Value Equity (SA+CF) Median	0.88	-2.19	-1.26	4.27	5.64	6.01

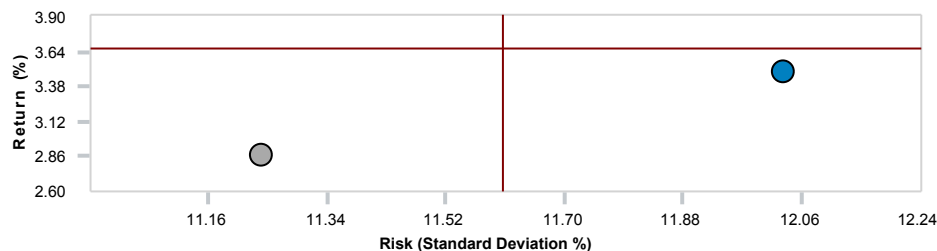
3 Yr Rolling Under/Over Performance - 5 Years



3 Yr Rolling Percentile Ranking - 5 Years

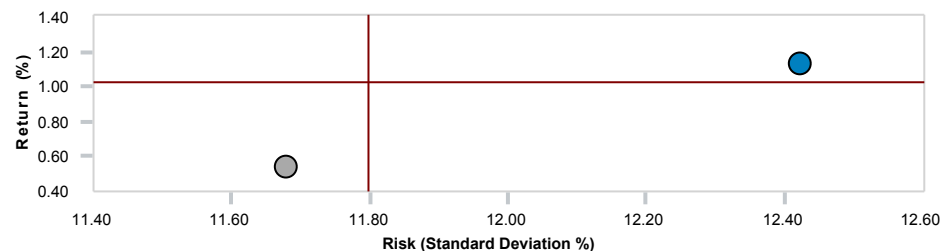


Peer Group Scattergram - 3 Years



	Return	Standard Deviation
LSV International LCV	3.48	12.03
MSCI EAFE (Net) Index	2.87	11.24
Median	3.66	11.61

Peer Group Scattergram - 5 Years



	Return	Standard Deviation
LSV International LCV	1.13	12.42
MSCI EAFE (Net) Index	0.53	11.68
Median	1.03	11.80

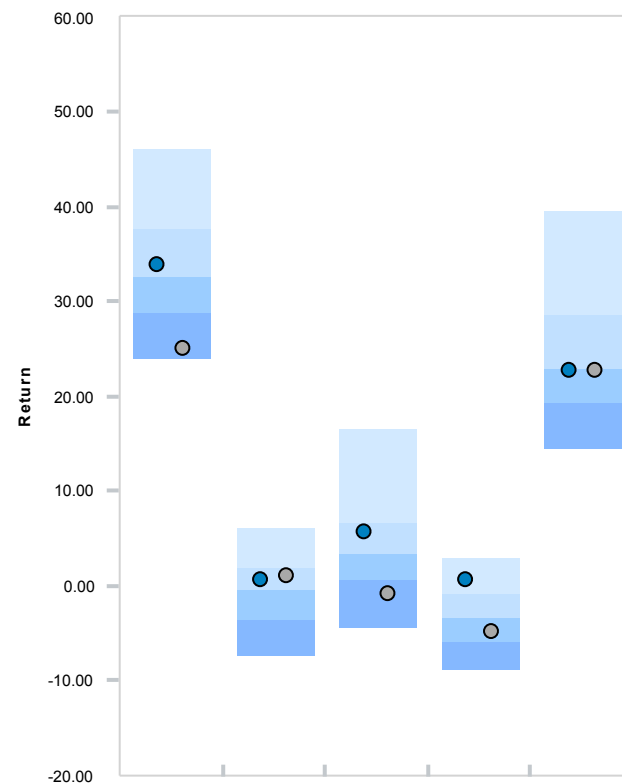
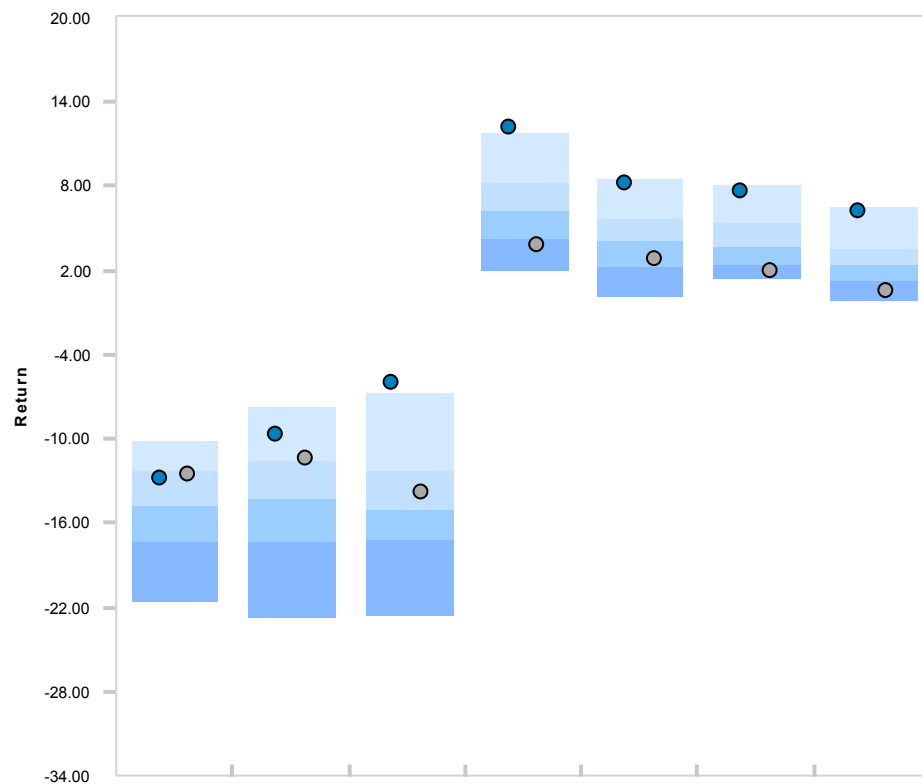
Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
LSV International LCV	2.59	107.76	104.80	0.53	0.26	0.26	1.05	8.83
MSCI EAFE (Net) Index	0.00	100.00	100.00	0.00	N/A	0.22	1.00	8.10

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
LSV International LCV	2.43	105.56	101.62	0.63	0.28	0.10	1.04	8.69
MSCI EAFE (Net) Index	0.00	100.00	100.00	0.00	N/A	0.05	1.00	8.26

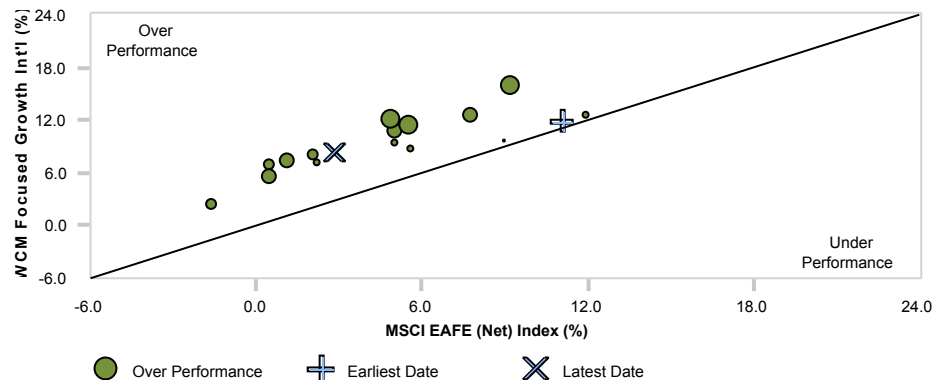
Peer Group Analysis - IM International Growth Equity (SA+CF)



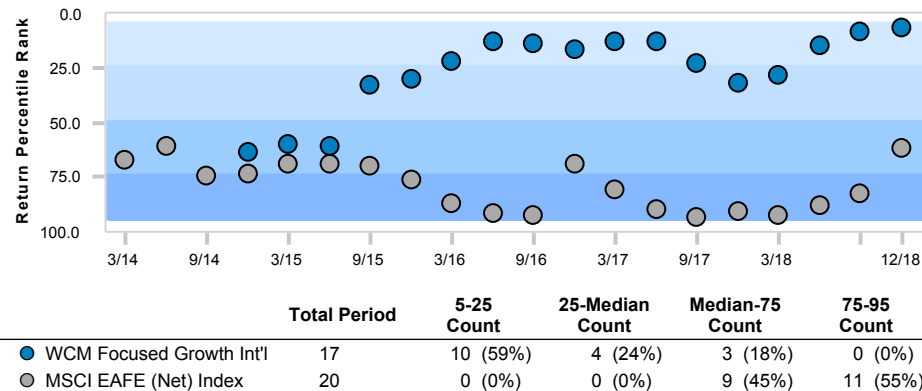
Comparative Performance

	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	1 Qtr Ending Jun-2017
WCM Focused Growth Int'l	3.68 (4)	2.70 (9)	1.35 (28)	5.20 (54)	5.26 (81)	9.08 (29)
MSCI EAFE (Net) Index	1.35 (36)	-1.24 (60)	-1.53 (85)	4.23 (74)	5.40 (79)	6.12 (89)
IM International Growth Equity (SA+CF) Median	0.50	-0.95	0.17	5.27	7.29	7.84

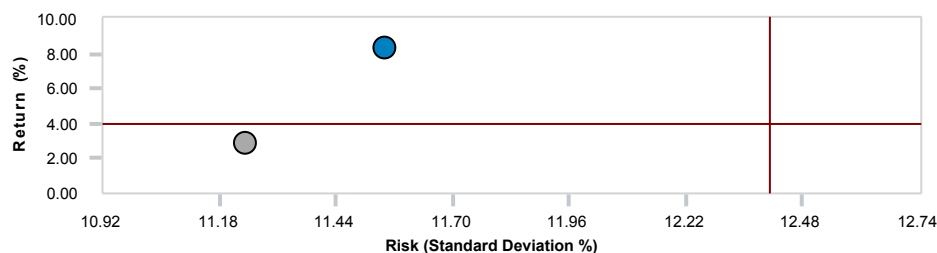
3 Yr Rolling Under/Over Performance - 5 Years



3 Yr Rolling Percentile Ranking - 5 Years

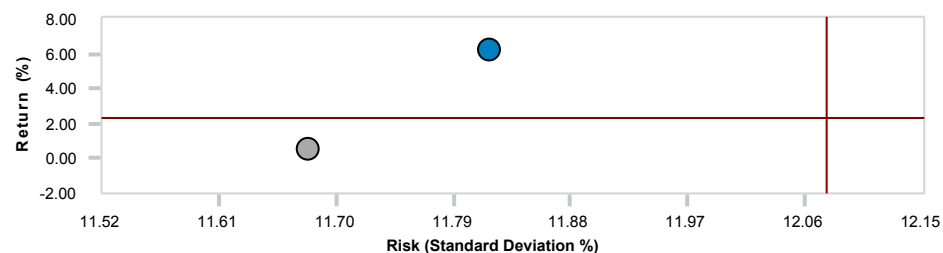


Peer Group Scattergram - 3 Years



	Return	Standard Deviation
WCM Focused Growth Int'l	8.26	11.55
MSCI EAFE (Net) Index	2.87	11.24
Median	4.02	12.41

Peer Group Scattergram - 5 Years



	Return	Standard Deviation
WCM Focused Growth Int'l	6.18	11.82
MSCI EAFE (Net) Index	0.53	11.68
Median	2.35	12.08

Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
WCM Focused Growth Int'l	6.00	92.74	54.29	5.70	0.86	0.66	0.89	8.18
MSCI EAFE (Net) Index	0.00	100.00	100.00	0.00	N/A	0.22	1.00	8.10

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
WCM Focused Growth Int'l	5.63	93.33	57.56	5.77	0.98	0.52	0.90	7.99
MSCI EAFE (Net) Index	0.00	100.00	100.00	0.00	N/A	0.05	1.00	8.26

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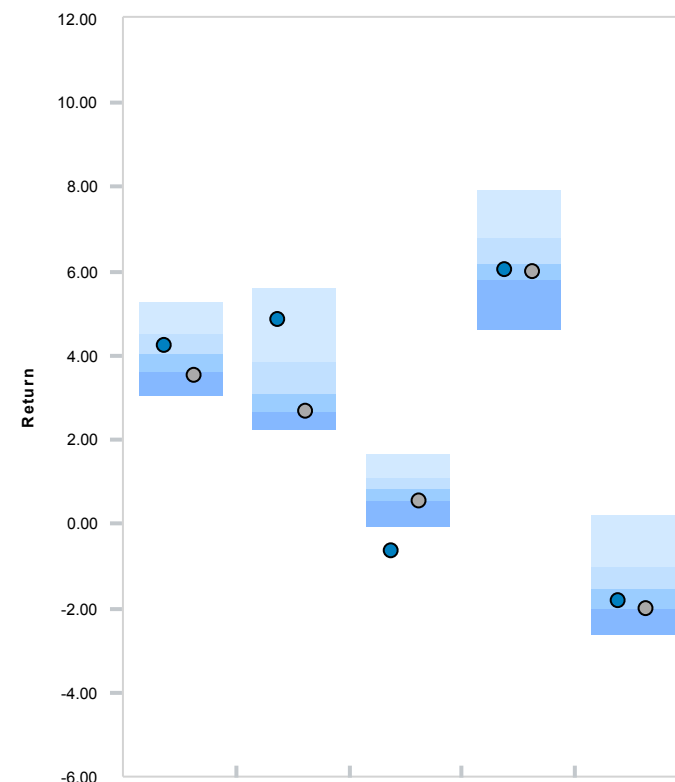
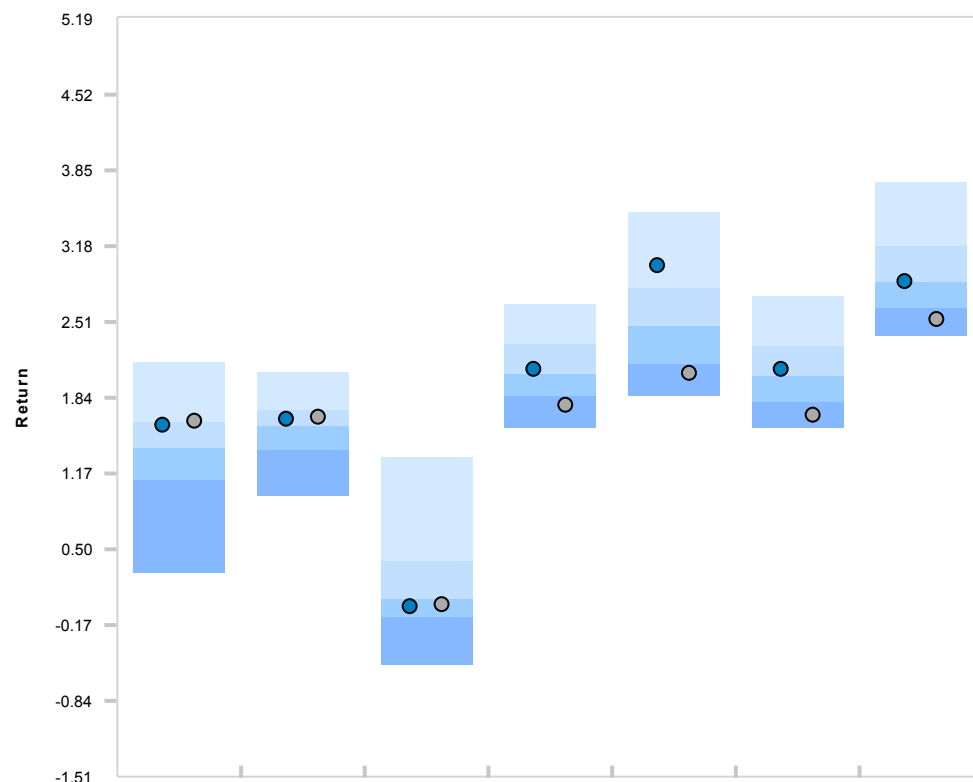
Pacific Moderate Duration - Portfolio Description

- Strategy: Moderate Duration
- Vehicle: Separately Managed Account
- Objective: To outperform the Bloomberg Barclays US Aggregate Index
- Annual fees: .30% on all assets
- Benchmark: Bloomberg Barclays US Aggregate Index

Pacific Moderate Duration - Strategy Details

The Moderate Duration product is a core bond strategy that seeks to outperform the Barclays Capital Aggregate Index on both an absolute and risk-adjusted basis over a full market cycle. The Moderate Duration product invests in U.S. Government securities, mortgage-backed securities, corporate debt securities and asset-backed securities. The product maintains duration of between 3.0 to 7.0 years and is generally within one year of the index.

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

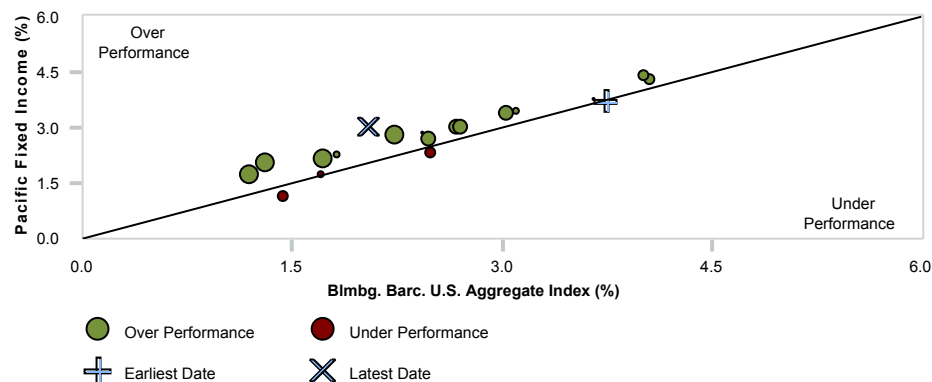


	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR	2017	2016	2015	2014	2013
● Pacific Fixed Income	1.59 (33)	1.65 (42)	-0.01 (66)	2.09 (45)	3.01 (11)	2.08 (46)	2.85 (51)	4.24 (35)	4.86 (9)	-0.65 (98)	6.02 (64)	-1.84 (66)
● Blmbg Barc US Agg	1.64 (24)	1.66 (42)	0.01 (62)	1.76 (86)	2.06 (85)	1.68 (88)	2.52 (84)	3.54 (84)	2.65 (77)	0.55 (74)	5.97 (67)	-2.02 (74)
Median	1.40	1.60	0.07	2.04	2.48	2.04	2.86	4.05	3.11	0.82	6.17	-1.56

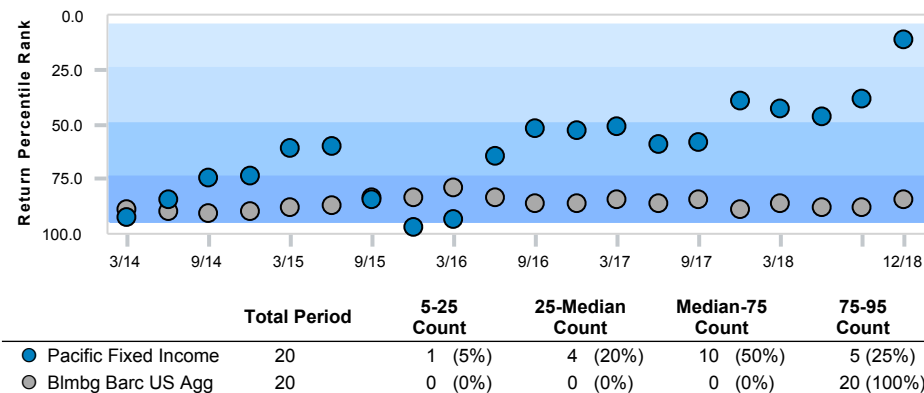
Comparative Performance

	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	1 Qtr Ending Jun-2017
Pacific Fixed Income	0.06 (74)	-0.22 (90)	-1.42 (61)	0.64 (20)	1.00 (34)	1.45 (76)
Blmbg. Barc. U.S. Aggregate Index	0.02 (83)	-0.16 (75)	-1.46 (68)	0.39 (80)	0.85 (77)	1.45 (76)
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.18	-0.09	-1.37	0.51	0.93	1.54

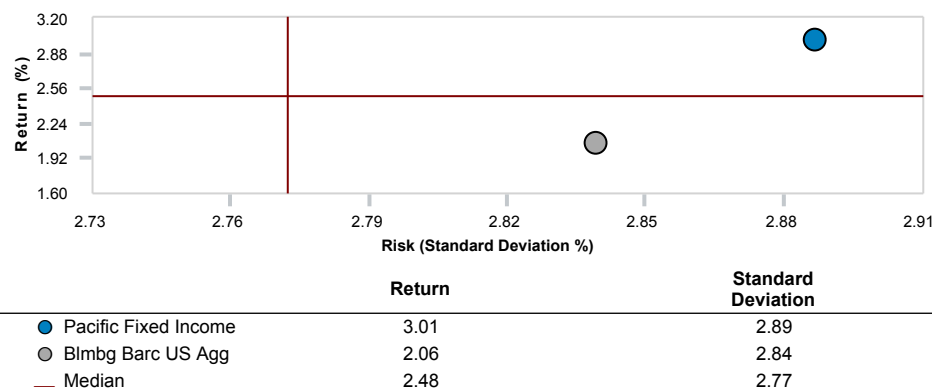
3 Yr Rolling Under/Over Performance - 5 Years



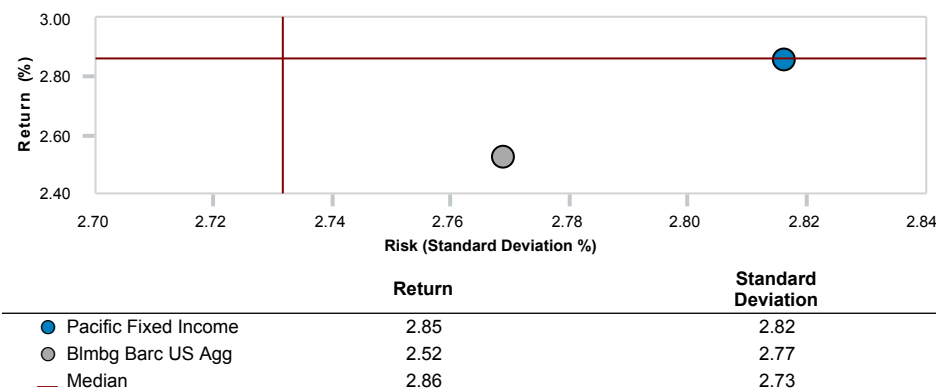
3 Yr Rolling Percentile Ranking - 5 Years



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
Pacific Fixed Income	1.02	111.84	87.59	1.03	0.91	0.70	0.95	1.72
Blmbg. Barc. U.S. Aggregate Index	0.00	100.00	100.00	0.00	N/A	0.38	1.00	1.85

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Pacific Fixed Income	0.95	104.80	96.83	0.43	0.34	0.80	0.96	1.60
Blmbg. Barc. U.S. Aggregate Index	0.00	100.00	100.00	0.00	N/A	0.69	1.00	1.63

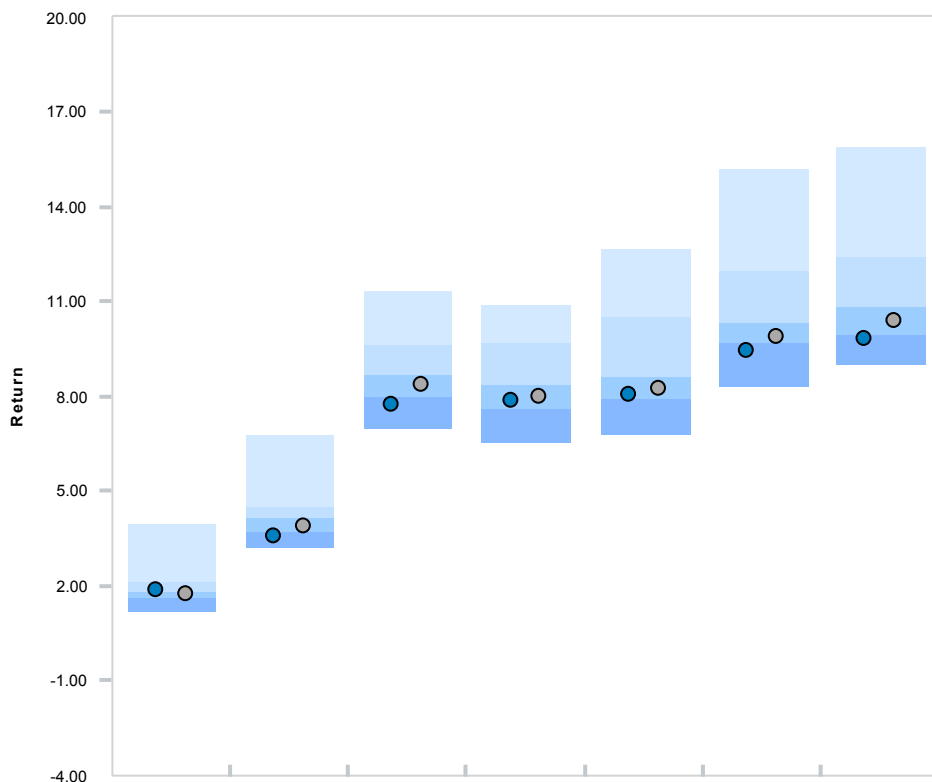
AEW Core Property - Portfolio Description

- Strategy: Core Property Trust
- Vehicle: Open Ended Commingled Real Estate Fund
- Objective: To outperform the NCREIF ODCE Index
- Annual fees: 1.10% on all assets
- Benchmark: NCREIF ODCE Index

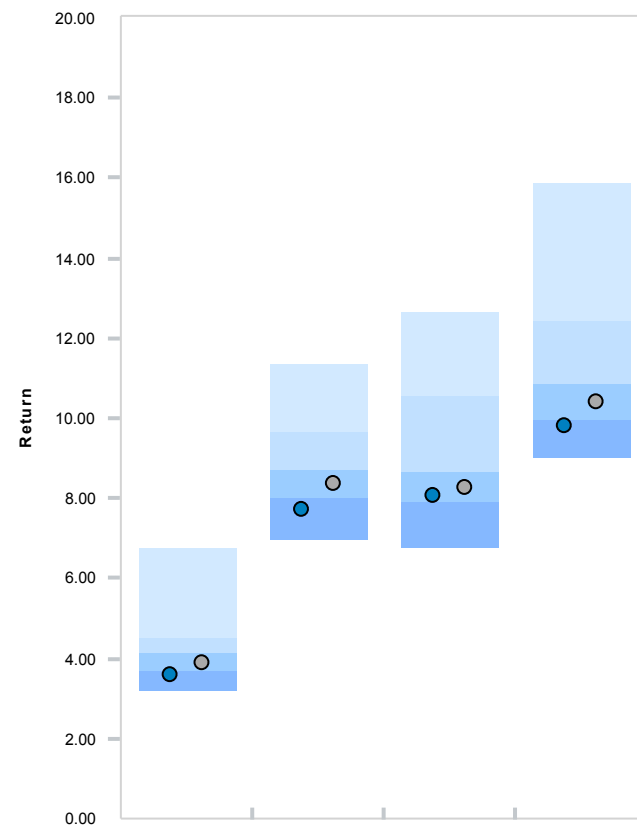
AEW Core Property - Strategy Details

The AEW Core Property Trust combines research-driven strategies with on-the-ground market knowledge and experience to construct a diversified portfolio of multifamily, retail, office, industrial and, to a lesser extent, hotel properties. The Fund seeks to acquire primarily well-located, institutional-quality assets in markets throughout the U.S. - investments that are designed to provide durable income streams and appreciation over the mid- to long-term. AEW expects to invest primarily in major metropolitan markets that feature barriers to new supply - whether physical, governmental or economic - as well as solid population and job growth. With limited supply and increasing demand, these markets should provide an opportunity for peak-to-peak rent growth and thus, long-term value creation. The Fund also seeks to exploit America's changing demographics, and the impact they will have on economic growth and demand for real estate. The Fund also focuses on markets and properties that are positively influenced by globalization as it continues to change the nature of U.S. jobs and affect the movement of goods and services and consumer spending. Finally, the Fund's target markets also exhibit economic diversity in terms of the underlying industries that are driving the demand in the marketplace; providing both growth and diversification to the Fund.

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
● AEW Core Property Trust	1.89 (37)	3.57 (82)	7.72 (82)	7.84 (68)	8.06 (73)	9.45 (81)	9.82 (82)
● NCREIF-ODCE (VW)	1.76 (61)	3.88 (59)	8.35 (63)	7.98 (59)	8.24 (70)	9.90 (63)	10.41 (65)
Median	1.80	4.15	8.71	8.39	8.66	10.36	10.82



	FYTD	1 YR	3 YR	5 YR
● AEW Core Property Trust	3.57 (82)	7.72 (82)	8.06 (73)	9.82 (82)
● NCREIF-ODCE (VW)	3.88 (59)	8.35 (63)	8.24 (70)	10.41 (65)
Median	4.15	8.71	8.66	10.82

Comparative Performance

	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	1 Qtr Ending Jun-2017
AEW Core Property Trust	1.65 (81)	2.31 (44)	1.66 (87)	2.16 (56)	1.79 (45)	1.77 (65)
NCREIF Fund Index-ODCE (VW)	2.09 (54)	2.05 (67)	2.20 (52)	2.07 (68)	1.87 (43)	1.70 (67)
IM U.S. Open End Private Real Estate (SA+CF) Median	2.10	2.22	2.21	2.25	1.75	1.89

Bloomfield Income Fund - Portfolio Description

- Strategy: Bloomfield Capital Income Fund II
- Objective: To provide an absolute return in excess of 9%
- Annual fees: 2.00% on Committed Capital

Bloomfield Income Fund - Strategy Details

The Bloomfield Capital Income Fund II is a real estate opportunity fund focused on two primary strategies. 1. Originating senior secured, high yield, interim and bridge loans on income producing real estate in the U.S. and 2. Acquiring a diverse portfolio of commercial mortgage loans, deeds of trust, and other real estate related opportunistic investments. The Fund's objective is to build a diverse portfolio of senior, secured mortgages providing investors with consistent income and superior risk adjusted returns. Bloomfield Capital targets a double-digit yield on secure, risk-mitigated investments. The portfolio management team implements conservative underwriting techniques to provide a margin of safety.

Metropolitan MREP VI - Portfolio Description

- Strategy: Metropolitan Real Estate MREP VI Fund
- Vehicle: Real Estate Fund of Funds
- Objective: To outperform the NCREIF Property Index
- Annual fees: 1.35% on first \$5M
- 1.00% on the next \$20M
- Benchmark: NCREIF Property Index

Metropolitan MREP VI - Strategy Details

Invest in a diversified portfolio of private real estate funds or other investment vehicles with direct or indirect exposure to real estate. The manager invests in funds with exposure to office, retail, industrials, multi-family, and other types of properties located primarily in the United States. The manager selects value added and opportunistic funds with superior performance track records. The manager diversifies the strategy across property types, geographic markets, managers, and strategies.

RMK Timber - Portfolio Description

- Strategy: RMK Global Timberland Resources US Fund
RMK Global Timberland Resources Intl Alternative Investment
- Objective: To outperform the NCREIF Timberland Index
- Management fees: US Fund: 1.00%
Intl Fund: 1.25%
- Performance Fee: US Fund: 20% (6% Hurdle)
Intl Fund: 20% (10% Hurdle)

RMK Timber - Strategy Details

The portfolio team develops an investment strategy for the Fund based on the current environment and market forecasts for timberlands, and related end products. RMK utilizes industry contacts to identify attractive acquisition targets that achieve the Fund's investment strategy. Prior to purchasing a tract of land, the team performs rigorous due diligence and develops an asset management plan. The portfolio is actively managed, evaluating the benefits of harvesting the forests, letting the trees further mature, or selling the timberland. The manager will diversify the portfolio by growth stage/maturity of the forests, geographic locations (50% US exposure / 50% International exposure), and species.

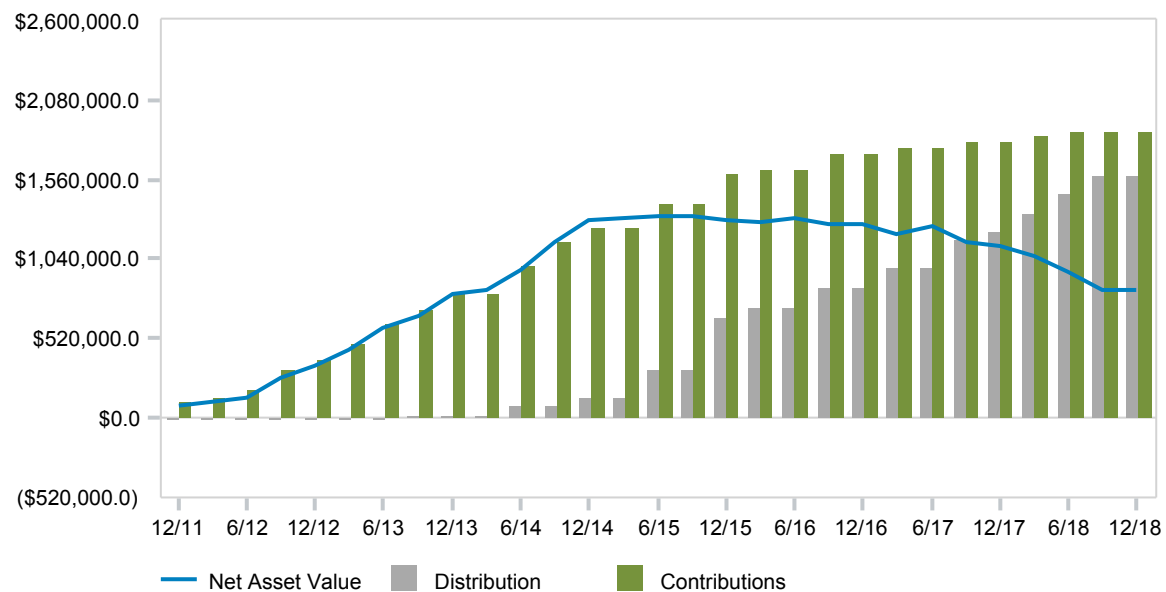
Fund Information

Type of Fund:	Fund Of Funds	Vintage Year:	2008
Strategy Type:	Real Estate	Management Fee:	1%
Target IRR:	9%	Inception:	03/19/2008
General Partner:	MREP6, LLC		
Investment Strategy:	Private Equity Real Estate value add/opportunistic multi-manager		

Cash Flow Summary

Capital Committed:	\$2,000,000
Capital Invested:	\$1,871,551
Management Fees:	-
Expenses:	-
Interest:	\$1,188
Total Contributions:	\$1,872,739
Remaining Capital Commitment:	\$128,449
Total Distributions:	\$1,582,339
Market Value:	\$842,099
Inception Date:	11/30/2011
Inception IRR:	9.0
TVPI:	1.3

Cash Flow Analysis



Fund Information

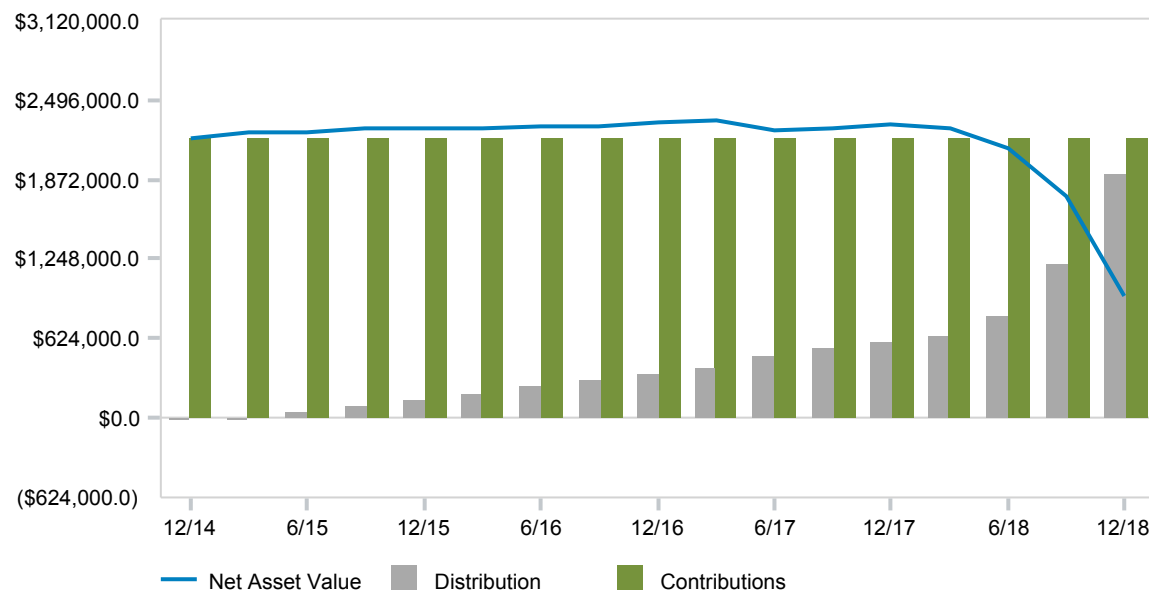
Type of Fund:	Direct	Vintage Year:	2011
Strategy Type:	Other	Management Fee:	2.00%
Target IRR:	9.00%	Inception:	11/13/2011
General Partner:	Bloomfield Capital Partners, LLC		
Investment Strategy:	Bloomfield Capital Income Fund II invests primarily in debt obligations consisting of commercial mortgage loans, deeds of trust and other real estate and/or debt-related investments, with the objective of creating a diversified portfolio producing strong and consistent returns while providing considerable downside protection.		

The Fund's investment strategy has a primary focus on commercial real estate loans and investments collateralized by significant margins of protective collateral such as real estate and other assets including but not limited to cash, marketable securities, equity interests, corporate interests and personal/corporate guarantees.

Cash Flow Summary

Capital Committed:	\$2,200,000
Capital Invested:	\$2,200,000
Management Fees:	\$317,000
Expenses:	\$135,239
Interest:	-
Total Contributions:	\$2,200,000
Remaining Capital Commitment:	\$366,667
Total Distributions:	\$1,906,531
Market Value:	\$962,908
Inception Date:	12/22/2014
Inception IRR:	8.1
TVPI:	1.3

Cash Flow Analysis



Fund Information

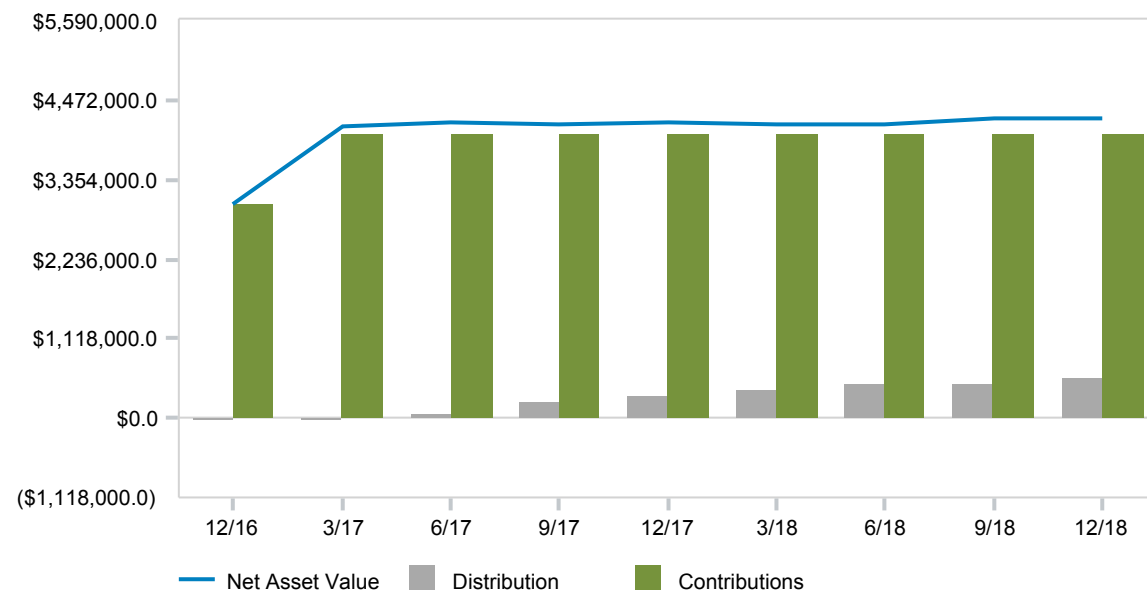
Type of Fund:	Direct	Vintage Year:	2015
Strategy Type:	Other	Management Fee:	2.00%
Target IRR:	8.00%	Inception:	11/01/2015
General Partner:	Bloomfield Capital Partners, LLC		
Investment Strategy:	Bloomfield Capital Income Fund III invests primarily in debt obligations consisting of commercial mortgage loans, deeds of trust and other real estate and/or debt-related investments, with the objective of creating a diversified portfolio producing strong and consistent returns while providing considerable downside protection.		

The Fund's investment strategy has a primary focus on commercial real estate loans and investments collateralized by significant margins of protective collateral such as real estate and other assets including but not limited to cash, marketable securities, equity interests, corporate interests and personal/corporate guarantees.

Cash Flow Summary

Capital Committed:	\$4,000,000
Capital Invested:	\$4,000,000
Management Fees:	\$248,970
Expenses:	\$85,895
Interest:	-
Total Contributions:	\$4,000,000
Remaining Capital Commitment:	-
Total Distributions:	\$552,767
Market Value:	\$4,212,935
Inception Date:	12/31/2016
Inception IRR:	10.0
TVPI:	1.2

Cash Flow Analysis



Total Fund Policy	
Allocation Mandate	Weight (%)
Jan-1985	
S&P 500 Index	20.50
S&P MidCap 400 Index	16.00
Russell 2000 Index	14.00
MSCI EAFE (Net) Index	15.00
Blmbg. Barc. U.S. Aggregate Index	30.00
NCREIF Fund Index-ODCE (VW)	4.50

Jan-2017	
S&P 500 Index	20.00
Russell Midcap Index	14.00
Russell 2000 Index	14.00
MSCI EAFE (Net) Index	15.50
Blmbg. Barc. U.S. Aggregate Index	20.00
Blmbg. Barc. Global Multiverse	2.00
NCREIF Fund Index-ODCE (VW)	6.00
HFRI FOF: Diversified Index	5.00
NCREIF Timberland Index	3.50

Total Fixed Income Policy	
Allocation Mandate	Weight (%)
Jan-1976	
Blmbg. Barc. U.S. Aggregate Index	100.00

Total Real Estate Policy	
Allocation Mandate	Weight (%)
Jan-1978	
NCREIF Property Index	100.00

Total Domestic Equity Policy	
Allocation Mandate	Weight (%)
Jan-1985	
S&P 500 Index	40.00
S&P MidCap 400 Index	32.00
Russell 2000 Index	28.00

Total International Equity Policy	
Allocation Mandate	Weight (%)
Jan-1970	
MSCI EAFE (Net) Index	100.00

Total Timber Policy	
Allocation Mandate	Weight (%)
Apr-1987	
NCREIF Timberland Index	100.00

Plan Disclosures:

- All composite returns (except Timber and Real Estate) prior to March 31, 2015 was obtained from prior consultant.
- Though there was no changes made to any of the composites (except Timber and Real Estate) from 3/31/2015 and back to inception, and are shown as reported by prior consultant, there are changes made to individual portfolios.
- AEW Core Property- obtained all historical statements and built history.
- Bloomfield Capital Income Fund- obtained all historical statements and built history.
- Metropolitan Real Estate VI- obtained all historical statements and built history.
- RMK Timberland Intl Fund- obtained all historical statements and built history.
- RMK Timberland US Fund- obtained all historical statements and built history.
- After rebuilding history for all Real Estate Funds and all Timber funds, recalculated composite returns for each composite.

Southfield Employees Retirement System

Fee Analysis

As of December 31, 2018

	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
Comerica S&P 500 Index Fund	0.09	22,159,010	19,127	0.12 % of First \$2 M 0.10 % of Next \$3 M 0.08 % of Next \$20 M 0.06 % of Next \$25 M 0.04 % of Next \$50 M 0.02 % Thereafter
Champlain MC Equity	0.85	7,607,029	64,660	0.85 % of Assets
QMA US MC Equity	0.00	6,315,524	284	0.00 % of Assets
SouthernSun SC	1.00	9,471,138	94,711	1.00 % of First \$15 M 0.85 % Thereafter
Walhausen & Co. SMID Value	0.95	5,110,724	48,441	0.95 % of First \$5 M 0.85 % of Next \$20 M 0.75 % of Next \$25 M 0.65 % Thereafter
Total Domestic Equity	0.45	50,663,425	227,224	
WCM Focused Growth International	0.75	8,562,053	64,215	0.75 % of Assets
LSV International LCV	0.75	8,478,902	63,592	0.75 % of First \$25 M 0.65 % of Next \$25 M 0.55 % of Next \$50 M 0.45 % Thereafter
Total International Equity	0.75	17,040,955	127,807	
Pacific Fixed Income	0.30	9,362,243	28,087	0.30 % of Assets
Templeton Global Bond R6 (FBNRX)	0.51	3,273,975	16,697	0.51 % of Assets
Bloomfield Capital Income Fund II	2.00	962,908	19,258	2.00 % of Assets
Bloomfield Capital Income Fund III	2.00	4,212,935	84,259	2.00 % of Assets
Total Fixed Income	0.83	17,812,061	148,301	
AEW Core Property Trust	1.25	6,856,568	85,707	1.25 % of Assets
Metropolitan Real Estate V	1.00	842,099	8,421	1.00 % of Assets
Total Real Estate	1.22	7,698,667	94,128	
Magnitude Institutional	1.00	2,710,420	27,104	1.00 % of Assets
Titan Masters Int'l Fund	0.70	2,524,188	17,669	0.70 % of Assets
Total Hedge Fund of Funds	0.86	5,234,608	44,774	
RMK Timberland US Fund	1.00	2,033,376	20,334	1.00 % of Assets
RMK Timberland Intl Fund	1.25	872,358	10,904	1.25 % of Assets
Total Timber Funds	1.08	2,905,733	31,238	
Cash		1,034,245	-	



Southfield Employees Retirement System

Fee Analysis

As of December 31, 2018

	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
Total Fund	0.66	102,389,695	673,472	

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.

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