

Investment Performance Review
Period Ending September 30, 2019

Austin Police

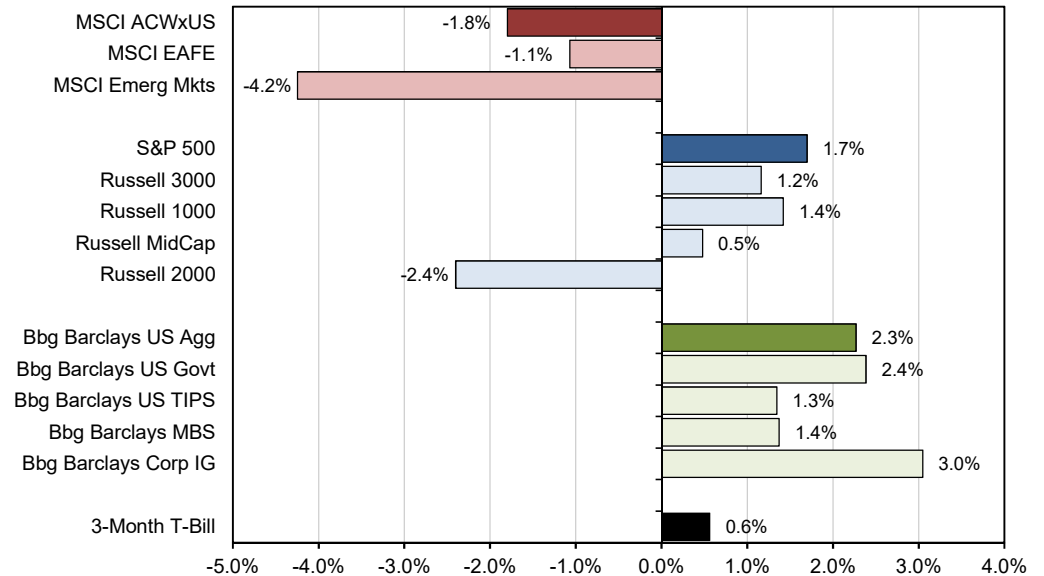


3rd Quarter 2019 Market Environment

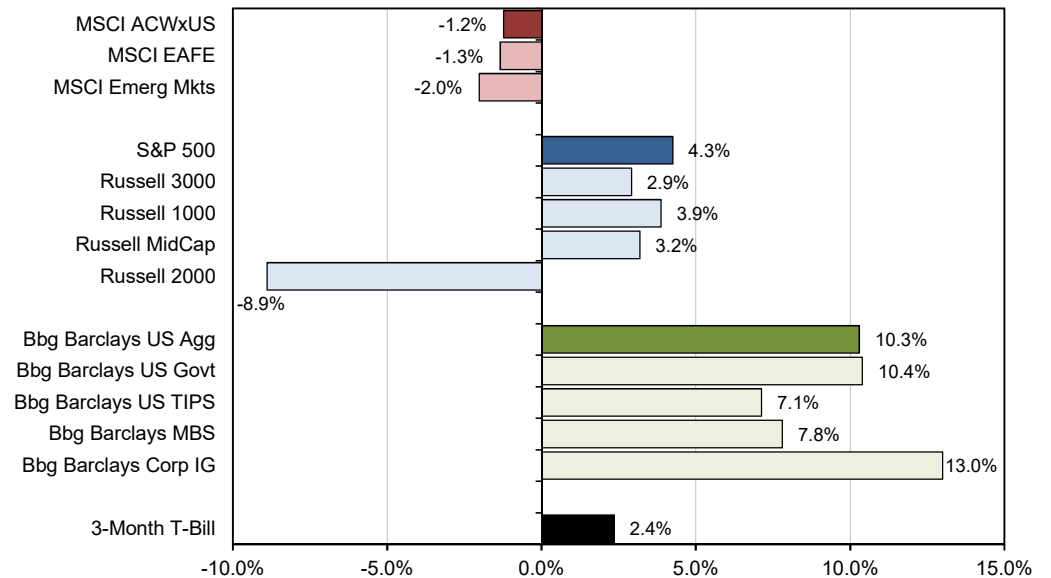


- Broad asset class returns were mixed during the 3rd quarter of 2019 with both US large cap equity and fixed income indices extending their year-to-date gains while US small cap and international indices declined. Volatility was high during the period as investors weighed the effects of ongoing trade disruption and slowing global economic data against the announcement of several new central bank stimulus measures. US stocks continued their year-to-date outperformance relative to international stocks during the period. US markets faced headwinds from continued escalation in the ongoing trade dispute with China, slowing economic data, particularly with regards to manufacturing, and political uncertainty following a late quarter impeachment inquiry against President Donald Trump. However, markets were supported by easing monetary policy from the Federal Reserve (Fed) which cut interest rates twice during the period. In general, lower risk assets performed better through the period as investors weighed the increased risk of a recession. Within domestic equity markets, large cap stocks outperformed small cap equities during the quarter with the S&P 500 Index returning 1.7% versus a -2.4% return on the small cap Russell 2000 Index. US equity returns over the 1-year period were positive for large and mid-cap stocks, returning 4.3% and 3.2% respectively, but small cap stocks posted a loss, falling -8.9%.
- International markets posted negative returns for the 3rd quarter. Similar to US markets, international returns were impacted by continued weakness in economic data, heightened geopolitical uncertainty around global trade and Brexit and newly announced stimulus measures from global central banks including the European Central Bank (ECB) and Peoples Bank of China (PBoC). International returns also faced headwinds from a strengthening US dollar (USD) which appreciated against most major currencies during the period. Developed markets continued their outperformance relative to emerging markets during the period with the MSCI EAFE Index falling -1.1% versus a -4.2% decline for the MSCI Emerging Markets Index. Both developing and emerging markets posted slight losses over the 1-year period, returning -1.3% and -2.0% respectively.
- Fixed income returns outperformed equities during the 3rd quarter as investors looked for relative safety amid the equity market volatility. The broad market Bloomberg Barclays Aggregate Index gained 2.3% as interest rates fell following central bank stimulus from the Fed and other global central banks. The US Treasury Yield Curve also inverted in August, contributing to growing concern around the potential for an upcoming recession. Investment grade corporate issues were the best performing securities for the third quarter in a row, returning 3.0%, outperforming Treasury and securitized issues. Corporate issues benefitted from their relatively high duration and yield. The bond market has meaningfully outperformed the equity market over the trailing 1-year period with the Bloomberg Barclays Aggregate posting a solid 10.3% return.

Quarter Performance



1-Year Performance

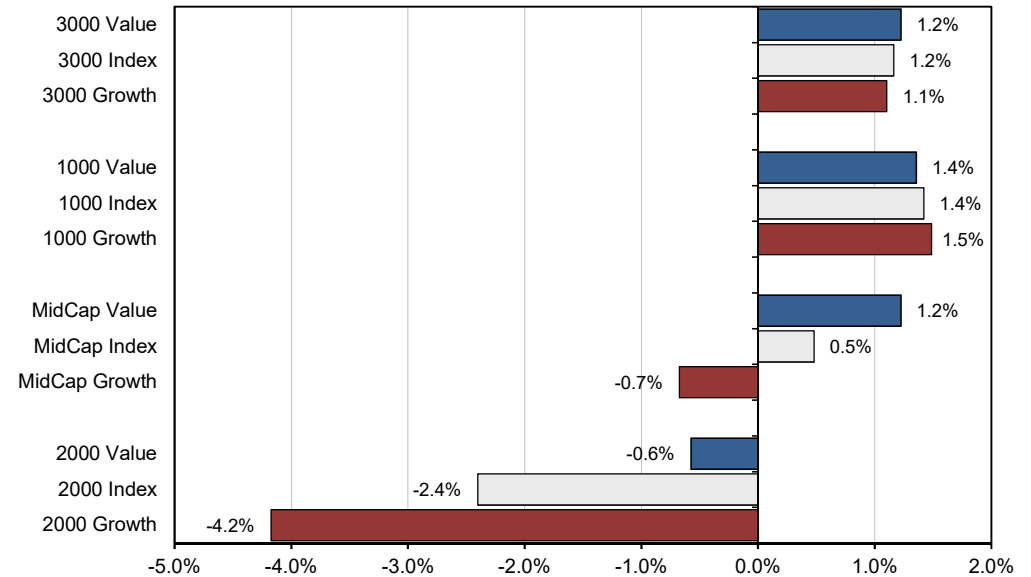


- US equity returns were modestly positive during the 3rd quarter, but results varied considerably across the style and capitalization spectrum. Data released during the quarter showed signs that the US economy could be slowing down. Weakening metrics around manufacturing and sentiment were particularly concerning and employment, typically a bright spot for the US economy, missed expectations for the pace of new jobs and hours worked. A likely contributor to the softening economic data is the ongoing trade war between the US and China. Despite last quarter's agreement to cease escalations following a meeting between President Trump and President Jinping at the G20 summit, the 3rd quarter saw the announcement and implementation of a series of new tariffs from both the US and China. Additionally, in response to new tariffs, the PBoC allowed the yuan to depreciate to its lowest level since 2008 leading US Treasury officials to accuse China of currency manipulation. Even with the apparent breakdown in relations between the two sides, both China and the US agreed to continue negotiations set to take place in October. Markets also reacted to the late quarter announcement of a formal impeachment inquiry against President Trump following a whistleblower report alleging that President Trump pressured the government of Ukraine to investigate the son of political opponent Joe Biden. Despite these substantial headwinds, the US equity market found support from Fed easing of monetary policy in the form of two separate interest rate cuts and ended the period with a gain. The Russell 3000 Index returned 1.2% and 2.9% for the quarter and 1-year period respectively.

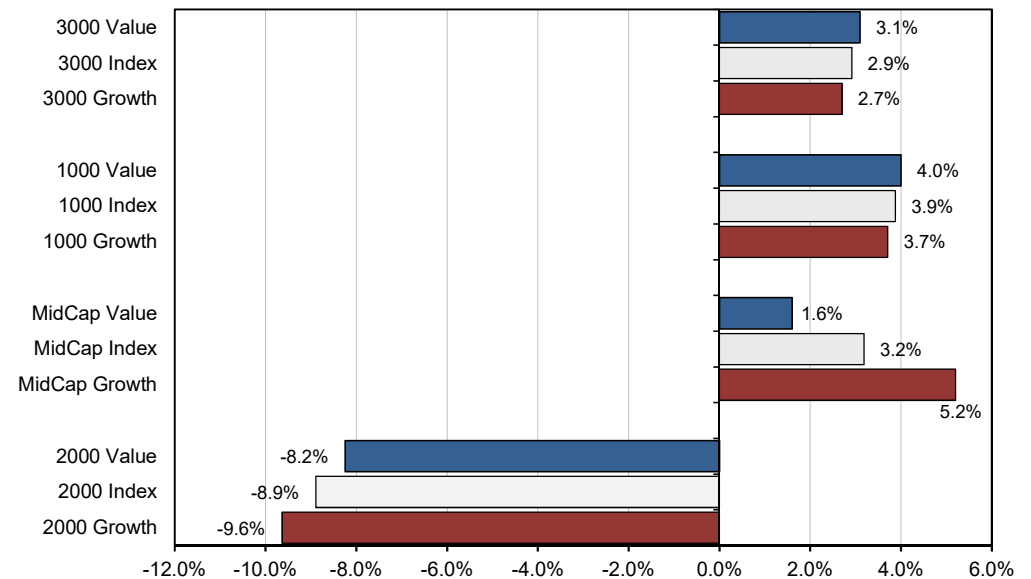
- During the quarter, higher market cap stocks outperformed lower market cap stocks across the style spectrum. The large cap Russell 1000 Index gained 1.4% during the period versus a -2.4% return for the small cap Russell 2000 Index. Investors may have been attracted to large cap names as a result of the quarter's volatility as large cap stocks are typically viewed as less risky than their small cap counterparts. When viewed over the most recent 1-year period, large cap stocks significantly outperformed small cap stocks with the Russell 1000 posting a 3.9% gain while the while the Russell 2000 had considerable losses, declining -8.9%.

- In general, value stocks outperformed growth stocks during the 3rd quarter as investors gravitated toward the relative safety these securities typically provide. However, large cap growth stocks slightly outperformed large cap value stocks due to favorable holdings in the technology and industrials sectors as well as a large underweight to the underperforming energy sector. The Russell 1000 Growth Index was the best performing style index for the period, returning 1.5%, with the small cap growth index posting the lowest relative return, a loss of -4.2%. Results over the 1-year period are mixed with value stocks outperforming in large and small cap and growth stocks outperforming in mid-cap.

Quarter Performance - Russell Style Series

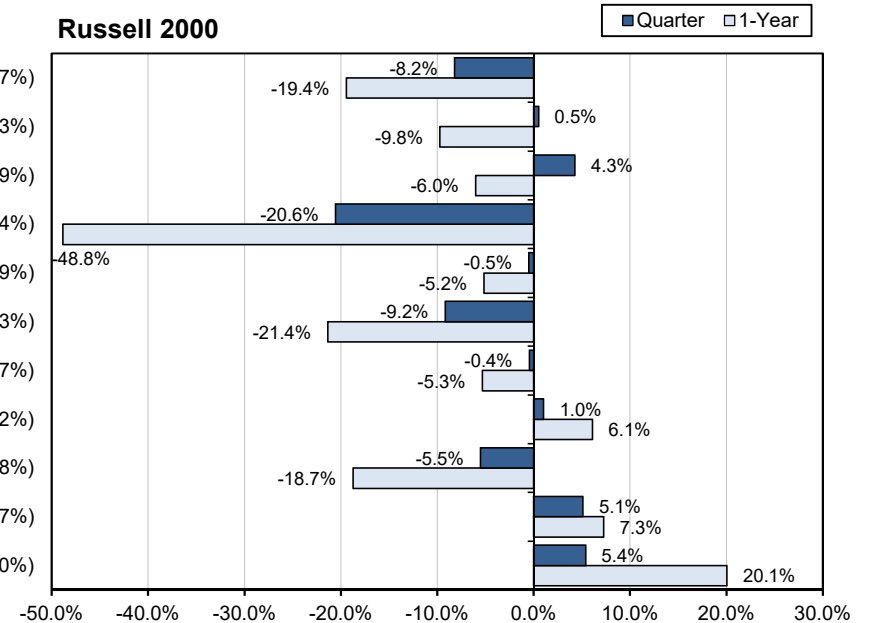
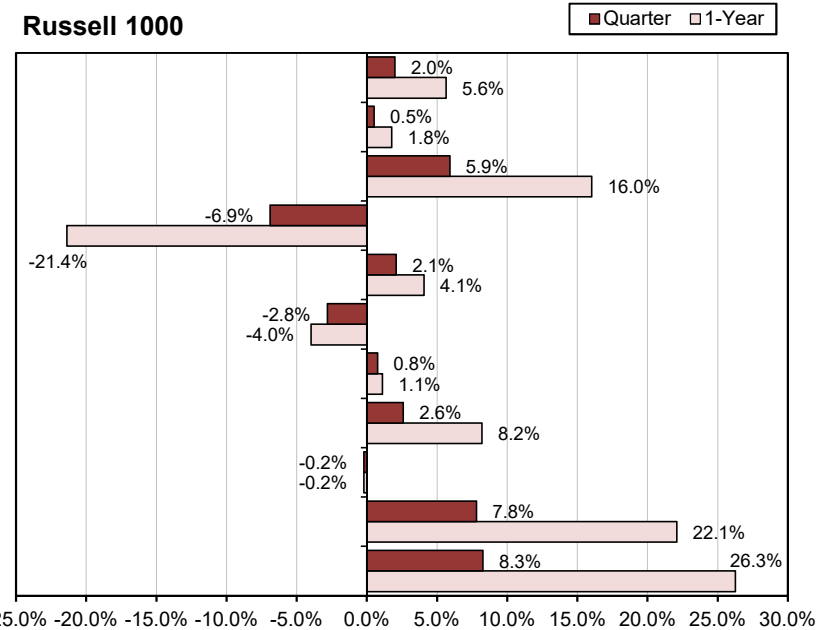


1-Year Performance - Russell Style Series



- Sector performance was mixed across large cap sectors for the 3rd quarter. There were gains for eight out of eleven sectors within the Russell 1000 Index during the period with six sectors outpacing the return of the index. Defensive sectors such as utilities, real estate and consumer staples were the best performers through the quarter returning 8.3%, 7.8% and 16.0% respectively as investors looked toward these sectors for their higher yields and lower historical volatility. Energy, health care and materials stocks were the worst performers during the period. Energy stocks fell -6.9% as crude oil prices fell during the period despite a sharp upward spike in September following a terrorist attack in Saudi Arabia that temporarily reduced the country's oil production, causing a large disruption in supply. Health care stocks also lagged, declining -2.8%, as discussions in Washington around the potential for increased regulation on drug pricing acted as a headwind. Health care reform has also been a major topic of discussion among candidates for the 2020 US Presidential election, creating additional uncertainty within the sector. Materials returned -0.2% as demand concerns weighed on the economically sensitive sector. Returns over the 1-year period were also generally positive with eight out of eleven sectors posting gains. Similar to the quarter's results, defensive sectors outperformed by a considerable margin. Utilities, real estate and consumer staples performed well returning 26.3%, 22.1% and 16.0% respectively. Technology returns were also strong gaining 8.2%. Energy, health care and materials were the only sectors to post negative results over the 1-year period with energy falling -21.4%, health care dropping -4.0% and materials returning -0.2%.

- Quarterly results for small cap sectors were worse than their large capitalization counterparts with all eleven sectors trailing their corresponding large cap equivalents. Five of eleven economic sectors produced gains during the period with seven of eleven sectors outpacing the Russell 2000 Index return for the quarter. Similar to large caps, defensive sectors performed well as investors gravitated toward their relative safety and higher yields. Utilities were the best performers, returning 5.4% followed closely by REITs and consumer staples which returned 5.1% and 4.3% respectively. The cyclically oriented energy sector was the largest detractor for the period, posting a loss of -20.6%. Health care and communication services stocks also experienced notable declines, falling -9.2% and -8.2% respectively. Over the trailing 1-year period, returns were broadly negative. Utilities, real estate and technology were the only sectors to post gains returning 20.1%, 7.3% and 6.1%. The energy sector was an outlier in terms of negative returns dropping -48.8% during the period. There were also notable losses in health care, communication services and materials which declined -21.4%, -19.4% and -18.7% respectively.



The Market Environment
Top 10 Index Weights & Quarterly Performance for the Russell 1000 & 2000
As of September 30, 2019

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Microsoft Corp	3.82%	4.1%	22.9%	Information Technology
Apple Inc	3.68%	13.6%	0.8%	Information Technology
Amazon.com Inc	2.61%	-8.3%	-13.3%	Consumer Discretionary
Facebook Inc A	1.55%	-7.7%	8.3%	Communication Services
Berkshire Hathaway Inc B	1.48%	-2.4%	-2.8%	Financials
JPMorgan Chase & Co	1.36%	6.0%	7.4%	Financials
Alphabet Inc Class C	1.35%	12.8%	2.1%	Communication Services
Alphabet Inc A	1.33%	12.8%	1.2%	Communication Services
Johnson & Johnson	1.25%	-6.4%	-3.8%	Health Care
Procter & Gamble Co	1.12%	14.2%	54.0%	Consumer Staples

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Insulet Corp	0.04%	38.2%	55.7%	Health Care
CyrusOne Inc	0.03%	37.9%	28.8%	Real Estate
KLA Corp	0.09%	35.7%	61.1%	Information Technology
New York Community Bancorp Inc	0.02%	27.6%	28.7%	Financials
Entegris Inc	0.02%	26.3%	63.9%	Information Technology
Pilgrims Pride Corp	0.01%	26.2%	77.1%	Consumer Staples
Western Digital Corp	0.06%	25.4%	5.6%	Information Technology
DocuSign Inc	0.03%	24.6%	17.8%	Information Technology
Target Corp	0.19%	24.4%	24.3%	Consumer Discretionary
XPO Logistics Inc	0.02%	23.8%	-37.3%	Industrials

Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
2U Inc	0.00%	-56.7%	-78.3%	Information Technology
PG&E Corp	0.02%	-56.4%	-78.3%	Utilities
Covetrus Inc	0.00%	-51.4%	N/A	Health Care
Sarepta Therapeutics Inc	0.02%	-50.4%	-53.4%	Health Care
Nektar Therapeutics Inc	0.01%	-48.8%	-70.1%	Health Care
DXC Technology Co	0.03%	-46.2%	-67.9%	Information Technology
Antero Resources Corp	0.00%	-45.4%	-82.9%	Energy
Range Resources Corp	0.00%	-45.0%	-77.3%	Energy
Pluralsight Inc Class A	0.00%	-44.6%	-47.5%	Information Technology
Fluor Corp	0.01%	-42.5%	-66.1%	Industrials

Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
NovoCure Ltd	0.34%	18.3%	42.7%	Health Care
Haemonetics Corp	0.33%	4.8%	10.1%	Health Care
Trex Co Inc	0.28%	26.8%	18.1%	Industrials
Science Applications International	0.27%	1.3%	10.4%	Information Technology
Portland General Electric Co	0.26%	4.8%	27.2%	Utilities
ONE Gas Inc	0.26%	7.0%	19.5%	Utilities
First Industrial Realty Trust Inc	0.26%	8.3%	29.3%	Real Estate
Southwest Gas Holdings Inc	0.26%	2.2%	18.2%	Utilities
Maximus Inc	0.25%	6.9%	20.4%	Information Technology
Teladoc Health Inc	0.25%	2.0%	-21.6%	Health Care

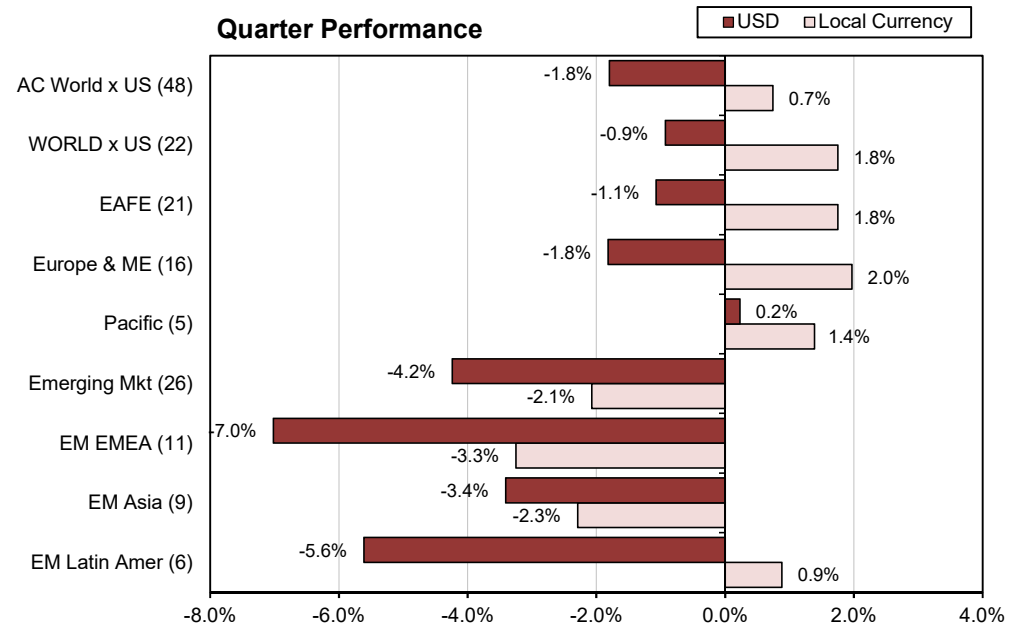
Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
NextCure Inc	0.00%	105.9%	N/A	Health Care
Dova Pharmaceuticals Inc	0.01%	98.2%	33.3%	Health Care
WW International Inc	0.09%	98.0%	-47.5%	Consumer Discretionary
R.R.Donnelley & Sons Co	0.01%	94.7%	-27.6%	Industrials
Infinera Corp	0.05%	87.3%	-25.3%	Information Technology
Lannett Co Inc	0.02%	84.8%	135.8%	Health Care
Owens & Minor Inc	0.02%	81.6%	-64.4%	Health Care
Allakos Inc	0.08%	81.5%	74.8%	Health Care
Solid Biosciences Inc	0.01%	79.8%	-78.1%	Health Care
Ardelyx Inc	0.01%	74.7%	8.0%	Health Care

Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Tocagen Inc	0.00%	-90.1%	-95.8%	Health Care
Waitr Holdings Inc Class A	0.00%	-79.6%	-88.1%	Consumer Discretionary
McDermott International Inc	0.02%	-79.1%	-89.0%	Energy
Sonim Technologies Inc	0.00%	-77.0%	N/A	Information Technology
Synlogic Inc	0.00%	-74.8%	-83.9%	Health Care
Mallinckrodt PLC	0.01%	-73.7%	-91.8%	Health Care
Clovis Oncology Inc	0.01%	-73.6%	-86.6%	Health Care
Bloom Energy Corp Class A	0.01%	-73.5%	-90.5%	Industrials
Chaparral Energy Inc Class A	0.00%	-71.5%	-92.4%	Energy
Pacific Drilling SA	0.01%	-69.3%	-99.7%	Energy

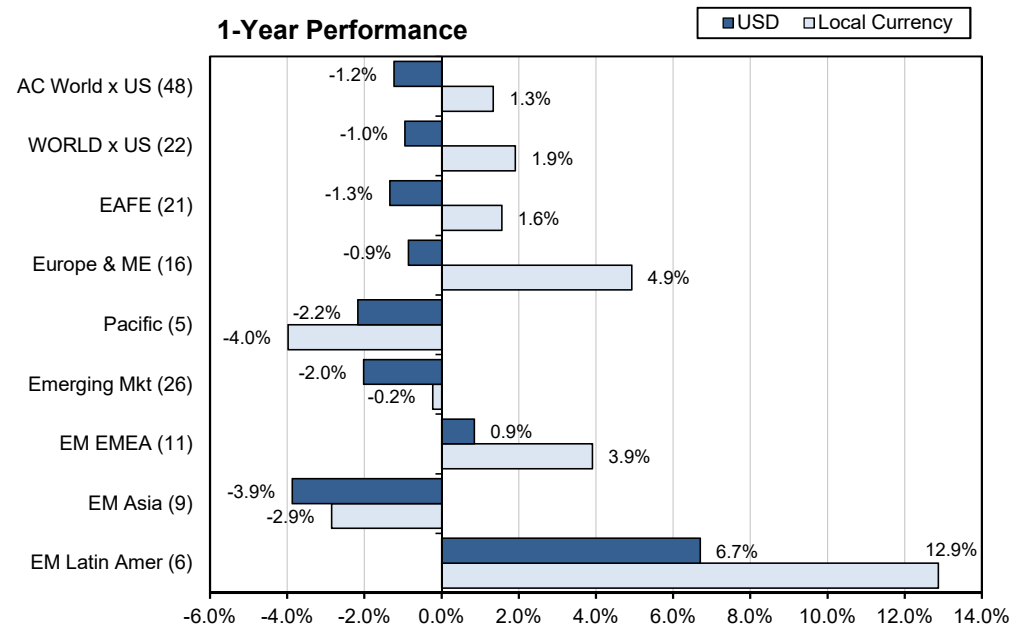


- Broad international equity returns were negative in USD terms for the 3rd quarter as US investors in international markets faced a meaningful headwind from a USD that strengthened against most major currencies. In local currency terms, developed markets were generally positive while emerging markets posted losses. The MSCI ACWI ex US Index gained 0.7% in local currency terms, but a USD investor experienced a loss of -1.8% due to the currency effect. Similar to US markets, international equity markets balanced headwinds from slowing economic data and concerns around global trade with tailwinds from central bank shifts toward more accommodative policies. Among others, the ECB and PBoC announced new stimulus measures during the quarter. The ECB cut its policy rate and committed to a new quantitative easing program and the PBoC announced new stimulus measures designed to encourage bank lending and reduce borrowing costs as it tries to counteract a cooling economy and the effects of its ongoing trade war with the US. The recent USD strength can also be seen over the 1-year period with USD returns trailing most local currency returns. Returns for the MSCI ACWI ex US Index were 1.3% in local currency terms and -1.2% in USD terms for the trailing year.
- Results for developed market international indices were generally positive in local currency terms, but negative in USD terms for the 3rd quarter, with the MSCI EAFE Index returning 1.8% and -0.9% respectively. Outside of central bank policy and trade, there were notable developments within the political sphere. In Europe, Christine Lagarde was nominated to succeed Mario Draghi as the head of the ECB. Japanese stocks rose as election results appeared to support continuity for Prime Minister Abe's ongoing policy efforts. In the UK, pro-Brexit Boris Johnson was appointed to prime minister, replacing Theresa May. The UK continues to face uncertainty around Brexit as its late October deadline to agree to a withdrawal agreement with the European Union (EU) quickly approaches. Stocks in Hong Kong fell as the government dealt with major pro-democracy protests throughout the quarter. The MSCI EAFE Index returned 1.6% and -1.3% for the last twelve months in local currency and USD terms respectively.
- Emerging markets continued their trend of 2019 underperformance relative to developed markets during the 3rd quarter, posting negative returns in both local currency and USD terms. The MSCI Emerging Markets Index fell -2.1% and -4.2% respectively. As expected, geopolitical tensions around trade continued to put pressure on emerging market stocks. Countries with greater sensitivities to commodity prices or a strong USD tended to underperform during the period. Argentina's stock market fell -46.8% as primary elections in the country saw the defeat of the country's current market friendly president. One year returns for the MSCI Emerging Market Index were -0.2% in local currency terms and -2.0% in USD terms.

Quarter Performance



1-Year Performance



The Market Environment
US Dollar International Index Attribution & Country Detail
As of September 30, 2019

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.4%	-0.9%	-0.7%
Consumer Discretionary	11.5%	0.3%	-2.0%
Consumer Staples	12.0%	1.9%	6.9%
Energy	5.1%	-6.5%	-14.5%
Financials	18.6%	-2.6%	-6.3%
Health Care	11.6%	2.4%	4.3%
Industrials	14.7%	-2.0%	-2.1%
Information Technology	6.7%	-0.5%	1.8%
Materials	7.0%	-5.4%	-5.7%
Real Estate	3.6%	-1.3%	4.3%
Utilities	3.8%	2.4%	13.2%
Total	100.0%	-1.1%	-1.3%

MSCI - ACWIxUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	6.8%	-2.9%	-1.0%
Consumer Discretionary	11.4%	-0.7%	-1.6%
Consumer Staples	10.2%	1.5%	6.8%
Energy	6.7%	-4.6%	-9.8%
Financials	21.6%	-3.6%	-3.2%
Health Care	8.5%	1.1%	0.9%
Industrials	11.9%	-2.5%	-2.4%
Information Technology	8.9%	2.2%	4.1%
Materials	7.3%	-6.5%	-7.2%
Real Estate	3.2%	-3.1%	5.0%
Utilities	3.5%	1.3%	12.6%
Total	100.0%	-1.8%	-1.2%

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	11.6%	-5.2%	-2.5%
Consumer Discretionary	13.1%	-3.1%	0.1%
Consumer Staples	6.9%	-0.8%	3.0%
Energy	7.7%	-4.0%	-2.3%
Financials	24.7%	-8.0%	1.6%
Health Care	2.6%	-6.6%	-24.2%
Industrials	5.4%	-5.2%	-4.4%
Information Technology	15.1%	5.6%	3.9%
Materials	7.3%	-10.7%	-15.9%
Real Estate	2.9%	-8.8%	6.8%
Utilities	2.8%	-3.6%	7.2%
Total	100.0%	-4.2%	-2.0%

Country	MSCI-EAFE Weight	MSCI-ACWIxUS Weight	Quarter Return	1- Year Return
Japan	24.6%	16.5%	3.1%	-4.7%
United Kingdom	16.4%	11.0%	-2.5%	-2.9%
France	11.4%	7.6%	-1.7%	-1.6%
Switzerland	9.4%	6.3%	0.3%	12.0%
Germany	8.5%	5.7%	-4.0%	-7.1%
Australia	7.0%	4.7%	-1.4%	6.1%
Netherlands	4.0%	2.7%	2.4%	9.5%
Hong Kong	3.5%	2.4%	-11.9%	-1.8%
Spain	2.9%	2.0%	-3.8%	-3.5%
Sweden	2.6%	1.7%	-4.8%	-8.0%
Italy	2.3%	1.6%	-0.1%	3.9%
Denmark	1.8%	1.2%	-1.0%	2.3%
Singapore	1.3%	0.9%	-5.8%	-0.2%
Belgium	1.0%	0.7%	3.4%	-0.8%
Finland	1.0%	0.7%	-1.8%	-9.3%
Norway	0.7%	0.4%	-3.4%	-13.4%
Israel	0.6%	0.4%	-3.7%	-12.5%
Ireland	0.5%	0.4%	-0.6%	-4.6%
New Zealand	0.2%	0.2%	-2.9%	10.0%
Austria	0.2%	0.2%	-3.1%	-16.0%
Portugal	0.2%	0.1%	1.6%	-2.5%
Total EAFE Countries	100.0%	67.0%	-1.1%	-1.3%
Canada		7.0%	0.5%	3.0%
Total Developed Countries		74.0%	-0.9%	-1.0%
China		8.3%	-4.7%	-3.9%
Korea		3.2%	-4.5%	-13.8%
Taiwan		3.0%	5.2%	-0.2%
India		2.3%	-5.2%	4.7%
Brazil		2.0%	-4.6%	25.4%
South Africa		1.2%	-12.6%	-6.4%
Russia		1.0%	-1.4%	18.0%
Thailand		0.8%	-6.0%	-0.9%
Saudi Arabia		0.7%	-9.5%	4.0%
Mexico		0.7%	-1.7%	-14.8%
Indonesia		0.5%	-5.2%	11.9%
Malaysia		0.5%	-6.3%	-10.4%
Philippines		0.3%	-4.6%	13.1%
Poland		0.3%	-12.1%	-12.2%
Qatar		0.3%	-0.2%	5.0%
Chile		0.3%	-7.3%	-16.8%
United Arab Emirates		0.2%	-0.2%	-0.3%
Turkey		0.2%	11.7%	16.5%
Colombia		0.1%	-6.1%	-7.3%
Peru		0.1%	-9.3%	-4.0%
Greece		0.1%	-3.1%	6.8%
Hungary		0.1%	-3.9%	3.4%
Argentina		0.1%	-46.8%	-32.3%
Czech Republic		0.0%	-10.1%	-12.6%
Egypt		0.0%	7.4%	21.5%
Pakistan		0.0%	1.1%	-32.7%
Total Emerging Countries		26.0%	-4.2%	-2.0%
Total ACWIxUS Countries		100.0%	-1.8%	-1.2%

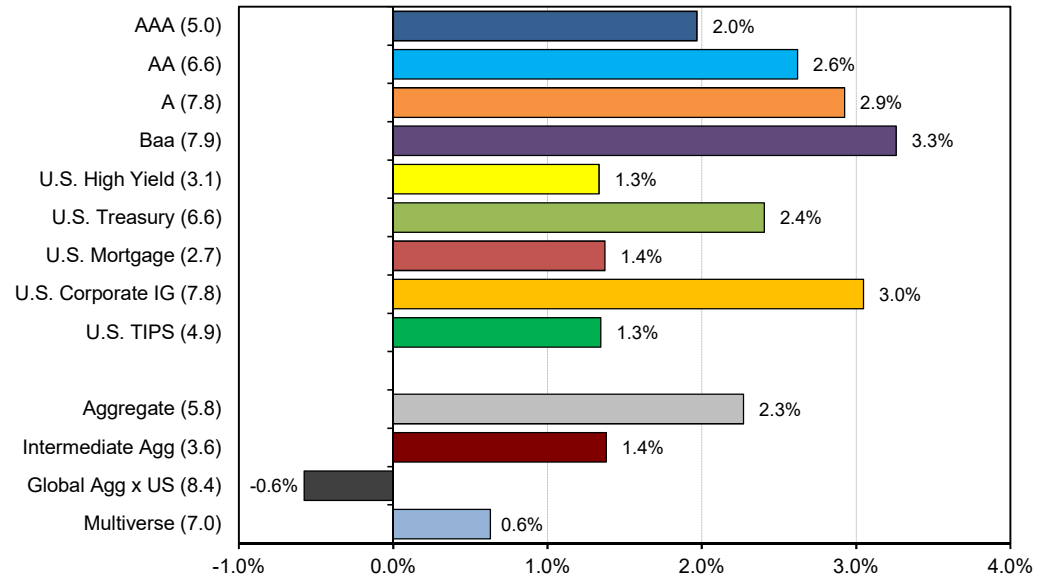
Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD)

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.

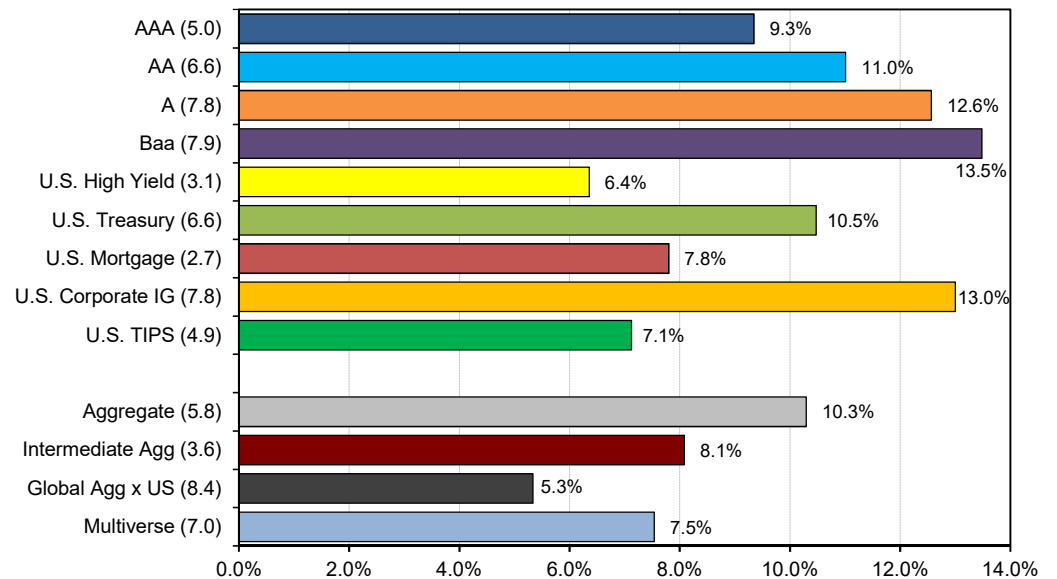


- Broad fixed income benchmarks continued their trend of 2019 gains during the 3rd quarter. Interest rates fell across the US Treasury Yield Curve through the quarter as the Fed continued to shift toward an easing of monetary policy in an attempt to combat slowing economic data. The Fed cut short-term interest rates twice during the period following their July and September meetings. In addition, it ended its balance sheet reduction plan in September which represents a further easing of monetary policy. After its September meeting, the Fed issued a statement commenting that future changes to monetary policy are not on a preset course and will be evaluated as the Fed receives new information on the state of the economy, but that Fed officials “will continue to monitor the implications of incoming information for the economic outlook and will act as appropriate to sustain the expansion.” The Fed response provided market support in a quarter where we saw the formal inversion of the yield curve. Treasury yields on 2-year issues briefly surpassed the yield on 10-year issues in August. This inversion of the yield curve has historically preceded a recession within the next 6-24 months. However, the magnitude of the inversion was mild and short in duration with rates on the 10-year Treasury rising above the yield of the 2-year by early September. The bellwether Bloomberg Barclays US Aggregate Index posted positive returns for both the 3rd quarter and the 1-year period, returning 2.3% and 10.3% respectively.
- Within investment grade credit, lower quality issues outperformed higher quality issues during the quarter. Lower quality issues benefitted from their higher durations as interest rates fell during the quarter. On an absolute basis, without negating the duration differences in the sub-indices, Baa rated credit was the best performing investment grade credit quality segment returning 3.3% for the quarter, while AAA was the worst performing, returning 2.0%. High yield issues returned 1.3% for the quarter as these issues did not commensurately benefit from the drop in interest rates due to their relatively low durations. Returns over the 1-year period show lower quality securities outperforming higher quality issues with Baa rated issues returning 13.5% versus a 9.3% return for AAA securities.
- Investment grade corporates outperformed the more defensive Treasury and mortgage backed sectors of the Bloomberg Barclays US Aggregate Index’s three broad sectors during the 3rd quarter. Investment grade corporate credit returned 3.0%, as they benefitted from their higher sensitivity to interest rates, low credit spreads and high investor demand for yield. When viewed over the 1-year period, corporate credit outperformed both Treasuries and mortgage backed securities. Corporate issues returned 13.0% versus a 7.8% return for mortgages and 10.5% gain on Treasury securities.

Quarter Performance

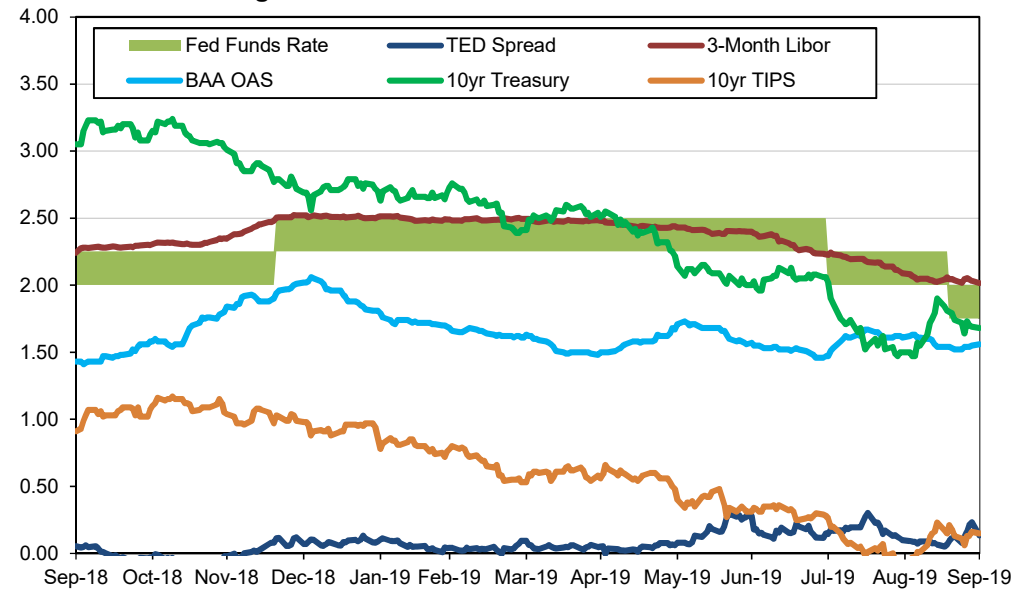


1-Year Performance

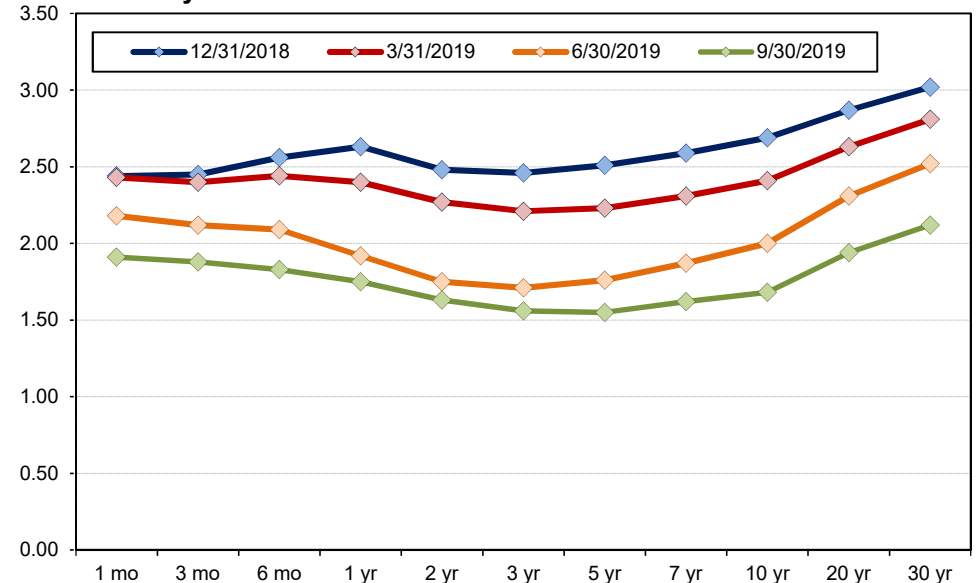


- Global fixed income returns underperformed their domestic counterparts during the 3rd quarter. These indices have lower, or in some cases (Germany, Japan), negative yields, but have higher durations. Given their higher durations, these issues would be expected to perform relatively well during periods of falling rates, however, the returns of these indices are also significantly influenced by fluctuations in their currency denomination relative to the USD. As mentioned, the USD appreciated against most other developed currencies during the quarter, acting as a headwind to global bond indices. The return on global bonds, as represented by the Bloomberg Barclays Global Aggregate ex US Index, was -0.6%. Global bonds also trailed over the 1-year period with the Global Aggregate ex US Index returning 5.3% versus a 10.3% return on the domestically focused Bloomberg Barclays Aggregate Index. As global growth has shown signs of stalling, several international central banks have started to step back from more restrictive postures. The ECB and the PBoC have moved toward an easing of monetary policy and implemented various stimulus programs designed to support their respective economies. 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 over the last year, the 10-year Treasury yield (green line) fell from high's greater than 3.0%, to yields below 1.5% before ending the quarter at 1.68%. 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 an abrupt increase in credit spreads during the 4th quarter of 2018 as investors moved to higher quality assets during the quarter's risk-off environment. Subsequently, spreads declined steadily, remaining somewhat range bound with increases in May and August. There was little change through the quarter with spreads tightening by about 1 basis point. Spread tightening is equivalent to an interest rate decrease on corporate bonds, which produces an additional tailwind for corporate bond index returns. The green band across the graph illustrates the decrease in the Federal Funds Rate due to the recent easing in US monetary policy. The rate cuts in July and September have pushed the Fed Funds Rate to 1-year lows.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four calendar quarters. The downward shift in interest rates as well as a general flattening of the yield curve are clearly visible over the last quarter. As mentioned, the yield curve continues to invert as yields on shorter- and middle-term maturities fell less than interest rates at the long-end of the curve.

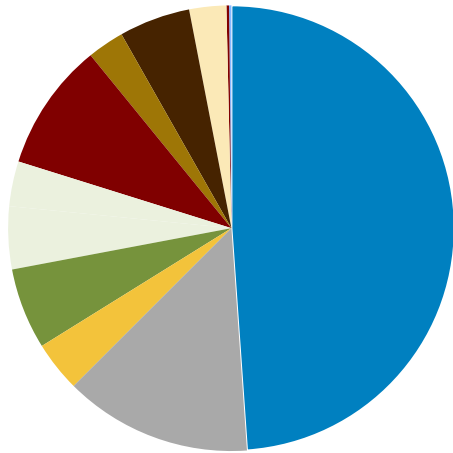
1-Year Trailing Market Rates



Treasury Yield Curve



Asset Allocation by Segment
September 30, 2019 : \$812,358,503



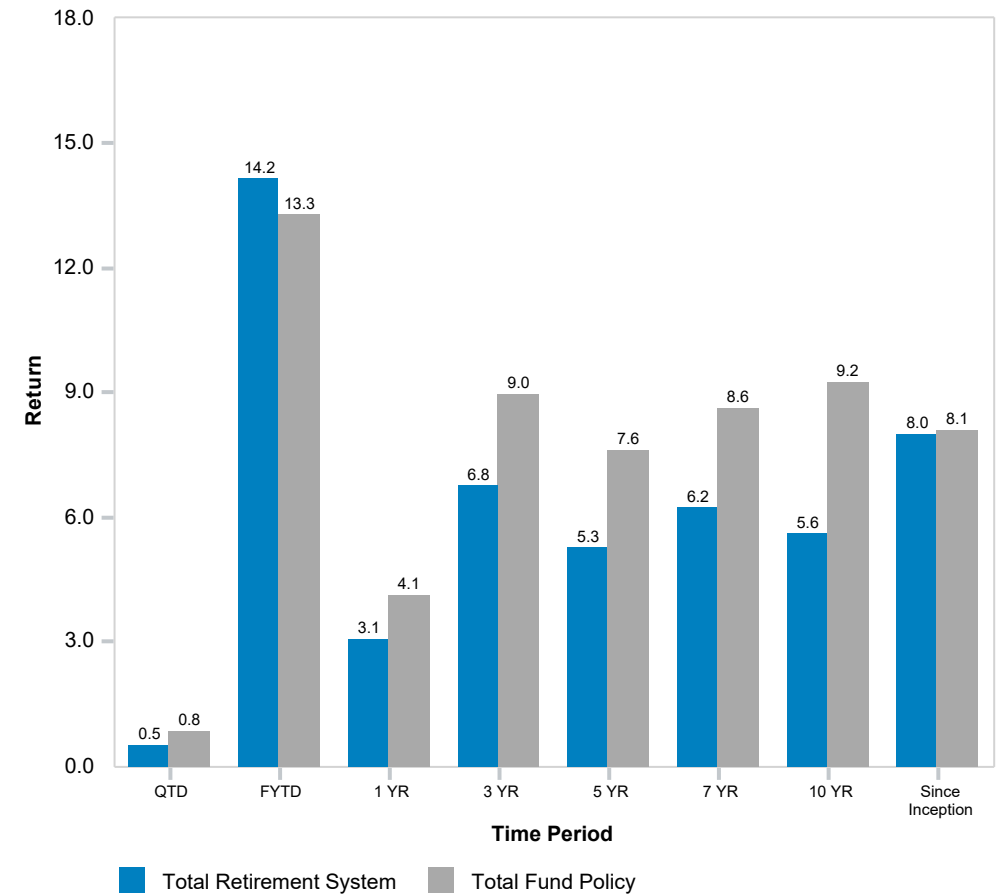
Gain/Loss Summary

	QTD	FYTD	1 YR
Total Retirement System			
Beginning Market Value	808,923,842	716,447,174	797,481,060
Net Contributions	-603,682	-5,630,507	-8,932,218
Return on Investment	4,724,774	103,184,004	26,001,483
Ending Market Value	812,358,503	812,358,503	812,358,503

Allocation

	Market Value	Allocation
Total Domestic Equity	397,157,250	48.9
Total International Equity	110,468,972	13.6
Total Other Equity	29,693,049	3.7
Total Core Fixed Income	47,790,374	5.9
Total Non Core Fixed Income	37,007,305	4.6
Total Other Fixed Income	26,442,118	3.3
Total Real Estate	75,577,842	9.3
Total Timber Funds	21,679,693	2.7
Total Multi Asset Funds	41,836,645	5.2
Cash Account	21,780,525	2.7
Cash Account PE	-	0.0
Retiree Death Benefit Account	1,486,694	0.2
APRS Building	1,438,036	0.2

Comparative Performance



Market values subject to availability from Northern Trust and individual managers.
All performance data is Net of Fees. Please refer to the end of the report for Investment Pricing Summary and Additional Notes.



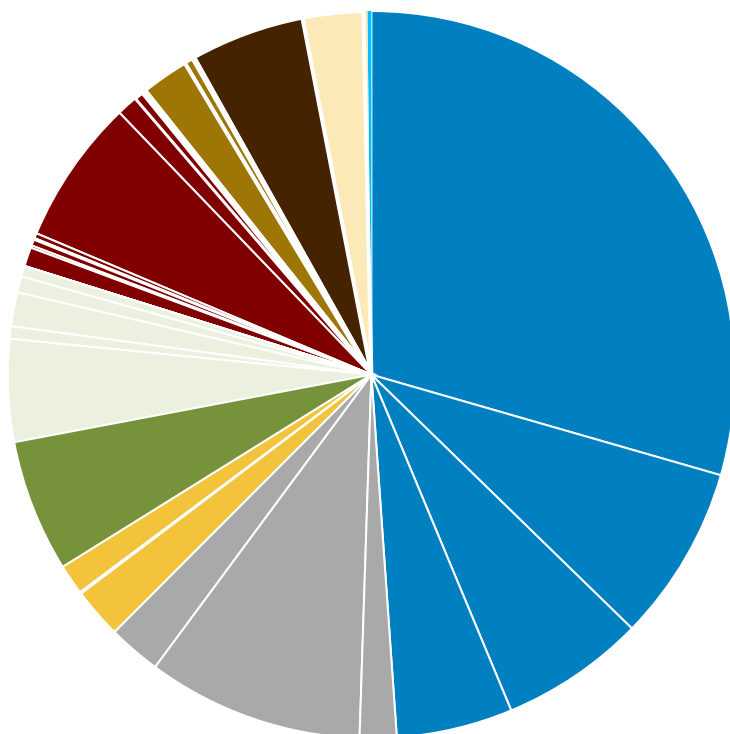
Asset Allocation by Manager Total Fund

As of September 30, 2019

September 30, 2019 : \$812,358,503

Allocation

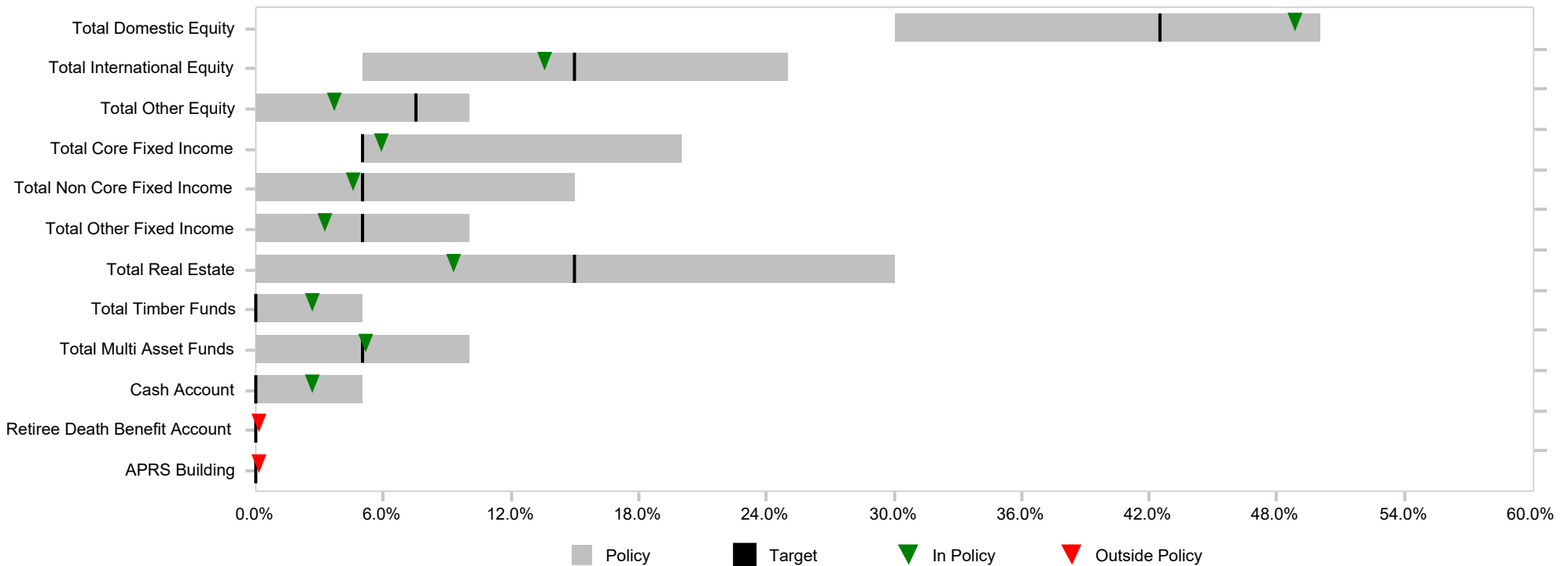
	Market Value	Allocation
NT Collective Russell 3000 Index	239,260,172	29.5
Baird Mid Cap Growth	63,648,284	7.8
Nuance Mid Cap Value	52,231,094	6.4
Kennedy Small Cap Value	42,017,700	5.2
Driehaus International Small Cap Growth	13,282,667	1.6
Thompson Siegel & Walmsley	78,138,667	9.6
LMSG Emerging Markets Fund	19,047,639	2.3
Huff Energy Fund	18,167,082	2.2
Sail Venture Fund I	1	0.0
Sail Venture Fund II	1	0.0
Sail Pre-Exit Acceleration Fund	1	0.0
Excelsior Investors, Ltd.	573,362	0.1
Franklin Park Private Equity	10,952,602	1.3
Orleans Capital	47,790,374	5.9
Templeton Global Multisector Plus	37,007,305	4.6
LBC Credit Partners III	4,507,027	0.6
LBC Credit Partners IV	12,219,231	1.5
Providence Debt Fund III	5,850,495	0.7
Capital Point Partners	3,817,848	0.5
Franchise Equity Capital Partners II	47,517	0.0
Rockspring Capital Land Funds (I - VI)	6,878,455	0.8
ARES Advisors (V & VI)	831,705	0.1
Edison Investments	2,183,102	0.3
India Property Fund	652,777	0.1
Gainesville Property	1,818,400	0.2
Morgan Stanley	52,392,772	6.4
AEW Partners Fund VIII	7,424,030	0.9
GreenOak US III	3,396,601	0.4
BTG Pactual 1	1,276,928	0.2
Capitol Timberland Investments	17,164,775	2.1
Domain Environmental Investments II	3,237,990	0.4
Double Eagle Capital Ace Fund, Ltd.	683,894	0.1
BlackRock Multi Asset Fund	41,152,751	5.1
Cash Account	21,780,525	2.7
Cash Account PE	-	0.0
Retiree Death Benefit Account	1,486,694	0.2
APRS Building	1,438,036	0.2



Market values subject to availability from Northern Trust and individual managers.
Please refer to the end of the report for Investment Pricing Summary and Additional Notes.



Executive Summary



Asset Allocation Compliance

	Asset Allocation \$	Current Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)
Total Retirement System	812,358,503	100.0	N/A	N/A	100.0
Total Domestic Equity	397,157,250	48.9	30.0	50.0	42.5
Total International Equity	110,468,972	13.6	5.0	25.0	15.0
Total Other Equity	29,693,049	3.7	0.0	10.0	7.5
Total Core Fixed Income	47,790,374	5.9	5.0	20.0	5.0
Total Non Core Fixed Income	37,007,305	4.6	0.0	15.0	5.0
Total Other Fixed Income	26,442,118	3.3	0.0	10.0	5.0
Total Real Estate	75,577,842	9.3	0.0	30.0	15.0
Total Timber Funds	21,679,693	2.7	0.0	5.0	0.0
Total Multi Asset Funds	41,836,645	5.2	0.0	10.0	5.0
Cash Account	21,780,525	2.7	0.0	5.0	0.0
Retiree Death Benefit Account	1,486,694	0.2	0.0	0.0	0.0
APRS Building	1,438,036	0.2	0.0	0.0	0.0



Financial Reconciliation Quarter to Date

	Market Value 07/01/2019	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 09/30/2019
Total Retirement System	808,923,842	-	15,434,701	-16,038,382	-568,002	-118,430	3,040,351	1,684,424	4,724,774	812,358,503
Total Equity	532,267,801	1,358,378	-	-	-368,378	-	526,031	3,535,439	4,061,470	537,319,271
Total Domestic Equity	391,862,309	262,553	-	-	-262,553	-	526,031	4,768,910	5,294,941	397,157,250
NT Collective Russell 3000 Index	236,495,317	11,825	-	-	-11,825	-	-	2,764,855	2,764,855	239,260,172
Baird Mid Cap Growth	62,402,053	106,097	-	-	-106,097	-	118,950	1,127,281	1,246,231	63,648,284
Nuance Mid Cap Value	50,585,585	43,236	-	-	-43,236	-	213,722	1,431,787	1,645,510	52,231,094
Kennedy Small Cap Value	42,379,355	101,395	-	-	-101,395	-	193,359	-555,014	-361,655	42,017,700
Total International Equity	111,702,443	-	-	-	-	-	-	-1,233,471	-1,233,471	110,468,972
Driehaus International Small Cap Growth	13,254,732	-	-	-	-	-	-	27,934	27,934	13,282,667
Thompson Siegel & Walmsley	78,363,327	-	-	-	-	-	-	-224,661	-224,661	78,138,667
LMSG Emerging Markets Fund	20,084,383	-	-	-	-	-	-	-1,036,744	-1,036,744	19,047,639
Total Other Equity	28,703,049	1,095,825	-	-	-105,825	-	-	-	-	29,693,049
Huff Energy Fund	18,167,082	-	-	-	-	-	-	-	-	18,167,082
Sail Venture Fund I	1	-	-	-	-	-	-	-	-	1
Sail Venture Fund II	1	-	-	-	-	-	-	-	-	1
Sail Pre-Exit Acceleration Fund	1	-	-	-	-	-	-	-	-	1
Excelsior Investors, Ltd.	573,362	-	-	-	-	-	-	-	-	573,362
Franklin Park Private Equity	9,962,602	1,095,825	-	-	-105,825	-	-	-	-	10,952,602
Total Fixed Income	116,942,585	-4,489,985	-	-	-63,874	-	1,290,961	-2,439,889	-1,148,928	111,239,798
Orleans Capital	46,754,751	17,533	-	-	-17,533	-	424,902	610,721	1,035,623	47,790,374
Templeton Global Mulisector Plus Trust	39,210,121	46,341	-	-	-46,341	-	-	-2,202,816	-2,202,816	37,007,305
Total Other Fixed Income	30,977,713	-4,553,859	-	-	-	-	866,059	-847,794	18,265	26,442,118
Capital Point Partners	3,817,848	-	-	-	-	-	-	-	-	3,817,848
Franchise Equity Capital Partners II	248,079	-218,827	-	-	-	-	183,072	-164,807	18,265	47,517
LBC Credit Partners III	5,703,585	-1,196,558	-	-	-	-	162,200	-162,200	-	4,507,027
LBC Credit Partners IV	13,833,219	-1,613,988	-	-	-	-	307,558	-307,558	-	12,219,231
Providence Debt Fund III	7,374,982	-1,524,487	-	-	-	-	213,229	-213,229	-	5,850,495

Please refer to the end of the report for additional notes.



Financial Reconciliation

Total Fund

1 Quarter Ending September 30, 2019

	Market Value 07/01/2019	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 09/30/2019
Total Real Estate & Timber	94,978,182	1,331,378	-	-	-135,750	-36,504	516,606	603,622	1,120,228	97,257,535
Total Real Estate	73,669,487	1,287,278	-	-	-91,650	-36,504	516,606	232,624	749,230	75,577,842
Rockspring Capital Land Funds (I - VI)	6,895,949	-	-	-	-	-	-	-17,495	-17,495	6,878,455
Rockspring Capital Land Fund I	465,471	-	-	-	-	-	-	-2,446	-2,446	463,025
Rockspring Capital Land Fund II	1,323,979	-	-	-	-	-	-	-10,718	-10,718	1,313,261
Rockspring Capital Land Fund III	1,061,535	-	-	-	-	-	-	-1,152	-1,152	1,060,383
Rockspring Capital Land Fund V	2,754,910	-	-	-	-	-	-	-9,251	-9,251	2,745,659
Rockspring Capital Land Fund VI	1,290,055	-	-	-	-	-	-	6,072	6,072	1,296,127
ARES Advisors (V & VI)	809,144	-	-	-	-	-	-	22,561	22,561	831,705
ARES Value Enhancement Fund V	74,015	-	-	-	-	-	-	728	728	74,744
ARES Value Enhancement Fund VI	735,129	-	-	-	-	-	-	21,832	21,832	756,961
INVESCO Real Estate Funds (I & II)	26,531	-25,696	-	-	-	-	-	-835	-835	-
INVESCO Real Estate Fund II	26,531	-25,696	-	-	-	-	-	-835	-835	-
Edison Investments	2,174,630	-7,114	-	-	-	-	7,114	8,472	15,586	2,183,102
India Property Fund	652,777	-	-	-	-	-	-	-	-	652,777
Gainesville Property	1,818,400	14,729	-	-	-	-14,729	-	-	-	1,818,400
Morgan Stanley	51,663,359	-	-	-	-	-	509,492	219,921	729,413	52,392,772
AEW Partners Fund VIII	6,902,718	521,312	-	-	-	-	-	-	-	7,424,030
GreenOak US III	2,725,979	784,047	-	-	-91,650	-21,775	-	-	-	3,396,601
Total Timber Funds	21,308,695	44,100	-	-	-44,100	-	-	370,998	370,998	21,679,693
BTG Pactual (1, 2 & 3)	1,276,928	2,884	-	-	-2,884	-	-	-	-	1,276,928
BTG Pactual 1	1,276,928	2,884	-	-	-2,884	-	-	-	-	1,276,928
Capitol Timberland Investments	16,793,777	41,216	-	-	-41,216	-	-	370,998	370,998	17,164,775
Domain Environmental Investments II	3,237,990	-	-	-	-	-	-	-	-	3,237,990

Please refer to the end of the report for additional notes.



Financial Reconciliation

Total Fund

1 Quarter Ending September 30, 2019

	Market Value 07/01/2019	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 09/30/2019
Total Multi Asset Funds	57,127,843	-15,907,651	-	-	-	-	631,202	-14,749	616,453	41,836,645
Double Eagle Capital Ace Fund, Ltd.	12,466,630	-11,782,737	-	-	-	-	-	-	-	683,894
BlackRock Multi Asset Fund	44,661,212	-4,124,914	-	-	-	-	631,202	-14,749	616,453	41,152,751
Cash Account	4,716,434	17,707,881	15,378,886	-16,008,382	-	-81,926	67,633	-	67,633	21,780,525
Cash Account PE	-	-	-	-	-	-	-	-	-	-
Retiree Death Benefit Account	1,452,962	-	55,815	-30,000	-	-	7,917	-	7,917	1,486,694
APRS Building	1,438,036	-	-	-	-	-	-	-	-	1,438,036

Please refer to the end of the report for additional notes.



Financial Reconciliation Year to Date

	Market Value 01/01/2019	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 09/30/2019
Total Retirement System	716,447,174	-	43,689,313	-49,319,820	-1,424,081	-218,088	8,926,380	94,257,625	103,184,004	812,358,503
Total Equity	447,486,822	1,125,906	-	-	-977,948	-12,376	1,844,121	87,852,746	89,696,866	537,319,271
Total Domestic Equity	331,905,829	-4,382,334	-	-	-747,123	-	1,812,660	68,568,218	70,380,878	397,157,250
NT Collective Russell 3000 Index	203,581,085	-5,095,843	-	-	-33,614	-	957	40,807,587	40,808,544	239,260,172
Baird Mid Cap Growth	49,174,534	292,043	-	-	-292,043	-	362,922	14,110,828	14,473,750	63,648,284
Nuance Mid Cap Value	-	47,969,837	-	-	-56,186	-	705,265	3,612,178	4,317,443	52,231,094
Seizert Mid Cap Value	42,823,370	-47,847,055	-	-	-66,596	-	127,895	4,962,386	5,090,281	-
Kennedy Small Cap Value	36,326,840	298,684	-	-	-298,684	-	615,620	5,075,240	5,690,860	42,017,700
Total International Equity	100,707,860	-621	-	-	-	-	621	9,761,112	9,761,733	110,468,972
Driehaus International Small Cap Growth	11,355,213	-621	-	-	-	-	621	1,927,453	1,928,074	13,282,667
Thompson Siegel & Walmsley	70,752,231	-	-	-	-	-	-	7,386,436	7,386,436	78,138,667
LMCG Emerging Markets Fund	18,600,416	-	-	-	-	-	-	447,223	447,223	19,047,639
Total Other Equity	14,873,133	5,508,861	-	-	-230,825	-12,376	30,840	9,523,416	9,554,256	29,693,049
Huff Energy Fund	9,063,469	-	-	-	-	-	-	9,103,613	9,103,613	18,167,082
Sail Venture Fund I	1	-	-	-	-	-	-	-	-	1
Sail Venture Fund II	1	-	-	-	-	-	-	-	-	1
Sail Pre-Exit Acceleration Fund	1	-	-	-	-	-	-	-	-	1
Excelsior Investors, Ltd.	626,646	-30,840	-	-	-	-	30,840	-53,284	-22,444	573,362
Franklin Park Private Equity	5,183,015	5,539,701	-	-	-230,825	-12,376	-	473,087	473,087	10,952,602
Total Fixed Income	112,553,086	-4,780,316	-	-	-174,642	-	3,425,269	216,400	3,641,669	111,239,798
Orleans Capital	44,093,031	50,904	-	-	-50,904	-	1,259,959	2,437,384	3,697,343	47,790,374
Templeton Global Multisector Plus	37,805,826	136,217	-	-	-136,217	-	-	-798,521	-798,521	37,007,305
Total Other Fixed Income	30,654,229	-4,967,436	-	-	12,479	-	2,165,310	-1,422,463	742,847	26,442,118
Capital Point Partners	3,998,502	-282,371	-	-	-	-	282,371	-180,654	101,717	3,817,848
Franchise Equity Capital Partners II	243,804	-263,377	-	-	-	-	207,822	-140,732	67,090	47,517
LBC Credit Partners III	7,058,663	-2,460,482	-	-	12,479	-	390,298	-493,931	-103,633	4,507,027
LBC Credit Partners IV	11,239,261	648,783	-	-	-	-	644,343	-313,156	331,187	12,219,231
Providence Debt Fund III	8,114,000	-2,609,990	-	-	-	-	640,476	-293,991	346,485	5,850,495

Please refer to the end of the report for additional notes.



Financial Reconciliation

Total Fund

Year To Date Ending September 30, 2019

	Market Value 01/01/2019	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 09/30/2019
Total Real Estate & Timber	91,371,553	2,626,651	-	-	-271,491	-45,025	1,524,373	2,051,474	3,575,847	97,257,535
Total Real Estate	70,397,552	2,765,850	-	-	-140,690	-45,025	1,524,373	1,075,782	2,600,155	75,577,842
Rockspring Capital Land Funds (I - VI)	8,809,174	-1,699,448	-	-	-	-	-	-231,272	-231,272	6,878,455
Rockspring Capital Land Fund I	477,809	-	-	-	-	-	-	-14,784	-14,784	463,025
Rockspring Capital Land Fund II	2,808,727	-1,176,966	-	-	-	-	-	-318,500	-318,500	1,313,261
Rockspring Capital Land Fund III	1,065,602	-	-	-	-	-	-	-5,219	-5,219	1,060,383
Rockspring Capital Land Fund V	3,139,057	-495,929	-	-	-	-	-	102,531	102,531	2,745,659
Rockspring Capital Land Fund VI	1,317,979	-26,553	-	-	-	-	-	4,700	4,700	1,296,127
ARES Advisors (V & VI)	762,583	-	-	-	-	-	-	69,122	69,122	831,705
ARES Value Enhancement Fund V	73,998	-	-	-	-	-	-	746	746	74,744
ARES Value Enhancement Fund VI	688,585	-	-	-	-	-	-	68,376	68,376	756,961
INVESCO Real Estate Funds (I & II)	26,898	-25,696	-	-	-	-	-	-1,202	-1,202	-
INVESCO Real Estate Fund II	26,898	-25,696	-	-	-	-	-	-1,202	-1,202	-
Edison Investments	2,157,705	-21,342	-	-	-	-	21,342	25,397	46,739	2,183,102
India Property Fund	676,548	-	-	-	-	-	-	-23,771	-23,771	652,777
Gainesville Property	1,818,400	16,195	-	-	-	-16,195	-	-	-	1,818,400
Morgan Stanley	50,104,031	-	-	-	-	-	1,503,031	785,710	2,288,741	52,392,772
AEW Partners Fund VIII	4,323,989	2,568,628	-	-	-	-	-	531,413	531,413	7,424,030
GreenOak US III	1,718,224	1,927,513	-	-	-140,690	-28,830	-	-79,616	-79,616	3,396,601
Total Timber Funds	20,974,001	-139,199	-	-	-130,801	-	-	975,692	975,692	21,679,693
BTG Pactual 1	1,250,984	8,822	-	-	-8,822	-	-	25,944	25,944	1,276,928
Capitol Timberland Investments	16,326,965	82,033	-	-	-82,033	-	-	837,810	837,810	17,164,775
Domain Environmental Investments II	3,396,052	-230,054	-	-	-39,946	-	-	111,938	111,938	3,237,990

Please refer to the end of the report for additional notes.



Financial Reconciliation

Total Fund

Year To Date Ending September 30, 2019

	Market Value 01/01/2019	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 09/30/2019
Total Multi Asset Funds	62,087,711	-26,371,423	-	-	-	-	1,983,351	4,137,005	6,120,357	41,836,645
Double Eagle Capital Ace Fund, Ltd.	11,802,108	-11,782,737	-	-	-	-	-	664,523	664,523	683,894
BlackRock Multi Asset Fund	50,285,603	-14,588,686	-	-	-	-	1,983,351	3,472,483	5,455,834	41,152,751
Cash Account	110,402	27,399,181	43,530,705	-49,224,204	-	-160,686	125,127	-1	125,126	21,780,525
Cash Account PE	-	-	-	-	-	-	-	-	-	-
Retiree Death Benefit Account	1,399,563	-	158,608	-95,616	-	-	24,139	-	24,139	1,486,694
APRS Building	1,438,036	-	-	-	-	-	-	-	-	1,438,036

Please refer to the end of the report for additional notes.



Comparative Performance Trailing Returns

	Performance (%)								Inception Date
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	
Total Retirement System (Net)	0.51	14.17	3.07	6.76	5.27	6.23	5.62	8.01	10/01/1992
Total Retirement System (Gross)	0.58 (67)	14.38 (16)	3.32 (76)	7.02 (80)	5.52 (84)	6.53 (88)	6.06 (95)	8.32 (22)	10/01/1992
Total Fund Policy	0.85	13.29	4.11	8.95	7.62	8.62	9.25	8.12	
Variance	-0.27	1.09	-0.79	-1.93	-2.10	-2.09	-3.19	0.20	
All Public Plans-Total Fund Median	0.83	12.90	4.31	8.01	6.45	7.74	8.17	7.73	
Total Equity	0.69	19.82	2.28	9.79	6.95	9.66	8.68	8.69	01/01/1994
Total Equity Policy	0.66	18.59	2.12	11.28	8.39	10.95	10.62	8.34	
Variance	0.03	1.23	0.16	-1.49	-1.44	-1.29	-1.94	0.35	
Domestic Equity	1.28 (35)	21.03 (30)	2.55 (36)	11.72 (39)	8.71 (48)	N/A	N/A	10.46 (47)	05/01/2013
Russell 3000 Index	1.16	20.09	2.92	12.83	10.44	13.00	13.08	12.08	
Variance	0.12	0.94	-0.37	-1.11	-1.73	N/A	N/A	-1.62	
IM U.S. Equity (SA+CF+MF) Median	0.40	18.25	0.18	10.24	8.55	11.45	11.91	10.19	
NT Collective Russell 3000 Index	1.16 (60)	20.12 (55)	2.95 (45)	12.86 (50)	10.47 (45)	N/A	N/A	10.32 (42)	01/01/2014
Russell 3000 Index	1.16	20.09	2.92	12.83	10.44	13.00	13.08	10.30	
Variance	0.00	0.03	0.03	0.03	0.03	N/A	N/A	0.02	
IM U.S. All Cap Core Equity (SA+CF) Median	1.60	20.49	2.76	12.80	10.12	13.10	12.75	9.84	
Baird Mid Cap Growth	1.83 (10)	28.80 (28)	8.77 (22)	17.31 (24)	11.21 (56)	N/A	N/A	10.29 (56)	07/01/2014
Russell Midcap Growth Index	-0.67	25.23	5.20	14.50	11.12	13.80	14.08	10.41	
Variance	2.50	3.57	3.57	2.81	0.09	N/A	N/A	-0.12	
IM U.S. Mid Cap Growth Equity (SA+CF) Median	-0.84	24.41	4.37	14.89	11.53	13.52	14.09	10.81	
Nuance Mid Cap Value	3.25 (14)	N/A	N/A	N/A	N/A	N/A	N/A	9.45 (5)	04/01/2019
Russell Midcap Value Index	1.22	19.47	1.60	7.82	7.55	11.63	12.29	4.45	
Variance	2.03	N/A	N/A	N/A	N/A	N/A	N/A	5.00	
IM U.S. Mid Cap Value Equity (SA+CF) Median	1.28	19.49	0.65	9.03	7.69	12.00	12.34	4.77	
Kennedy Small Cap Value	-1.09 (67)	14.84 (59)	-9.08 (70)	4.97 (85)	N/A	N/A	N/A	8.80 (86)	03/01/2016
Russell 2000 Value Index	-0.57	12.82	-8.24	6.54	7.17	9.35	10.06	11.71	
Variance	-0.52	2.02	-0.84	-1.57	N/A	N/A	N/A	-2.91	
IM U.S. Small Cap Value Equity (SA+CF) Median	-0.27	15.73	-6.71	7.10	7.68	10.97	11.74	11.29	

Returns for periods greater than one year are annualized. Returns are expressed as percentages. All performance data is Net of Fees. Please refer to the end of the report for additional notes.



Comparative Performance

Total Fund

As of September 30, 2019

	Performance (%)							Inception	Inception Date
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR		
International Equity	-1.10 (29)	9.69 (65)	-5.54 (79)	4.35 (71)	2.29 (67)	N/A	N/A	4.77 (32)	05/01/2013
MSCI AC World ex USA	-1.70	12.06	-0.72	6.85	3.39	5.50	4.93	3.94	
Variance	0.60	-2.37	-4.82	-2.50	-1.10	N/A	N/A	0.83	
IM International Equity (SA+CF+MF) Median	-1.88	11.47	-1.78	5.72	3.15	5.47	5.14	3.79	
Driehaus International Small Cap Growth	0.21 (7)	16.98 (13)	-3.49 (30)	7.84 (18)	7.24 (14)	9.34 (18)	N/A	9.85 (17)	09/01/2012
MSCI AC World ex USA Small Growth	-1.28	12.34	-5.35	5.03	4.89	6.53	6.92	7.18	
Variance	1.49	4.64	1.86	2.81	2.35	2.81	N/A	2.67	
IM International SMID Cap Growth Equity (MF) Median	-2.06	12.26	-6.50	5.13	4.95	6.97	7.53	7.49	
Thompson Siegel & Walmsley	-0.29 (25)	10.44 (85)	-5.30 (88)	4.01 (95)	2.41 (92)	N/A	N/A	2.41 (92)	10/01/2014
MSCI EAFE (Net) Index	-1.07	12.80	-1.34	6.48	3.27	6.12	4.90	3.27	
Variance	0.78	-2.36	-3.96	-2.47	-0.86	N/A	N/A	-0.86	
IM International Large Cap Core Equity (SA+CF) Median	-1.42	13.38	-1.56	6.45	3.87	6.82	6.26	3.87	
LMCG Emerging Markets Fund	-5.16 (85)	2.40 (90)	-7.14 (98)	3.38 (88)	-0.09 (95)	N/A	N/A	0.49 (97)	04/01/2014
MSCI Emerging Markets Index	-4.11	6.23	-1.63	6.37	2.71	2.79	3.73	3.03	
Variance	-1.05	-3.83	-5.51	-2.99	-2.80	N/A	N/A	-2.54	
IM Emerging Markets Equity (SA+CF) Median	-3.64	8.12	0.05	5.96	3.07	4.09	5.01	3.50	
Total Other Equity	-0.37	62.45	59.78	N/A	N/A	N/A	N/A	1.39	01/01/2017
Huff Energy Fund									
Excelsior Investors, Ltd.									
Franklin Park Private Equity									
Sail Venture Fund I									
Sail Venture Fund II									
Sail Pre-Exit Acceleration Fund									

Returns for periods greater than one year are annualized. Returns are expressed as percentages. All performance data is Net of Fees. Please refer to the end of the report for additional notes.



Comparative Performance

Total Fund

As of September 30, 2019

	Performance (%)								Inception	Inception Date
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR			
Total Fixed Income	-1.07	3.08	3.96	2.00	1.65	1.54	3.56	6.61	12/01/1993	
Total Fixed Income Policy	1.45	7.48	8.91	2.38	2.77	2.07	3.16	5.04		
Variance	-2.52	-4.40	-4.95	-0.38	-1.12	-0.53	0.40	1.57		
Orleans Capital	2.18 (86)	8.26 (90)	9.48 (93)	3.08 (77)	3.52 (80)	N/A	N/A	3.73 (79)	01/01/2014	
Blmbg. Barc. U.S. Aggregate Index	2.27	8.52	10.30	2.92	3.38	2.72	3.75	3.65		
Variance	-0.09	-0.26	-0.82	0.16	0.14	N/A	N/A	0.08		
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	2.34	9.01	10.48	3.38	3.76	3.13	4.37	4.08		
Templeton Global Multisector Plus Trust	-5.74 (100)	-2.46 (100)	-0.40 (100)	2.34 (50)	0.41 (99)	N/A	N/A	0.99 (93)	03/01/2014	
Blmbg. Barc. Global Multiverse	0.63	6.45	7.54	1.81	2.14	1.40	2.55	1.77		
Variance	-6.37	-8.91	-7.94	0.53	-1.73	N/A	N/A	-0.78		
IM Global Fixed Income (MF) Median	1.01	7.12	7.65	2.29	2.16	1.70	3.03	2.01		
Total Other Fixed Income	0.07	2.69	1.28	N/A	N/A	N/A	N/A	1.25	01/01/2017	
Capital Point Partners										
Franchise Equity Capital Partners II										
LBC Credit Partners III										
LBC Credit Partners IV										
Providence Debt Fund III										

Returns for periods greater than one year are annualized. Returns are expressed as percentages. All performance data is Net of Fees. Please refer to the end of the report for additional notes.



Comparative Performance

Total Fund

As of September 30, 2019

	Performance (%)								Inception Date
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	
Alternative Investments									
Multi Asset Funds	1.16	10.47	5.41	3.82	1.03	2.07	3.56	5.73	12/01/2008
HFRI Fund of Funds Composite Index	-0.82	5.29	0.08	3.18	1.96	3.19	2.68	3.22	
Variance	1.98	5.18	5.33	0.64	-0.93	-1.12	0.88	2.51	
Double Eagle Capital Ace Fund, Ltd.	0.00	5.63	2.93	2.85	1.01	3.27	N/A	3.32	09/01/2010
HFRI Fund of Funds Composite Index	-0.82	5.29	0.08	3.18	1.96	3.19	2.68	2.83	
Variance	0.82	0.34	2.85	-0.33	-0.95	0.08	N/A	0.49	
BlackRock Multi Asset Fund	1.23	11.38	6.37	N/A	N/A	N/A	N/A	3.39	02/01/2018
BlackRock Multi Hybrid	1.43	13.22	6.40	N/A	N/A	N/A	N/A	3.72	
Variance	-0.20	-1.84	-0.03	N/A	N/A	N/A	N/A	-0.33	
Other Assets									
Cash Account	0.55	1.69	2.24	1.42	0.89	0.65	0.53	4.49	06/01/1988
Cash Account PE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	03/01/2014
Retiree Death Benefit Account	0.54	1.69	2.23	1.42	0.89	0.65	0.59	1.42	12/01/2004
Other Alternative Assets									
Total Real Estate	0.88	3.42	4.15	3.30	4.96	8.44	5.47	3.94	08/01/2005
NCREIF Property Index	1.41	4.80	6.24	6.76	8.57	9.29	9.77	8.02	
Variance	-0.53	-1.38	-2.09	-3.46	-3.61	-0.85	-4.30	-4.08	
Total Timber Funds	1.53	4.04	5.38	-2.61	0.27	0.30	-0.18	1.86	08/01/2005
NCREIF Timberland Index	0.18	1.34	2.10	3.12	4.36	5.95	3.97	6.50	
Variance	1.35	2.70	3.28	-5.73	-4.09	-5.65	-4.15	-4.64	

Returns for periods greater than one year are annualized. Returns are expressed as percentages. All performance data is Net of Fees. Please refer to the end of the report for additional notes.



Comparative Performance Fiscal Year Returns

	Performance (%)									
	YTD	2018	2017	2016	2015	2014	2013	2012	2011	
Total Retirement System (Net)	14.17	-6.18	11.89	7.67	-1.05	5.61	10.66	8.79	-3.16	
Total Retirement System (Gross)	14.38 (16)	-5.95 (87)	12.17 (84)	7.87 (40)	-0.83 (67)	5.94 (65)	11.16 (83)	9.31 (90)	-2.68 (97)	
Total Fund Policy	13.29	-3.12	15.79	8.04	2.43	8.08	17.56	11.31	4.69	
Variance	1.09	-2.83	-3.62	-0.17	-3.26	-2.14	-6.40	-2.00	-7.37	
All Public Plans-Total Fund Median	12.90	-4.15	15.21	7.46	-0.14	6.62	15.90	12.59	0.47	
Total Equity	19.82	-9.83	18.49	11.41	-2.87	5.30	29.57	10.82	-8.56	
Total Equity Policy	18.59	-7.34	22.07	9.61	-0.51	6.91	29.57	16.70	-3.34	
Variance	1.23	-2.49	-3.58	1.80	-2.36	-1.61	0.00	-5.88	-5.22	
Domestic Equity	21.03 (30)	-7.18 (49)	17.39 (54)	15.76 (32)	-3.09 (63)	8.03 (58)	N/A	N/A	N/A	
Russell 3000 Index	20.09	-5.24	21.13	12.74	0.48	12.56	33.55	16.42	1.03	
Variance	0.94	-1.94	-3.74	3.02	-3.57	-4.53	N/A	N/A	N/A	
IM U.S. Equity (SA+CF+MF) Median	18.25	-7.41	18.18	11.73	-1.47	9.18	33.88	15.25	-1.67	
NT Collective Russell 3000 Index	20.12 (55)	-5.23 (51)	21.15 (48)	12.79 (47)	0.49 (50)	12.55 (32)	N/A	N/A	N/A	
Russell 3000 Index	20.09	-5.24	21.13	12.74	0.48	12.56	33.55	16.42	1.03	
Variance	0.03	0.01	0.02	0.05	0.01	-0.01	N/A	N/A	N/A	
IM U.S. All Cap Core Equity (SA+CF) Median	20.49	-5.19	20.91	12.17	0.45	10.80	35.95	15.97	0.32	
Baird Mid Cap Growth	28.80 (28)	-1.60 (32)	26.98 (30)	5.35 (54)	-3.03 (81)	N/A	N/A	N/A	N/A	
Russell Midcap Growth Index	25.23	-4.75	25.27	7.33	-0.20	11.90	35.74	15.81	-1.65	
Variance	3.57	3.15	1.71	-1.98	-2.83	N/A	N/A	N/A	N/A	
IM U.S. Mid Cap Growth Equity (SA+CF) Median	24.41	-4.30	25.42	5.64	1.04	8.69	36.42	15.13	-0.95	
Nuance Mid Cap Value	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Russell Midcap Value Index	19.47	-12.29	13.34	20.00	-4.78	14.75	33.46	18.51	-1.38	
Variance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
IM U.S. Mid Cap Value Equity (SA+CF) Median	19.49	-12.55	15.63	18.22	-3.21	11.86	36.47	17.14	-0.92	
Kennedy Small Cap Value	14.84 (59)	-19.83 (93)	12.51 (42)	N/A	N/A	N/A	N/A	N/A	N/A	
Russell 2000 Value Index	12.82	-12.86	7.84	31.74	-7.47	4.22	34.52	18.05	-5.50	
Variance	2.02	-6.97	4.67	N/A	N/A	N/A	N/A	N/A	N/A	
IM U.S. Small Cap Value Equity (SA+CF) Median	15.73	-14.26	11.56	26.14	-4.29	5.71	38.07	17.55	-3.20	

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Comparative Performance

Total Fund

As of September 30, 2019

	Performance (%)								
	YTD	2018	2017	2016	2015	2014	2013	2012	2011
International Equity	9.69 (65)	-16.28 (56)	27.37 (61)	0.67 (64)	-2.40 (52)	-0.27 (24)	N/A	N/A	N/A
MSCI AC World ex USA	12.06	-13.78	27.77	5.01	-5.25	-3.44	15.78	17.39	-13.33
Variance	-2.37	-2.50	-0.40	-4.34	2.85	3.17	N/A	N/A	N/A
IM International Equity (SA+CF+MF) Median	11.47	-15.75	29.33	2.38	-2.11	-3.96	18.17	18.89	-14.30
Driehaus International Small Cap Growth	16.98 (13)	-16.92 (30)	41.19 (7)	-6.24 (88)	12.59 (12)	-4.32 (41)	29.24 (32)	N/A	N/A
MSCI AC World ex USA Small Growth	12.34	-18.07	33.99	-0.04	6.74	-3.35	18.80	17.17	-17.67
Variance	4.64	1.15	7.20	-6.20	5.85	-0.97	10.44	N/A	N/A
IM International SMID Cap Growth Equity (MF) Median	12.26	-19.39	34.36	-0.83	6.87	-4.87	26.50	21.70	-15.17
Thompson Siegel & Walmsley	10.44 (85)	-15.93 (70)	22.70 (92)	0.47 (65)	1.38 (36)	N/A	N/A	N/A	N/A
MSCI EAFE (Net) Index	12.80	-13.79	25.03	1.00	-0.81	-4.90	22.78	17.32	-12.14
Variance	-2.36	-2.14	-2.33	-0.53	2.19	N/A	N/A	N/A	N/A
IM International Large Cap Core Equity (SA+CF) Median	13.38	-14.64	26.48	1.52	0.25	-3.70	23.31	19.46	-12.31
LMCG Emerging Markets Fund	2.40 (90)	-16.89 (69)	35.93 (56)	7.14 (71)	-18.73 (95)	N/A	N/A	N/A	N/A
MSCI Emerging Markets Index	6.23	-14.25	37.75	11.60	-14.60	-1.82	-2.27	18.64	-18.17
Variance	-3.83	-2.64	-1.82	-4.46	-4.13	N/A	N/A	N/A	N/A
IM Emerging Markets Equity (SA+CF) Median	8.12	-15.24	36.81	10.32	-12.64	-0.09	0.98	20.52	-18.06
Total Other Equity	62.45	-22.42	-17.60	N/A	N/A	N/A	N/A	N/A	N/A
Huff Energy Fund									
Excelsior Investors, Ltd.									
Franklin Park Private Equity									
Sail Venture Fund I									
Sail Venture Fund II									
Sail Pre-Exit Acceleration Fund									

Returns for periods greater than one year are annualized. Returns are expressed as percentages. All performance data is Net of Fees. Please refer to the end of the report for additional notes.



Comparative Performance

Total Fund

As of September 30, 2019

	Performance (%)								
	YTD	2018	2017	2016	2015	2014	2013	2012	2011
Total Fixed Income	3.08	0.06	2.86	4.36	-0.97	1.69	-3.42	13.45	-1.20
Total Fixed Income Policy	7.48	-0.66	5.60	2.77	-1.37	3.20	-2.10	4.54	6.72
Variance	-4.40	0.72	-2.74	1.59	0.40	-1.51	-1.32	8.91	-7.92
Orleans Capital	8.26 (90)	0.07 (49)	3.87 (61)	3.79 (29)	0.57 (73)	5.08 (94)	N/A	N/A	N/A
Blmbg. Barc. U.S. Aggregate Index	8.52	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	7.84
Variance	-0.26	0.06	0.33	1.14	0.02	-0.89	N/A	N/A	N/A
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	9.01	0.07	4.06	3.12	0.83	6.17	-1.56	5.90	7.84
Templeton Global Multisector Plus Trust	-2.46 (100)	-0.11 (19)	3.84 (82)	7.33 (8)	-4.27 (62)	N/A	N/A	N/A	N/A
Blmbg. Barc. Global Multiverse	6.45	-1.36	7.69	2.84	-3.29	0.48	-2.19	4.84	5.55
Variance	-8.91	1.25	-3.85	4.49	-0.98	N/A	N/A	N/A	N/A
IM Global Fixed Income (MF) Median	7.12	-1.75	6.81	2.92	-3.83	1.91	-2.52	7.33	4.01
Total Other Fixed Income	2.69	1.27	-0.49	N/A	N/A	N/A	N/A	N/A	N/A

Capital Point Partners

Franchise Equity Capital Partners II

LBC Credit Partners III

LBC Credit Partners IV

Providence Debt Fund III

Returns for periods greater than one year are annualized. Returns are expressed as percentages. All performance data is Net of Fees. Please refer to the end of the report for additional notes.



Comparative Performance

Total Fund

As of September 30, 2019

	Performance (%)								
	YTD	2018	2017	2016	2015	2014	2013	2012	2011
Alternative Investments									
Multi Asset Funds	10.47	-2.74	0.81	0.37	-1.70	-6.00	12.18	9.71	-4.32
HFRI Fund of Funds Composite Index	5.29	-4.02	7.77	0.51	-0.27	3.37	8.96	4.79	-5.72
Variance	5.18	1.28	-6.96	-0.14	-1.43	-9.37	3.22	4.92	1.40
Double Eagle Capital Ace Fund, Ltd.	5.63	-1.09	0.81	-1.53	0.78	0.17	16.13	8.92	-6.81
HFRI Fund of Funds Composite Index	5.29	-4.02	7.77	0.51	-0.27	3.37	8.96	4.79	-5.72
Variance	0.34	2.93	-6.96	-2.04	1.05	-3.20	7.17	4.13	-1.09
BlackRock Multi Asset Fund	11.38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BlackRock Multi Hybrid	13.22	-4.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Variance	-1.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other Assets									
Cash Account	1.69	1.72	0.76	0.27	0.01	0.06	0.02	0.59	-0.21
Cash Account PE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Retiree Death Benefit Account	1.69	1.72	0.77	0.27	0.02	0.01	0.01	0.15	1.24
Other Alternative Assets									
Total Real Estate	3.42	5.14	2.90	0.76	5.40	31.16	10.25	7.49	6.25
NCREIF Property Index	4.80	6.72	6.96	7.97	13.33	11.82	10.98	10.54	14.26
Variance	-1.38	-1.58	-4.06	-7.21	-7.93	19.34	-0.73	-3.05	-8.01
Total Timber Funds	4.04	0.13	-3.94	-6.92	1.93	10.81	-4.18	0.02	-1.33
NCREIF Timberland Index	1.34	3.21	3.63	2.59	4.97	10.48	9.69	7.75	1.57
Variance	2.70	-3.08	-7.57	-9.51	-3.04	0.33	-13.87	-7.73	-2.90

Returns for periods greater than one year are annualized. Returns are expressed as percentages. All performance data is Net of Fees. Please refer to the end of the report for additional notes.



Comparative Performance - IRR
Other Alternative Investments
As of September 30, 2019

Comparative Performance - IRR									
	Market Value (\$)	MTH	QTR	YTD	1 YR	3 YR	5 YR	Inception IRR	Inception Date
Total Real Estate Investments	75,577,842	0.99	0.83	3.36	4.03	3.13	5.34	6.77	07/31/2005
Edison Investments	2,183,102	0.39	0.72	2.18	2.91	10.11	11.73	12.06	09/30/1996
ARES Advisors (V & VI)	831,705	2.77	2.79	9.06	11.39	21.46	19.73	4.00	05/31/2002
Rockspring Capital Land Funds (I - VI)	6,878,455	-0.25	-0.25	-2.88	-9.86	-7.46	-0.59	1.23	11/30/2003
India Property Fund	652,777	0.00	0.00	-3.51	-33.48	-21.93	-11.40	-5.47	05/24/2007
Gainesville Property	1,818,400	0.00	-0.81	-0.89	-0.89	-4.39	-2.65	-7.70	01/31/2008
Morgan Stanley	52,392,772	1.41	1.41	4.57	6.62	7.89	N/A	8.07	12/31/2015
AEW Partners Fund VIII	7,424,030	0.00	0.00	9.45	19.20	N/A	N/A	7.87	06/26/2017
GreenOak US III	3,396,601	0.00	-3.42	-9.18	-9.78	N/A	N/A	-21.61	06/22/2018
Total Timber Funds	21,679,693	1.74	1.53	4.04	5.38	-3.30	1.06	0.09	07/31/2005
BTG Pactual 1	1,276,928	0.00	-0.23	1.36	5.90	-18.03	-0.43	3.95	11/30/1996
Capitol Timberland Investments	17,164,775	2.21	1.96	4.62	6.13	-0.74	2.43	3.65	09/30/2004
Domain Environmental Investments II	3,237,990	0.00	0.00	2.19	1.52	-4.12	-3.45	-1.26	04/30/2008
Total Other Equity	29,693,049	0.00	-0.37	54.41	57.28	N/A	N/A	0.00	01/01/2017
Huff Energy Fund	18,167,082	0.00	0.00	100.44	100.44	11.46	4.30	6.92	12/31/2006
Excelsior Investors, Ltd.	573,362	0.00	0.00	-3.69	3.26	13.05	N/A	-6.65	12/31/2014
Franklin Park Private Equity	10,952,602	0.00	-1.05	3.01	-0.42	N/A	N/A	-1.99	01/31/2018
Sail Venture Fund I	1	0.00	0.00	0.00	0.00	-98.94	-93.65	-65.26	12/31/2008
Sail Venture Fund II	1	0.00	0.00	0.00	0.00	-98.54	-93.01	-86.18	02/28/2009
Sail Pre-Exit Acceleration Fund	1	0.00	0.00	0.00	0.00	-98.54	-92.99	-90.22	01/31/2013
Total Other Fixed Income	26,442,118	0.07	0.06	2.64	1.18	N/A	N/A	0.00	01/03/2017
Capital Point Partners	3,817,848	0.00	0.00	2.65	7.19	-14.87	-10.91	0.08	03/31/2007
Franchise Equity Capital Partners II	47,517	7.36	7.36	31.79	37.19	-5.86	-11.30	0.77	04/28/2008
LBC Credit Partners III	4,507,027	0.00	0.00	-1.54	-6.05	1.24	7.13	8.11	03/07/2014
LBC Credit Partners IV	12,219,231	0.00	0.00	2.88	5.24	8.63	N/A	8.61	09/19/2016
Providence Debt Fund III	5,850,495	0.00	0.00	4.86	-2.22	5.86	6.75	7.09	04/21/2014



**Summary of Partnerships
Other Alternative Investments
As of September 30, 2019**

Private Equity Summary of Partnership

Partnerships	Drawn Down \$	Market Value \$	Distributed \$	IRR (%)	TVPI Multiple
Total Real Estate Investments					
Edison Investments	8,146,177	2,183,102	19,878,487	12.1	2.7
ARES Value Enhancement Fund V	5,000,000	74,744	5,893,900	5.9	1.2
ARES Value Enhancement Fund VI	5,000,000	756,961	5,837,197	3.2	1.3
Rockspring Capital Land Fund I	3,618,330	463,025	4,738,306	10.1	1.4
Rockspring Capital Land Fund II	7,870,282	1,313,261	8,961,066	2.7	1.3
Rockspring Capital Land Fund III	5,125,000	1,060,383	5,898,227	3.4	1.4
Rockspring Capital Land Fund IV	7,615,498	-	9,438,696	3.0	1.2
Rockspring Capital Land Fund V	5,165,128	2,745,659	3,418,960	1.6	1.2
Rockspring Capital Land Fund VI	3,502,221	1,296,127	1,779,021	-1.3	0.9
India Property Fund	4,354,162	652,777	2,339,421	-5.5	0.7
Gainesville Property	5,449,145	1,818,400	570,711	-7.7	0.4
Morgan Stanley	40,000,000	52,392,772	-	8.1	1.3
AEW Partners Fund VIII	8,916,268	7,424,030	2,108,580	7.9	1.1
GreenOak US III	4,118,022	3,396,601	-	-21.6	0.8
Total Timber Investments					
BTG Pactual 1	8,805,187	1,276,928	14,412,803	3.6	1.8
Capitol Timberland Investments	14,348,467	17,164,775	3,918,545	3.7	1.5
Domain Environmental Investments II	7,580,288	3,237,990	3,726,648	-1.3	0.9



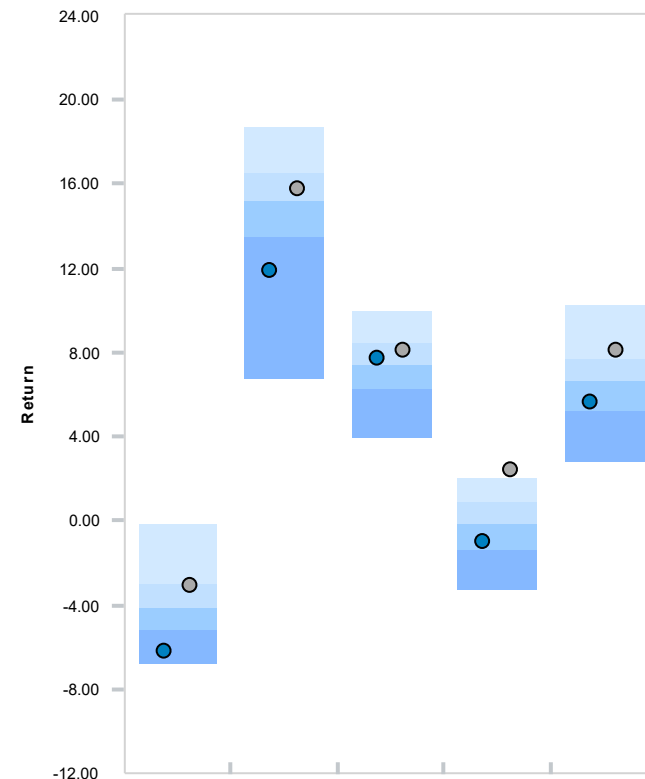
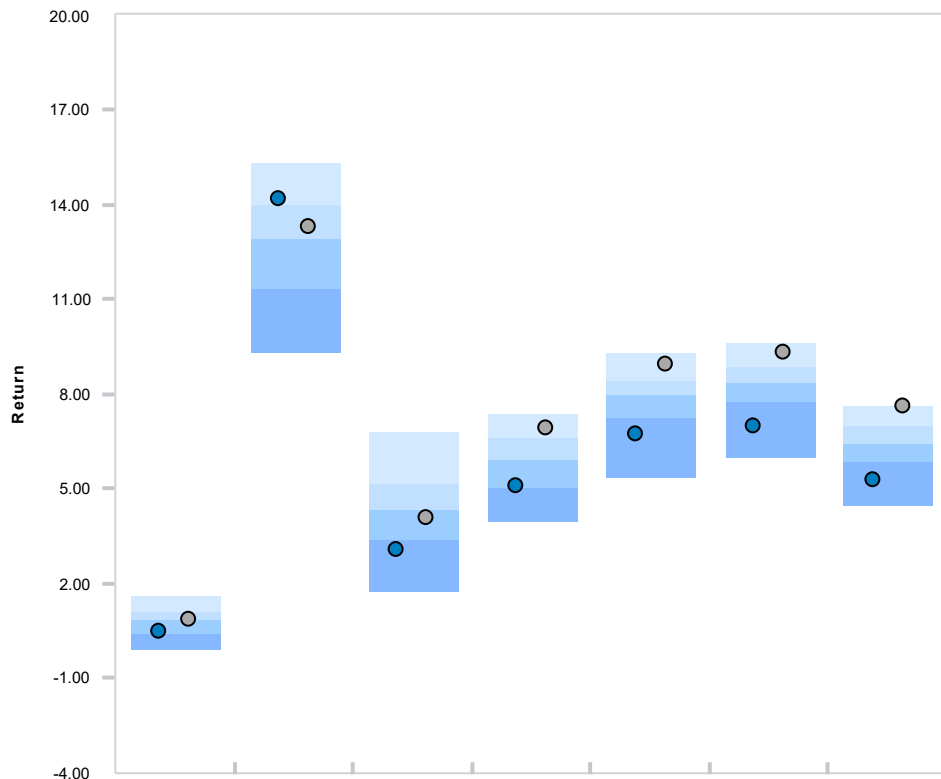
**Summary of Partnerships
Other Alternative Investments**

As of September 30, 2019

Partnerships	Drawn Down \$	Market Value \$	Distributed \$	IRR (%)	TVPI Multiple
Total Other Equity					
Huff Energy Fund	11,095,509	18,167,082	1,786,358	6.9	1.8
Excelsior Investors, Ltd.	1,018,466	573,362	177,395	-6.6	0.7
Franklin Park Private Equity	11,119,521	10,952,602	18,581	-2.0	1.0
Sail Venture Fund I	5,000,000	1	343,503	-65.3	0.1
Sail Venture Fund II	5,366,749	1	688,247	-86.2	0.1
Sail Pre-Exit Acceleration Fund	4,947,894	1	-	-90.2	0.0
Total Other Fixed Income					
Capital Point Partners	12,058,210	3,817,848	8,286,461	0.1	1.0
Franchise Equity Capital Partners II	14,663,847	47,517	15,028,739	0.8	1.0
LBC Credit Partners III	18,837,140	4,507,027	18,090,827	8.1	1.2
LBC Credit Partners IV	17,000,000	12,219,231	6,584,770	8.6	1.1
Providence Debt Fund III	10,017,001	5,850,495	6,833,358	7.1	1.3



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



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Total Retirement System	0.51 (72)	14.17 (20)	3.07 (79)	5.11 (74)	6.76 (86)	7.01 (91)	5.27 (89)
● Total Fund Policy	0.85 (49)	13.29 (43)	4.11 (56)	6.93 (13)	8.95 (12)	9.30 (9)	7.62 (5)
Median	0.83	12.90	4.31	5.90	8.01	8.35	6.45

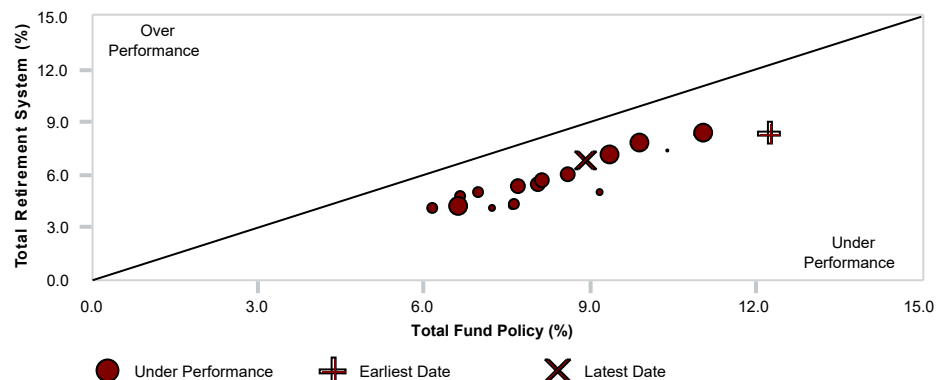
	2018	2017	2016	2015	2014
● Total Retirement System	-6.18 (90)	11.89 (85)	7.67 (44)	-1.05 (71)	5.61 (70)
● Total Fund Policy	-3.12 (28)	15.79 (40)	8.04 (36)	2.43 (4)	8.08 (20)
Median	-4.15	15.21	7.46	-0.14	6.62

Comparative Performance

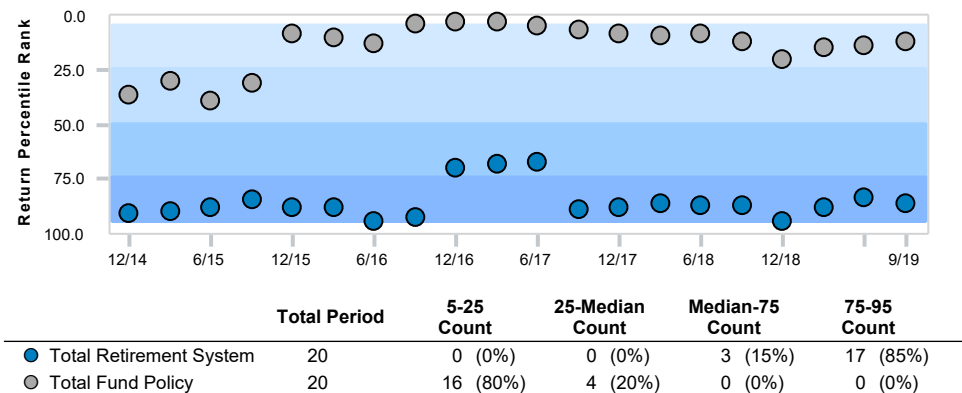
	1 Qtr Ending Jun-2019	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018
Total Retirement System	3.08 (67)	10.20 (6)	-9.73 (93)	2.81 (40)	1.14 (46)	-0.04 (34)
Total Fund Policy	3.31 (44)	8.74 (41)	-8.10 (65)	3.64 (10)	1.90 (15)	-0.17 (40)
All Public Plans-Total Fund Median	3.26	8.45	-7.54	2.58	1.03	-0.32



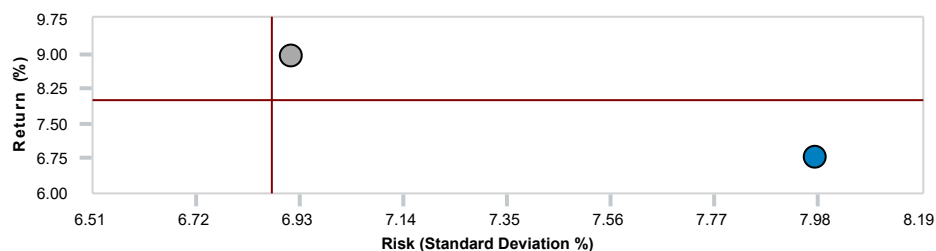
3 Yr Rolling Under/Over Performance - 5 Years



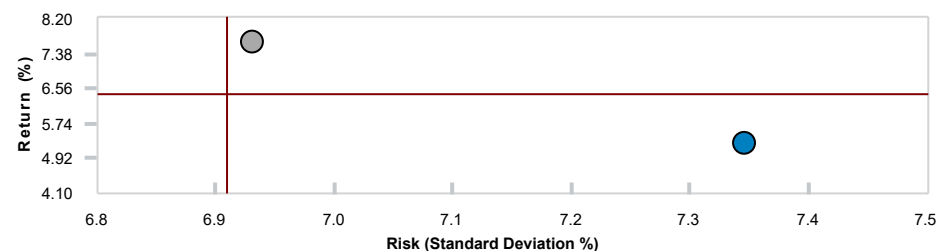
3 Yr Rolling Percentile Ranking - 5 Years



Peer Group Scattergram - 3 Years



Peer Group Scattergram - 5 Years



Historical Statistics - 3 Years

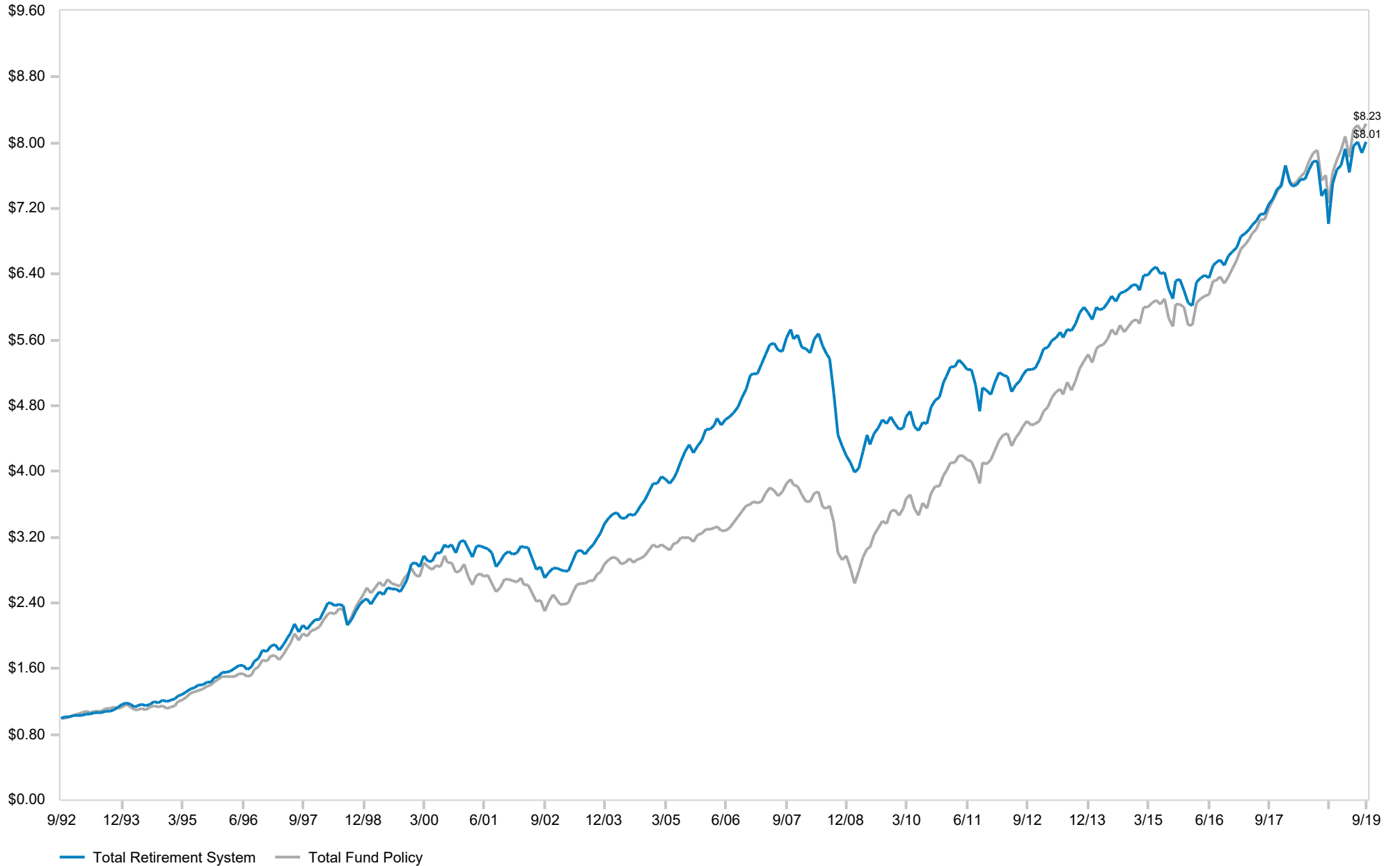
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Retirement System	1.75	93.14	115.99	-3.10	-1.12	0.67	1.13	5.30
Total Fund Policy	0.00	100.00	100.00	0.00	N/A	1.06	1.00	4.52

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Retirement System	1.76	88.58	111.01	-2.39	-1.25	0.61	1.03	4.72
Total Fund Policy	0.00	100.00	100.00	0.00	N/A	0.96	1.00	4.32



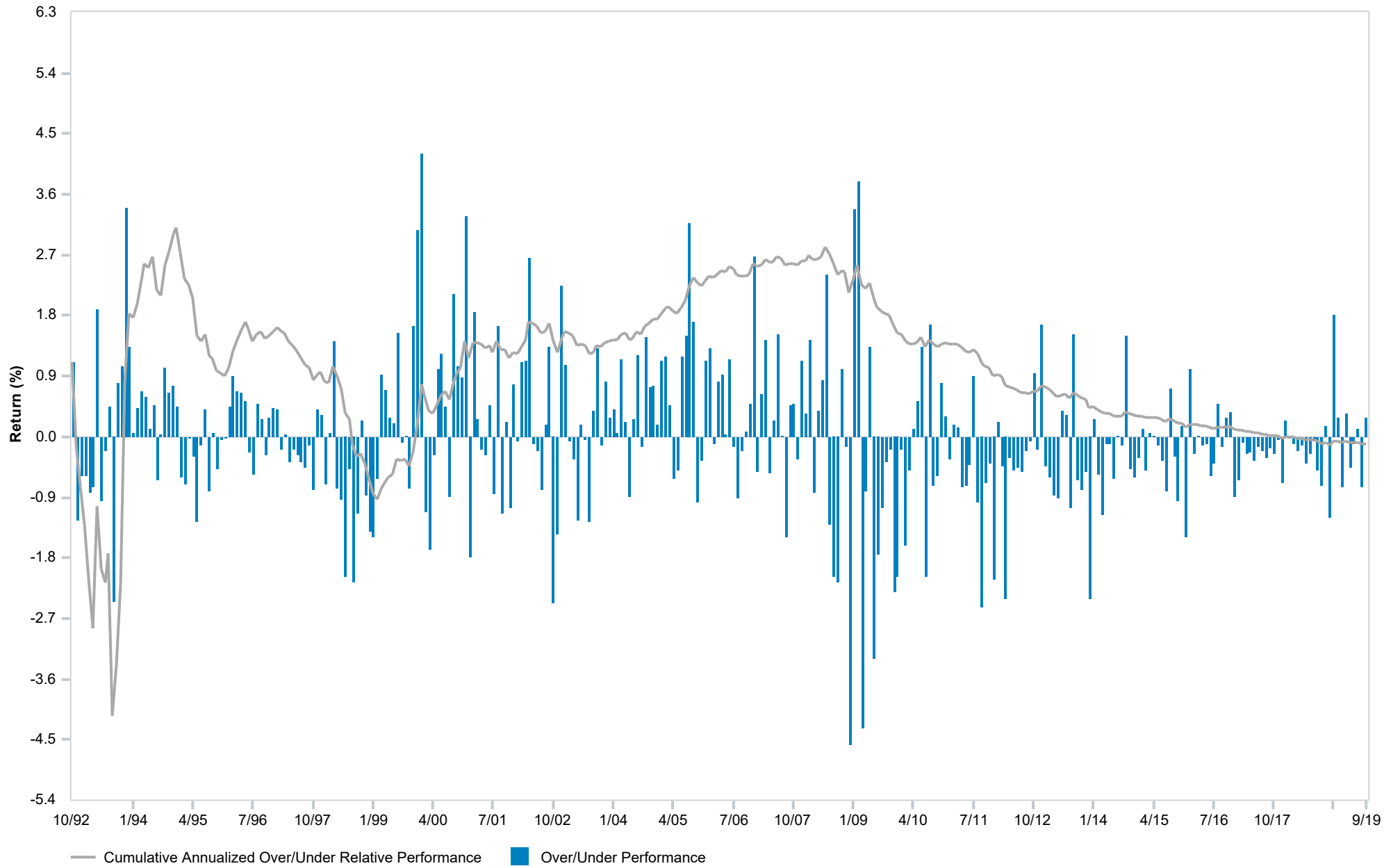
Growth of \$1



Calculation based on monthly periodicity.



Relative Performance



Calculation based on monthly periodicity.



Total Fund Compliance:	Yes	No	N/A
-------------------------------	------------	-----------	------------

The total plan return equaled or exceeded the total plan benchmark over the trailing three and five year periods.		•	
The total plan return ranked within the top 50th percentile of its peer group over the trailing three and five year periods.		•	
The total plan return equaled or exceeded the actuarial earnings assumption of 7.25% over the three and five year periods.		•	

Equity Compliance:	Yes	No	N/A
---------------------------	------------	-----------	------------

Total domestic equity return equaled or exceeded the benchmark over the trailing three and five year periods.		•	
Total domestic equity return ranked within the top 50th percentile of its peer group over the trailing three and five year periods.	•		
Total international equity return equaled or exceeded the benchmark over the trailing three and five year periods.		•	
Total international equity return ranked within the top 50th percentile of its peer group over the trailing three and five year periods.		•	
The total equity allocation was less than or equal to 85% but greater than or equal to 35% of the total fund value at market.	•		
The total domestic equity allocation was less than or equal to 50% but greater than or equal to 30% of the total fund value at market.	•		
The total international equity allocation was less than or equal to 25% but greater than or equal to 5% of the total fund value at market.	•		

Fixed Income Compliance:	Yes	No	N/A
---------------------------------	------------	-----------	------------

Total core fixed income return equaled or exceed the benchmark over the trailing three and five year periods.	•		
Total core fixed income return ranked within the top 50th percentile of its peer group over the trailing three and five year periods.		•	
Total non-US fixed income return equaled or exceed the benchmark over the trailing three and five year periods.		•	
Total non-US fixed income return ranked within the top 50th percentile of its peer group over the trailing three and five year periods.		•	
The total fixed income allocation was less than or equal to 45% but greater than or equal to 5% of the total fund value at market.	•		
The core fixed income allocation was less than or equal to 20% but greater than or equal to 5% of the total fund value at market.	•		
The total non-US fixed income allocation was less than or equal to 15% of the total fund value at market.	•		



	Baird Mid Cap			Nuance MC			Kennedy SC			Driehaus			TS&W		
	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
	Manager outperformed the index over the trailing three and five year periods.	•					•		•		•				•
Manager ranked within the top 50%-tile over trailing three and five year periods.	•					•		•		•				•	
Less than four consecutive quarters of under performance relative to the benchmark.	•			•				•		•				•	
Three and five-year downside capture ratios less than 100%		•				•	•			•				•	
Manager maintained style consistency for the mandate	•			•			•			•				•	
Manager maintained low turnover in portfolio team or senior management.	•			•			•			•				•	
Benchmark and index remained the same for the portfolio.	•			•			•			•				•	
Manager sustained compliance with IPS.	•			•			•			•				•	
No investigation by SEC was conducted on the manager.	•			•			•			•				•	
Manager did not experience significant asset flows into or out of the company.	•			•			•			•				•	
Manager is charging the same fee.	•			•			•			•				•	
No reported servicing issues with manager.	•			•			•			•				•	

	LMCG			Orleans			Templeton								
	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
	Manager outperformed the index over the trailing three and five year periods.		•		•				•						
Manager ranked within the top 50%-tile over trailing three and five year periods.		•			•			•							
Less than four consecutive quarters of under performance relative to the benchmark.		•		•			•								
Three and five-year downside capture ratios less than 100%	•			•			•								
Manager maintained style consistency for the mandate	•			•			•								
Manager maintained low turnover in portfolio team or senior management.	•			•			•								
Benchmark and index remained the same for the portfolio.	•			•			•								
Manager sustained compliance with IPS.	•			•			•								
No investigation by SEC was conducted on the manager.	•			•			•								
Manager did not experience significant asset flows into or out of the company.	•			•			•								
Manager is charging the same fee.	•			•			•								
No reported servicing issues with manager.	•			•			•								

*The 3 & 5 year periods used for evaluation represent the historical performance of composite portfolios. As such, this data represents a combination of current managers, strategies and allocations as well as the realized performance of terminated portfolios and prior allocation strategies. The peer universes used are gross of fees therefore the manager returns used for the purpose of measuring compliance are also gross.

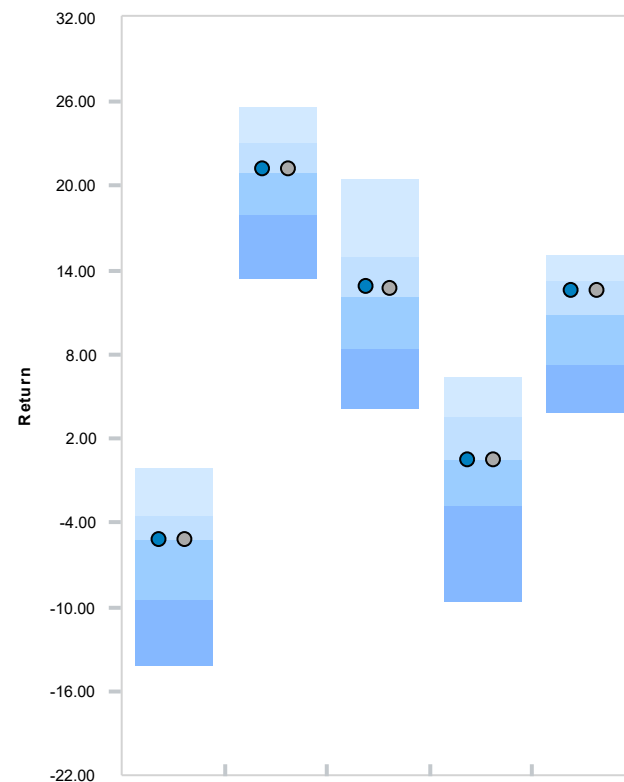
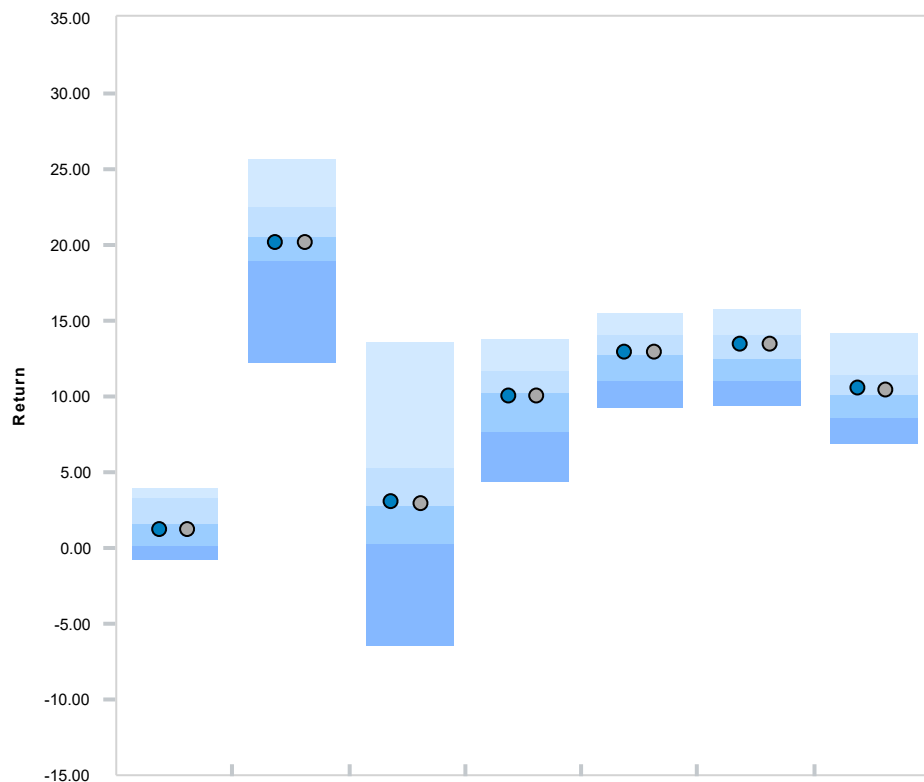


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Equity Managers



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



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● NT Collective R3000 Index	1.17 (59)	20.13 (55)	2.97 (44)	10.05 (56)	12.89 (50)	13.41 (38)	10.49 (44)
● Russell 3000 Index	1.16 (60)	20.09 (57)	2.92 (45)	10.00 (57)	12.83 (50)	13.36 (42)	10.44 (45)
Median	1.60	20.49	2.76	10.29	12.80	12.49	10.12

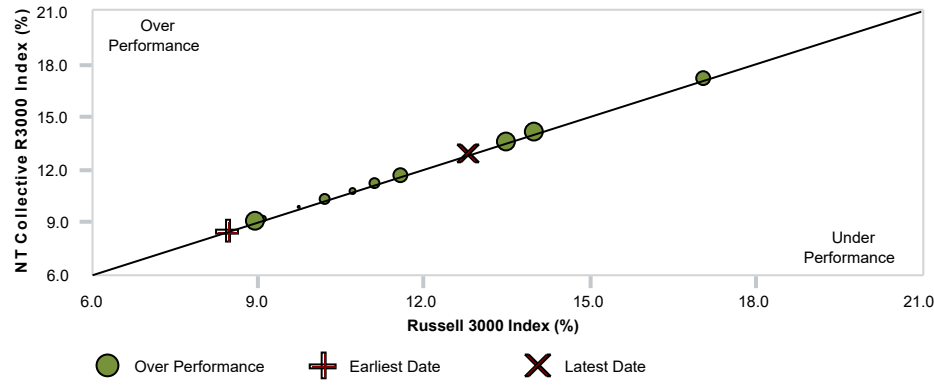
	2018	2017	2016	2015	2014
● NT Collective R3000 Index	-5.21 (51)	21.19 (46)	12.79 (47)	0.49 (50)	12.55 (32)
● Russell 3000 Index	-5.24 (51)	21.13 (48)	12.74 (48)	0.48 (50)	12.56 (32)
Median	-5.19	20.91	12.17	0.45	10.80

Comparative Performance

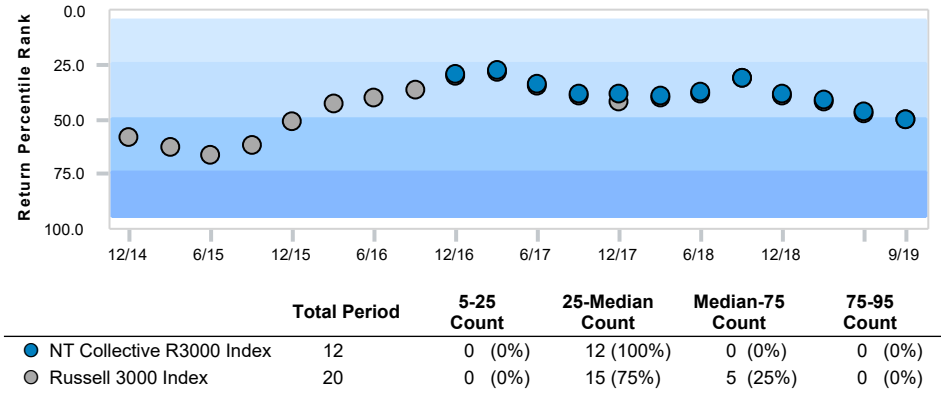
	1 Qtr Ending Jun-2019	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018
NT Collective R3000 Index	4.11 (52)	14.06 (38)	-14.28 (38)	7.13 (38)	3.90 (43)	-0.65 (62)
Russell 3000 Index	4.10 (54)	14.04 (38)	-14.30 (39)	7.12 (38)	3.89 (43)	-0.64 (62)
IM U.S. All Cap Core Equity (SA+CF) Median	4.28	13.63	-14.73	6.62	3.70	-0.17



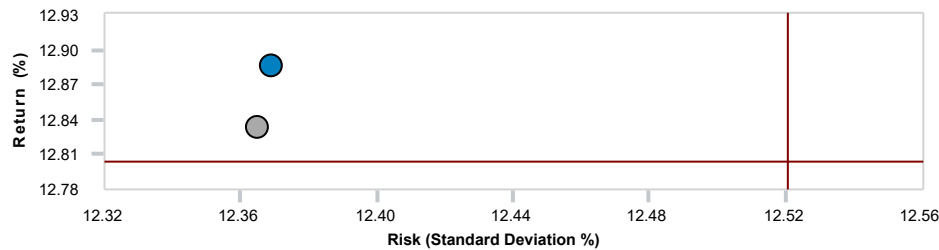
3 Yr Rolling Under/Over Performance - 5 Years



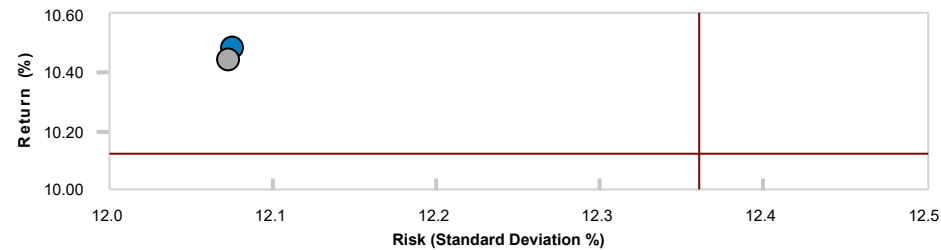
3 Yr Rolling Percentile Ranking - 5 Years



Peer Group Scattergram - 3 Years



Peer Group Scattergram - 5 Years



Historical Statistics - 3 Years

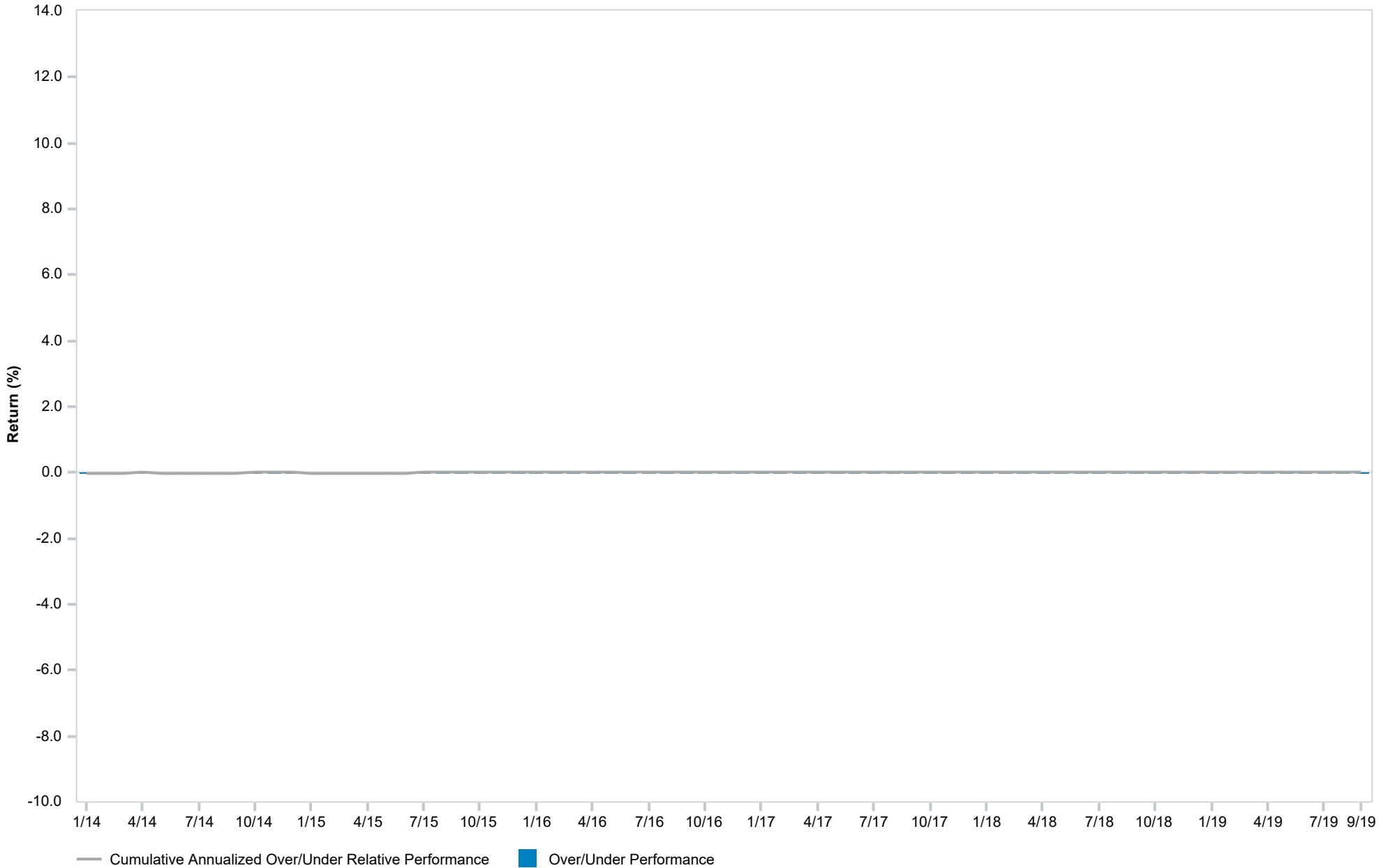
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
NT Collective R3000 Index	0.02	100.20	100.00	0.04	1.97	0.92	1.00	8.35
Russell 3000 Index	0.00	100.00	100.00	0.00	N/A	0.92	1.00	8.35

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
NT Collective R3000 Index	0.02	100.16	99.96	0.04	1.59	0.81	1.00	7.77
Russell 3000 Index	0.00	100.00	100.00	0.00	N/A	0.81	1.00	7.77



Relative Performance

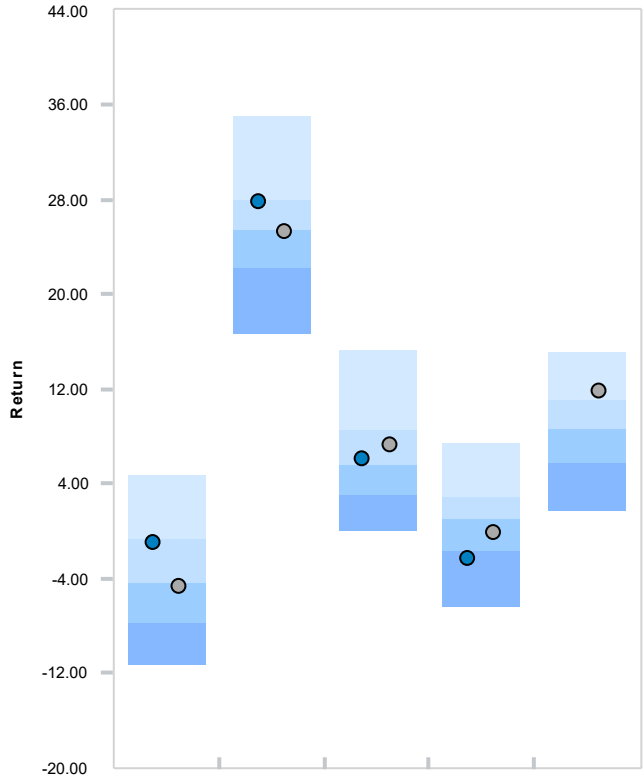
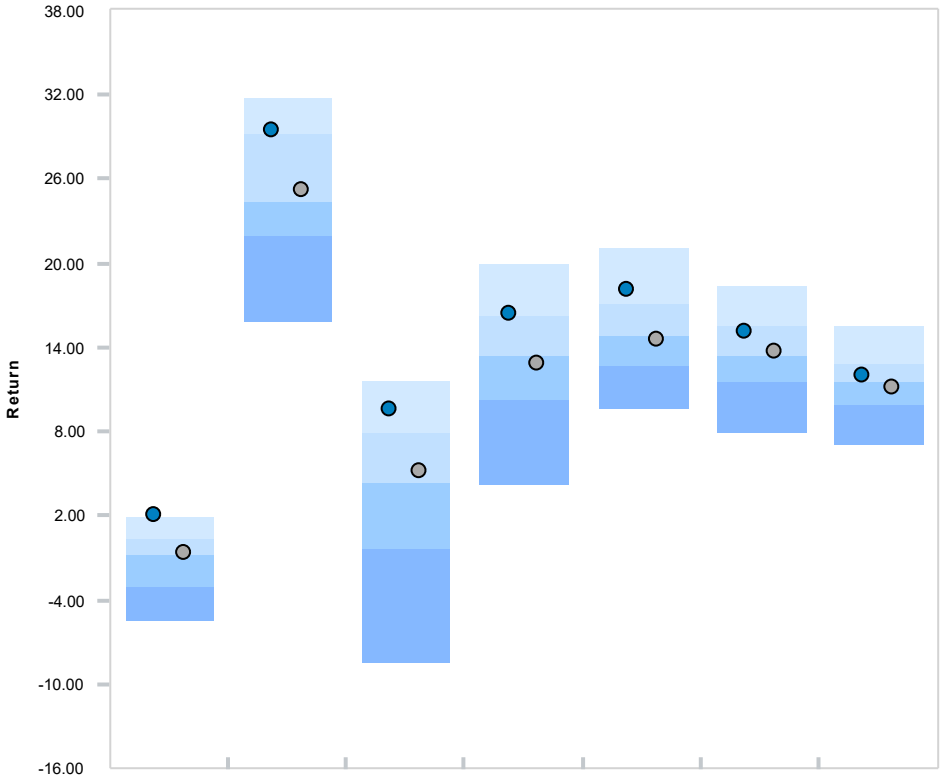


Calculation based on monthly periodicity.



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



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Baird Mid Cap Growth	2.00 (5)	29.43 (23)	9.51 (15)	16.45 (23)	18.10 (20)	15.09 (36)	11.97 (42)
● Russell MC Growth Index	-0.67 (44)	25.23 (47)	5.20 (46)	12.87 (57)	14.50 (54)	13.68 (48)	11.12 (59)
Median	-0.84	24.41	4.37	13.43	14.89	13.36	11.53

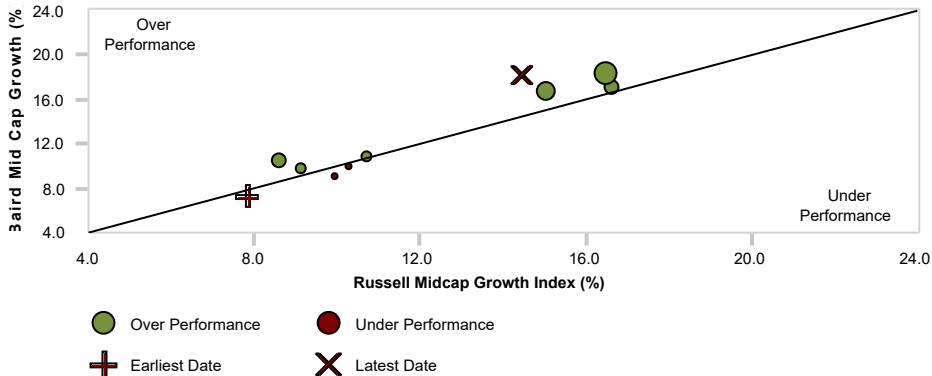
	2018	2017	2016	2015	2014
● Baird Mid Cap Growth	-0.91 (30)	27.83 (27)	6.09 (47)	-2.35 (78)	N/A
● Russell MC Growth Index	-4.75 (53)	25.27 (53)	7.33 (36)	-0.20 (59)	11.90 (23)
Median	-4.30	25.42	5.64	1.04	8.69

Comparative Performance

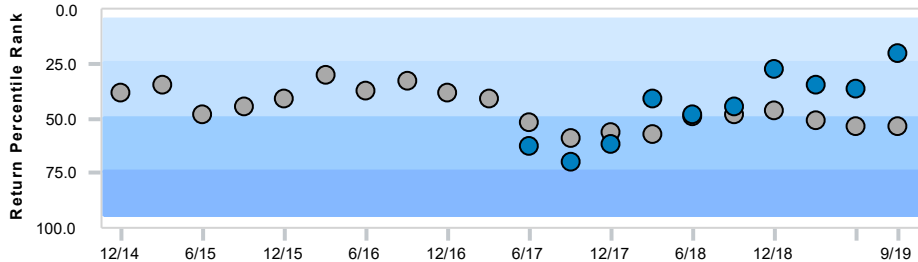
	1 Qtr Ending Jun-2019	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018
Baird Mid Cap Growth	7.04 (39)	18.55 (56)	-15.39 (25)	9.26 (16)	2.59 (72)	4.49 (28)
Russell Midcap Growth Index	5.40 (69)	19.62 (42)	-15.99 (34)	7.57 (49)	3.16 (63)	2.17 (66)
IM U.S. Mid Cap Growth Equity (SA+CF) Median	6.35	18.86	-16.71	7.48	3.86	2.98



3 Yr Rolling Under/Over Performance - 5 Years

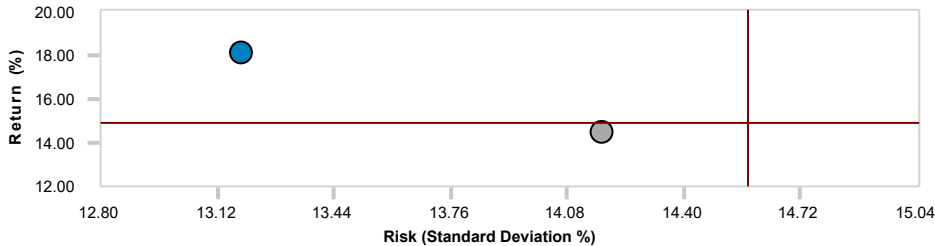


3 Yr Rolling Percentile Ranking - 5 Years



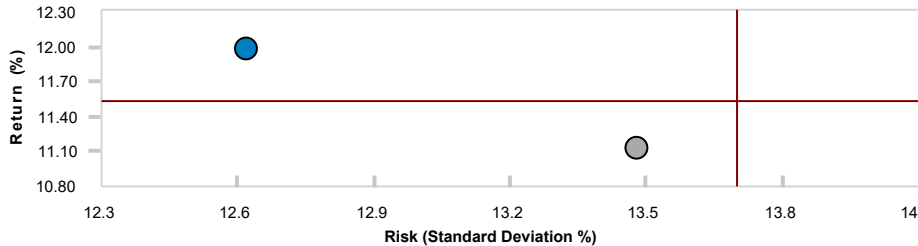
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
● Baird Mid Cap Growth	10	1 (10%)	6 (60%)	3 (30%)	0 (0%)
● Russell MC Growth Index	20	0 (0%)	13 (65%)	7 (35%)	0 (0%)

Peer Group Scattergram - 3 Years



	Return	Standard Deviation
● Baird Mid Cap Growth	18.10	13.19
● Russell MC Growth Index	14.50	14.18
— Median	14.89	14.58

Peer Group Scattergram - 5 Years



	Return	Standard Deviation
● Baird Mid Cap Growth	11.97	12.62
● Russell MC Growth Index	11.12	13.48
— Median	11.53	13.70

Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Baird Mid Cap Growth	3.26	101.24	77.99	4.47	0.92	1.22	0.91	8.23
Russell Midcap Growth Index	0.00	100.00	100.00	0.00	N/A	0.92	1.00	9.05

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Baird Mid Cap Growth	3.61	97.27	89.24	1.80	0.18	0.89	0.90	7.88
Russell Midcap Growth Index	0.00	100.00	100.00	0.00	N/A	0.78	1.00	8.52



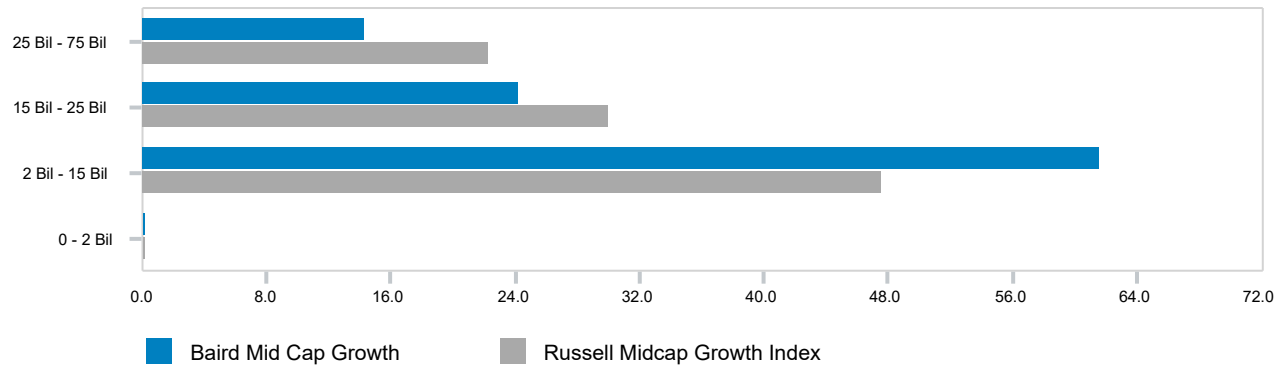
Portfolio Characteristics (Benchmark: Russell Midcap Growth Index)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	16,202,053,509	18,176,340,811
Median Mkt. Cap (\$)	12,397,611,930	8,704,376,820
Price/Earnings ratio	31.0	27.3
Price/Book ratio	5.6	6.3
5 Yr. EPS Growth Rate (%)	20.0	17.9
Current Yield (%)	0.7	0.8
Beta (5 Years, Monthly)	0.90	1.00
Number of Stocks	59	403

Top Ten Equity Holdings (Benchmark: Russell Midcap Growth Index)

	Portfolio (%)	Benchmark (%)	Active (%)	Qtr Rtn (%)
Dollar General Corporation	3.1	1.3	1.8	17.9
CDW Corp	2.6	0.6	2.0	11.3
Tyler Technologies Inc.	2.5	0.3	2.2	21.5
Synopsys Inc	2.4	0.7	1.7	6.7
Cintas Corp	2.4	0.8	1.6	13.0
Fiserv Inc.	2.4	2.0	0.4	13.6
Arthur J. Gallagher & Co.	2.4	0.1	2.3	2.8
Euronet Worldwide Inc	2.3	0.2	2.1	-13.0
Verisk Analytics Inc	2.3	0.9	1.4	8.1
Cable One Inc	2.2	0.2	2.0	7.3

Distribution of Market Capitalization (%)



Ten Best Performers

	Portfolio (%)	Benchmark (%)
Insulet Corp	1.7	0.3
D.R. Horton Inc.	1.9	0.0
Tyler Technologies Inc.	2.5	0.3
Dollar General Corporation	3.1	1.3
Burlington Stores Inc	2.2	0.4
Mercury Systems Inc	1.4	0.0
Lamb Weston Holdings Inc	2.0	0.1
Monolithic Power Systems Inc	2.2	0.2
Fiserv Inc.	2.4	2.0
Cintas Corp	2.4	0.8

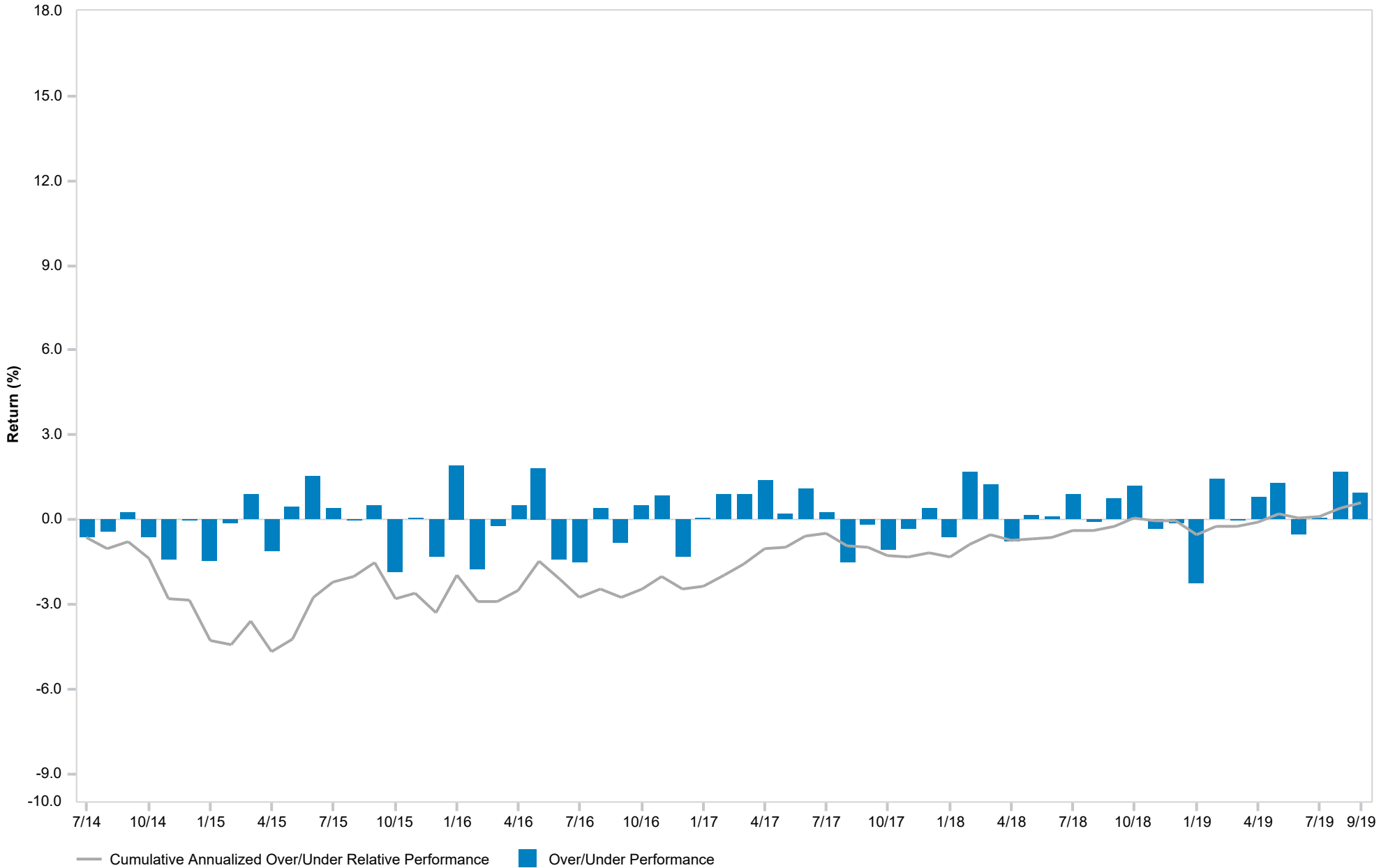
Buy and Hold Sector Attribution	Allocation		Performance		Attribution		
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Total
Communication Services	3.5	3.9	8.63	0.45	0.29	0.00	0.29
Consumer Discretionary	17.9	16.3	5.41	2.27	0.56	0.04	0.60
Consumer Staples	1.7	2.9	15.12	8.11	0.12	-0.10	0.02
Energy	1.8	1.3	-17.33	-10.20	-0.13	-0.05	-0.18
Financials	4.6	6.8	0.64	0.35	0.01	-0.01	0.00
Health Care	14.5	14.3	-7.71	-7.81	0.01	-0.02	-0.01
Industrials	20.5	15.7	2.31	2.64	-0.07	0.14	0.07
Information Technology	31.2	32.8	2.31	-1.11	1.07	0.01	1.08
Materials	1.1	3.5	-4.46	4.00	-0.09	-0.10	-0.20
Real Estate	0.0	2.3	0.00	7.09	0.00	-0.17	-0.17
Other	0.0	0.1	0.00	7.61	0.00	-0.01	-0.01
Cash	3.1	0.0	0.00	0.00	0.00	0.01	0.01
Total	100.0	100.0	1.27	-0.23	1.77	-0.27	1.50

Ten Worst Performers

	Portfolio (%)	Benchmark (%)
Align Technology Inc	0.7	0.5
ABIOMED Inc	0.9	0.3
Alexion Pharmaceuticals	1.0	0.0
Gardner Denver Holdings Inc	1.0	0.0
Diamondback Energy Inc	1.0	0.1
Grand Canyon Education Inc	1.4	0.0
Trimble Inc	1.1	0.1
Euronet Worldwide Inc	2.3	0.2
Cooper Cos Inc (The)	2.1	0.1
Gartner Inc	1.6	0.4



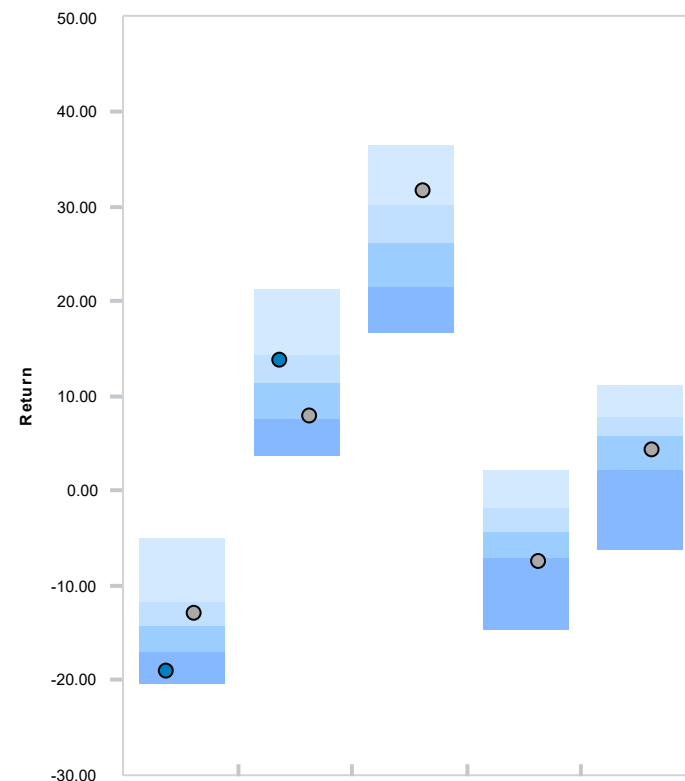
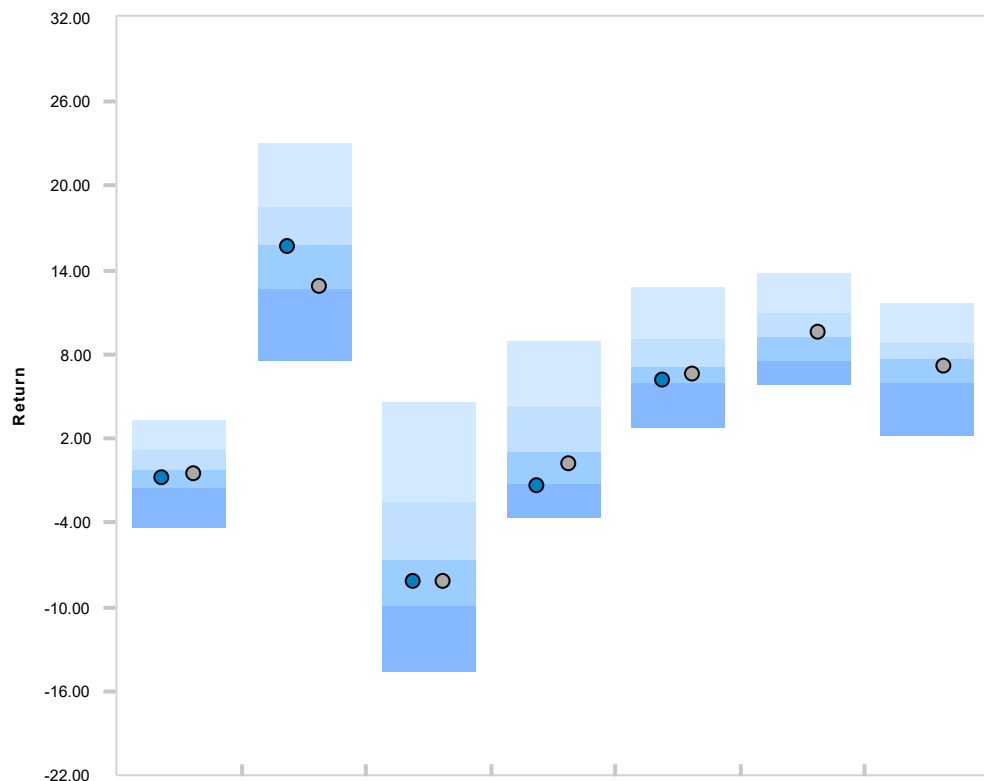
Relative Performance



Calculation based on monthly periodicity.



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



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Kennedy SC Value	-0.85 (62)	15.67 (52)	-8.17 (61)	-1.41 (77)	6.07 (71)	N/A	N/A
● R 2000 Value Index	-0.57 (58)	12.82 (74)	-8.24 (62)	0.16 (61)	6.54 (63)	9.48 (48)	7.17 (60)
Median	-0.26	15.73	-6.65	1.03	7.10	9.23	7.68

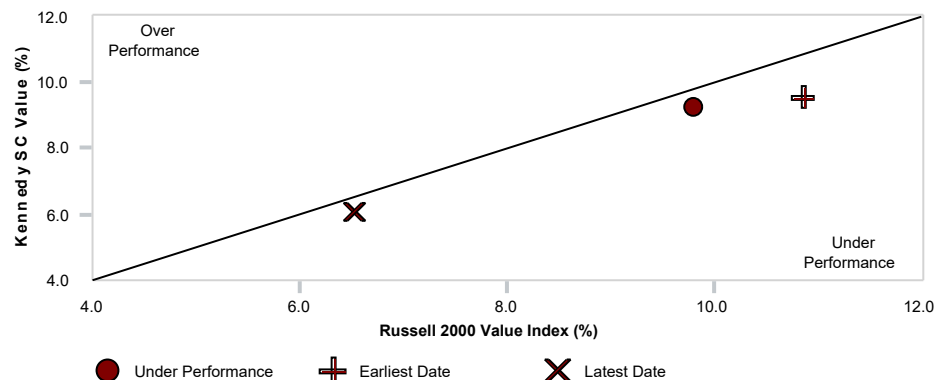
	2018	2017	2016	2015	2014
● Kennedy SC Value	-19.03 (87)	13.85 (31)	N/A	N/A	N/A
● R 2000 Value Index	-12.86 (37)	7.84 (75)	31.74 (16)	-7.47 (78)	4.22 (66)
Median	-14.26	11.56	26.14	-4.29	5.71

Comparative Performance

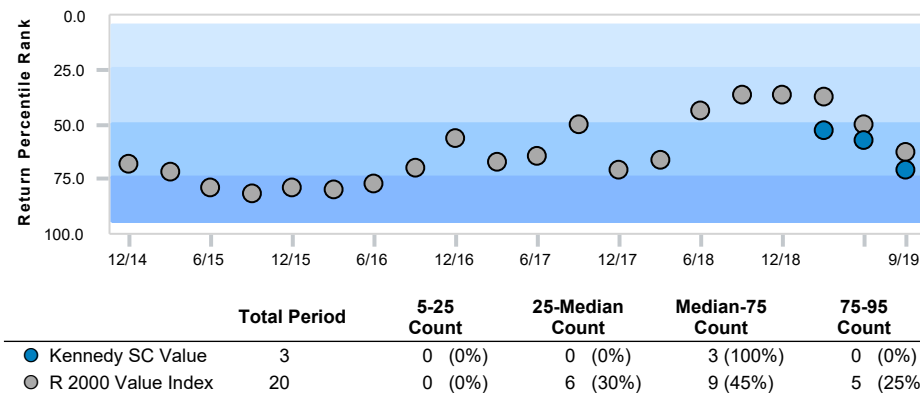
	1 Qtr Ending Jun-2019	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018
Kennedy SC Value	2.33 (49)	14.00 (29)	-20.61 (75)	0.07 (84)	5.14 (61)	-3.07 (76)
Russell 2000 Value Index	1.38 (71)	11.93 (70)	-18.67 (44)	1.60 (51)	8.30 (16)	-2.64 (68)
IM U.S. Small Cap Value Equity (SA+CF) Median	2.29	12.86	-19.10	1.65	5.59	-1.79



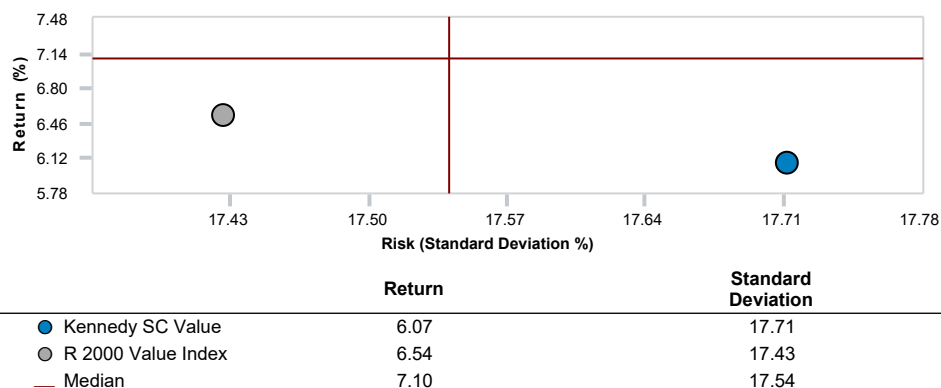
3 Yr Rolling Under/Over Performance - 5 Years



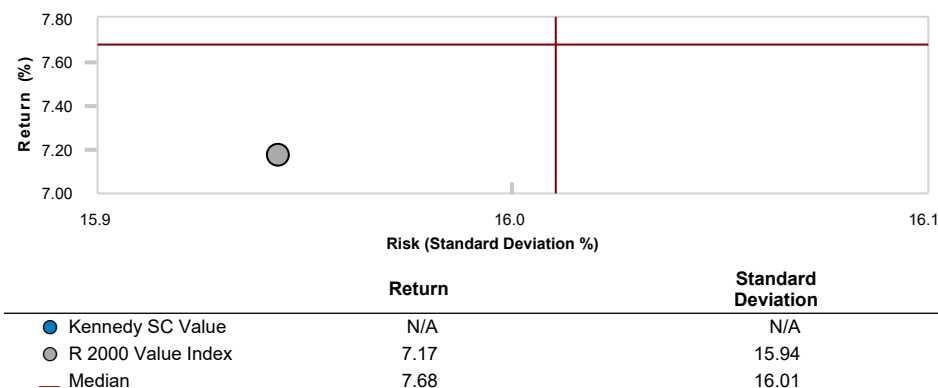
3 Yr Rolling Percentile Ranking - 5 Years



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
Kennedy SC Value	2.87	97.71	98.79	-0.41	-0.13	0.34	1.00	12.00
Russell 2000 Value Index	0.00	100.00	100.00	0.00	N/A	0.36	1.00	11.43

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Kennedy SC Value	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 2000 Value Index	0.00	100.00	100.00	0.00	N/A	0.45	1.00	10.31



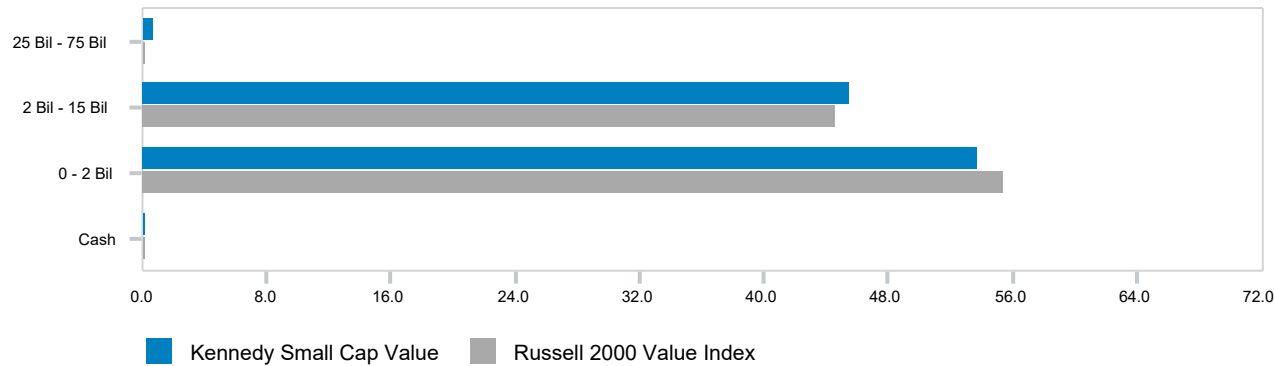
Portfolio Characteristics (Benchmark: Russell 2000 Value Index)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	2,517,337,217	2,010,348,244
Median Mkt. Cap (\$)	1,383,120,000	650,338,405
Price/Earnings ratio	15.5	14.0
Price/Book ratio	1.8	1.6
5 Yr. EPS Growth Rate (%)	16.1	9.5
Current Yield (%)	1.9	2.2
Beta (3 Years, Monthly)	1.00	1.00
Number of Stocks	294	1,402

Top Ten Equity Holdings (Benchmark: Russell 2000 Value Index)

	Portfolio (%)	Benchmark (%)	Active (%)	Qtr Rtn (%)
Cousins Properties Inc	1.0	0.0	1.0	4.7
Lumentum Holdings Inc	0.9	0.4	0.5	0.3
IBERIABANK Corp	0.9	0.4	0.5	0.2
SJW Group	0.9	0.1	0.8	12.9
South Jersey Industries Inc.	0.8	0.3	0.5	-1.6
Black Hills Corp	0.8	0.5	0.3	-1.2
Spire Inc	0.8	0.4	0.4	4.7
Central Garden & Pet Co	0.8	0.1	0.7	12.5
Sterling Bancorp	0.8	0.0	0.8	-5.4
Mercury Systems Inc	0.8	0.0	0.8	15.4

Distribution of Market Capitalization (%)



Ten Best Performers

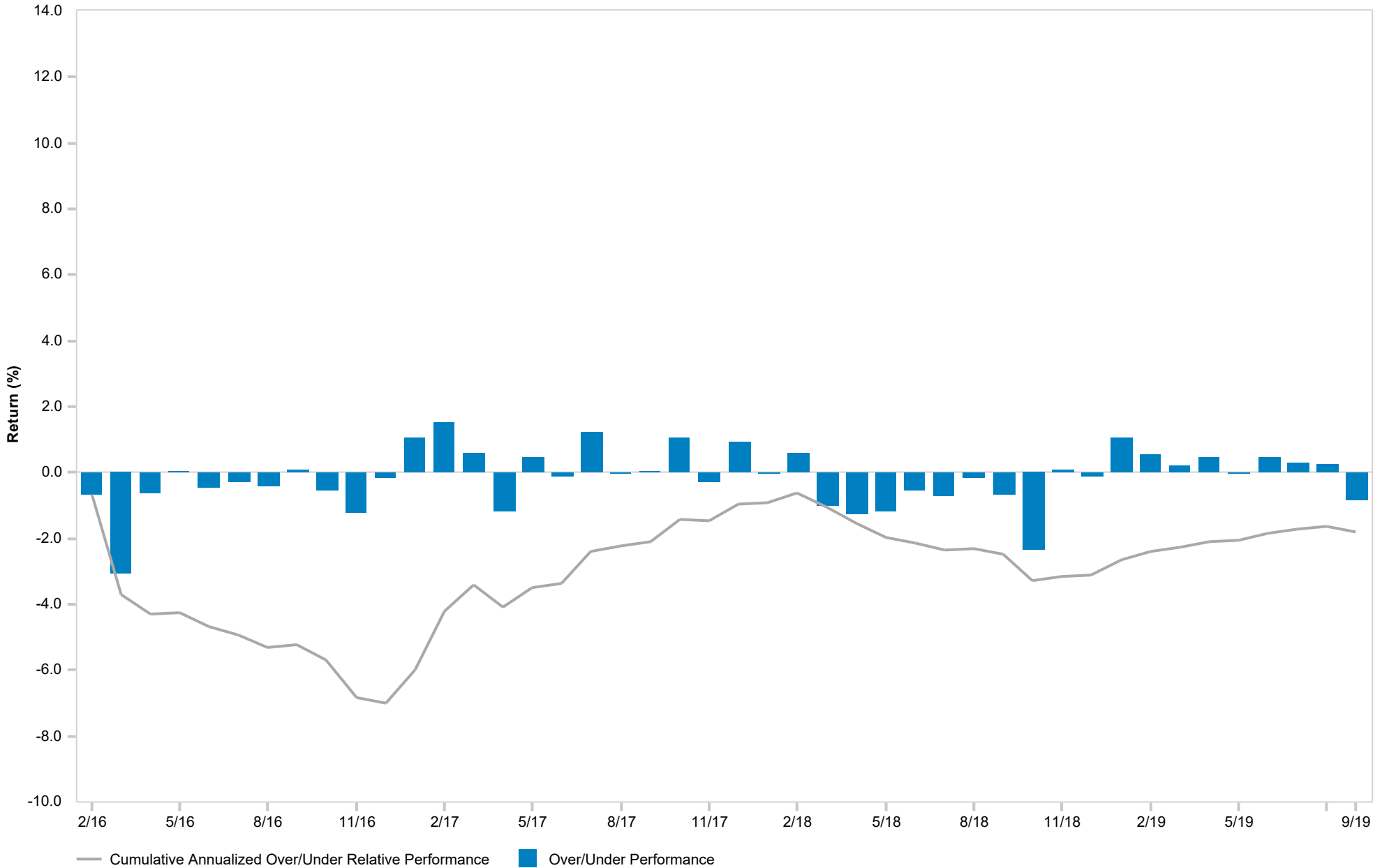
	Portfolio (%)	Benchmark (%)
Infinera Corp	0.5	0.1
One Stop Systems Inc	0.1	0.0
Palomar Holdings Inc	0.2	0.0
NeoPhotonics Corp	0.5	0.0
CyrusOne Inc	0.6	0.0
Synaptics Inc	0.3	0.1
Quad/Graphics Inc	0.2	0.0
PennyMac Financial Services Inc	0.3	0.1
Aspen Group Inc	0.0	0.0
Photronics Inc	0.1	0.1

Buy and Hold Sector Attribution	Allocation		Performance		Attribution		
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Total
Communication Services	1.0	2.9	-1.15	-8.38	0.07	0.16	0.23
Consumer Discretionary	7.5	8.5	-1.59	3.66	-0.39	-0.04	-0.43
Consumer Staples	2.6	2.4	6.49	4.13	0.06	0.01	0.07
Energy	6.4	5.1	-23.78	-18.92	-0.31	-0.24	-0.55
Financials	20.6	29.4	0.03	0.28	-0.05	-0.03	-0.08
Health Care	4.0	4.0	-12.27	-8.07	-0.17	0.01	-0.16
Industrials	15.0	11.8	-1.84	-1.18	-0.10	-0.04	-0.13
Information Technology	12.9	11.8	-0.22	2.74	-0.38	0.03	-0.35
Materials	6.5	4.2	-6.22	-6.14	-0.01	-0.14	-0.14
Real Estate	13.0	12.3	9.36	4.95	0.57	0.03	0.60
Utilities	6.4	7.6	3.16	5.45	-0.15	-0.07	-0.21
Cash	4.3	0.0	0.00	0.00	0.00	0.00	0.00
Total	100.0	100.0	-1.25	-0.09	-0.85	-0.30	-1.15

Ten Worst Performers

	Portfolio (%)	Benchmark (%)
ProPetro Holding Corp	0.3	0.0
Cars.com Inc	0.0	0.1
Concert Pharmaceuticals Inc	0.0	0.0
ImageWare Systems Inc.	0.0	0.0
Anchiano Therapeutics Ltd	0.0	0.0
Nabors Industries Ltd	0.2	0.1
Himax Technologies Inc	0.0	0.0
Tronox Holdings plc	0.4	0.0
Callon Petroleum Co/DE	0.5	0.1
Neuronetics Inc	0.0	0.0

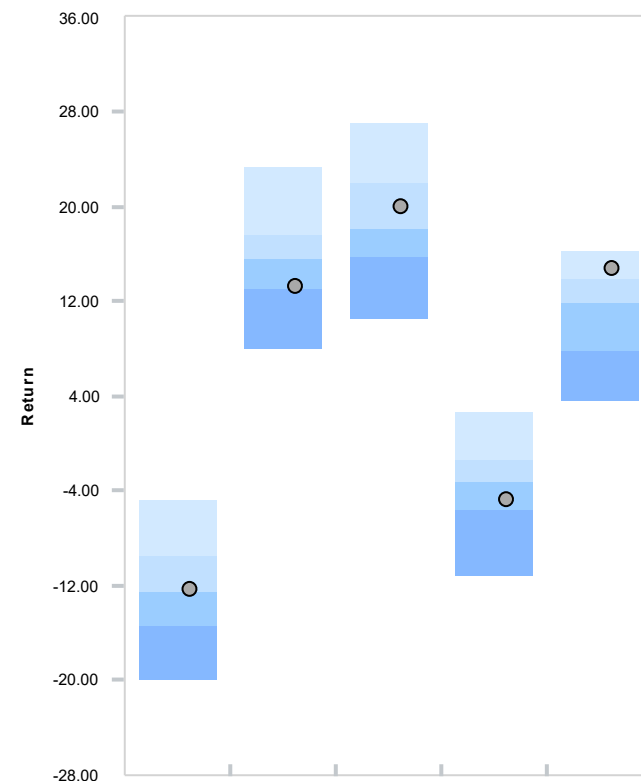
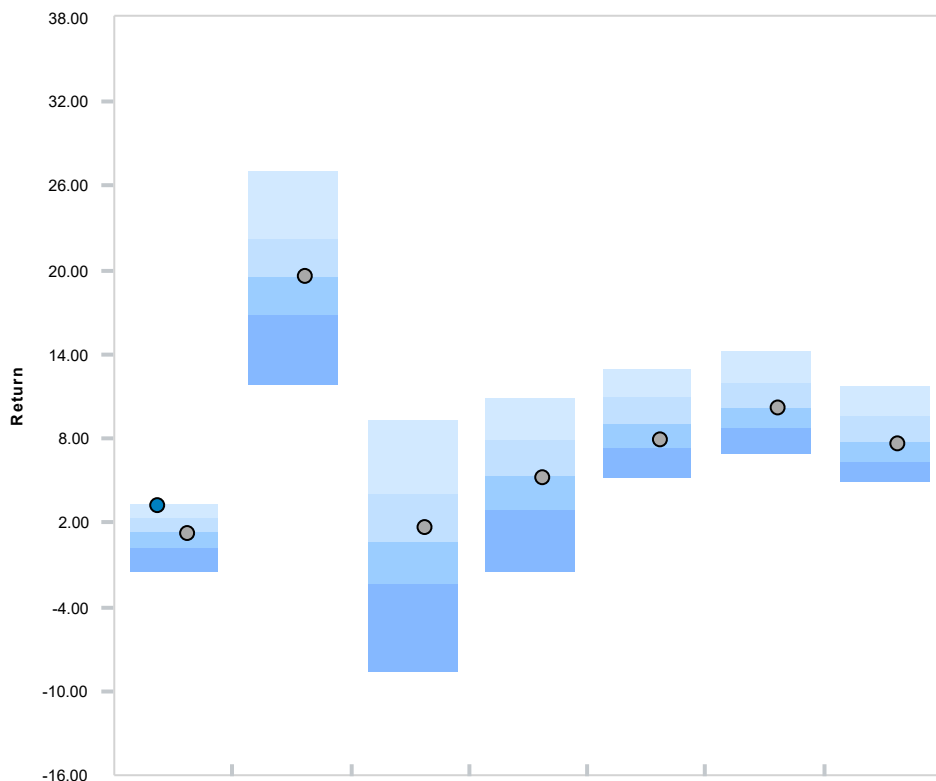
Relative Performance



Calculation based on monthly periodicity.



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



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Nuance Mid Cap Value	3.25 (14)	N/A	N/A	N/A	N/A	N/A	N/A
○ Russell Midcap Val Index	1.22 (55)	19.47 (51)	1.60 (43)	5.14 (52)	7.82 (70)	10.10 (50)	7.55 (54)
Median	1.28	19.49	0.65	5.27	9.03	10.10	7.69

	2018	2017	2016	2015	2014
● Nuance Mid Cap Value	N/A	N/A	N/A	N/A	N/A
○ Russell Midcap Val Index	12.29 (47)	13.34 (75)	20.00 (44)	-4.78 (61)	14.75 (18)
Median	12.55	15.63	18.22	-3.21	11.86

Comparative Performance

	1 Qtr Ending Jun-2019	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018
Nuance Mid Cap Value	6.00 (5)	N/A	N/A	N/A	N/A	N/A
Russell Midcap Value Index	3.19 (62)	14.37 (43)	-14.95 (34)	3.30 (58)	2.41 (46)	-2.50 (82)
IM U.S. Mid Cap Value Equity (SA+CF) Median	3.38	13.97	-16.34	3.55	2.32	-1.56



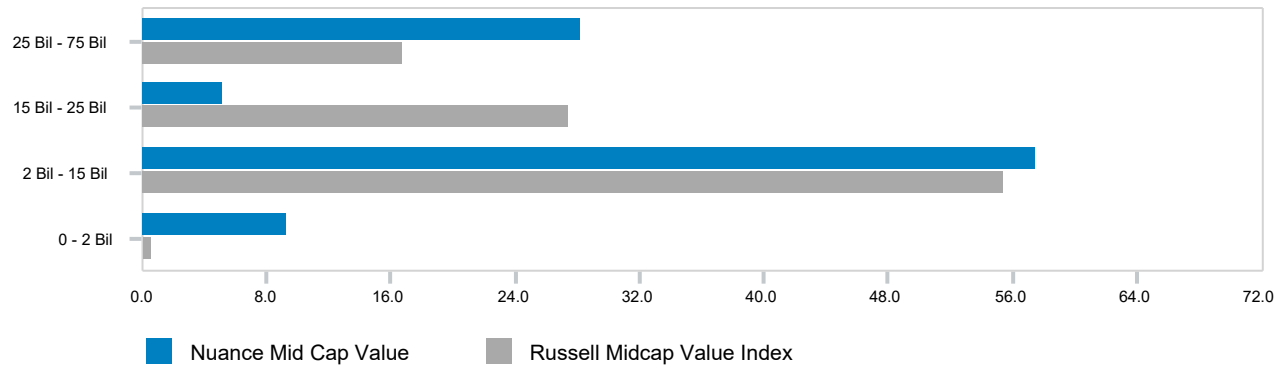
Portfolio Characteristics (Benchmark: Russell Midcap Value Index)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	16,828,260,530	15,280,784,778
Median Mkt. Cap (\$)	11,146,724,135	7,626,009,135
Price/Earnings ratio	19.8	17.6
Price/Book ratio	2.4	2.2
5 Yr. EPS Growth Rate (%)	5.6	9.5
Current Yield (%)	1.7	2.4
Beta	N/A	1.00
Number of Stocks	60	633

Top Ten Equity Holdings (Benchmark: Russell Midcap Value Index)

	Portfolio (%)	Benchmark (%)	Active (%)	Qtr Rtn (%)
WABCO Holdings Inc	6.8	0.0	6.8	0.9
Reinsurance Group of Amer.	5.3	0.2	5.1	3.0
Equity Commonwealth	5.3	0.1	5.2	5.3
Amphenol Corp	4.4	0.0	4.4	0.8
Unum Group	4.2	0.1	4.1	-10.6
DENTSPLY SIRONA Inc	4.2	0.3	3.9	-8.5
Schwab (Charles) Corp	3.9	0.0	3.9	4.6
Berkley (W.R.) Corp	3.8	0.2	3.6	9.7
Travelers Companies Inc (The)	3.8	0.0	3.8	0.0
Northern Trust Corp	3.3	0.4	2.9	4.4

Distribution of Market Capitalization (%)



Ten Best Performers

	Portfolio (%)	Benchmark (%)
JB Hunt Transport	0.5	0.1
Globus Medical Inc	1.6	0.0
MKS Instruments Inc	0.3	0.1
Universal Health Services Inc.	0.8	0.3
Werner Enterprises Inc.	1.1	0.0
Brown-Forman Corp	0.3	0.0
Lindsay Corp	2.9	0.0
SJW Group	0.8	0.0
Sysco Corp	0.3	0.0
Sanderson Farms Inc	3.1	0.0

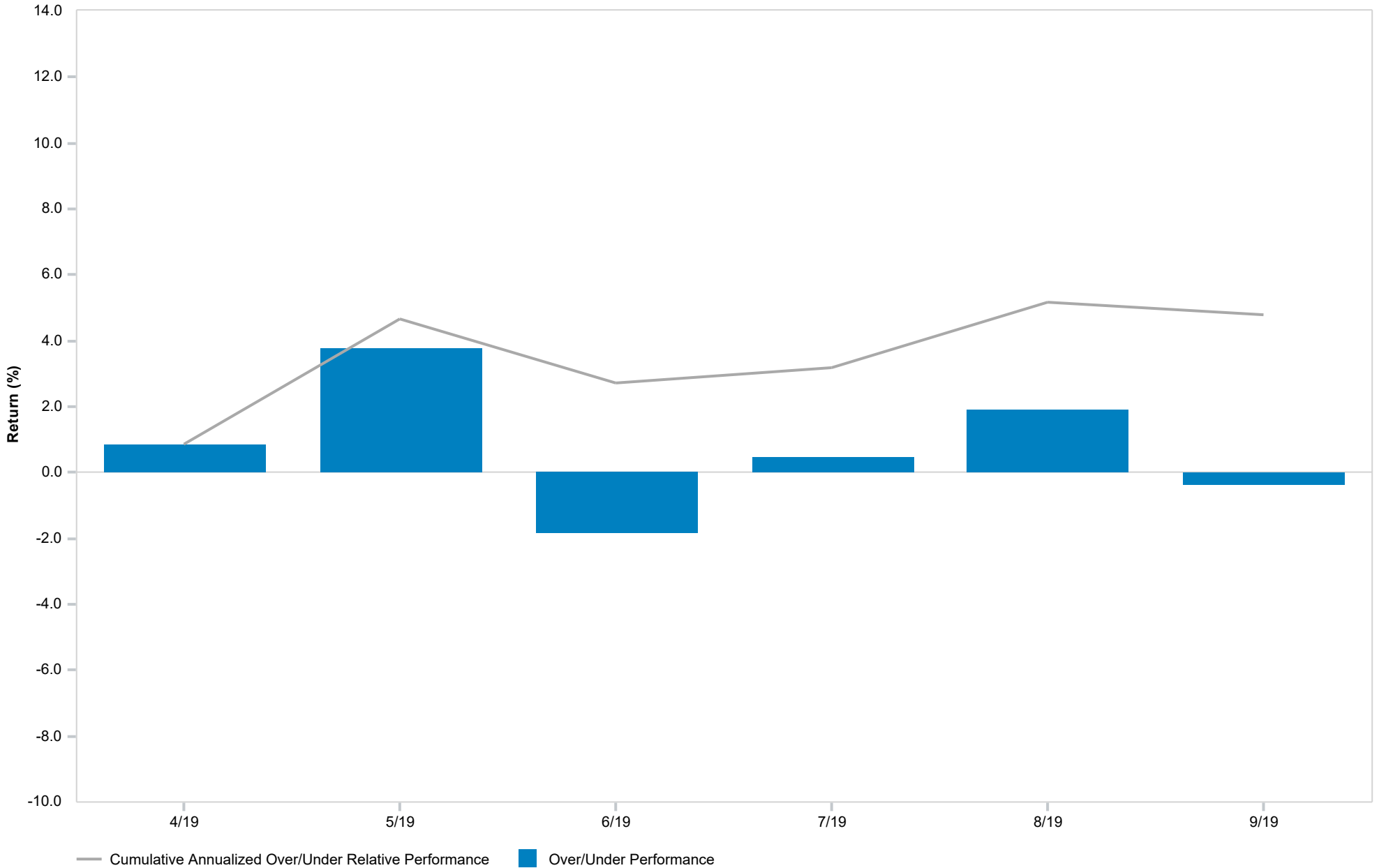
Ten Worst Performers

	Portfolio (%)	Benchmark (%)
ICU Medical Inc	3.0	0.0
GCP Applied Technologies Inc	0.4	0.0
Varian Medical Systems Inc	1.7	0.0
Unum Group	4.2	0.1
DENTSPLY SIRONA Inc	4.2	0.3
Graco Inc.	0.5	0.0
Cerner Corp	0.5	0.0
TD AMERITRADE Holding Corp	0.9	0.0
Cullen/Frost Bankers Inc	0.5	0.1
AptarGroup Inc.	0.3	0.1

Buy and Hold Sector Attribution	Allocation		Performance		Attribution		
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Total
Communication Services	0.0	3.2	0.00	-2.80	0.00	0.14	0.14
Consumer Discretionary	0.0	8.4	0.00	0.20	0.00	0.12	0.12
Consumer Staples	8.4	4.7	4.85	6.18	-0.11	0.17	0.06
Energy	0.0	5.4	0.00	-12.55	0.00	0.76	0.76
Financials	32.7	17.8	1.38	2.27	-0.29	0.10	-0.19
Health Care	14.3	7.1	1.44	-1.38	0.40	-0.21	0.19
Industrials	16.1	12.7	5.41	-0.84	1.01	-0.08	0.92
Information Technology	5.3	9.0	3.23	0.28	0.16	0.05	0.21
Materials	1.0	6.0	-6.36	-2.72	-0.04	0.22	0.18
Real Estate	5.2	14.0	5.55	8.23	-0.14	-0.59	-0.73
Utilities	9.8	11.4	7.07	7.27	-0.02	-0.09	-0.11
Other	0.0	0.0	0.00	7.61	0.00	0.00	0.00
Cash	7.1	0.0	0.00	0.00	0.00	-0.11	-0.11
Total	100.0	100.0	3.03	1.59	0.97	0.47	1.43



Relative Performance

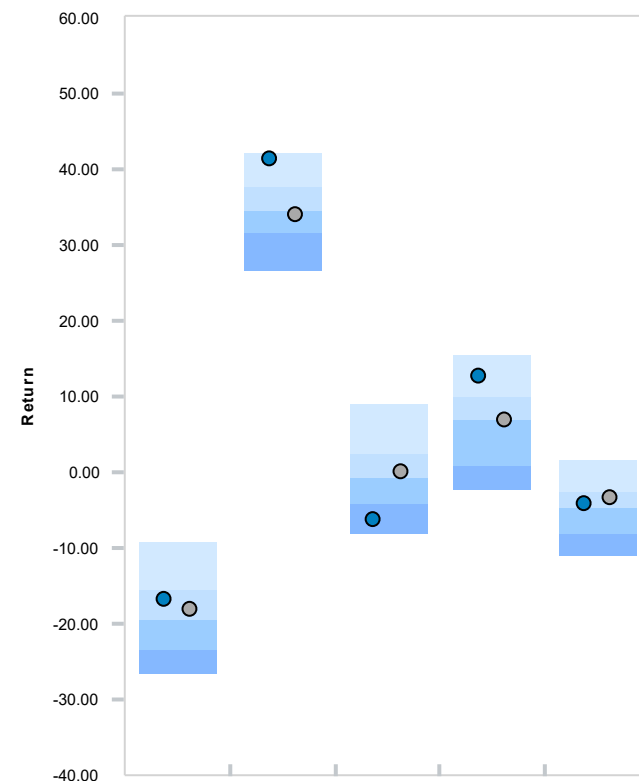
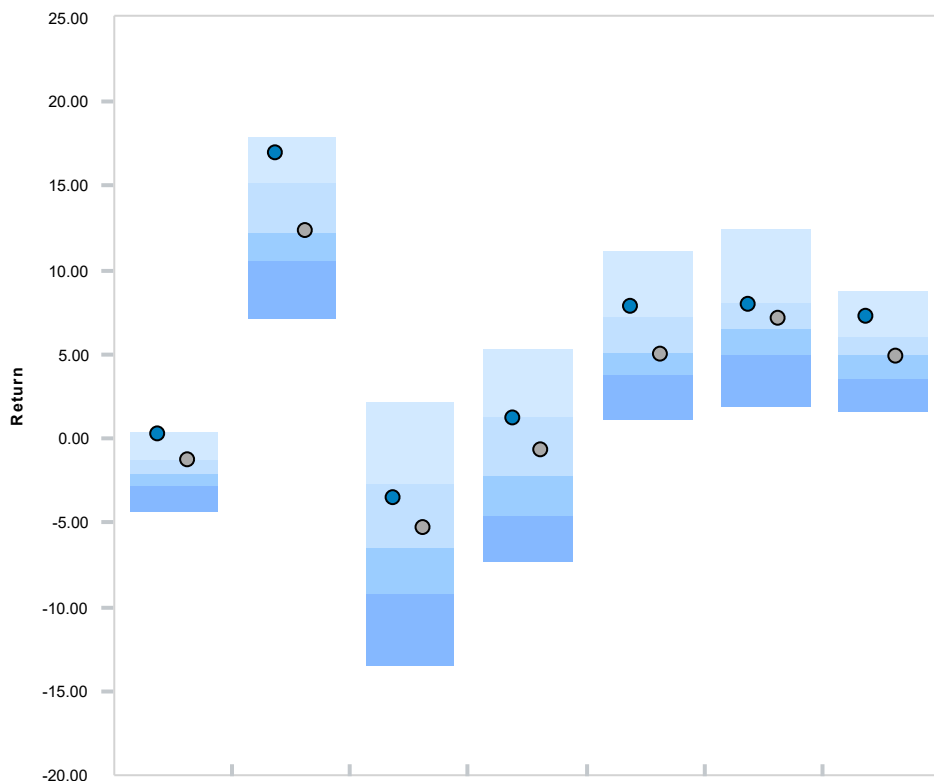


Calculation based on monthly periodicity.



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Plan Sponsor Peer Group Analysis - IM International SMID Cap Growth Equity (MF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Driehaus Intl Small Gr	0.21 (7)	16.98 (13)	-3.49 (30)	1.24 (26)	7.84 (18)	7.93 (28)	7.24 (14)
● MSCI ACWI exUS Sm Gr	-1.28 (25)	12.34 (49)	-5.35 (41)	-0.66 (37)	5.03 (53)	7.15 (39)	4.89 (52)
Median	-2.06	12.26	-6.50	-2.29	5.13	6.50	4.95

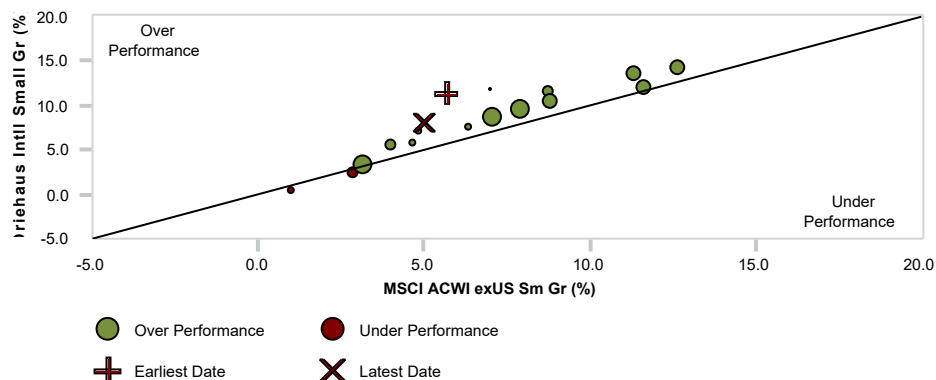
	2018	2017	2016	2015	2014
● Driehaus Intl Small Gr	16.92 (30)	41.19 (7)	-6.24 (88)	12.59 (12)	-4.32 (41)
● MSCI ACWI exUS Sm Gr	18.07 (37)	33.99 (54)	-0.04 (42)	6.74 (51)	-3.35 (32)
Median	19.39	34.36	-0.83	6.87	-4.87

Comparative Performance

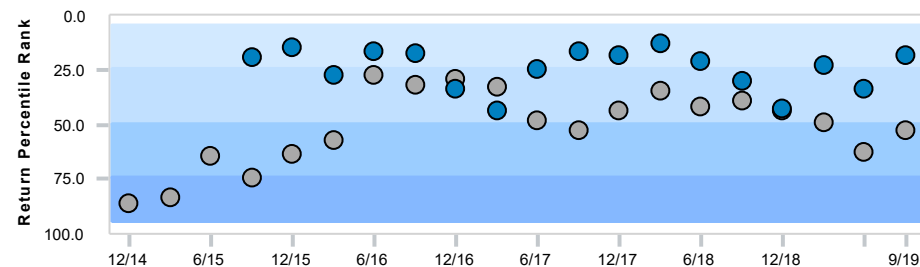
	1 Qtr Ending Jun-2019	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018
Driehaus Intl Small Gr	3.26 (43)	13.04 (19)	-17.50 (60)	-1.46 (48)	-1.69 (41)	3.95 (8)
MSCI ACWI exUS Sm Gr	1.95 (75)	11.62 (45)	-15.75 (29)	-2.09 (58)	-1.56 (38)	0.89 (58)
IM International SMID Cap Growth Equity (MF) Median	2.88	11.19	-16.79	-1.54	-2.26	1.08



3 Yr Rolling Under/Over Performance - 5 Years

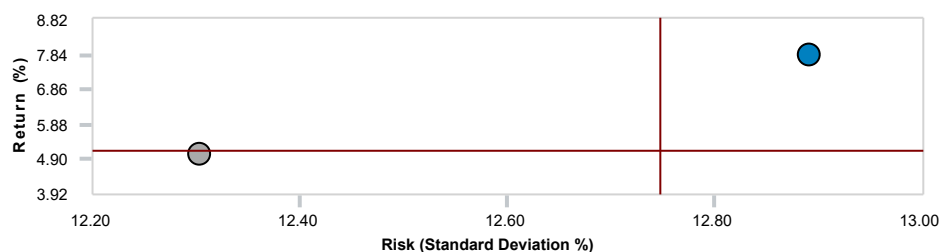


3 Yr Rolling Percentile Ranking - 5 Years



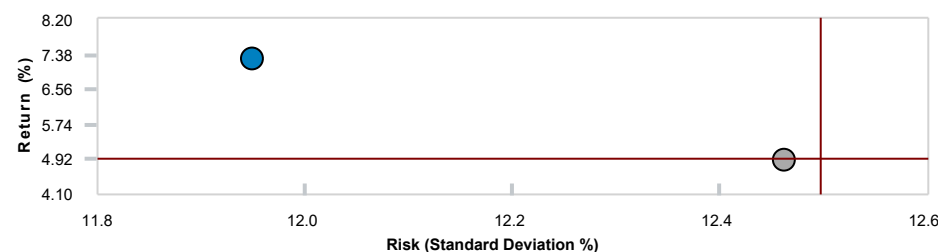
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
● Driehaus Intl Small Gr	17	11 (65%)	6 (35%)	0 (0%)	0 (0%)
● MSCI ACWI exUS Sm Gr	20	0 (0%)	11 (55%)	7 (35%)	2 (10%)

Peer Group Scattergram - 3 Years



	Return	Standard Deviation
● Driehaus Intl Small Gr	7.84	12.89
● MSCI ACWI exUS Sm Gr	5.03	12.30
— Median	5.13	12.75

Peer Group Scattergram - 5 Years



	Return	Standard Deviation
● Driehaus Intl Small Gr	7.24	11.95
● MSCI ACWI exUS Sm Gr	4.89	12.46
— Median	4.95	12.50

Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Driehaus Intl Small Gr	4.46	101.66	82.72	2.85	0.61	0.53	0.98	8.25
MSCI ACWI exUS Sm Gr	0.00	100.00	100.00	0.00	N/A	0.34	1.00	8.97

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Driehaus Intl Small Gr	4.98	94.44	76.52	2.87	0.43	0.57	0.88	7.62
MSCI ACWI exUS Sm Gr	0.00	100.00	100.00	0.00	N/A	0.37	1.00	8.48



Fund Information

Fund Name : Driehaus Mutual Funds: Driehaus International Small Cap Growth Fund
Fund Family : Driehaus Capital Management LLC
Ticker : DRIOX
Inception Date : 08/01/2002
Fund Assets : \$245 Million
Portfolio Turnover : 118%

Portfolio Assets : \$245 Million
Portfolio Manager : Mouser/Carpenter/Burr
PM Tenure : 2007--2010--2014
Fund Style : IM International SMID Cap Growth Equity (MF)
Style Benchmark : MSCI AC World ex USA Small Growth

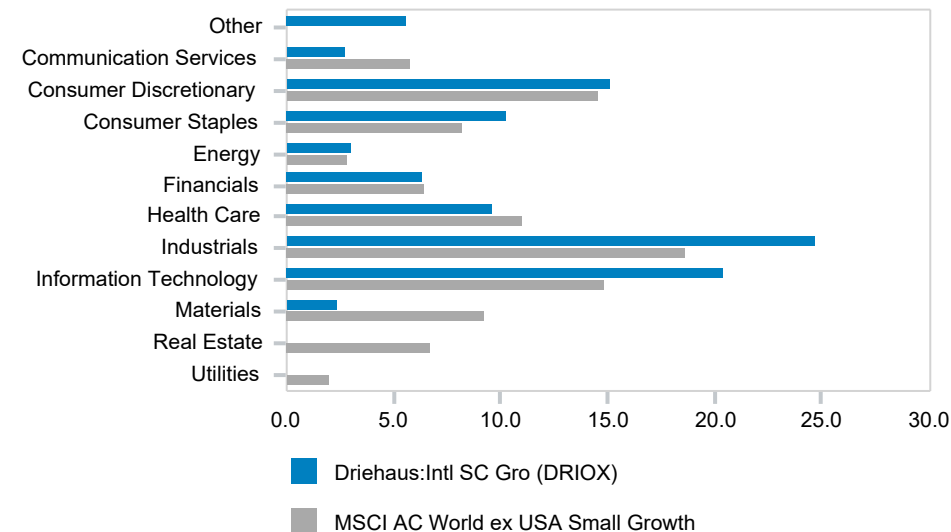
Portfolio Characteristics As of 07/31/2019

	Portfolio	Benchmark
Total Securities	105	2,303
Avg. Market Cap (\$)	4,867,125,982	902,359,159
Price/Earnings (P/E)	33.78	17.37
Price/Book (P/B)	4.81	2.60
Dividend Yield	1.74	1.84
Annual EPS	21.57	80.09
5 Yr EPS	17.58	15.91
3 Yr EPS Growth	19.88	N/A
Beta (5 Years, Monthly)	0.88	1.00

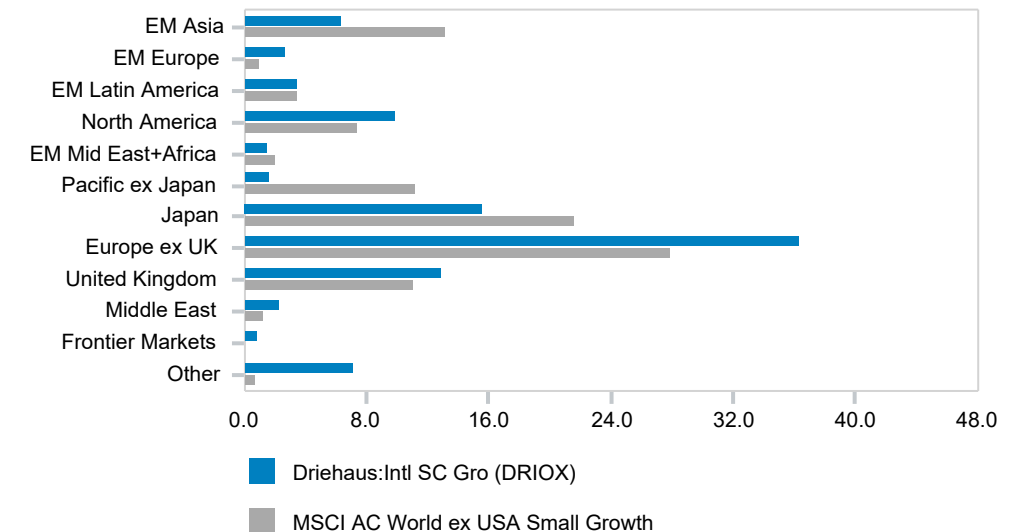
Top Ten Securities As of 06/30/2019

Puma SE ORD	1.9 %
Leonardo SpA ORD	1.9 %
Cellnex Telecom SA ORD	1.7 %
Li Ning Co Ltd ORD	1.7 %
Parkland Fuel Corp ORD	1.6 %
Scout24 AG ORD	1.6 %
Weir Group PLC ORD	1.5 %
Tecan Group AG ORD	1.5 %
Croda International PLC ORD	1.5 %
CCL Industries Inc ORD	1.5 %

Sector Weights As of 07/31/2019



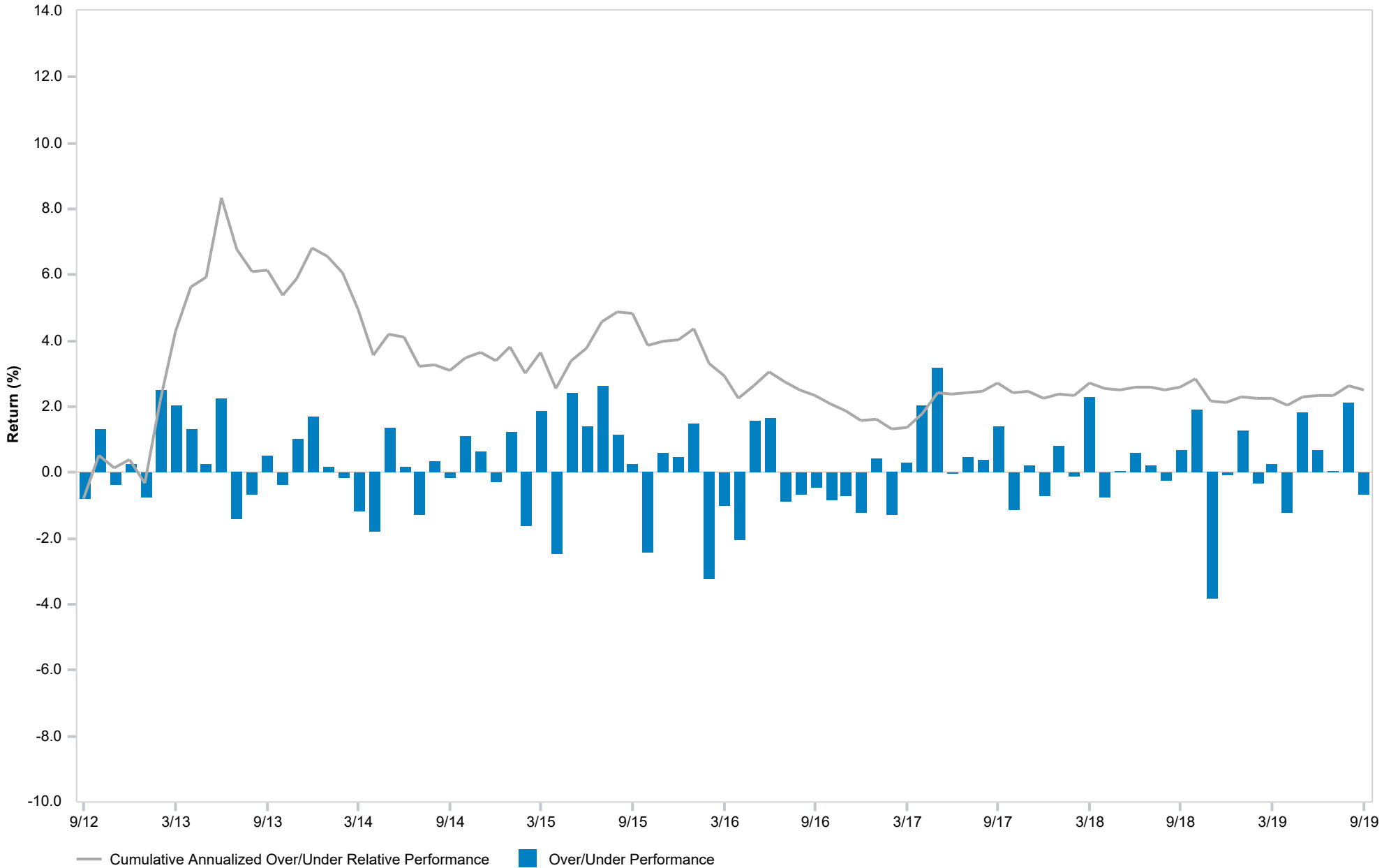
Region Weights As of 07/31/2019



Statistics provided by Lipper. Most recent available data shown.



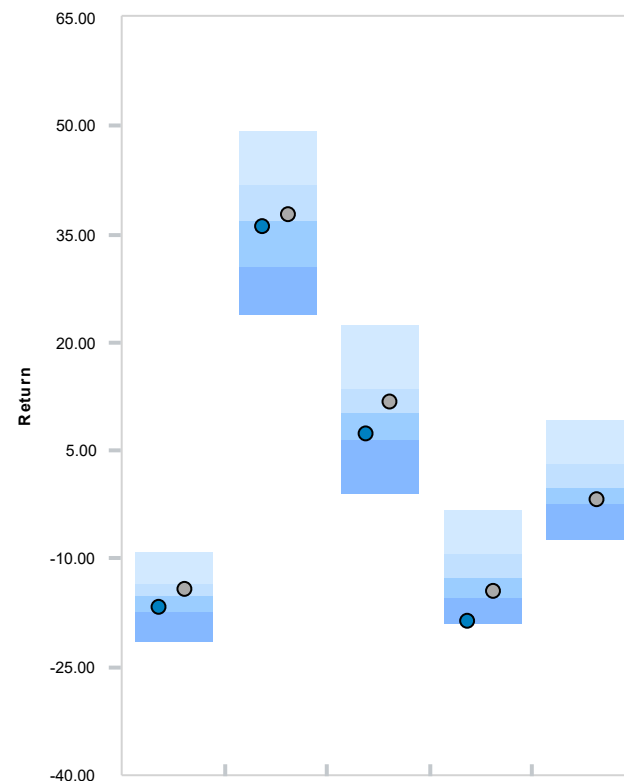
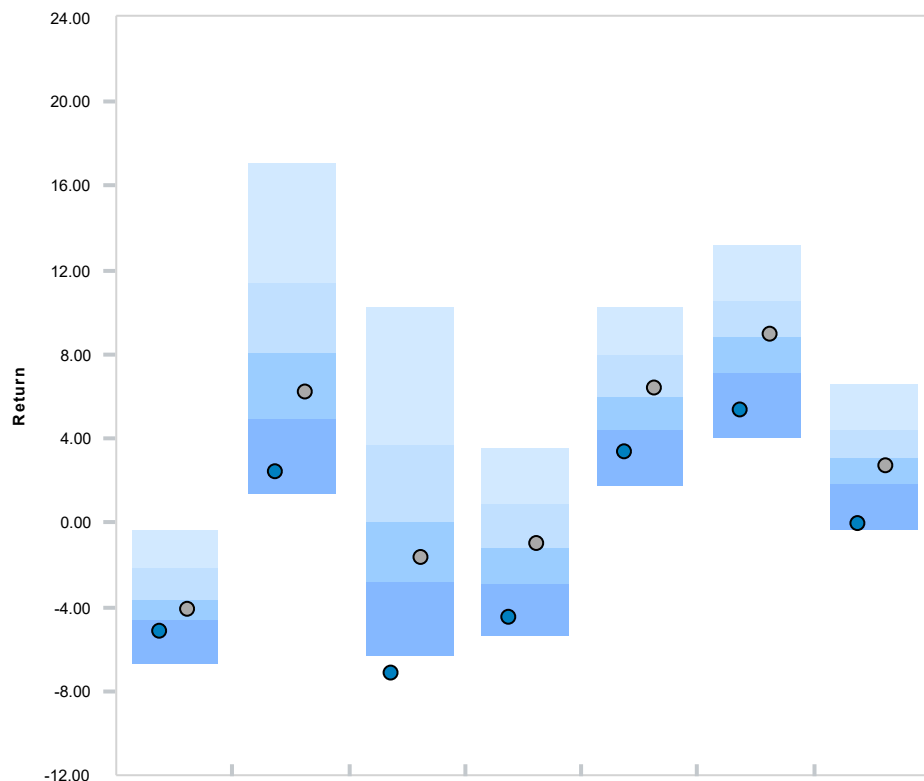
Relative Performance



Calculation based on monthly periodicity.



Plan Sponsor Peer Group Analysis - IM Emerging Markets Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● LMC Emerging Mkt Fund	-5.16 (85)	2.40 (90)	-7.14 (98)	-4.53 (91)	3.38 (88)	5.30 (89)	-0.09 (95)
● MSCI Emerging Mkt Index	-4.11 (61)	6.23 (62)	-1.63 (66)	-1.04 (46)	6.37 (45)	8.98 (49)	2.71 (56)
Median	-3.64	8.12	0.05	-1.24	5.96	8.89	3.07

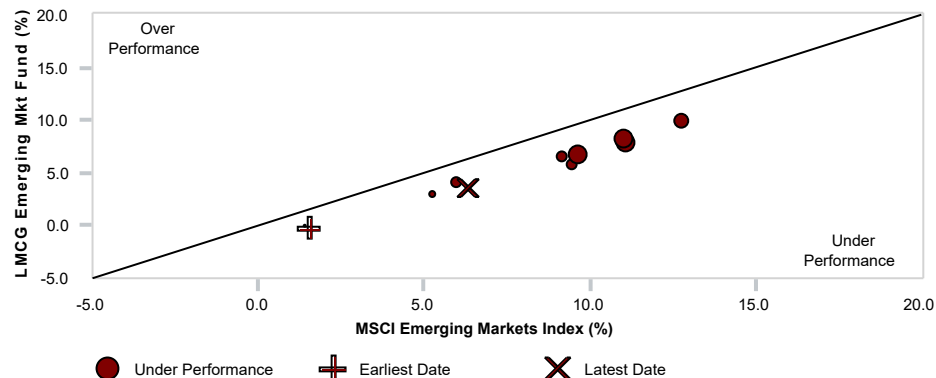
	2018	2017	2016	2015	2014
● LMC Emerging Mkt Fund	16.89 (69)	35.93 (56)	7.14 (71)	18.73 (95)	N/A
● MSCI Emerging Mkt Index	14.25 (36)	37.75 (42)	11.60 (40)	14.60 (67)	-1.82 (70)
Median	15.24	36.81	10.32	12.64	-0.09

Comparative Performance

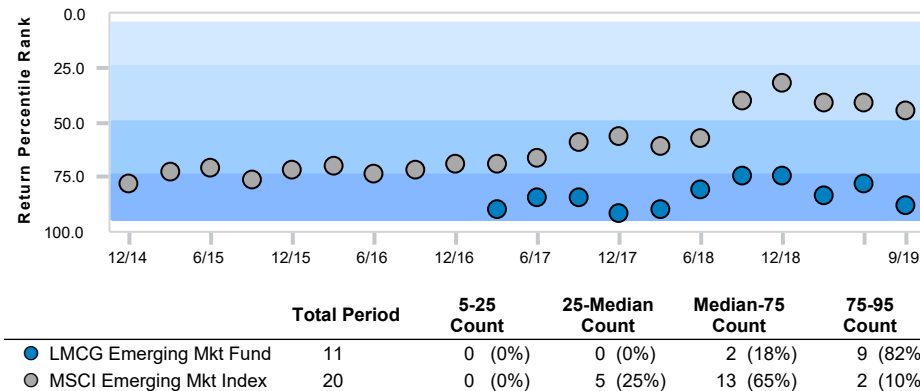
	1 Qtr Ending Jun-2019	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018
LMCG Emerging Mkt Fund	0.10 (86)	7.87 (80)	-9.32 (84)	-2.42 (51)	-7.93 (45)	2.00 (46)
MSCI Emerging Markets Index	0.74 (75)	9.97 (54)	-7.40 (53)	-0.95 (34)	-7.86 (42)	1.47 (57)
IM Emerging Markets Equity (SA+CF) Median	1.56	10.12	-7.25	-2.31	-8.27	1.77



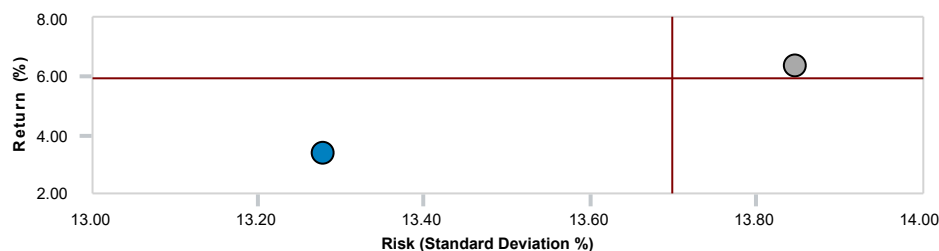
3 Yr Rolling Under/Over Performance - 5 Years



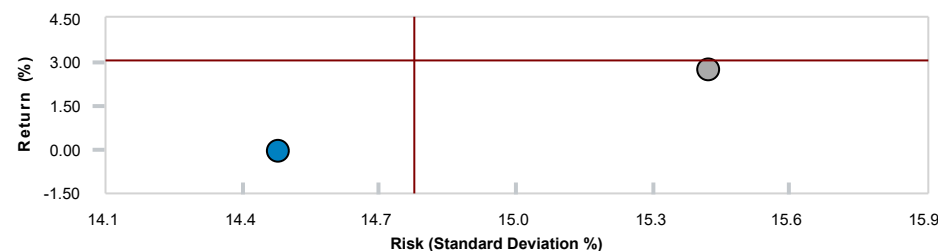
3 Yr Rolling Percentile Ranking - 5 Years



Peer Group Scattergram - 3 Years



Peer Group Scattergram - 5 Years



Historical Statistics - 3 Years

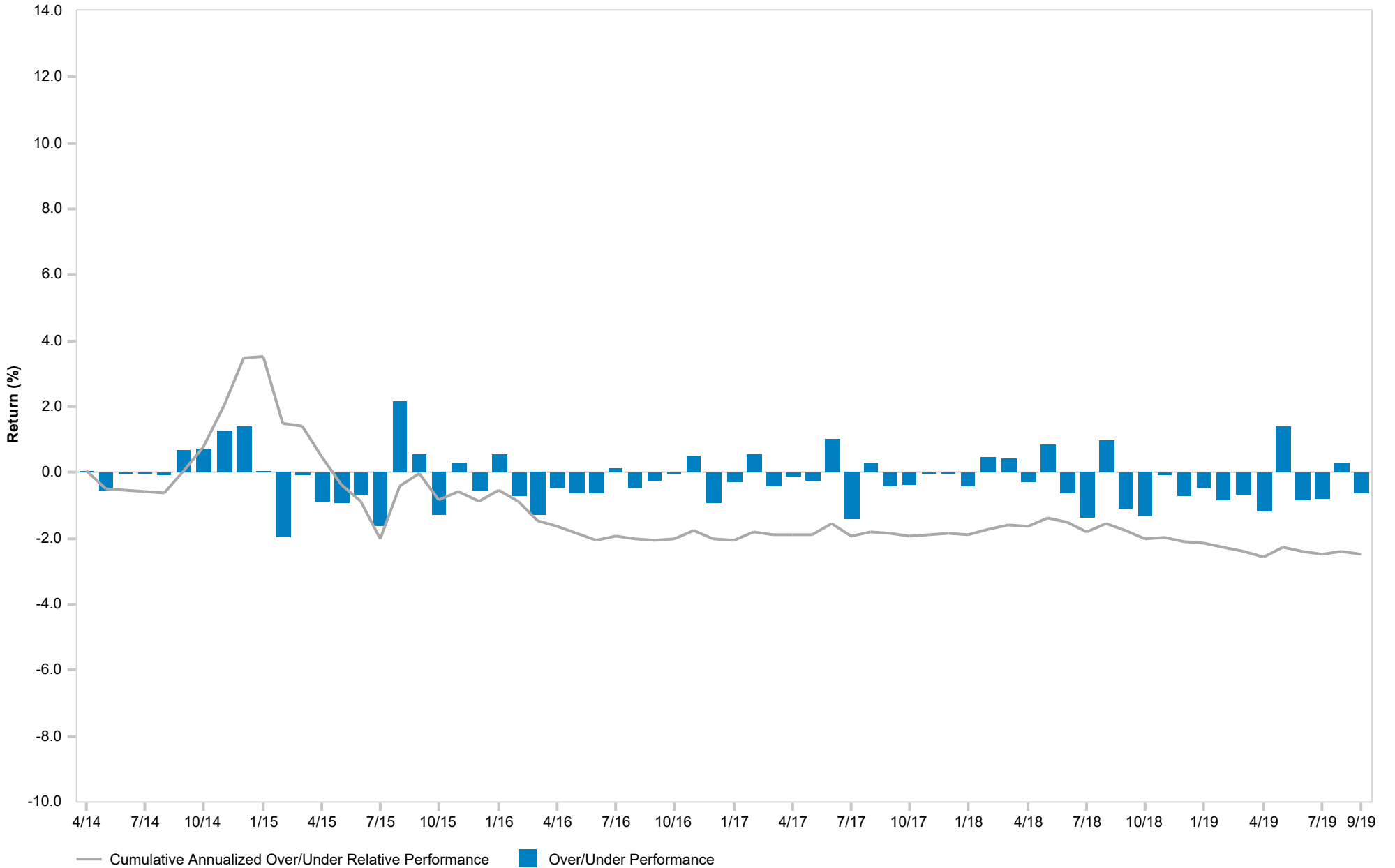
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
LMCG Emerging Mkt Fund	2.41	87.54	100.57	-2.51	-1.22	0.20	0.94	8.96
MSCI Emerging Markets Index	0.00	100.00	100.00	0.00	N/A	0.41	1.00	8.98

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
LMCG Emerging Mkt Fund	2.80	86.78	99.24	-2.58	-1.04	0.00	0.92	9.88
MSCI Emerging Markets Index	0.00	100.00	100.00	0.00	N/A	0.19	1.00	10.01



Relative Performance

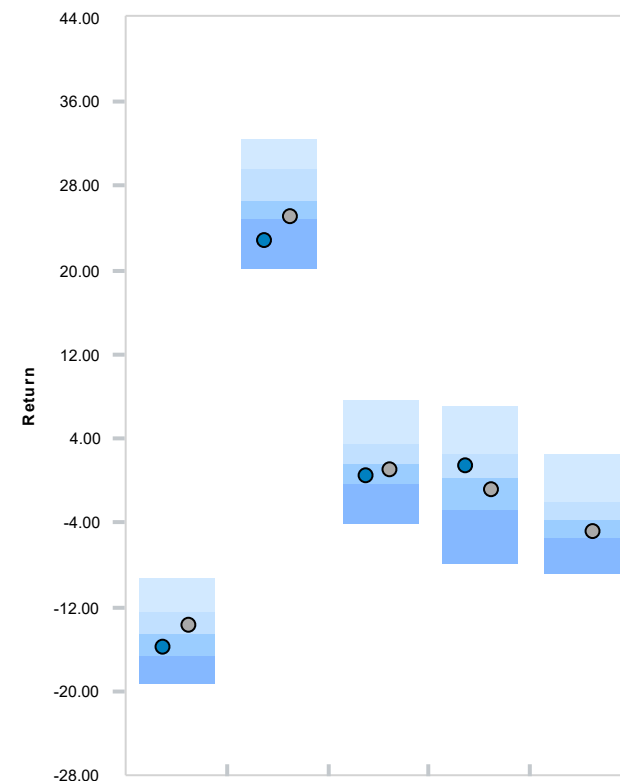
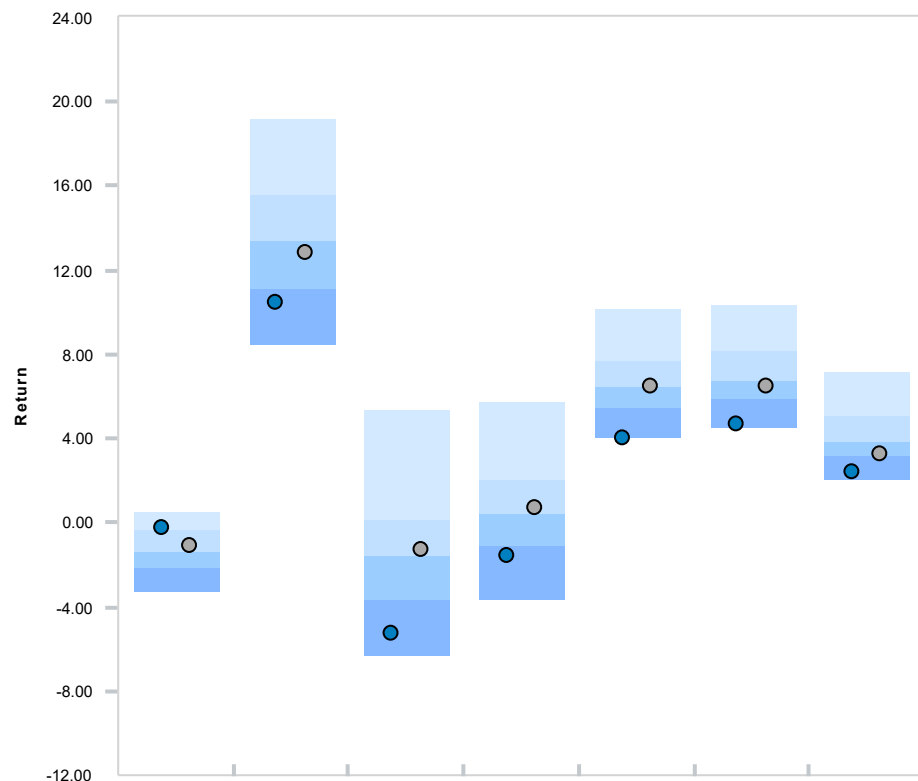


Calculation based on monthly periodicity.



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



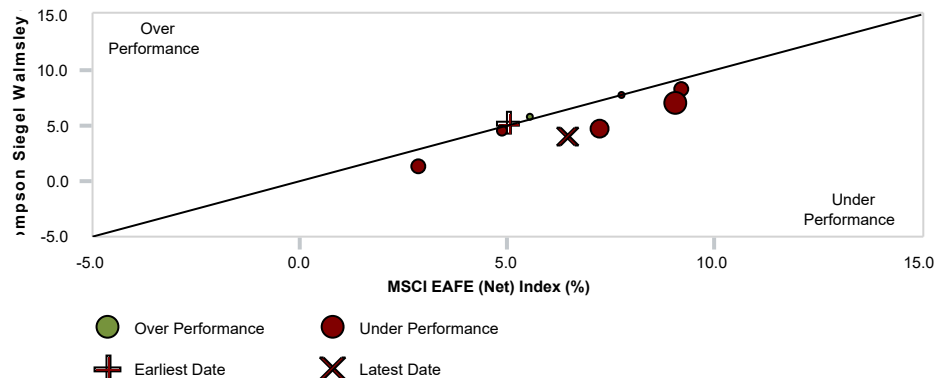
	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR	2018	2017	2016	2015	2014
● Thompson Siegel Walmsley	-0.29 (25)	10.44 (85)	-5.30 (88)	-1.62 (83)	4.01 (95)	4.64 (95)	2.41 (92)	15.93 (70)	22.70 (92)	0.47 (65)	1.38 (36)	N/A
● MSCI EAFE (Net) Index	-1.07 (41)	12.80 (62)	-1.34 (48)	0.68 (42)	6.48 (49)	6.49 (59)	3.27 (69)	13.79 (39)	25.03 (71)	1.00 (58)	-0.81 (59)	-4.90 (65)
Median	-1.42	13.38	-1.56	0.38	6.45	6.78	3.87	14.64	26.48	1.52	0.25	-3.70

Comparative Performance

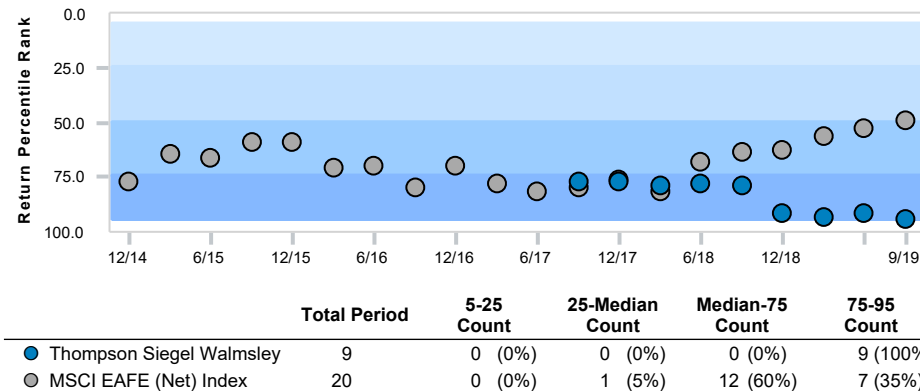
	1 Qtr Ending Jun-2019	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018
Thompson Siegel Walmsley	2.41 (79)	8.15 (96)	-14.25 (76)	0.98 (52)	-1.78 (50)	-1.15 (59)
MSCI EAFE (Net) Index	3.68 (45)	9.98 (75)	-12.54 (32)	1.35 (38)	-1.24 (39)	-1.53 (75)
IM International Large Cap Core Equity (SA+CF) Median	3.58	10.85	-13.18	1.01	-1.81	-0.87



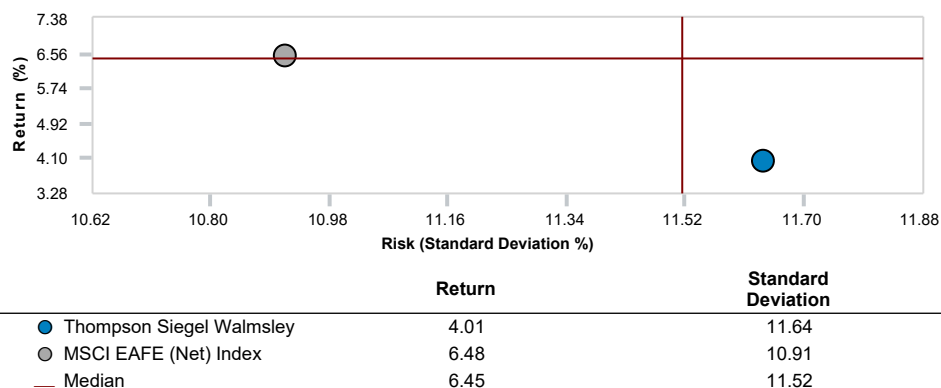
3 Yr Rolling Under/Over Performance - 5 Years



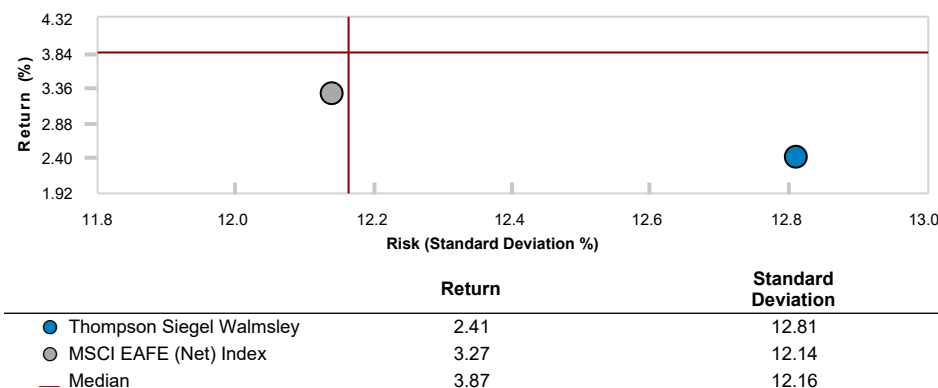
3 Yr Rolling Percentile Ranking - 5 Years



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
Thompson Siegel Walmsley	1.93	95.69	111.46	-2.61	-1.18	0.27	1.05	8.15
MSCI EAFE (Net) Index	0.00	100.00	100.00	0.00	N/A	0.49	1.00	7.31

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Thompson Siegel Walmsley	2.20	101.64	107.06	-0.91	-0.34	0.18	1.04	8.73
MSCI EAFE (Net) Index	0.00	100.00	100.00	0.00	N/A	0.25	1.00	8.21



Fund Information

Fund Name : Transamerica Funds: Transamerica International Equity; Class I Shares
Fund Family : Transamerica Asset Management Inc
Ticker : TSWIX
Inception Date : 12/18/1992
Fund Assets : \$2,114 Million
Portfolio Turnover : 21%

Portfolio Assets : \$4,555 Million
Portfolio Manager : Brandon H. Harrell
PM Tenure : 1995
Fund Style : IM International Multi-Cap Value Equity (MF)
Style Benchmark : MSCI EAFE (Net) Index

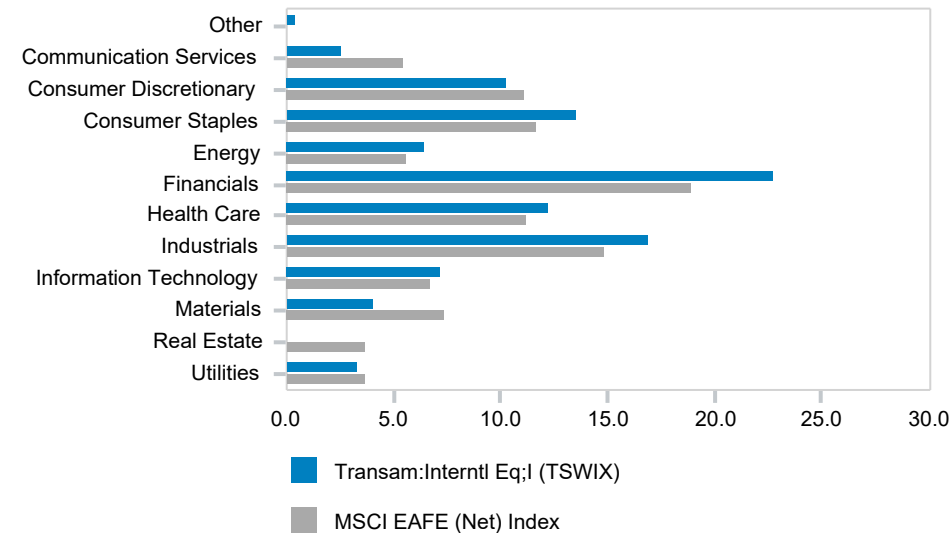
Portfolio Characteristics As of 06/30/2019

	Portfolio	Benchmark
Total Securities	105	923
Avg. Market Cap (\$)	51,877,458,088	10,228,173,176
Price/Earnings (P/E)	19.15	14.84
Price/Book (P/B)	1.96	2.26
Dividend Yield	3.02	3.58
Annual EPS	5.74	123.10
5 Yr EPS	8.08	8.06
3 Yr EPS Growth	11.45	N/A
Beta (5 Years, Monthly)	1.00	1.00

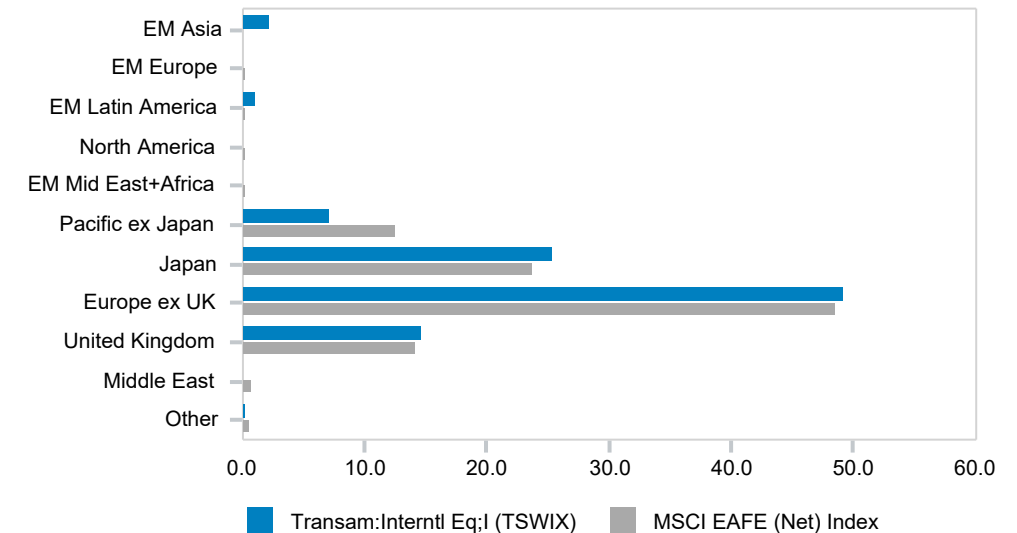
Top Ten Securities As of 06/30/2019

Nestle SA ORD	2.3 %
Novartis AG ORD	2.1 %
Sony Corp ORD	2.1 %
Sumitomo Mitsui Financial Group	1.8 %
Koninklijke Philips NV ORD	1.8 %
HeidelbergCement AG ORD	1.8 %
Orix Corp ORD	1.7 %
Veolia Environnement SA ORD	1.7 %
Allergan plc ORD	1.7 %
Siemens AG ORD	1.7 %

Sector Weights As of 06/30/2019



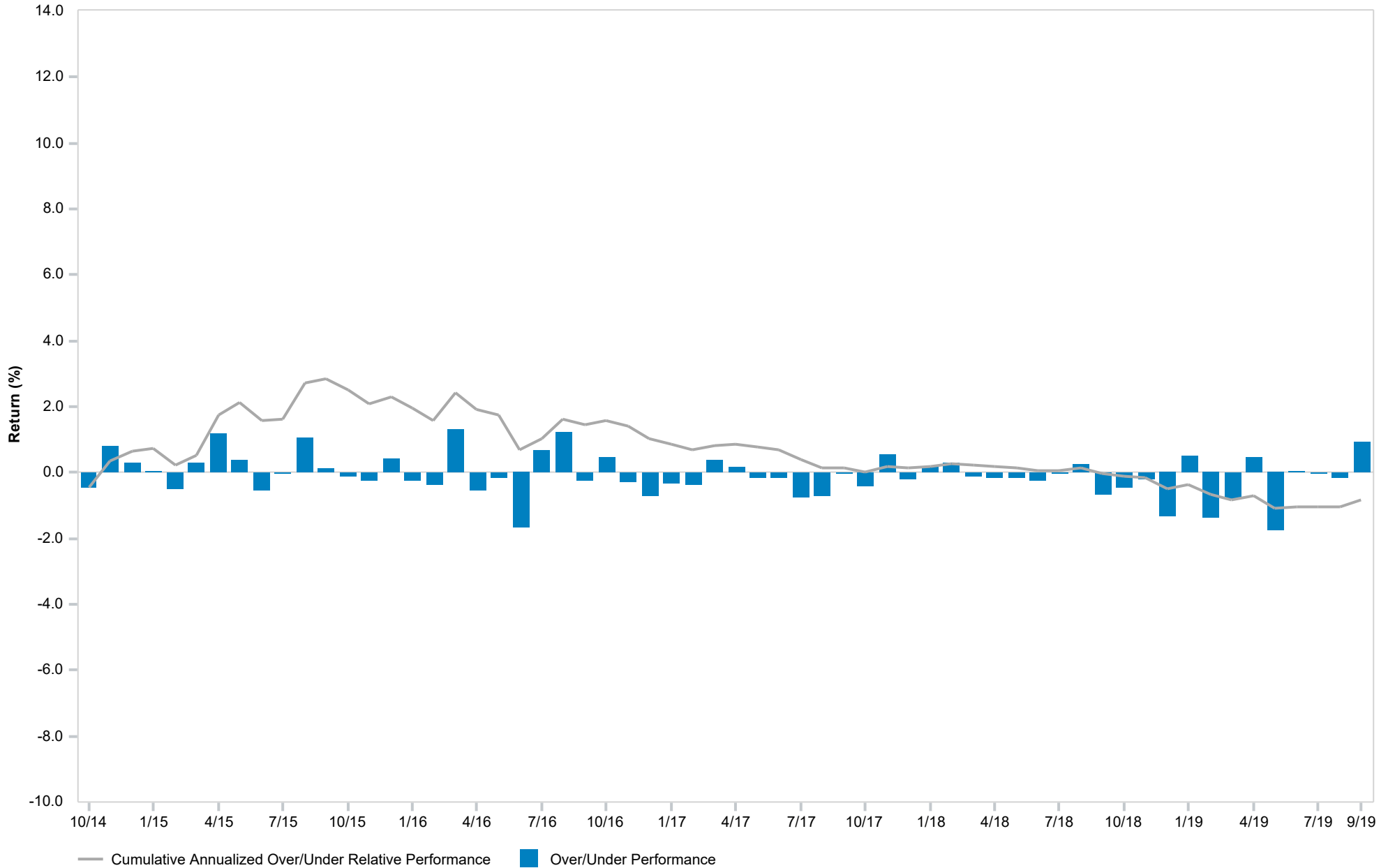
Region Weights As of 06/30/2019



Statistics provided by Lipper. Most recent available data shown.



Relative Performance



Calculation based on monthly periodicity.

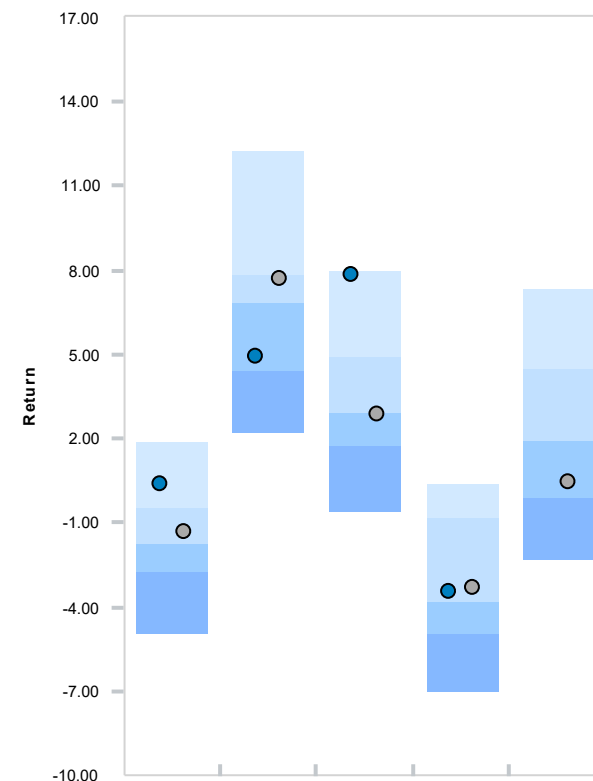
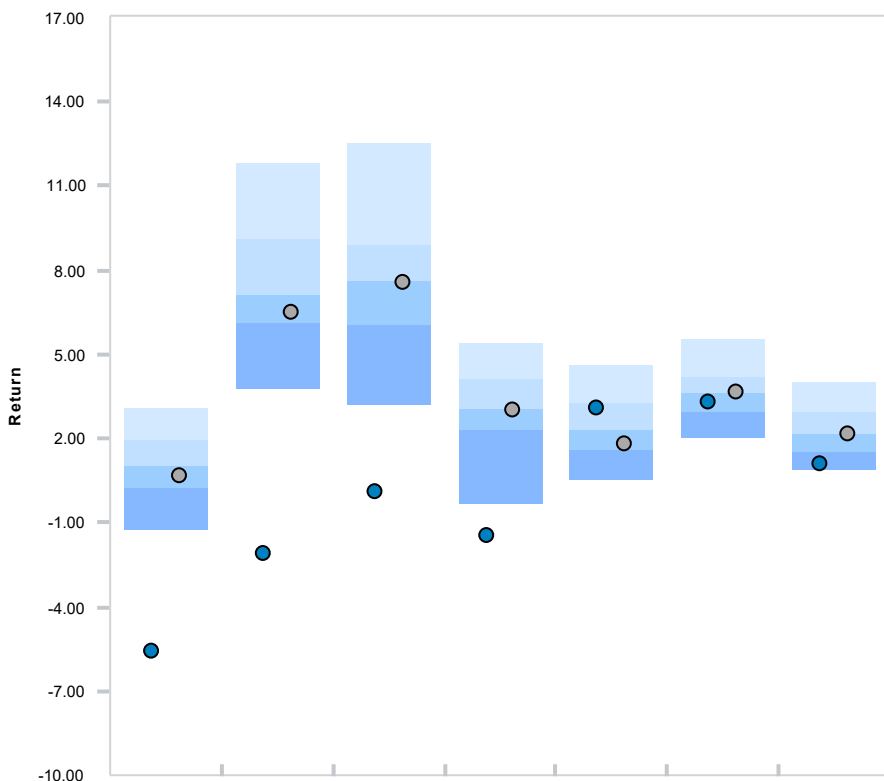


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Fixed Income Managers



Plan Sponsor Peer Group Analysis - IM Global Fixed Income (MF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Templeton Global Multisector	-5.62 (100)	-2.11 (100)	0.07 (100)	-1.49 (100)	3.05 (34)	3.28 (65)	1.06 (91)
● Blmbg. Barc. Global Multiverse	0.63 (58)	6.45 (69)	7.54 (51)	3.02 (52)	1.81 (65)	3.61 (54)	2.14 (51)
Median	1.01	7.12	7.65	3.05	2.29	3.64	2.16

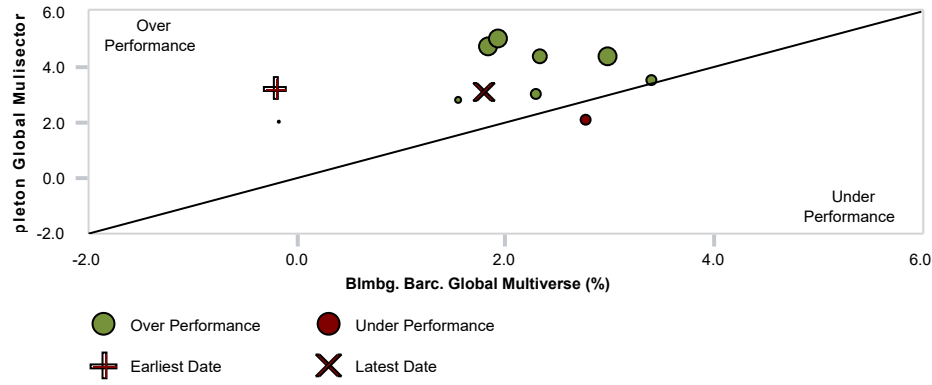
	2018	2017	2016	2015	2014
● Templeton Global Multisector	0.37 (12)	4.91 (74)	7.85 (6)	-3.43 (44)	N/A
● Blmbg. Barc. Global Multiverse	-1.36 (42)	7.69 (29)	2.84 (51)	-3.29 (42)	0.48 (63)
Median	-1.75	6.81	2.92	-3.83	1.91

Comparative Performance

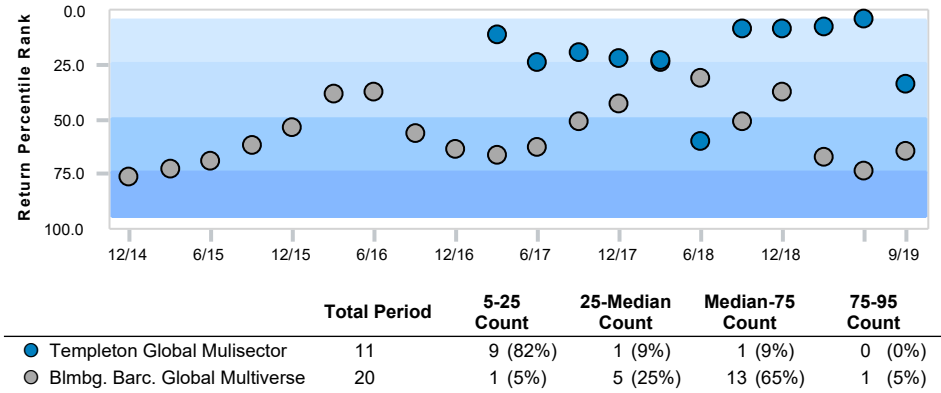
	1 Qtr Ending Jun-2019	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018
Templeton Global Multisector	2.01 (95)	1.68 (90)	2.23 (3)	0.37 (21)	-4.22 (89)	2.12 (10)
Blmbg. Barc. Global Multiverse	3.31 (55)	2.39 (76)	1.02 (23)	-0.80 (66)	-2.83 (53)	1.30 (34)
IM Global Fixed Income (MF) Median	3.37	3.10	0.35	-0.39	-2.29	0.80



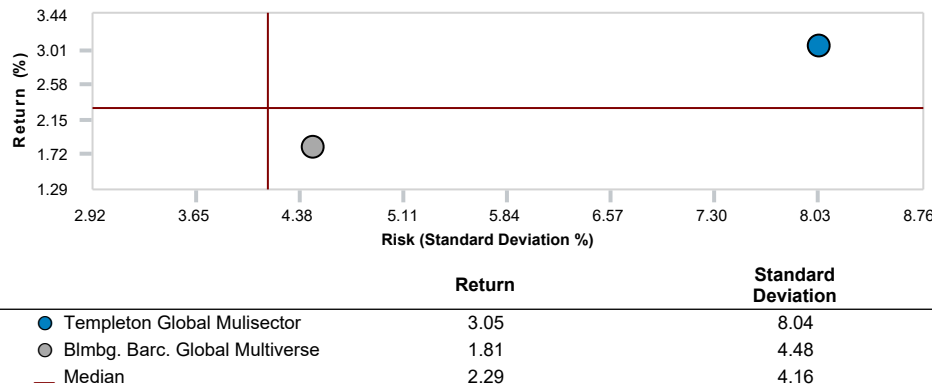
3 Yr Rolling Under/Over Performance - 5 Years



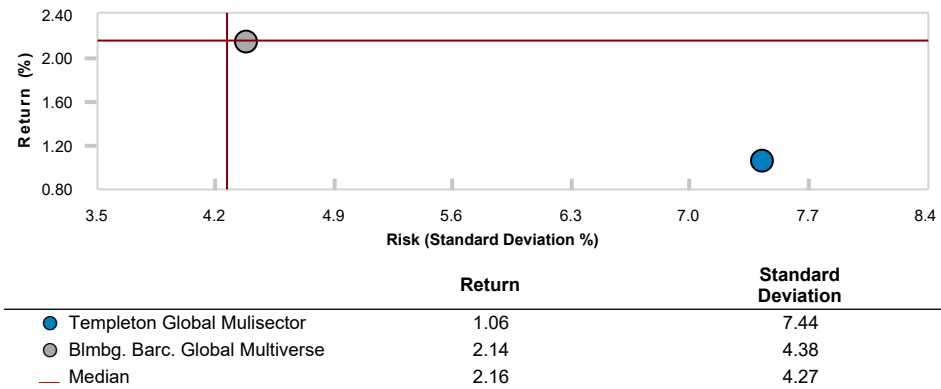
3 Yr Rolling Percentile Ranking - 5 Years



Peer Group Scattergram - 3 Years



Peer Group Scattergram - 5 Years



Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Templeton Global Multisector	9.94	-4.82	-70.68	4.08	0.15	0.22	-0.35	6.15
Blmbg. Barc. Global Multiverse	0.00	100.00	100.00	0.00	N/A	0.08	1.00	3.16

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Templeton Global Multisector	8.90	-9.66	-41.54	1.61	-0.10	0.05	-0.12	5.56
Blmbg. Barc. Global Multiverse	0.00	100.00	100.00	0.00	N/A	0.29	1.00	2.83



Fund Information

Fund Name :	Templeton Income Trust: Templeton Global Total Return Fund; Class R6 Shares	Portfolio Assets :	\$5,616 Million
Fund Family :	Franklin Templeton Investments	Portfolio Manager :	Hasenstab/Desai
Ticker :	FTRRX	PM Tenure :	2013--2013
Inception Date :	05/01/2013	Fund Style :	IM International Fixed Income (MF)
Fund Assets :	\$1,046 Million	Style Benchmark :	FTSE Non-U.S. World Government Bond
Portfolio Turnover :	21%		

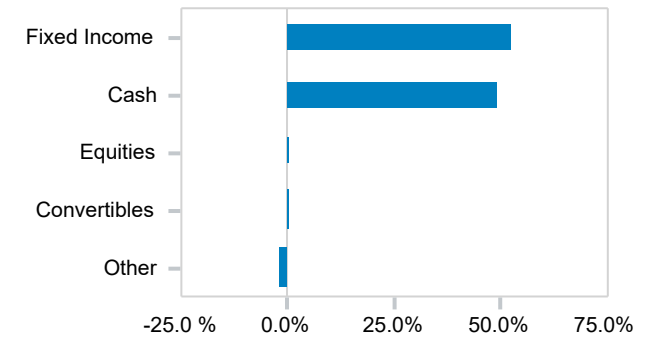
Fund Characteristics As of 06/30/2019

Avg. Coupon	3.84 %
Nominal Maturity	1.39 Years
Effective Maturity	N/A
Duration	-2.20 Years
SEC 30 Day Yield	N/A
Avg. Credit Quality	N/A

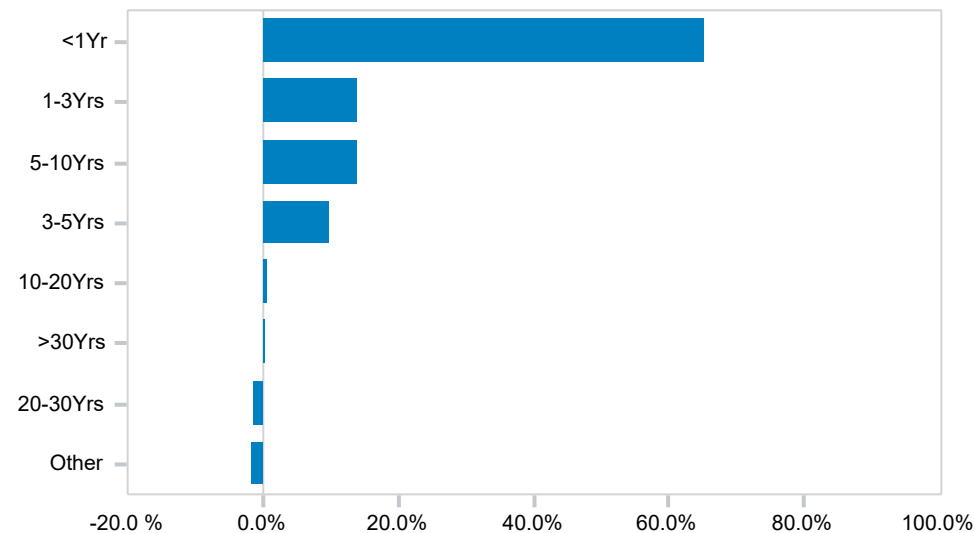
Top Ten Securities As of 06/30/2019

Government Agency Securities	28.6 %
Fgn. Currency Denominated Bonds	20.7 %
Treasury Notes/Bonds	2.5 %
Corporate Notes/Bonds	0.7 %

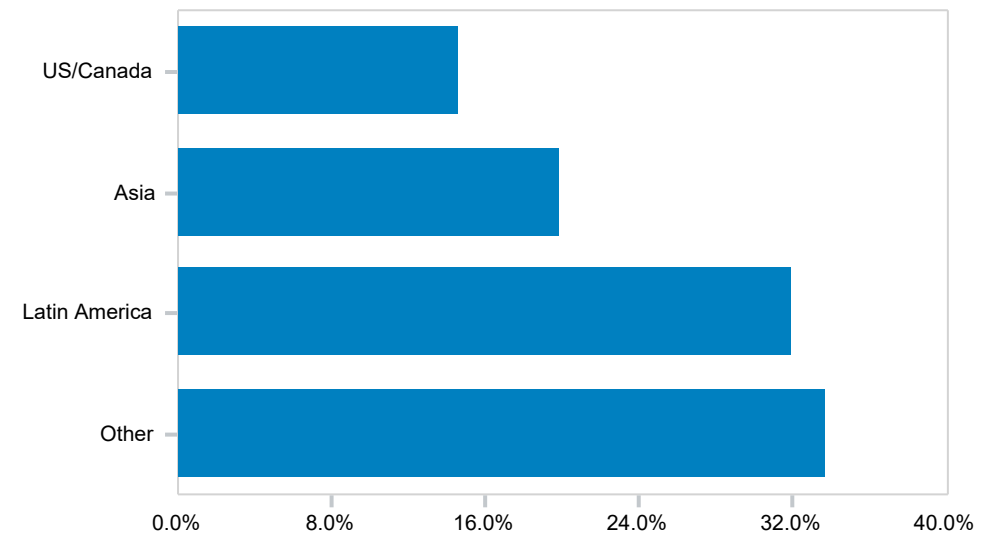
Asset Allocation As of 06/30/2019



Maturity Distribution As of 06/30/2019



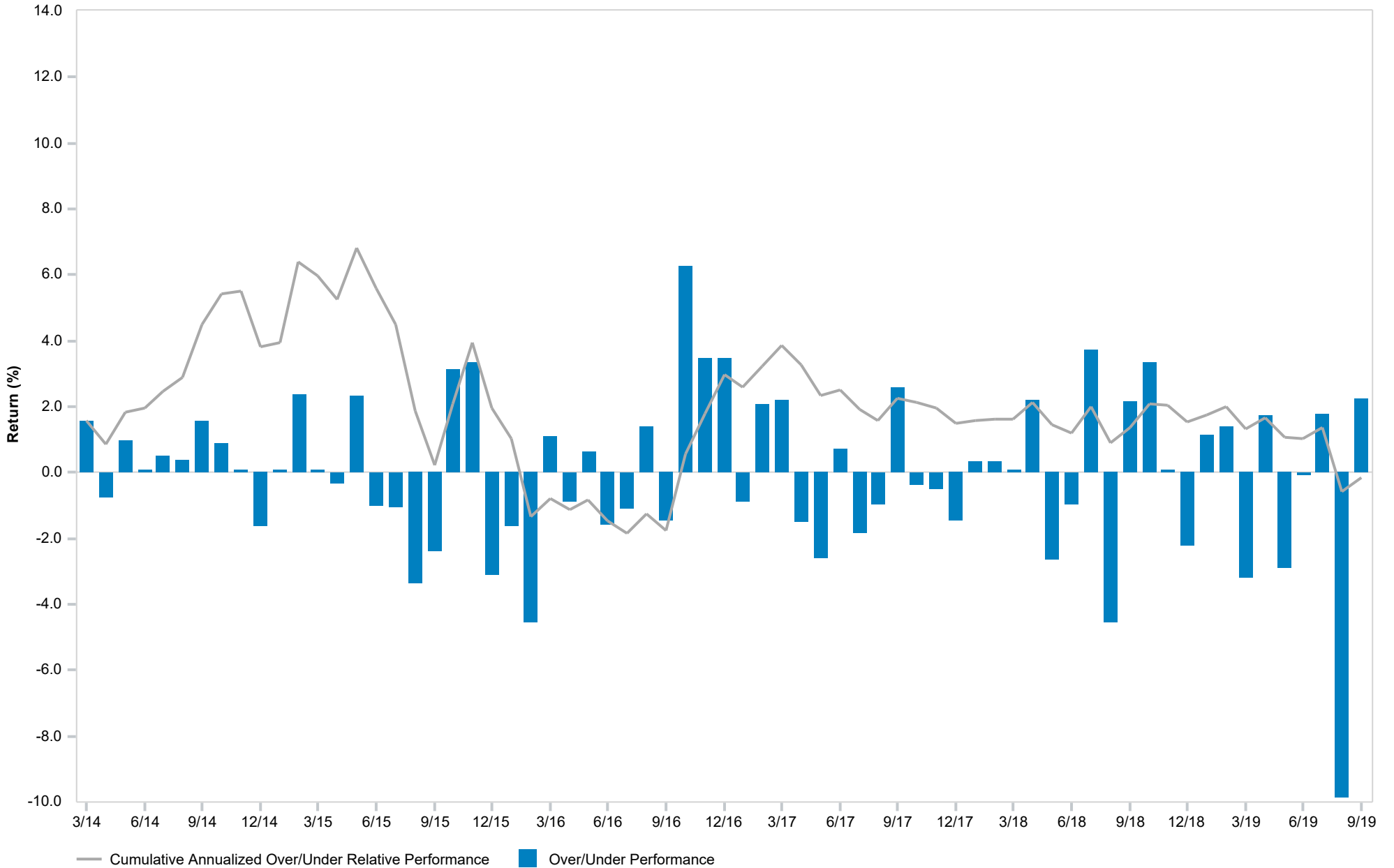
Sector/Quality Allocation As of 06/30/2019



Statistics provided by Lipper. Most recent available data shown.



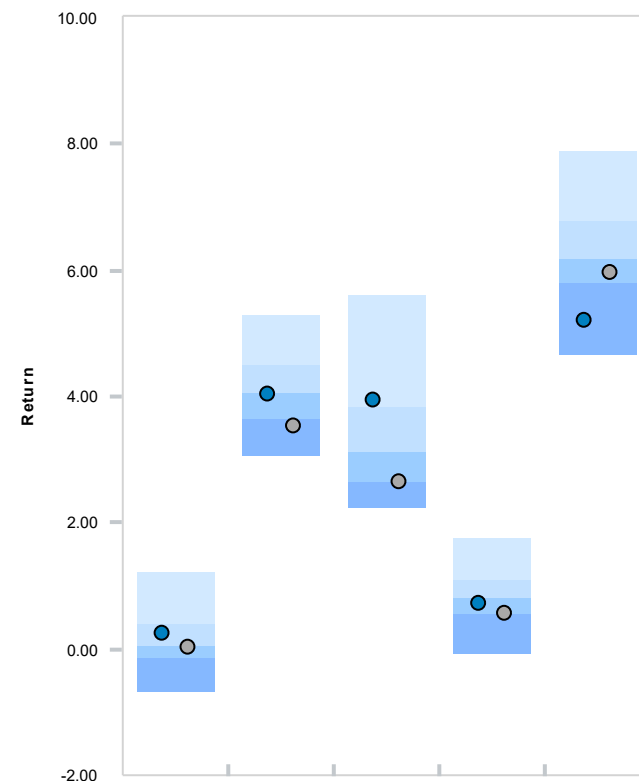
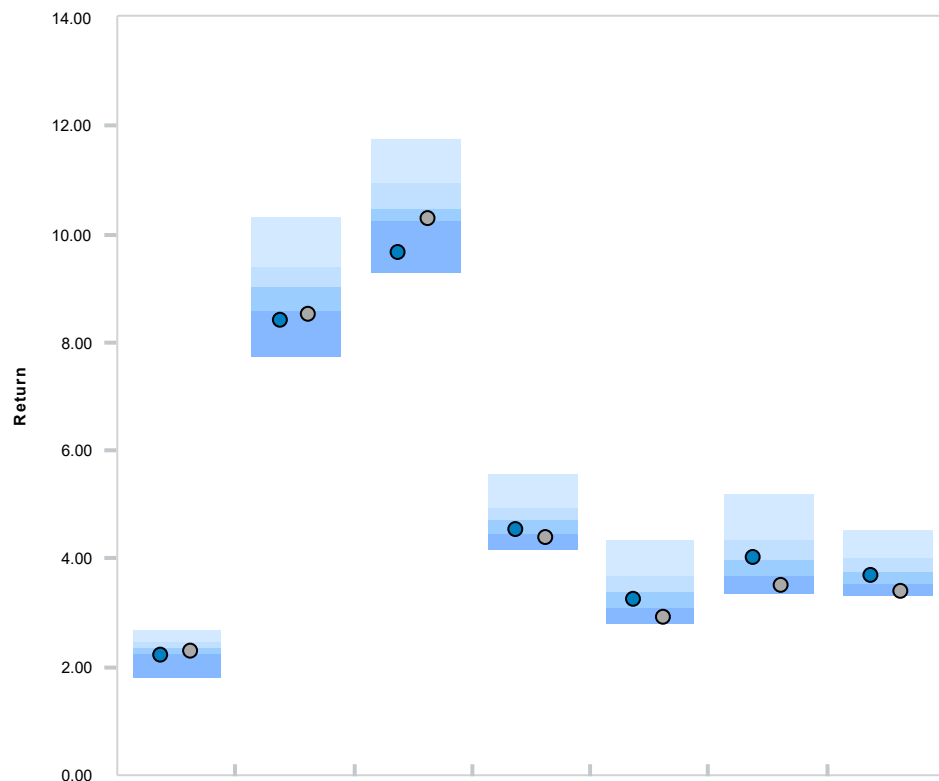
Relative Performance



Calculation based on monthly periodicity.



Plan Sponsor 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
● Orleans Capital	2.21 (85)	8.39 (88)	9.65 (91)	4.55 (64)	3.23 (64)	4.03 (46)	3.67 (61)
● BB U.S. Aggregate Index	2.27 (73)	8.52 (83)	10.30 (70)	4.38 (85)	2.92 (92)	3.49 (90)	3.38 (91)
Median	2.34	9.01	10.48	4.71	3.38	3.97	3.76

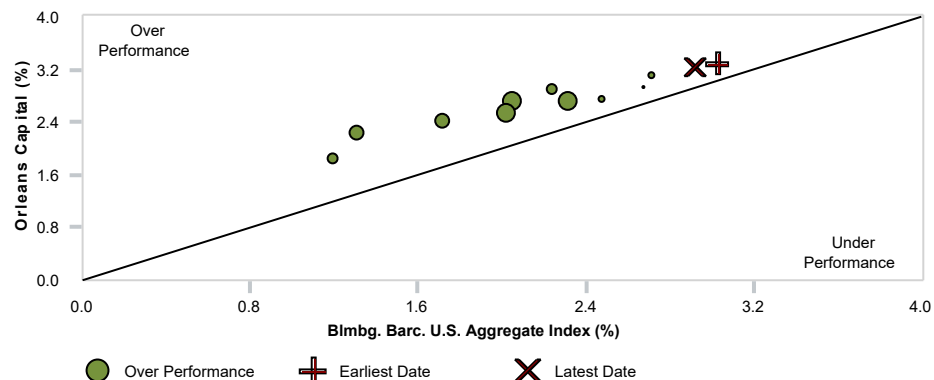
	2018	2017	2016	2015	2014
● Orleans Capital	0.23 (34)	4.03 (53)	3.93 (23)	0.72 (62)	5.20 (93)
● BB U.S. Aggregate Index	0.01 (61)	3.54 (85)	2.65 (77)	0.55 (75)	5.97 (67)
Median	0.07	4.06	3.12	0.83	6.17

Comparative Performance

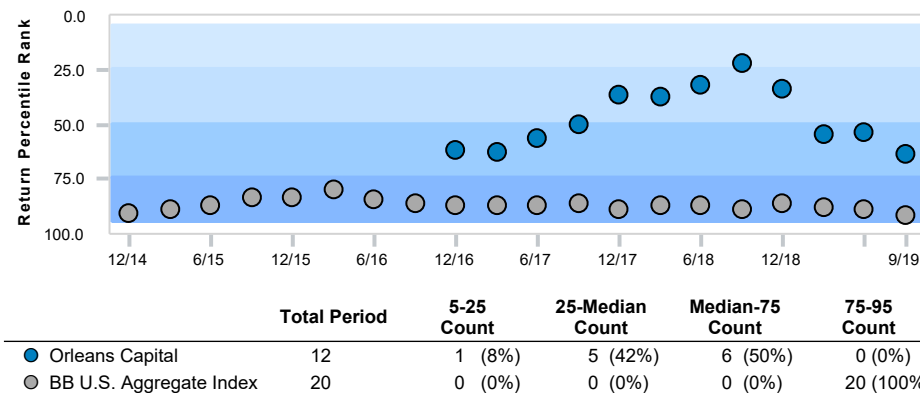
	1 Qtr Ending Jun-2019	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018
Orleans Capital	2.86 (92)	3.09 (60)	1.16 (71)	0.49 (9)	-0.11 (54)	-1.30 (37)
Blmbg. Barc. U.S. Aggregate Index	3.08 (71)	2.94 (83)	1.64 (23)	0.02 (84)	-0.16 (73)	-1.46 (67)
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	3.14	3.22	1.39	0.18	-0.09	-1.37



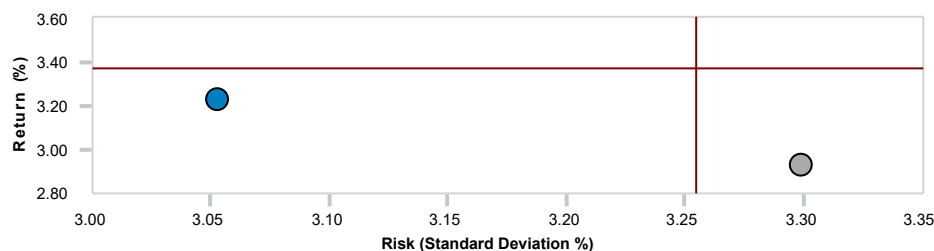
3 Yr Rolling Under/Over Performance - 5 Years



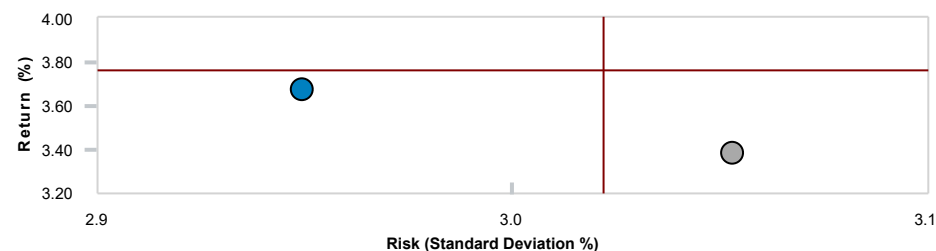
3 Yr Rolling Percentile Ranking - 5 Years



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
Orleans Capital	0.66	99.59	89.38	0.56	0.44	0.58	0.91	1.76
Bimbg. Barc. U.S. Aggregate Index	0.00	100.00	100.00	0.00	N/A	0.44	1.00	1.88

Historical Statistics - 5 Years

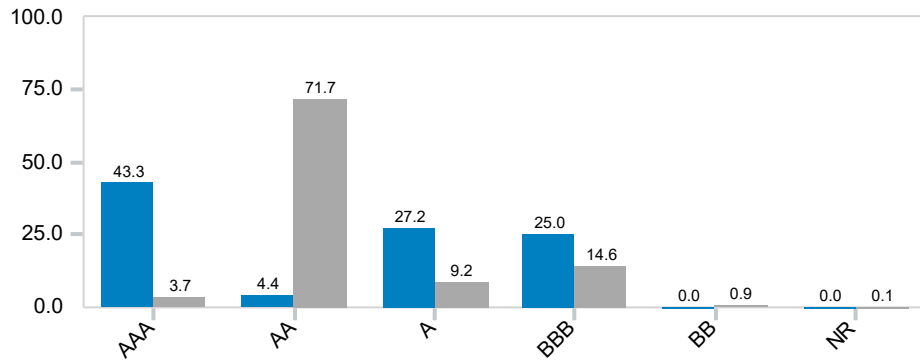
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Orleans Capital	0.84	101.13	91.20	0.53	0.34	0.93	0.93	1.52
Bimbg. Barc. U.S. Aggregate Index	0.00	100.00	100.00	0.00	N/A	0.81	1.00	1.61



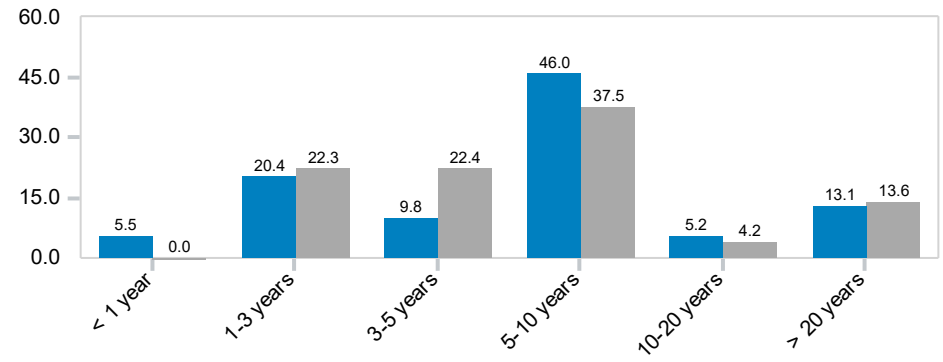
Portfolio Characteristics

	Portfolio	Benchmark
Avg. Maturity	8.47	8.04
Avg. Quality	AA-	AA
Coupon Rate (%)	3.73	3.20
Current Yield	3.52	3.01
Effective Duration	5.72	5.84

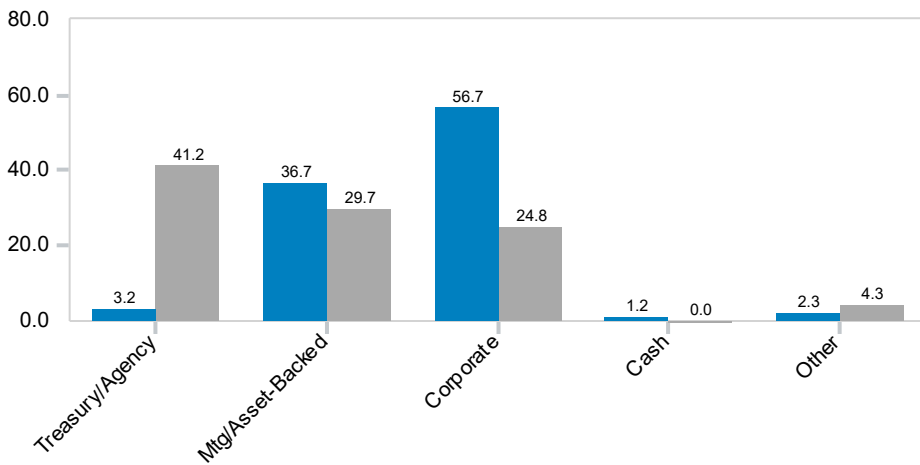
Credit Quality Distribution (%)



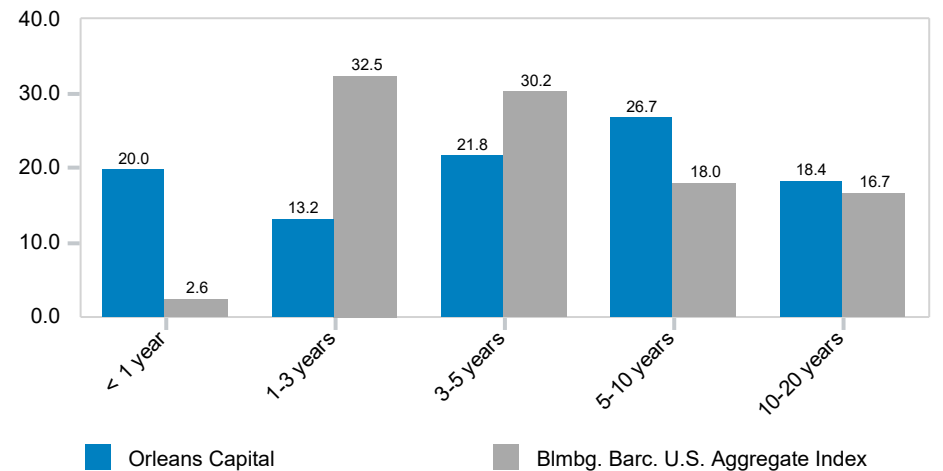
Maturity Distribution (%)



Sector Distribution (%)



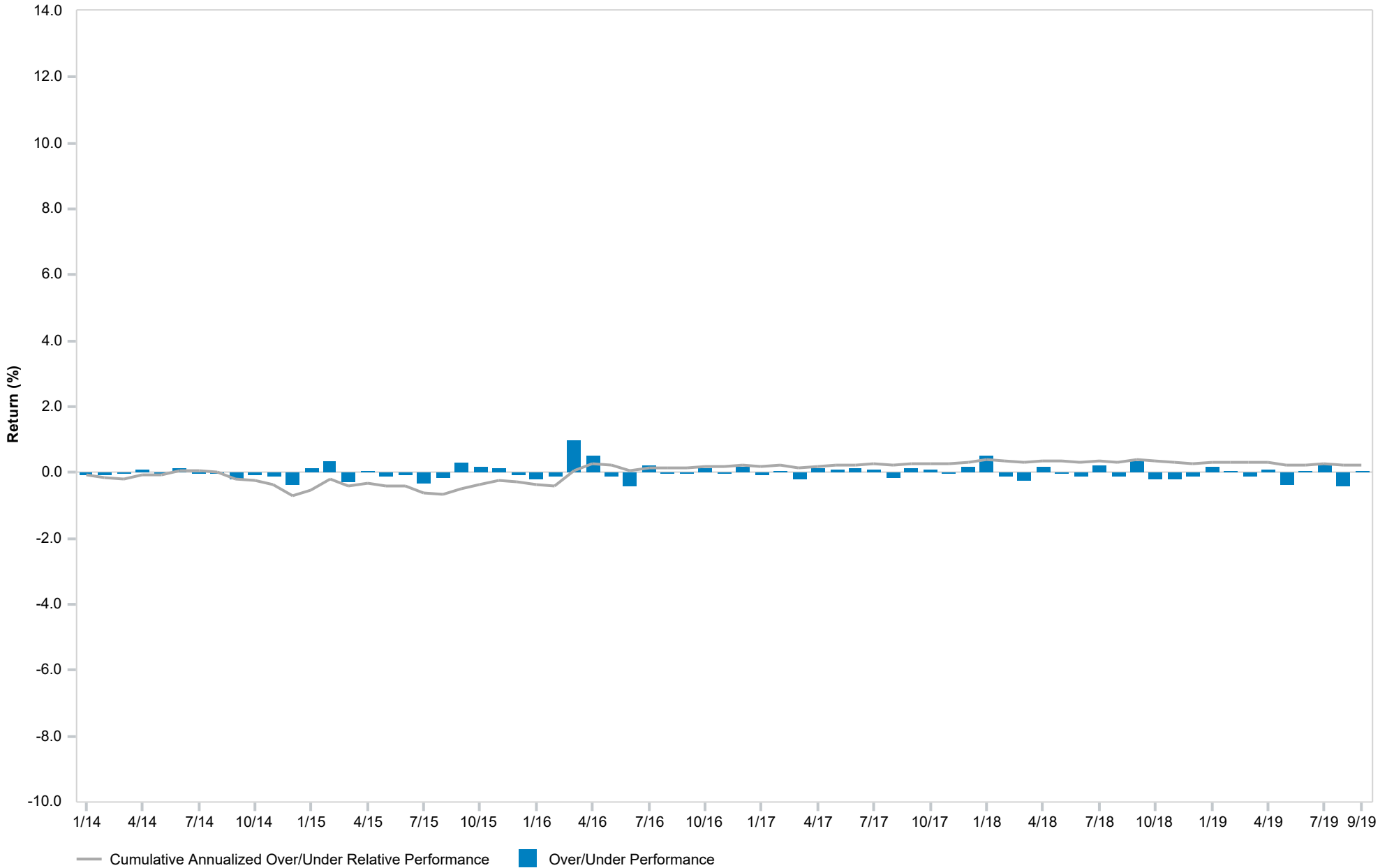
Duration Distribution (%)



■ Orleans Capital ■ Blmbg. Barc. U.S. Aggregate Index



Relative Performance



Calculation based on monthly periodicity.



Austin Police Retirement System
Investment Pricing Summary
as of 9/30/2019

Plan	Most Recent Statement Date	Statement Frequency	Statement Source
Total Retirement System			
Total Equity			
Total Domestic Equity			
NT Collective Russell 3000 Fund	9/30/2019	Monthly	Custodian
Baird Mid Cap Growth	9/30/2019	Monthly	Custodian
Nuance Mid Cap Value	9/30/2019	Monthly	Custodian
Kennedy Small Cap Value	9/30/2019	Monthly	Custodian
Total International Equity			
Thompson Siegel & Walmsley	9/30/2019	Monthly	Custodian
Driehaus International Small Cap Growth	9/30/2019	Monthly	Custodian
LMCG Emerging Markets	9/30/2019	Monthly	Custodian
Total Other Equity			
Huff Energy Fund	12/31/2017	Quarterly	Manager
Sail Venture Fund I	12/31/2014	Quarterly	Manager
Sail Venture Fund II	12/31/2014	Quarterly	Manager
Sail Pre-Exit Acceleration Fund	12/31/2014	Quarterly	Manager
Excelsior Investors, Ltd.	12/31/2018	Monthly	Manager
Franklin Park	6/30/2019	Quarterly	Manager
Total Fixed Income			
Total Fixed Income Funds			
Orleans Capital	9/30/2019	Monthly	Custodian
Templeton Global Multisector Plus	9/30/2019	Monthly	Custodian

Austin Police Retirement System
Investment Pricing Summary
as of 9/30/2019

Plan	Most Recent Statement Date	Statement Frequency	Statement Source
Total Other Fixed Income Funds			
Capital Point Partners	6/30/2019	Quarterly	Manager
Franchise Equity Capital Partners II	9/30/2019	Quarterly	Manager
LBC Credit Partners III	6/30/2019	Quarterly	Manager
LBC Credit Partners IV	6/30/2019	Quarterly	Manager
Providence Debt Fund III	6/30/2019	Quarterly	Manager
Total Alternatives			
Total Real Estate (Composite)(6091100)			
Rockspring Capital Land Funds (I - VI)	9/30/2019	Quarterly	Manager
Rockspring Capital Land Fund I	9/30/2019	Quarterly	Manager
Rockspring Capital Land Fund II	9/30/2019	Quarterly	Manager
Rockspring Capital Land Fund III	9/30/2019	Quarterly	Manager
Rockspring Capital Land Fund V	9/30/2019	Quarterly	Manager
Rockspring Capital Land Fund VI	9/30/2019	Quarterly	Manager
Ares Advisors (V & VI)	9/30/2019	Quarterly	Manager
Ares Value Enhancement Fund V	9/30/2019	Quarterly	Manager
Ares Value Enhancement Fund VI	9/30/2019	Quarterly	Manager
Edison Investments	9/30/2019	Quarterly	Manager
India Property Fund	9/30/2019	Quarterly	Manager
Gainesville Property	12/31/2017	Quarterly	Manager
Morgan Stanley	9/30/2019	Quarterly	Manager
AEW Parters VIII	6/30/2019	Quarterly	Manager

Austin Police Retirement System
Investment Pricing Summary
as of 9/30/2019

Plan	Most Recent Statement Date	Statement Frequency	Statement Source
GreenOak US III	6/30/2019	Quarterly	Manager
Total Timber Funds			
BTG Pactual 1	6/30/2019	Quarterly	Manager
Capitol Timberland Investments	9/30/2019	Quarterly	Manager
Domain Environmental	6/30/2019	Quarterly	Manager
Total Multi Asset Funds			
Double Eagle Capital Ace Fund, Ltd.	6/30/2019	Monthly	Manager
BlackRock Multi Asset	9/30/2019	Monthly	Manager
Cash Account	9/30/2019	Monthly	Custodian
PE Cash Account	9/30/2019	Monthly	Custodian
Retiree Death Benefit Account	9/30/2019	Monthly	Custodian
APRS Building			

	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
Total Domestic Equity	0.32	397,157,250	1,251,921	
NT Collective Russell 3000 Index	0.02	239,260,172	47,852	0.02 % of Assets
Baird Mid Cap Growth	0.68	63,648,284	431,890	0.70 % of First \$50 M 0.60 % Thereafter
Nuance Mid Cap Value	0.67	52,231,094	352,002	0.70 % of First \$25 M 0.65 % Thereafter
Kennedy Small Cap Value	1.00	42,017,700	420,177	1.00 % of Assets
Total International Equity	0.69	110,468,972	762,633	
Thompson Siegel & Walmsley	0.65	78,138,667	507,901	0.65 % of Assets
Driehaus International Small Cap Growth	1.00	13,282,667	132,827	1.00 % of Assets
LMCG Emerging Markets Fund	0.64	19,047,639	121,905	0.64 % of Assets
Total Other Equity	0.63	29,693,049	187,382	
Huff Energy Fund	0.83	18,167,082	150,000	
Sail Venture Fund I	0.00	1	-	
Sail Venture Fund II	0.00	1	-	
Sail Pre-Exit Acceleration Fund	0.00	1	-	
Excelsior Investors, Ltd.	1.74	573,362	10,000	
*Franklin Park Private Equity	0.25	10,952,602	27,382	0.25 % of Assets
*In addition to the 25 bps management fee, a 1% commitment fee for the first year of that commitment and can potentially earn an incentive fee of 5% after APRS receives an 8% IRR preferred return on its investment.				
Total Fixed Income	0.51	111,239,798	569,666	
Orleans Capital	0.15	47,790,374	71,686	0.15 % of Assets
Templeton Global Mulisector Plus Trust	0.62	37,007,305	229,445	0.62 % of First \$50 M 0.51 % of Next \$50 M 0.45 % Thereafter
Total Other Fixed Income	1.02	26,442,118	268,535	
Capital Point Partners	0.00	3,817,848	2	
Franchise Equity Capital Partners II	2.00	47,517	950	
LBC Credit Partners III	1.25	4,507,027	56,338	
LBC Credit Partners IV	1.25	12,219,231	152,740	
Providence Debt Fund III	1.00	5,850,495	58,505	



	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
Total Real Estate	0.98	75,577,842	743,221	
Rockspring Capital Land Fund I	1.25	463,025	5,788	1.25 % of Assets
Rockspring Capital Land Fund II	1.25	1,313,261	16,416	1.25 % of Assets
Rockspring Capital Land Fund III	1.25	1,060,383	13,255	1.25 % of Assets
Rockspring Capital Land Fund V	1.25	2,745,659	34,321	1.25 % of Assets
Rockspring Capital Land Fund VI	1.25	1,296,127	16,202	1.25 % of Assets
ARES Value Enhancement Fund V	0.85	74,744	635	0.85 % of Assets
ARES Value Enhancement Fund VI	0.85	756,961	6,434	0.85 % of Assets
Edison Investments	1.00	2,183,102	21,831	1.00 % of Assets
India Property Fund	2.00	652,777	13,056	2.00 % of Assets
Gainesville Property	0.00	1,818,400	-	0.00 % of Assets
Morgan Stanley	0.90	52,392,772	471,535	0.90 % of Assets
AEW Partners Fund VIII	1.25	7,424,030	92,800	1.25 % of Assets
GreenOak US III	1.50	3,396,601	50,949	1.50 % of Assets
Total Timber Funds	1.04	21,679,693	224,892	
BTG Pactual 1	1.00	1,276,928	12,769	1.00 % of Assets
Capitol Timberland Investments	1.00	17,164,775	171,648	1.00 % of Assets
Domain Environmental Investments II	1.25	3,237,990	40,475	1.25 % of Assets
Total Multi Asset Funds	0.58	41,836,645	241,410	
Double Eagle Capital Ace Fund, Ltd. (1% Mgt Fee & 10% of profit after a 7% retn)	1.00	683,894	6,839	1.00 % of Assets
BlackRock Multi Asset Fund	0.57	41,152,751	234,571	0.57 % of Assets
Cash Account	0.00	21,780,525	-	0.00 % of Assets
Cash Account PE	0.00	-	-	0.00 % of Assets
Retiree Death Benefit Account	0.00	1,486,694	-	0.00 % of Assets
APRS Building	0.00	1,438,036	-	0.00 % of Assets
Total Retirement System	0.49	812,358,503	3,981,124	



**Austin Police Retirement System
Historical Hybrid Compositions
As of September 30, 2019**

Total Fund Policy		Total Equity Policy		Total Fixed Income Policy	
Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)
Jan-1976		Jan-1979		Dec-1993	
S&P 500 Index	60.00	Russell 3000 Index	67.00	Blmbg. Barc. U.S. Aggregate Index	100.00
Blmbg. Barc. U.S. Aggregate Index	40.00	MSCI World ex U.S.	33.00		
Jan-2014		Jan-2017		Jan-1999	
Russell 3000 Index	30.00	Russell 3000 Index	75.00	Blmbg. Barc. U.S. Aggregate Index	50.00
MSCI World ex U.S.	15.00	MSCI World ex U.S.	25.00	Blmbg. Barc. Global Multiverse	50.00
Blmbg. Barc. U.S. Aggregate Index	5.00				
Blmbg. Barc. Global Multiverse	5.00				
NCREIF Property Index	15.00				
NCREIF Timberland Index (Monthly)	5.00				
Russell 3000 + 300 bps	12.50				
HFRI Fund of Funds Composite Index	10.00				
FTSE 3 Month T-Bill	2.50				
Jan-2017		Total Private Equity Policy		Wellington Energy Hybrid	
Russell 3000 Index	45.00	Allocation Mandate		Allocation Mandate	
MSCI World ex U.S.	15.00	Weight (%)		Weight (%)	
Blmbg. Barc. U.S. Aggregate Index	5.00	May-2013		Jan-1999	
Blmbg. Barc. Global Multiverse	5.00	Russell 3000 Index	100.00	Russell 3000 Energy SP	100.00
NCREIF Property Index	15.00	Jan-2017		Oct-2015	
NCREIF Timberland Index (Monthly)	2.50	Credit Suisse Leveraged Loan Index	67.00	S&P 500 Energy	100.00
HFRI Fund of Funds Composite Index	5.00	Cambridge Associates Private Equity Index	33.00		
Credit Suisse Leveraged Loan Index	5.00				
Cambridge Associates Private Equity Index	2.50				
Jan-2018		Total Hedge Fund Policy		Total Timber Policy	
Russell 3000 Index	42.50	Allocation Mandate		Allocation Mandate	
MSCI World ex U.S.	15.00	Weight (%)		Weight (%)	
Blmbg. Barc. U.S. Aggregate Index	10.00	Jan-1990		Apr-1987	
Blmbg. Barc. Global Multiverse	5.00	HFRI Fund of Funds Composite Index	100.00	NCREIF Timberland Index	100.00
NCREIF Property Index	15.00				
HFRI Fund of Funds Composite Index	5.00	Total Real Estate Policy		Jan-1978	
Credit Suisse Leveraged Loan Index	5.00	Allocation Mandate		Allocation Mandate	
Cambridge Associates Private Equity Index	2.50	Weight (%)		Weight (%)	
		Jan-1978		Jan-1978	
		NCREIF Property Index		NCREIF Property Index	
		100.00		100.00	



- All market value and performance information through April 30, 2013 is provided by the previous consultant, CSG.
- All historical return data is presented Net of Fees.
- Best efforts have been made to acquire the most accurate data but due to reporting lag times Private Fixed Income, Real Estate, Timber, Private Equity and Hedge Fund information may not be current. Market values for these investments are subject to revision in future reports as more current information becomes available.
- NCREIF Property Index is updated quarterly. One month return information is shown as 0.00%.
- Effective May 1, 2013 the Sail Xtreme APRS Fund, LP and Xtreme Power, Inc. investments have been reclassified as Private Fixed Income under the Alternative Investments category. Prior to that they were listed as Fixed Income by the prior consultant.
- Returns for all Real Estate, Timber and Private Equity managers are Internal Rates of Return. All other managers are Time Weighted Rates of Return.
- Actuarial Assumption is currently 8.0%
- Prior to 1/1/2009 Capital Point and Clinton Magnolia performance is included in the Total Fixed Income performance.
- The information contained in this report is obtained from third party sources and is not warranted to be accurate, complete or timely. All returns and market values are preliminary and subject to revision in future reports upon final reconciliation.
- Pricing may differ between the custodian and manager for reasons beyond the control of AndCo Consulting. Every effort will be made to use the most accurate and timely information available when the report is generated.
- * Xtreme Power declared bankruptcy in January 2014. After discussions with the Fund's Accountant, Auditor and Legal Counsel the investments in this company have been marked down to \$0.00 as of December 31st.
If any proceeds are recovered in the bankruptcy process they will be credited to the Fund at that time.
- As of 12/31/14 the Excelsior Investors, LTD position was reclassified to from the Hedge Fund composite to the Private Equity composite.
- Capital Point Partners market value sourced from the March 2015 Capital Point Partners Quarterly Portfolio Review.

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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