

Investment Performance Review  
Period Ending December 31, 2018

## **Port of Houston Authority Pension Plan**

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

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

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

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

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

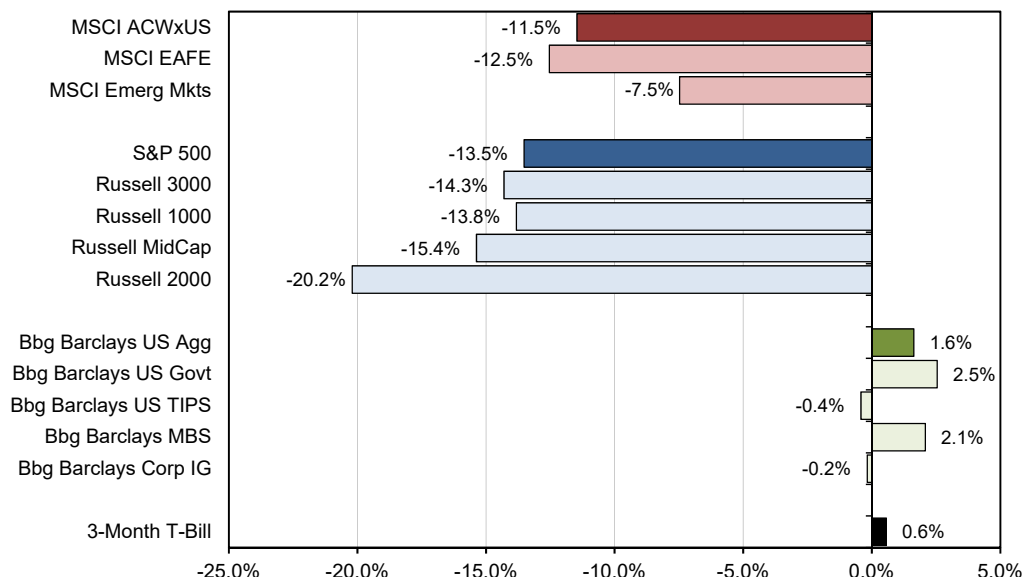
On behalf of AndCo, thank you for your valued partnership and the opportunity to serve you.



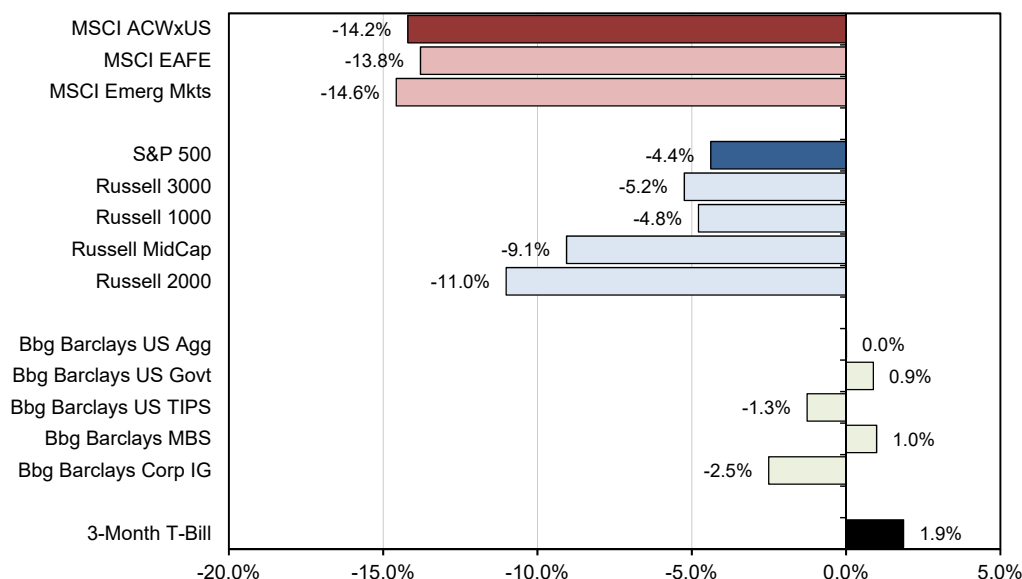
Mike Welker, CFA®  
President/CEO

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

### Quarter Performance

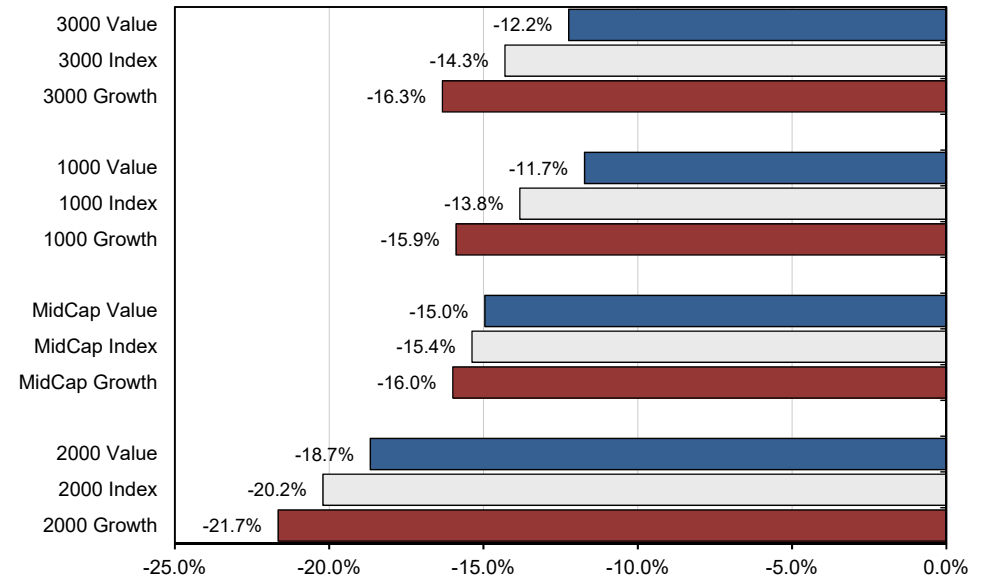


### 1-Year Performance

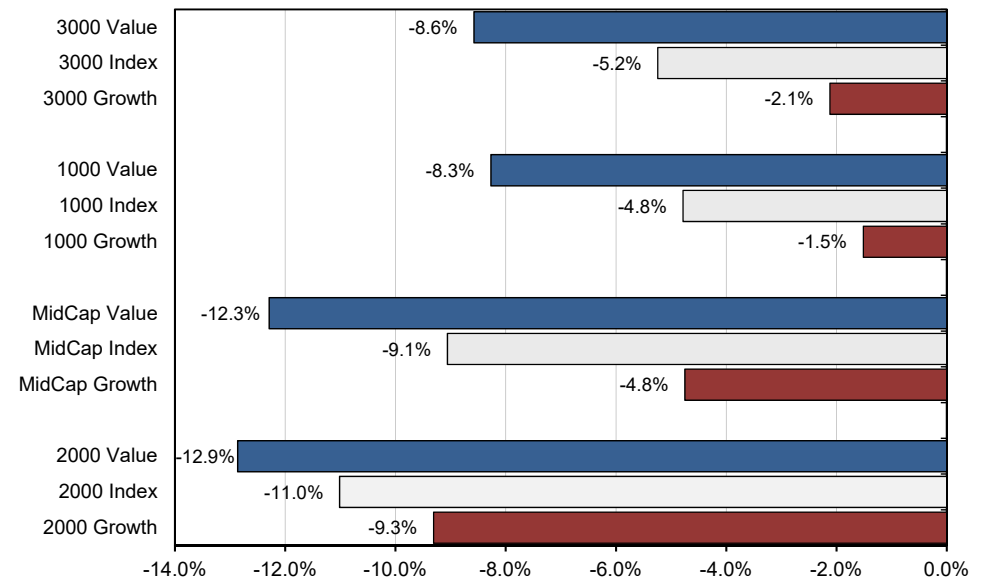


- US equity index returns were strongly negative across the style and capitalization spectrum during the 4<sup>th</sup> quarter of 2018. Despite these negative results, there was positive data in GDP, unemployment, wage growth, retail sales, and corporate earnings during the period. These positive economic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

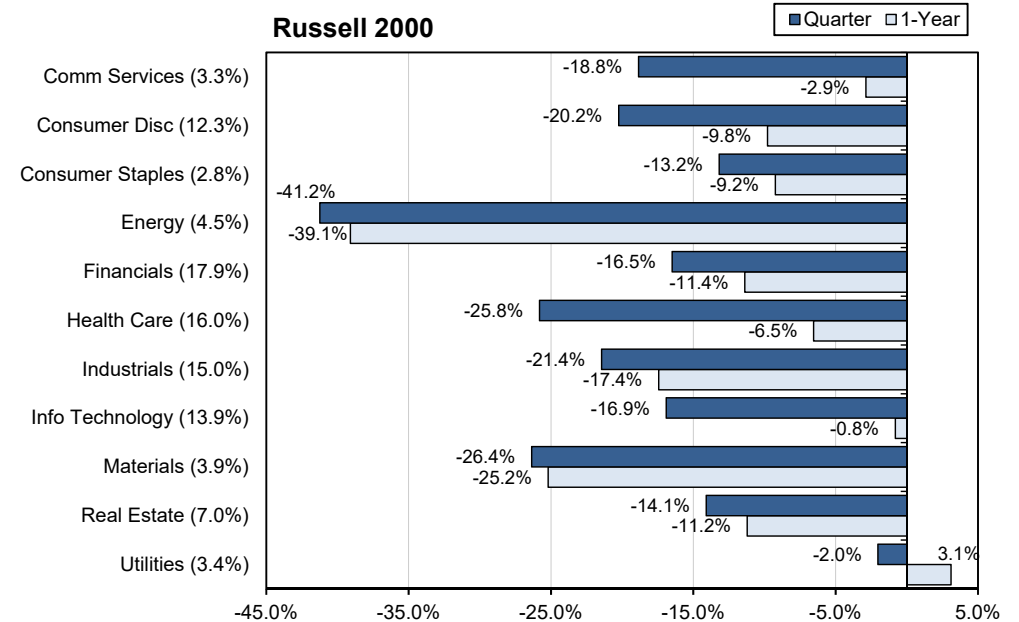
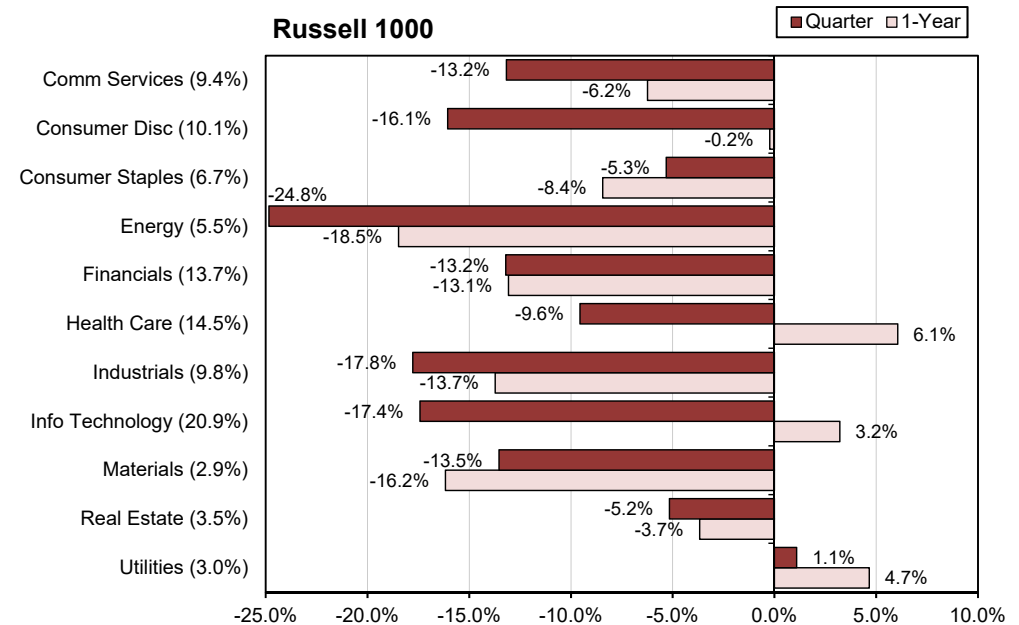
#### Quarter Performance - Russell Style Series



#### 1-Year Performance - Russell Style Series



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



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

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

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

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

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

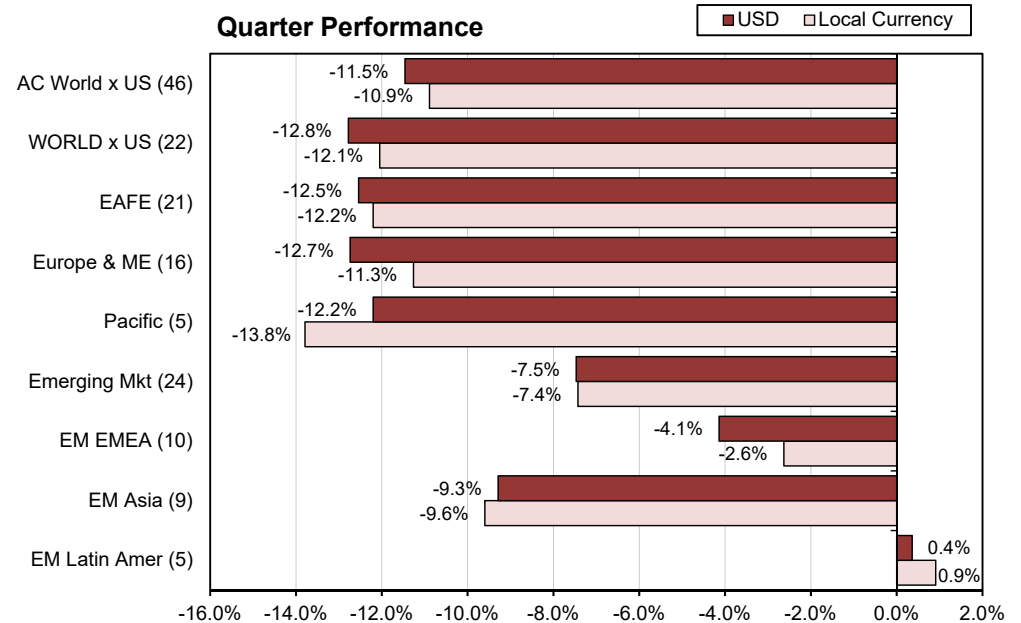
Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Electro Scientific Industries Inc	0.05%	71.7%	39.8%	Information Technology
Fluent Inc	0.01%	67.4%	3.4%	Communication Services
Mitek Systems Inc	0.02%	53.3%	20.8%	Information Technology
Arsanis Inc	0.00%	43.2%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

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

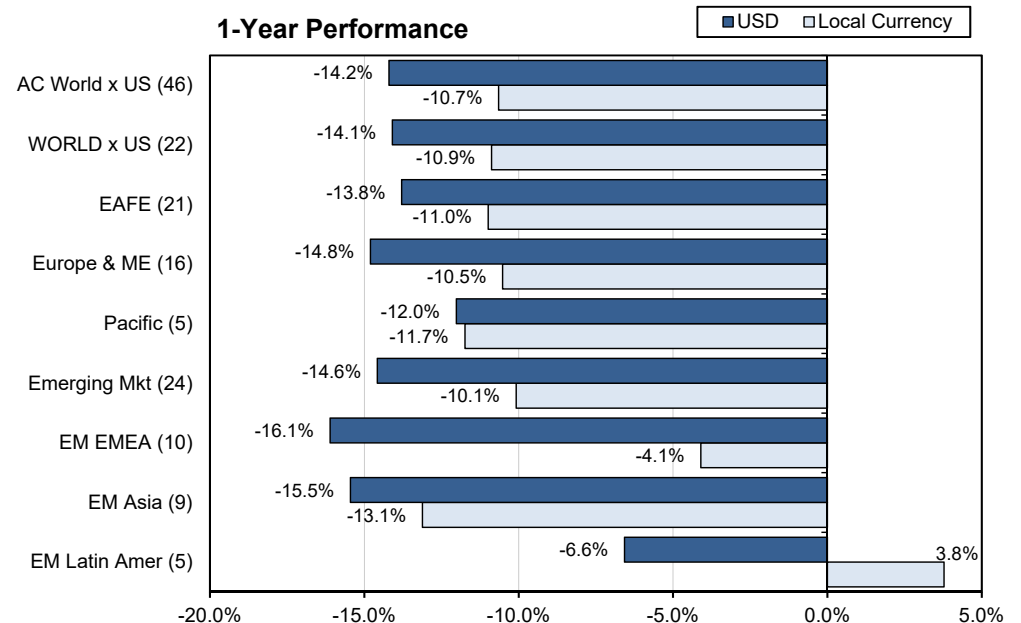


- Broad international equity returns were negative for the quarter in both local currency and USD terms. Geopolitical concerns, weakening economic data and the tightening of global monetary policy drove most of the negative performance. The USD also continued to strengthen against most currencies for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

### Quarter Performance



### 1-Year Performance



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

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

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

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

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

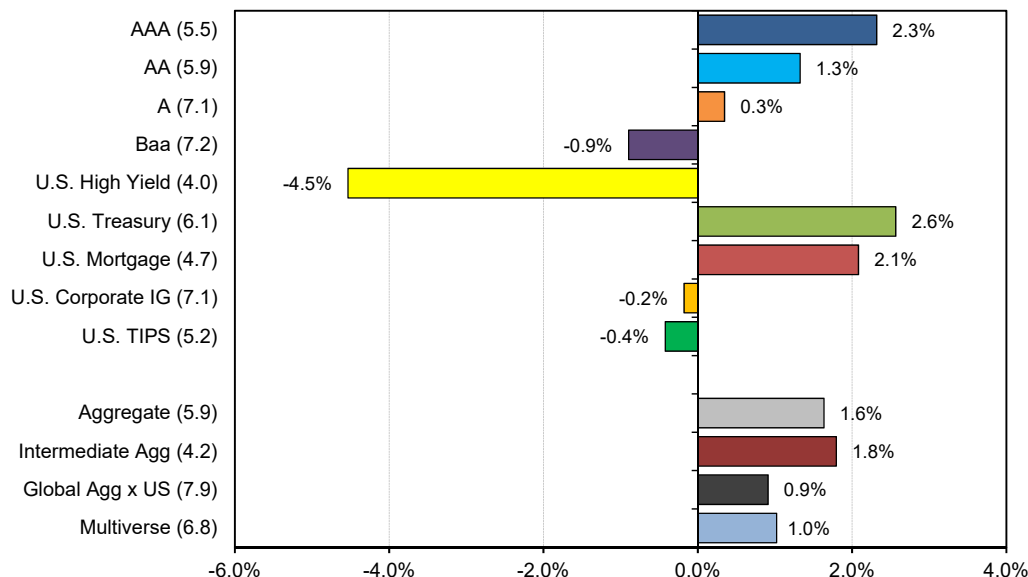
Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD)

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

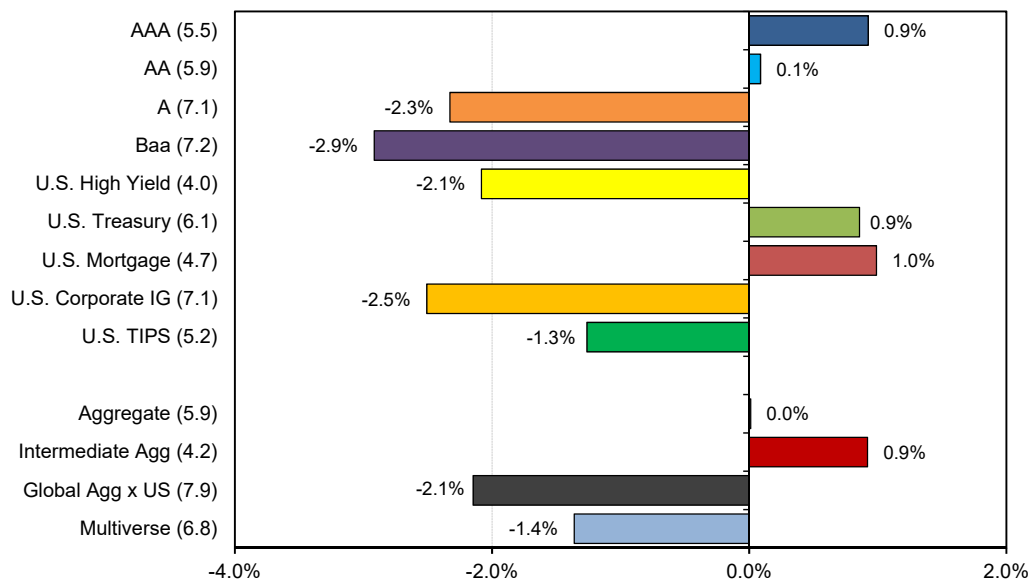


- Broad fixed income benchmarks had mixed results during the 4<sup>th</sup> quarter. Interest rates rose across short-term maturities, but fell on those on the middle and long end of the US Treasury Yield Curve. The Federal Open Market Committee (FOMC), decided to increase short-term interest rates by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

### Quarter Performance

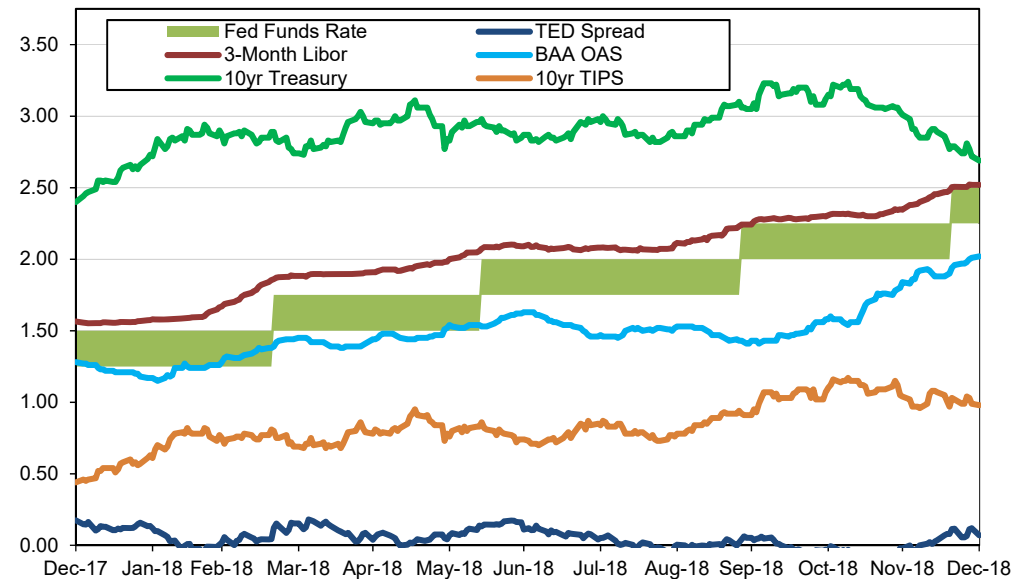


### 1-Year Performance

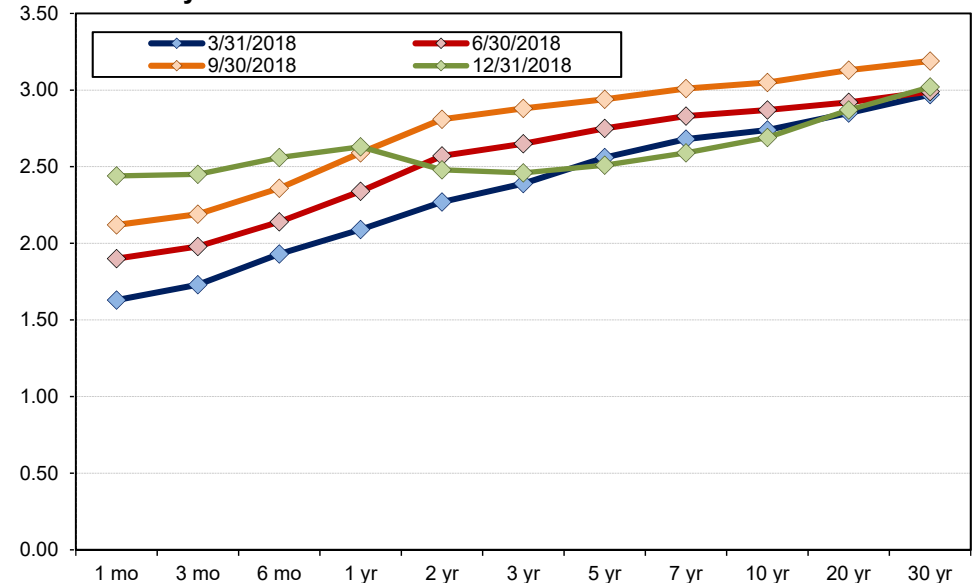


- Global fixed income indices continue to struggle relative to their domestic counterparts, underperforming during the 4<sup>th</sup> quarter. These indices have lower yields and the returns of these indices are also significantly influenced by fluctuations in their currency denomination relative to the USD. During the 4<sup>th</sup> quarter the USD strengthened against most other currencies, negatively impacting the returns on global bond indices. The return on global bonds, as represented by the Bloomberg Barclays Global Aggregate ex US Index, was 0.9% and -2.1% for the quarter and 1-year period respectively. As the global economy continues to recover, several international central banks have started to move toward less accommodative postures. Notably, the ECB, began to slow its monthly bond purchase program in September, reducing new purchases to 15 billion euro per month from 30 billion euro per month and ended the program entirely at year end. However, they have indicated a continuation of reinvestment in maturing securities and would likely not raise interest rates from current levels until summer 2019. The Bank of England and the Bank of Japan made no major policy changes during the quarter as they continue to review macroeconomic data within their respective countries.
- Much of the index performance detailed in the bar graphs on the previous page is visible on a time series basis by reviewing the line graphs to the right. The '1-Year Trailing Market Rates' chart illustrates that the 10-year Treasury yield (green line) fell during the 4<sup>th</sup> quarter after rising steadily through most of the year as investors moved to safe haven assets during the period, ending the year at 2.69%. The blue line illustrates changes in the BAA OAS (Option Adjusted Spread). This measure quantifies the additional yield premium that investors require to purchase and hold non-Treasury issues. This line illustrates a relatively tight range in credit spreads throughout most of 2018, but highlights an abrupt increase during the 4<sup>th</sup> quarter as investors moved to higher quality assets. This increase is equivalent to an interest rate increase on corporate bonds, which produces an additional headwind for corporate bond index returns. These credit spreads have widened by about 59 basis points over the last 3-months. The green band across the graph illustrates the gradual increase in the Federal Funds Rate (four increases in the last twelve months) due to the continued tightening of US monetary policy.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four calendar quarters. As mentioned, the yield curve continues to flatten as yields on shorter-term maturities have risen more than interest rates on the long end of the curve. The upward momentum of interest rates as well as a general flattening of the yield curve are clearly visible over the last twelve months with some minor inversion visible in the middle of the yield curve.

**1-Year Trailing Market Rates**

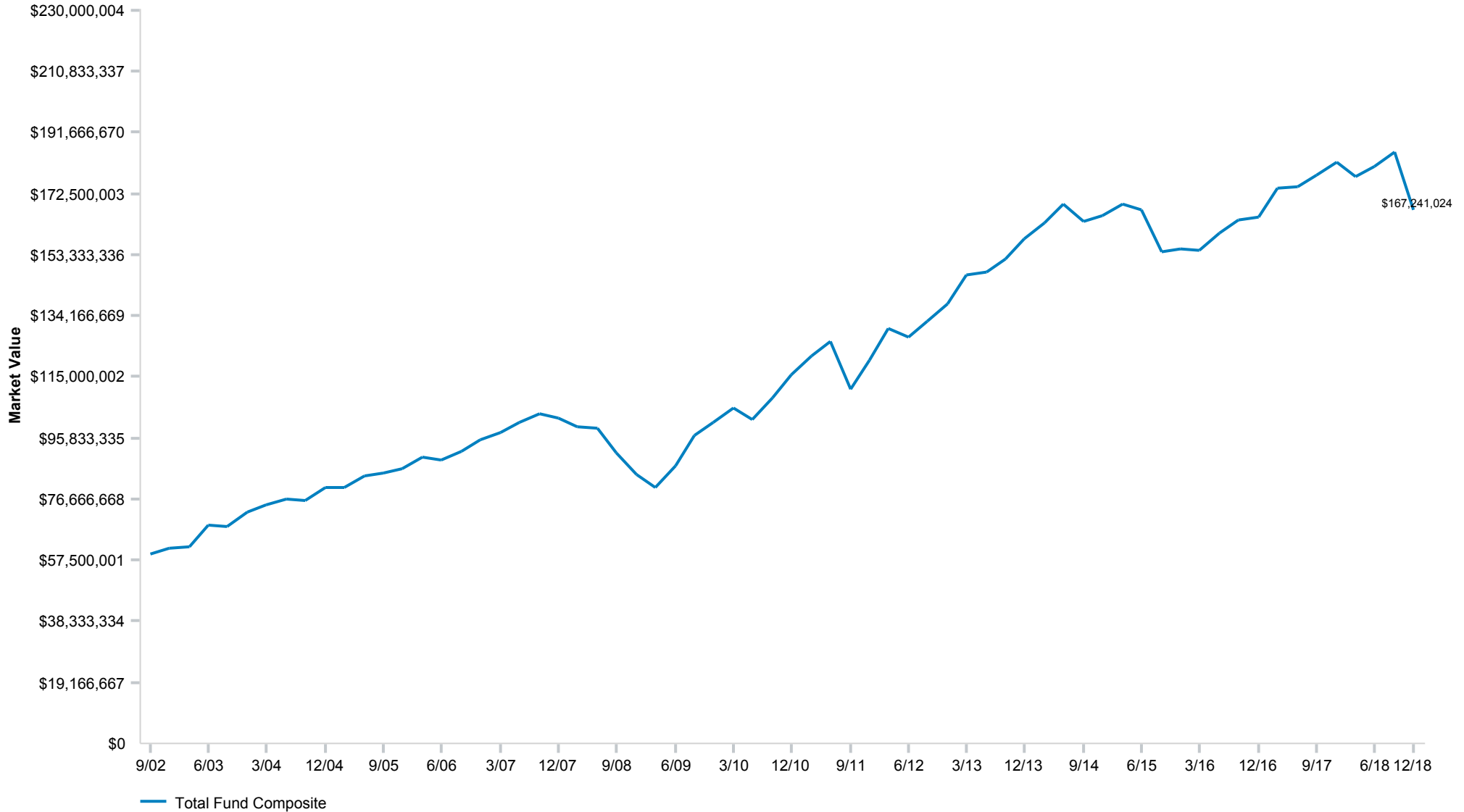


**Treasury Yield Curve**



**-5.5%**

**Schedule of Investable Assets**



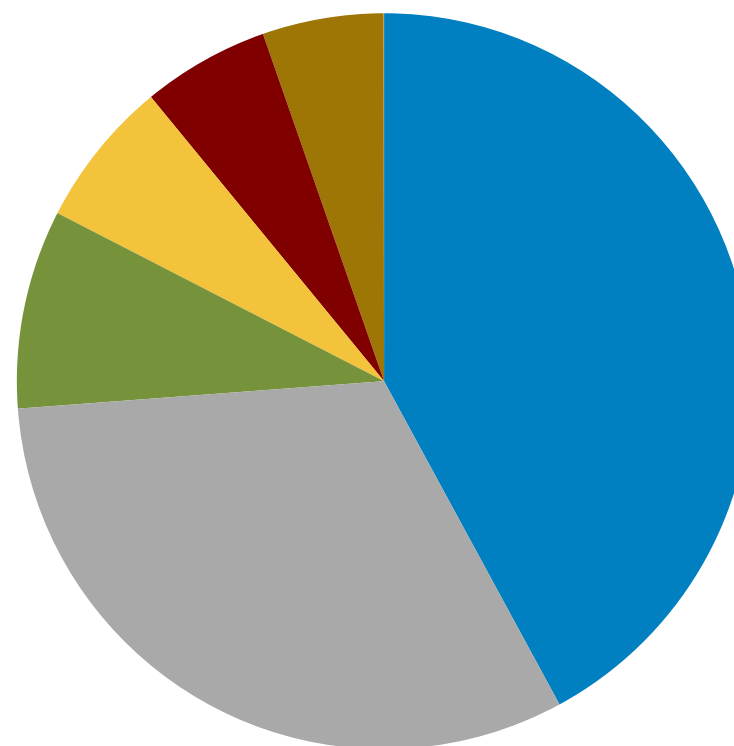
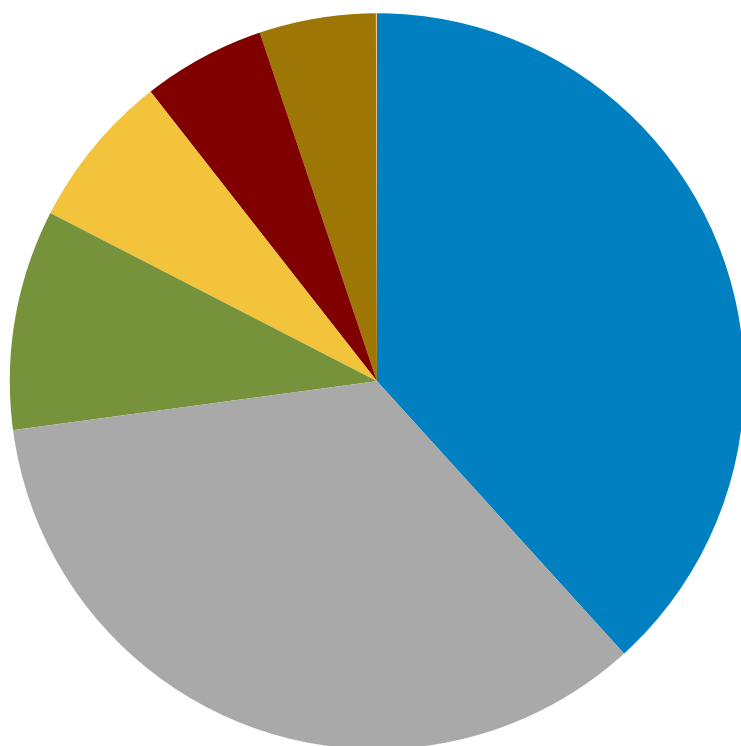
**Schedule of Investable Assets**

Periods Ending	Beginning Market Value \$	Net Cash Flow \$	Gain/Loss \$	Ending Market Value \$	%Return
Oct-2002 To Dec-2018	59,280,518	-4,312,818	112,273,325	167,241,024	6.71



September 30, 2018 : \$185,527,585

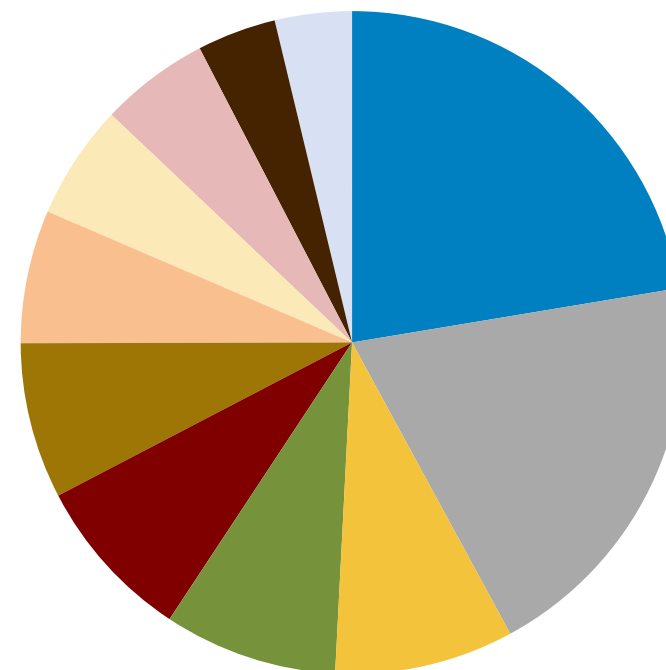
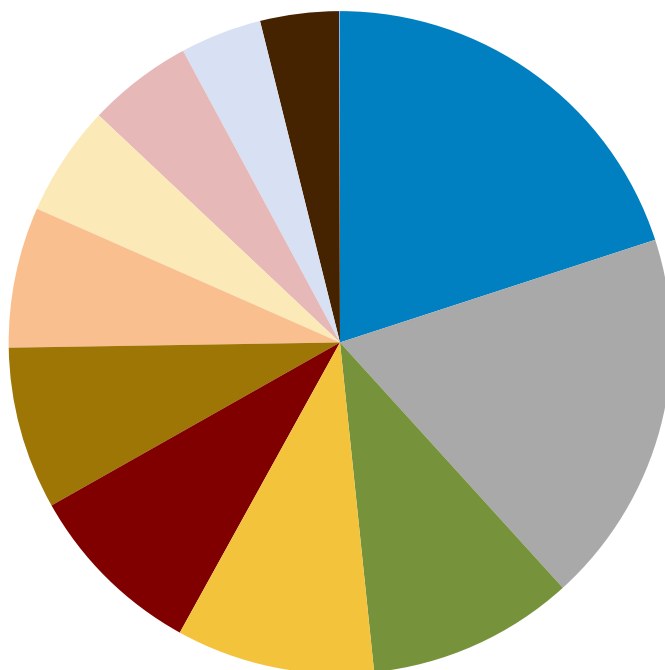
December 31, 2018 : \$167,241,024



Allocation			Allocation		
	Market Value	Allocation		Market Value	Allocation
Fixed Income	70,990,144	38.3	Fixed Income	70,376,284	42.1
Domestic Equity	64,217,155	34.6	Domestic Equity	53,069,792	31.7
MLPs	17,953,403	9.7	MLPs	14,616,895	8.7
International Equity	12,741,655	6.9	International Equity	10,865,023	6.5
Real Estate	10,026,164	5.4	Real Estate	9,359,867	5.6
High Yield Fixed Income	9,500,028	5.1	High Yield Fixed Income	8,911,948	5.3
Cash	99,035	0.1	Cash	41,216	0.0

September 30, 2018 : \$185,527,585

December 31, 2018 : \$167,241,024



Allocation			Allocation		
	Market Value	Allocation		Market Value	Allocation
MacKay Shields Core Plus	37,078,663	20.0	MacKay Shields Core Plus	37,419,372	22.4
Smith Graham Core Plus	33,911,481	18.3	Smith Graham Core Plus	32,956,912	19.7
Barrow Hanley MeWhinney & Strauss	18,725,284	10.1	ARI MLP	14,616,895	8.7
ARI MLP	17,953,403	9.7	Barrow Hanley MeWhinney & Strauss	14,156,306	8.5
Stephens Mid Cap Growth	16,299,880	8.8	Stephens Mid Cap Growth	13,503,660	8.1
Vanguard Index Fund Institutional (VINIX)	14,714,568	7.9	Vanguard Index Fund Institutional (VINIX)	12,721,695	7.6
Causeway International (CIVIX)	12,741,655	6.9	Causeway International (CIVIX)	10,865,023	6.5
Cohen & Steers (CSRIX)	10,026,164	5.4	Cohen & Steers (CSRIX)	9,359,867	5.6
Loomis Sayles High Yield (LSHIX)	9,500,028	5.1	Loomis Sayles High Yield (LSHIX)	8,911,948	5.3
Stacey Braun	7,377,202	4.0	Fiduciary Management	6,445,595	3.9
Fiduciary Management	7,100,221	3.8	Stacey Braun	6,242,535	3.7
Cash	99,035	0.1	Cash	41,216	0.0

Asset Allocation & Performance								
	Allocation		Performance(%)					
	Market Value \$	%	QTR	1 YR	3 YR	5 YR	Inception	Inception Date
<b>Total Fund Composite (Gross of Fees)</b>	<b>167,241,024</b>	<b>100.0</b>	<b>-9.10</b>	<b>-5.46</b>	<b>5.07</b>	<b>3.69</b>	<b>6.71</b>	<b>10/01/2002</b>
Policy Index			-7.91	-4.68	4.49	3.63	6.85	
Pension Actuarial Assumption			1.65	6.75	6.83	6.90	7.26	
<b>Total Fund Composite (Net of Fees)</b>	<b>167,241,024</b>	<b>100.0</b>	<b>-9.18</b>	<b>-5.81</b>	<b>4.66</b>	<b>3.23</b>	<b>6.07</b>	<b>10/01/2002</b>
Fiduciary Management	6,445,595	3.9	-9.08	-2.75	10.18	8.31	9.11	01/01/2006
Russell 1000 Value Index			-11.72	-8.27	6.95	5.95	6.34	
S&P 500 Index			-13.52	-4.38	9.26	8.49	7.75	
Vanguard Index Fund Institutional (VINIX)	12,721,695	7.6	-13.53	-4.42	N/A	N/A	5.10	05/01/2017
S&P 500 Index			-13.52	-4.38	9.26	8.49	5.14	
Stacey Braun	6,242,535	3.7	-15.27	-5.41	7.96	7.54	8.91	07/01/2008
Russell 1000 Growth Index			-15.89	-1.51	11.15	10.40	10.33	
S&P 500 Index			-13.52	-4.38	9.26	8.49	8.92	
Stephens Mid Cap Growth	13,503,660	8.1	-16.98	3.29	13.01	8.48	12.70	01/01/2013
Russell Midcap Growth Index			-15.99	-4.75	8.59	7.42	11.69	
Barrow Hanley McWhinney & Strauss	14,156,306	8.5	-24.24	-18.06	7.46	3.73	9.76	04/01/2005
Russell 2000 Value Index			-18.67	-12.86	7.37	3.61	6.32	
Causeway International (CIVIX)	10,865,023	6.5	-14.72	-18.60	1.29	-1.12	0.12	10/01/2013
MSCI EAFE Index			-12.50	-13.36	3.38	1.00	2.04	
Cohen & Steers (CSRIX)	9,359,867	5.6	-6.63	-4.00	3.01	8.41	8.72	01/01/2012
FTSE NAREIT All Equity REITs			-6.07	-4.04	4.24	8.32	9.07	
ARI MLP	14,616,895	8.7	-18.41	-15.60	-1.77	-6.43	0.83	07/01/2011
Alerian MLP Index			-17.30	-12.42	-1.06	-7.31	-0.13	
MacKay Shields Core Plus	37,419,372	22.4	1.02	-0.16	2.99	N/A	2.21	07/01/2014
Blmbg. Barc. U.S. Aggregate Index			1.64	0.01	2.06	2.52	1.93	
Smith Graham Core Plus	32,956,912	19.7	0.86	-0.72	1.98	2.49	3.89	10/01/2002
Blmbg. Barc. U.S. Aggregate Index			1.64	0.01	2.06	2.52	3.92	
Loomis Sayles High Yield (LSHIX)	8,911,948	5.3	-6.18	-3.52	7.55	3.25	6.88	01/01/2012
ICE BofAML High Yield Master II			-4.67	-2.27	7.27	3.82	5.94	
Cash	41,216	0.0						

Total Fund Composite (Gross of Fees) includes net performance for mutual funds within the portfolio: Vanguard Index Institutional (VINIX), Causeway International (CIVIX), Cohen & Steers (CSRIX), and Loomis Sayles High Yield (LSHIX).  
Gross of fees performance would be approximately 0.15% higher on an annual basis if these fees were included.



Asset Allocation & Performance							
	Allocation		Performance(%)				
	Market Value \$	%	2017	2016	2015	2014	2013
<b>Total Fund Composite (Gross of Fees)</b>	<b>167,241,024</b>	<b>100.0</b>	<b>11.35</b>	<b>10.18</b>	<b>-3.17</b>	<b>6.74</b>	<b>18.15</b>
Policy Index			9.35	9.47	-2.53	7.49	16.29
Pension Actuarial Assumption			6.75	7.00	7.00	7.00	7.19
<b>Total Fund Composite (Net of Fees)</b>	<b>167,241,024</b>	<b>100.0</b>	<b>10.91</b>	<b>9.73</b>	<b>-3.61</b>	<b>6.07</b>	<b>17.53</b>
Fiduciary Management	6,445,595	3.9	19.68	14.90	-1.86	13.56	32.43
Russell 1000 Value Index			13.66	17.34	-3.83	13.45	32.53
S&P 500 Index			21.83	11.96	1.38	13.69	32.39
Vanguard Index Fund Institutional (VINIX)	12,721,695	7.6	N/A	N/A	N/A	N/A	N/A
S&P 500 Index			21.83	11.96	1.38	13.69	32.39
Stacey Braun	6,242,535	3.7	26.00	5.58	3.02	10.97	33.88
Russell 1000 Growth Index			30.21	7.08	5.67	13.05	33.48
S&P 500 Index			21.83	11.96	1.38	13.69	32.39
Stephens Mid Cap Growth	13,503,660	8.1	29.35	8.02	-0.15	4.27	36.37
Russell Midcap Growth Index			25.27	7.33	-0.20	11.90	35.74
Barrow Hanley MeWhinney & Strauss	14,156,306	8.5	18.60	27.69	-6.17	3.14	48.60
Russell 2000 Value Index			7.84	31.74	-7.47	4.22	34.52
Causeway International (CIVIX)	10,865,023	6.5	27.18	0.38	-3.00	-6.22	N/A
MSCI EAFE Index			25.62	1.51	-0.39	-4.48	23.29
Cohen & Steers (CSRIX)	9,359,867	5.6	7.43	5.99	5.22	30.18	3.46
FTSE NAREIT All Equity REITs			8.67	8.63	2.83	28.03	2.86
ARI MLP	14,616,895	8.7	-7.60	21.52	-32.48	12.08	28.34
Alerian MLP Index			-6.52	18.31	-32.59	4.80	27.58
MacKay Shields Core Plus	37,419,372	22.4	4.92	4.29	0.15	N/A	N/A
Blmbg. Barc. U.S. Aggregate Index			3.54	2.65	0.55	5.97	-2.02
Smith Graham Core Plus	32,956,912	19.7	3.83	2.90	1.04	5.49	-1.83
Blmbg. Barc. U.S. Aggregate Index			3.54	2.65	0.55	5.97	-2.02
Loomis Sayles High Yield (LSHIX)	8,911,948	5.3	8.40	18.94	-10.29	5.17	15.07
ICE BofAML High Yield Master II			7.48	17.49	-4.64	2.50	7.42
Cash	41,216	0.0					

Total Fund Composite (Gross of Fees) includes net performance for mutual funds within the portfolio: Vanguard Index Institutional (VINIX), Causeway International (CIVIX), Cohen & Steers (CSRIX), and Loomis Sayles High Yield (LSHIX). Gross of fees performance would be approximately 0.15% higher on an annual basis if these fees were included.



Fiduciary's objective is to buy durable business at value prices in order to achieve top in class investment results over a three to five year time horizon. Fiduciary considers themselves long-term investors, not traders. They will typically hold between 20-30 companies in their portfolio with an average turnover of 35%. The research process is geared toward finding six new investment ideas for the portfolio in a given year. All investment ideas are generated by a research team consisting of six individuals, rather than relying on a single portfolio manager. As of December 31, 2018, Fiduciary had a market value of \$6,445,595.

Fiduciary Management		Russell 1000 Value Index	
	Weight %		Weight %
Berkshire Hathaway Inc	5.4	Berkshire Hathaway Inc	2.9
Dollar General Corp	5.3	JPMorgan Chase & Co	2.7
Twenty-First Century Fox Inc	5.3	Exxon Mobil Corp	2.4
Unitedhealth Group Inc	4.8	Johnson & Johnson	2.4
Honeywell International Inc	4.1	Pfizer Inc	2.1
JPMorgan Chase & Co	3.8	Verizon Communications Inc	2.0
PepsiCo Inc	3.3	Procter & Gamble Co (The)	1.9
Accenture PLC	3.2	Bank of America Corp	1.9
Nestle SA	3.2	Intel Corp	1.8
Quest Diagnostics Inc	3.1	AT&T Inc	1.8

## Equity Assets Exposures by Sector

	Fiduciary Management	Russell 1000 Value Index
Cash	9.58	0.00
Communication Services	10.08	7.29
Consumer Discretionary	13.69	5.23
Consumer Staples	9.38	7.83
Energy	2.28	9.29
Financials	15.61	22.47
Health Care	13.23	15.74
Industrials	14.52	7.35
Information Technology	7.45	9.31
Materials	4.17	4.07
Real Estate	0.00	4.95
Utilities	0.00	6.47

## Equity Characteristics

	Fiduciary Management	Russell 1000 Value Index
Wtd. Avg. Mkt. Cap (\$)	95,758,736,399	119,165,529,278
Price/Earnings ratio	15.1	13.7
Price/Book ratio	2.8	2.1
Current Yield	2.3	2.9
Number of Stocks	31	725



### Fund Information

Fund Name :	Vanguard Institutional Index Fund: Vanguard Institutional Index Fund; Institutional Shares	Portfolio Assets :	\$221,470 Million
Fund Family :	Vanguard Group Inc	Portfolio Manager :	Butler/Louie
Ticker :	VINIX	PM Tenure :	2000--2017
Inception Date :	07/31/1990	Fund Style :	IM S&P 500 Index (MF)
Fund Assets :	\$116,739 Million	Style Benchmark :	S&P 500 Index
Portfolio Turnover :	5%		

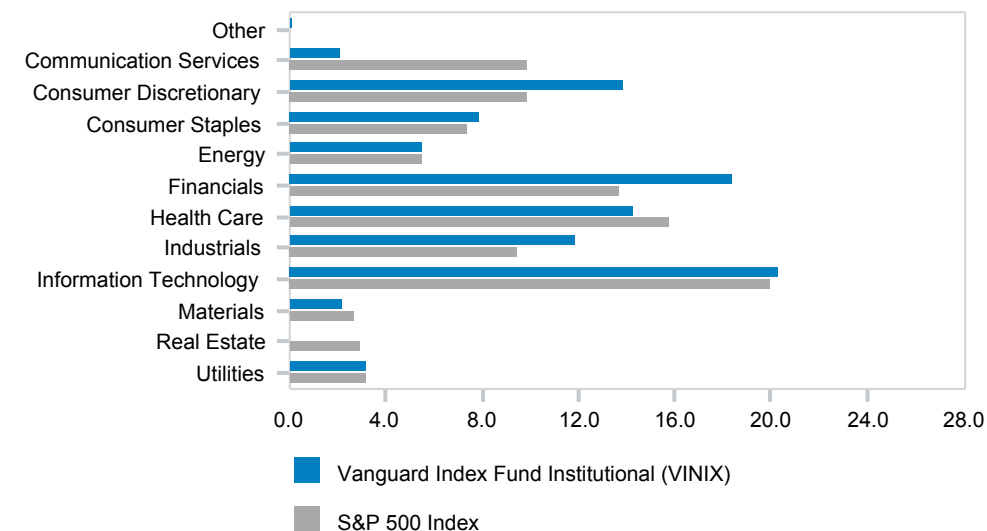
### Portfolio Characteristics As of 11/30/2018

	Portfolio	Benchmark
Total Securities	511	505
Avg. Market Cap (\$)	206,728,024,537	20,648,656,900
Price/Earnings (P/E)	25.61	19.16
Price/Book (P/B)	6.99	3.41
Dividend Yield	2.45	2.01
Annual EPS	22.43	5.45
5 Yr EPS	13.08	15.98
3 Yr EPS Growth	12.94	N/A
Beta	N/A	1.00

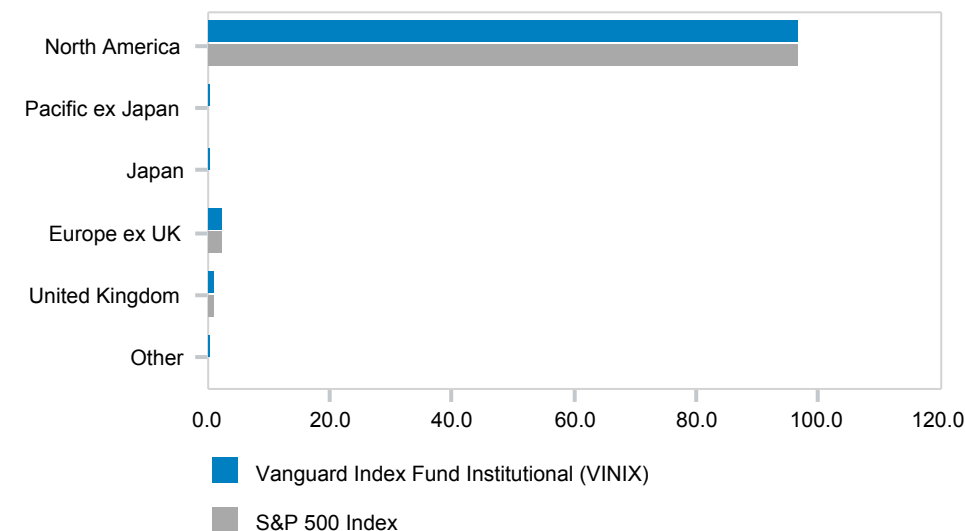
### Top Ten Securities As of 11/30/2018

Microsoft Corp ORD	3.6 %
Apple Inc ORD	3.5 %
Amazon.com Inc ORD	3.0 %
Berkshire Hathaway Inc ORD	1.8 %
Johnson & Johnson ORD	1.7 %
JPMorgan Chase & Co ORD	1.6 %
Facebook Inc ORD	1.5 %
Alphabet Inc ORD 1	1.4 %
Exxon Mobil Corp ORD	1.4 %
Alphabet Inc ORD 2	1.4 %

### Sector Weights As of 11/30/2018



### Region Weights As of 11/30/2018



Statistics provided by Lipper. Most recent available data shown.



Stacey Braun utilizes a sector neutral, bottom up equity strategy which closely aligns their sector weightings to those of the S&P 500 Index. The firm employs an active flexible investment approach. Cash equivalents are used as a defensive measure in times of declining equity markets. Their equity portfolios consist of a diverse group of stocks selected through fundamental and technical analysis. Securities are chosen through their analysis are compared to their peers before purchase. This process results in an emphasis on growth at a reasonable price. As of December 31, 2018, Stacey Braun had a market value of \$6,242,535.

Stacey Braun		Russell 1000 Growth Index	
	Weight %		Weight %
Microsoft Corp	3.2	Apple Inc	6.5
Apple Inc	3.0	Microsoft Corp	6.3
Amazon.com Inc	2.5	Amazon.com Inc	5.3
JPMorgan Chase & Co	2.3	Alphabet Inc	2.7
Berkshire Hathaway Inc	1.8	Alphabet Inc	2.7
Mastercard Inc	1.7	Facebook Inc	2.7
CME Group Inc	1.5	Unitedhealth Group Inc	2.1
Bank of America Corp	1.5	Visa Inc	2.0
Walt Disney Co (The)	1.4	Home Depot Inc. (The)	1.7
NextEra Energy Inc	1.4	Mastercard Inc	1.5

#### Equity Assets Exposures by Sector

	Stacey Braun	Russell 1000 Growth Index
Cash	5.50	0.00
Communication Services	8.98	11.93
Consumer Discretionary	9.82	15.14
Consumer Staples	6.82	6.03
Energy	4.92	0.76
Financials	12.81	4.40
Health Care	15.50	14.29
Industrials	8.97	11.83
Information Technology	18.63	31.46
Materials	2.39	1.84
Real Estate	2.45	2.32
Utilities	3.20	0.00

#### Equity Characteristics

	Stacey Braun	Russell 1000 Growth Index
Wtd. Avg. Mkt. Cap (\$)	160,795,809,011	241,404,618,083
Price/Earnings ratio	18.0	22.7
Price/Book ratio	3.2	6.1
Current Yield	1.7	1.5
Number of Stocks	97	546

The Stephens Mid Cap Growth portfolio is a diversified portfolio that seeks long term growth of capital by investing primarily in common stock of U.S. companies with market capitalizations of between \$1.5 billion to \$12.5 billion. They select mid cap growth companies that are established growth companies that have achieved above average growth. The combination of core growth and catalyst growth stocks positions the portfolio for varying market conditions. As of December 31, 2018 Stephens had a market value of \$13,503,660.

Stephens Mid Cap Growth		Russell Midcap Growth Index	
	Weight %		Weight %
Illumina Inc	2.0	Edwards Lifesciences Corp	1.2
Resmed Inc	1.9	ServiceNow Inc	1.2
IDEXX Laboratories Inc	1.9	Red Hat Inc	1.2
Verisk Analytics Inc	1.9	Ross Stores Inc	1.2
Burlington Stores Inc	1.8	Fiserv Inc.	1.1
MarketAxess Holdings Inc	1.8	Dollar General Corp	1.1
Intuitive Surgical Inc	1.7	O'Reilly Automotive Inc	1.0
FLIR Systems Inc	1.7	Amphenol Corp	0.9
Aspen Technology Inc	1.7	Autodesk Inc.	0.9
ABIOMED Inc	1.6	Moody's Corp.	0.9

#### Equity Assets Exposures by Sector

	Stephens Mid Cap Growth	Russell Midcap Growth Index
Cash	3.35	0.00
Communication Services	4.21	4.00
Consumer Discretionary	14.53	16.43
Consumer Staples	2.45	3.38
Energy	2.62	1.51
Financials	3.93	6.61
Health Care	22.97	14.66
Industrials	14.74	15.91
Information Technology	31.00	31.59
Materials	0.20	3.64
Real Estate	0.00	2.28

#### Equity Characteristics

	Stephens Mid Cap Growth	Russell Midcap Growth Index
Wtd. Avg. Mkt. Cap (\$)	13,427,615,728	14,201,426,785
Price/Earnings ratio	30.2	21.2
Price/Book ratio	5.5	5.2
Current Yield	0.4	1.0
Number of Stocks	95	418



The strategy is designed to exploit inefficiencies in the small cap sector of the market by carefully employing high value-added proprietary research in a universe of small capitalization, low-expectation stocks. This process is directed toward the discovery of companies in which the value of the underlying business is significantly greater than the market price. The portfolio's goal is to consistently generate superior returns while assuming below average levels of risk. As of December 31, 2018, Barrow, Hanley, MeWhinney & Strauss had a market value of \$14,156,306.

Barrow Hanley MeWhinney & Strauss		Russell 2000 Value Index	
	Weight %		Weight %
Allegheny Technologies Inc	4.1	Ciena Corp	0.6
Diodes Inc	3.9	IDACORP Inc.	0.5
Brooks Automation Inc	3.7	Cree Inc.	0.5
Darling Ingredients Inc	3.6	ONE Gas Inc	0.5
Air Transport Services Group Inc	3.6	Portland Gen. Elec. Co.	0.5
American Axle & Manufacturing Holdings Inc	3.5	Spirit Airlines Inc	0.5
Texas Capital Bancshares Inc	3.5	ALLETE Inc.	0.4
Simpson Manufacturing Co. Inc.	3.5	Pebblebrook Hotel Trust	0.4
II VI Inc	3.4	MGIC Investment Corp	0.4
Whirlpool Corp	3.3	Southwest Gas Holdings Inc	0.4

## Equity Assets Exposures by Sector

	Barrow Hanley MeWhinney & Strauss	Russell 2000 Value Index
Cash	1.78	0.00
Communication Services	0.00	3.09
Consumer Discretionary	6.82	9.44
Consumer Staples	5.01	2.63
Energy	2.07	5.41
Financials	16.24	29.52
Health Care	3.24	4.29
Industrials	30.83	11.79
Information Technology	25.21	10.75
Materials	8.80	4.06
Real Estate	0.00	11.72
Utilities	0.00	7.29

## Equity Characteristics

	Barrow Hanley MeWhinney & Strauss	Russell 2000 Value Index
Wtd. Avg. Mkt. Cap (\$)	2,222,327,478	1,837,496,085
Price/Earnings ratio	12.8	12.7
Price/Book ratio	1.8	1.5
Current Yield	1.1	2.5
Number of Stocks	40	1,387

## Fund Information

Fund Name : Causeway Capital Management Trust: Causeway International Value Fund; Institutional Class Shares

Fund Family : Causeway Capital Management LLC

Ticker : CIVIX

Inception Date : 10/26/2001

Fund Assets : \$6,401 Million

Portfolio Turnover : 30%

Portfolio Assets : \$7,046 Million

Portfolio Manager : Team Managed

PM Tenure :

Fund Style : IM International Large Cap Value Equity (MF)

Style Benchmark : MSCI EAFE Index

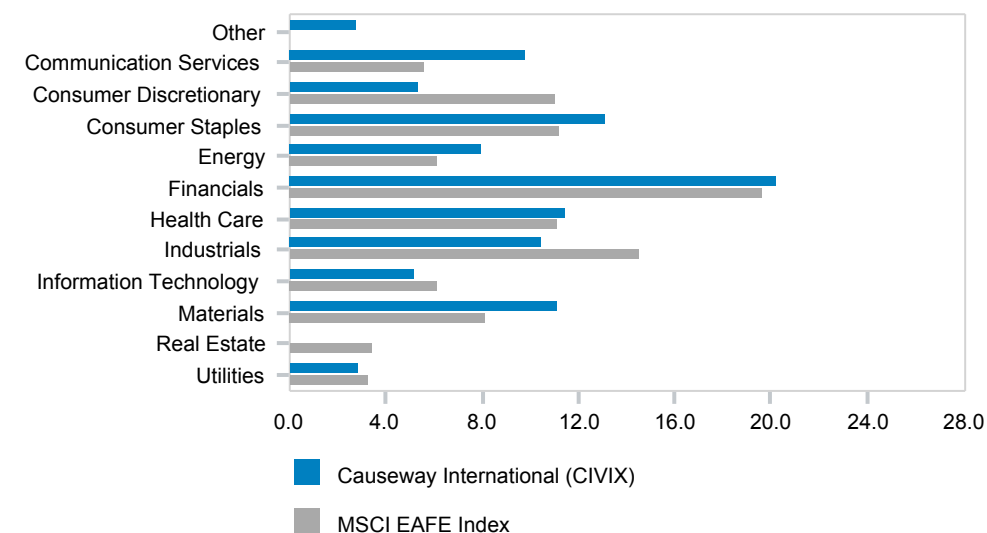
## Portfolio Characteristics As of 09/30/2018

	Portfolio	Benchmark
Total Securities	64	924
Avg. Market Cap (\$)	72,082,562,524	11,018,051,194
Price/Earnings (P/E)	18.06	14.43
Price/Book (P/B)	2.94	2.19
Dividend Yield	3.30	3.27
Annual EPS	37.99	130.03
5 Yr EPS	5.72	10.83
3 Yr EPS Growth	9.06	N/A
Beta (5 Years, Monthly)	0.95	1.00

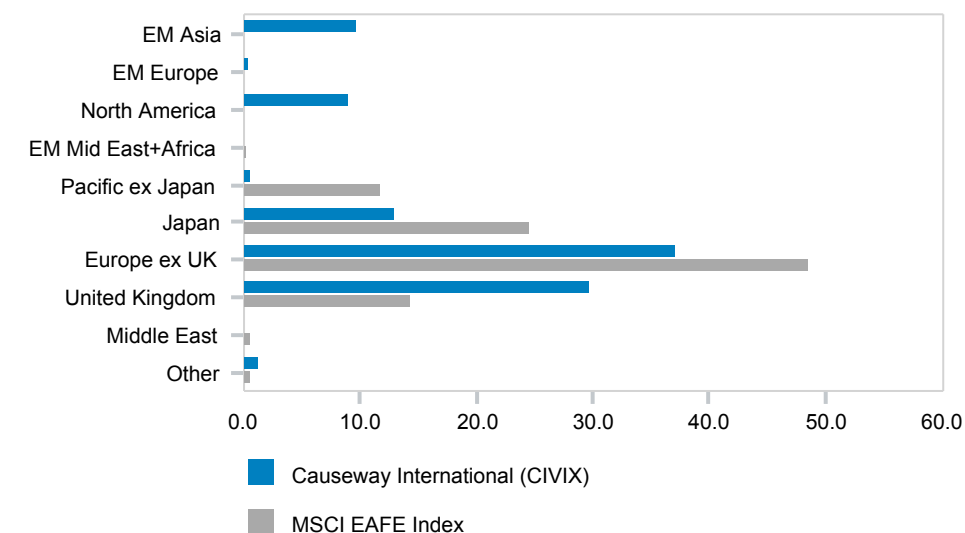
## Top Ten Securities As of 09/30/2018

Volkswagen AG PFD	4.1 %
Linde AG ORD	3.6 %
China Mobile Ltd ORD	3.1 %
British American Tobacco PLC ORD	3.1 %
Abb Ltd ORD	3.0 %
UniCredit SpA ORD	2.9 %
BASF SE ORD	2.9 %
Royal Dutch Shell Plc B ORD	2.9 %
Takeda Pharmaceutical Co Ltd ORD	2.9 %
Prudential PLC ORD	2.8 %

## Sector Weights As of 09/30/2018



## Region Weights As of 09/30/2018



Statistics provided by Lipper. Most recent available data shown.

# Fund Information

Fund Name : Cohen & Steers Institutional Realty Shares, Inc  
Fund Family : Cohen & Steers Capital Management Inc  
Ticker : CSRIX  
Inception Date : 02/14/2000  
Fund Assets : \$2,951 Million  
Portfolio Turnover : 76%

Portfolio Assets : \$2,951 Million  
Portfolio Manager : Team Managed  
PM Tenure :  
Fund Style : IM Real Estate Sector (MF)  
Style Benchmark : FTSE NAREIT All Equity REITs

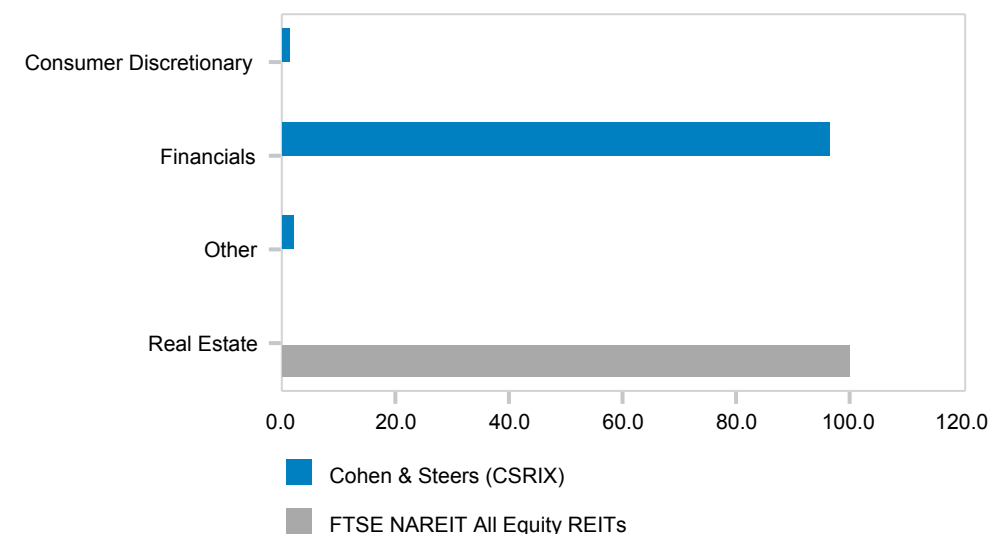
## Portfolio Characteristics As of 09/30/2018

	Portfolio	Benchmark
Total Securities	45	1
Avg. Market Cap (\$)	15,203,727,708	-
Price/Earnings (P/E)	42.35	N/A
Price/Book (P/B)	3.67	N/A
Dividend Yield	4.03	N/A
Annual EPS	3.40	N/A
5 Yr EPS	13.95	N/A
3 Yr EPS Growth	18.98	N/A
Beta (5 Years, Monthly)	1.01	1.00

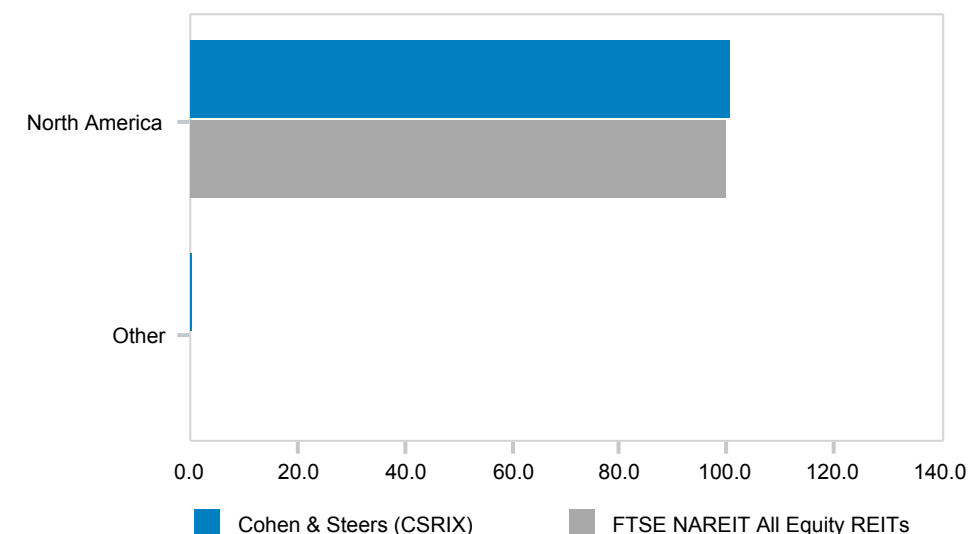
## Top Ten Securities As of 09/30/2018

Prologis Inc ORD	5.9 %
Essex Property Trust Inc ORD	5.7 %
UDR Inc ORD	5.6 %
Welltower Inc ORD	5.2 %
Digital Realty Trust Inc ORD	4.6 %
Equinix Inc ORD	4.5 %
Apartment Investment and Management	4.0 %
Simon Property Group Inc ORD	3.4 %
Extra Space Storage Inc ORD	3.3 %
Park Hotels & Resorts Inc ORD	3.1 %

## Sector Weights As of 09/30/2018



## Region Weights As of 09/30/2018



Statistics provided by Lipper. Most recent available data shown.



The ARI Master Limited Partnerships (MLPs) strategy is a diversified portfolio consisting primarily of publicly traded partnerships focused in the natural resources and energy infrastructure industries. The objective is to provide high levels of total returns and a growing cash yield. It offers low correlation to the broader equity market over the long-term. As of December 31, 2018, the ARI MLP had a market value of \$14,616,895.

ARI MLP		Alerian MLP	
	Weight %		Weight %
Energy Transfer LP	10.8	Enterprise Products Partners LP	21.0
Magellan Midstream Partners LP	10.5	Energy Transfer LP	13.5
Enterprise Products Partners LP	10.0	MPLX LP	9.8
MPLX LP	9.8	Cheniere Energy Partners LP	6.8
Williams Cos Inc. (The)	7.4	Plains All American Pipeline LP	6.3
Plains All American Pipeline LP	7.1	Magellan Midstream Partners LP	5.1
Tallgrass Energy GP LP	6.5	Andeavor Logistics LP	3.1
Phillips 66 Partners LP	5.0	Western Gas Partners Lp	2.8
Andeavor Logistics LP	4.5	Tallgrass Energy GP LP	2.7
ONEOK Inc.	4.4	Western Gas Equity Partners LP	2.4

## Equity Assets Exposures by Sector

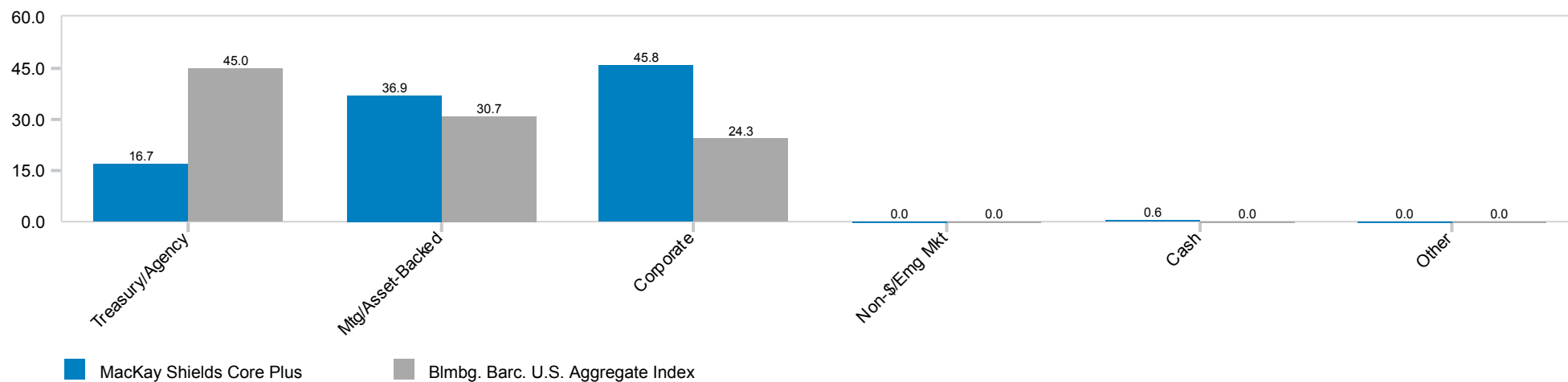
	ARI MLP	Alerian MLP
Cash	0.61	0.00
Energy	99.39	100.00

## Equity Characteristics

	ARI MLP	Alerian MLP
Wtd. Avg. Mkt. Cap (\$)	18,906,365,559	22,313,766,384
Price/Earnings ratio	13.6	13.4
Price/Book ratio	2.4	2.5
Current Yield	8.2	8.5
Number of Stocks	21	41

MacKay Shields Core Plus seeks to outperform the benchmark by eliminating or reducing uncompensated risk while opportunistically allocating investments across a range of core and off-benchmark sectors. The fund typically invests in the same sectors represented by the Barclays U.S. Aggregate Bond Index, as well as high yield, emerging market debt, and non-US Dollar exposure. Their philosophy is centered on their pursuit of consistent, superior rates of return with low volatility. Their goal for the product is to provide enhanced returns over a full market cycle with lower-than market risk. This portfolio replaced Smith Affiliated during the first quarter of 2014. As of December 31, 2018, MacKay Shields had a market value of \$37,419,372.

## Sector Distribution (%)

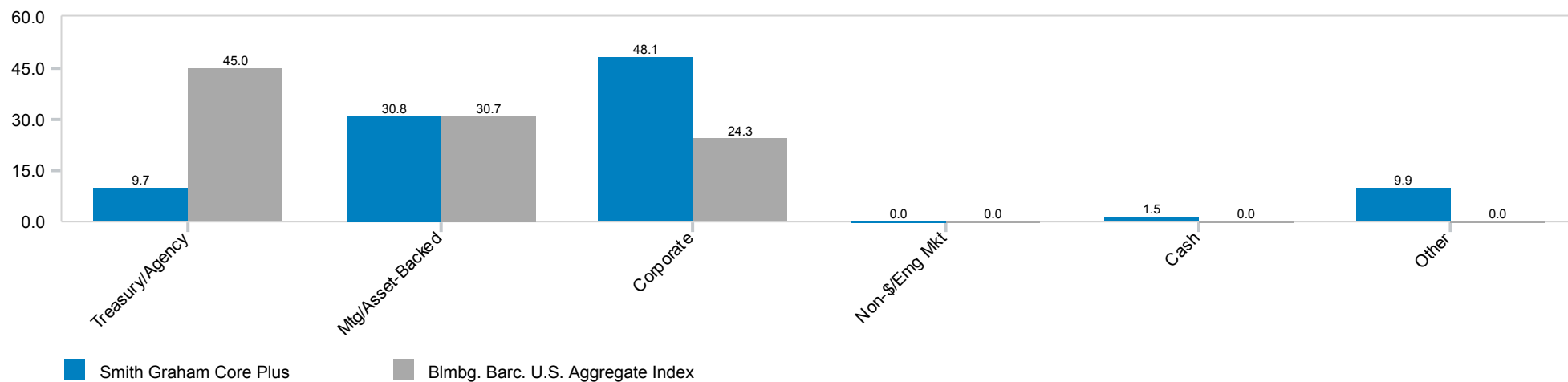


## Portfolio Characteristics

	Portfolio	Benchmark
Avg. Maturity	7.94	8.22
Avg. Quality	A+	AA1/AA2
Coupon Rate (%)	3.85	3.20
Modified Duration	5.66	5.81
Yield To Maturity (%)	3.72	3.28
Holdings Count	235	N/A

Smith Graham uses a bottom-up methodology with independent examination of each investment opportunity, rather than being process driven by an economic view. The portfolio focuses on opportunities where they believe the reward is at least two times greater than the visible risk. The investment team focuses on five key factors; security selection, sector rotation, yield curve positioning, volatility management, and duration management. As of December 31, 2018, Smith Graham had a market value of \$32,956,912.

### Sector Distribution (%)



### Portfolio Characteristics

	Portfolio	Benchmark
Avg. Maturity	8.20	8.22
Avg. Quality	A+	AA1/AA2
Coupon Rate (%)	3.42	3.20
Modified Duration	5.91	5.81
Yield To Maturity (%)	3.75	3.28
Holdings Count	124	N/A

### Fund Information

Fund Name :	Loomis Sayles Funds I: Loomis Sayles Institutional High Income Fund; Institutional Class	Portfolio Assets :	\$661 Million
Fund Family :	Loomis Sayles & Company LP	Portfolio Manager :	Fuss/Eagan/Stokes
Ticker :	LSHIX	PM Tenure :	1996--2007--2007
Inception Date :	06/05/1996	Fund Style :	IM U.S. High Yield Bonds (MF)
Fund Assets :	\$661 Million	Style Benchmark :	FTSE High Yield Market Index
Portfolio Turnover :	14%		

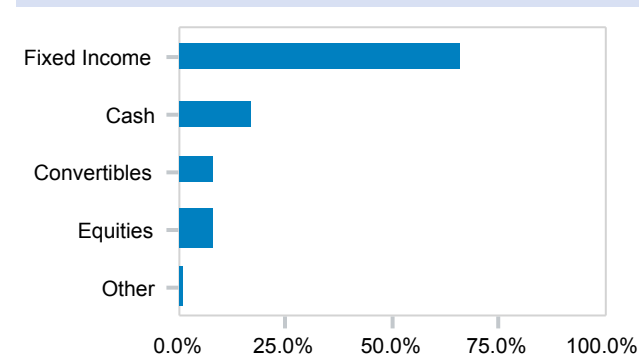
### Fund Characteristics As of 09/30/2018

Avg. Coupon	4.92 %
Nominal Maturity	N/A
Effective Maturity	5.13 Years
Duration	3.49 Years
SEC 30 Day Yield	5.5
Avg. Credit Quality	BBB

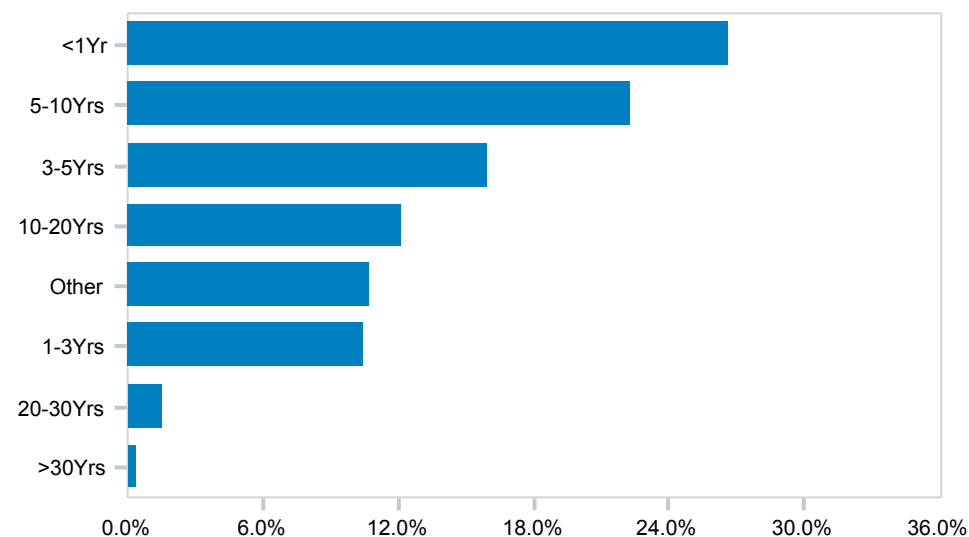
### Top Ten Securities As of 09/30/2018

Corporate Notes/Bonds	61.8 %
Convertible Securities	8.2 %
Common Stock	7.8 %
Fgn. Currency Denominated Bonds	5.3 %
Treasury Notes/Bonds	0.7 %
Preferred Stock-Non Convertible	0.1 %
Asset Backed Securities	0.1 %

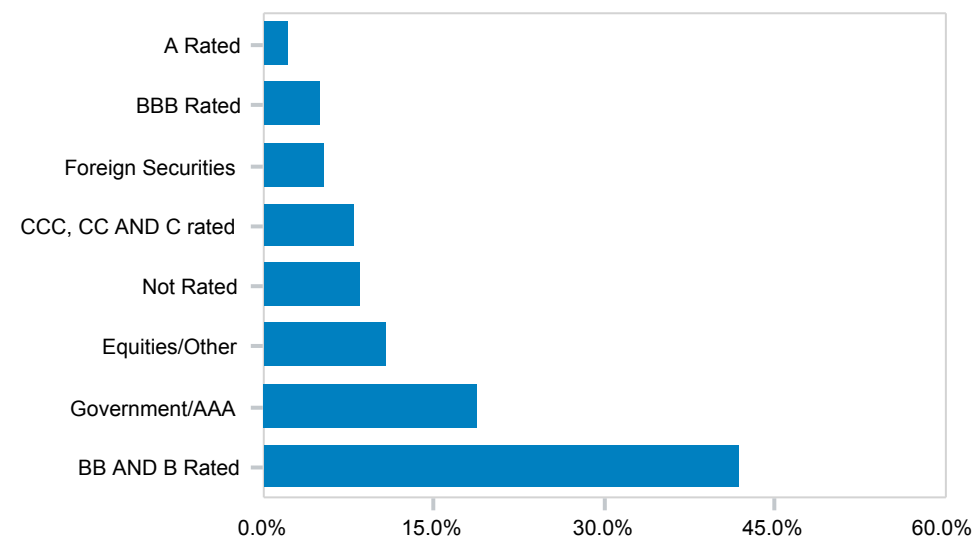
### Asset Allocation As of 09/30/2018



### Maturity Distribution As of 09/30/2018



### Sector/Quality Allocation As of 09/30/2018



Statistics provided by Lipper. Most recent available data shown.



**Port of Houston Pension  
Manager Status Summary  
As of December 31, 2018**

Manager	Mandate	Status	Notes
Fiduciary Management	Large Cap Value Equity	In Compliance	
Vanguard Index Institutional (VINIX)	Large Cap Core Equity	In Compliance	
Stacey Braun	Large Cap Growth Equity	In Compliance	
Stephens Mid Cap Growth	Mid Cap Growth Equity	In Compliance	
Barrow Hanley MeWhinney & Strauss	Small Cap Value Equity	In Compliance	
Causeway International (CIVIX)	International Equity	In Compliance	
Cohen & Steers (CSRIX)	Real Estate and Investment Trust	In Compliance	
ARI MLP	Master Limited Partnership	In Compliance	
Mackay Shields Core Plus	Core Plus Fixed Income	In Compliance	
Smith Graham Core Plus	Core Plus Fixed Income	In Compliance	
Loomis Sayles High Yield (LSHIX)	High Yield Fixed Income	In Compliance	

**In Compliance-** The portfolio is acting in full compliance with its guidelines and it is performing according to expectations.

**On Alert-** Concerns exist with the portfolio's performance, a change in investment characteristics, management style, ownership structure, staff or other related events.

**On Notice-** A continued and serious problem with any of the issues mentioned above. If the situation is not resolved to the Trustee's satisfaction, a replacement will be replaced and hired.



**Port of Houston Authority**  
**Fee Analysis**  
As of December 31, 2018

	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
<b>Total Fund Composite</b>	<b>0.52</b>	<b>167,241,024</b>	<b>862,528</b>	
Equity Composite	0.80	34,841,785	278,697	
Domestic Equity	0.55	53,069,792	293,391	
Fiduciary Management	0.55	6,445,595	35,451	0.55 % of Assets
Vanguard Index Fund Institutional (VINIX)	0.04	12,721,695	5,089	0.04 % of Assets
Stacey Braun	0.45	6,242,535	28,091	0.45 % of First \$10 M 0.40 % Thereafter
Stephens Mid Cap Growth	0.77	13,503,660	103,978	0.77 % of Assets
Barrow Hanley MeWhinney & Strauss	0.85	14,156,306	120,782	1.00 % of First \$10 M 0.50 % of Next \$190 M 0.40 % of Next \$200 M 0.30 % Thereafter
International Equity	0.91	10,865,023	98,872	
Causeway International (CIVIX)	0.91	10,865,023	98,872	0.91 % of Assets
Real Estate	0.75	9,359,867	70,199	
Cohen & Steers (CSRIX)	0.75	9,359,867	70,199	0.75 % of Assets
MLPs	0.75	14,616,895	109,627	
ARI MLP	0.75	14,616,895	109,627	0.75 % of Assets
Fixed Income Composite	0.37	79,288,232	290,440	
Core Fixed Income	0.33	70,376,284	229,839	
Mackay Shields Core Plus	0.35	37,419,372	130,968	0.35 % of Assets
Smith Graham Core Plus	0.30	32,956,912	98,871	0.30 % of Assets
High Yield Fixed Income	0.68	8,911,948	60,601	
Loomis Sayles High Yield (LSHIX)	0.68	8,911,948	60,601	0.68 % of Assets



**Port of Houston Pension  
Fee Summary  
As of December 31, 2018**

Structure	Mandate	Expense Ratio	Category Average	Difference	Annual Savings
Fiduciary Management	Large Cap Value Equity	0.55%	0.99%	0.44%	\$28,361
Vanguard Index Institutional (VINIX)	Large Cap Core Equity	0.04%	0.99%	0.95%	\$120,856
Stacey Braun	Large Cap Growth Equity	0.45%	0.99%	0.54%	\$33,710
Stephens Mid Cap Growth	Mid Cap Growth Equity	0.77%	1.26%	0.49%	\$66,168
Barrow Hanley MeWhinney & Strauss	Small Cap Value Equity	0.76%	1.27%	0.51%	\$72,197
Causeway International (CIVIX)	International Equity	0.91%	1.21%	0.30%	\$32,595
Cohen & Steers (CSRIX)	Real Estate and Investment Trust	0.75%	1.24%	0.49%	\$45,863
ARI MLP	Master Limited Partnership	0.75%	1.00%	0.25%	\$36,542
Mackay Shields Core Plus	Core Plus Fixed Income	0.35%	0.84%	0.49%	\$183,355
Smith Graham Core Plus	Core Plus Fixed Income	0.30%	0.84%	0.54%	\$177,967
Loomis Sayles High Yield (LSHIX)	High Yield Fixed Income	0.68%	1.04%	0.36%	\$32,083
<b>Total Management Fees</b>		<b>0.52%</b>	<b>1.00%</b>	<b>0.48%</b>	<b>\$829,697</b>

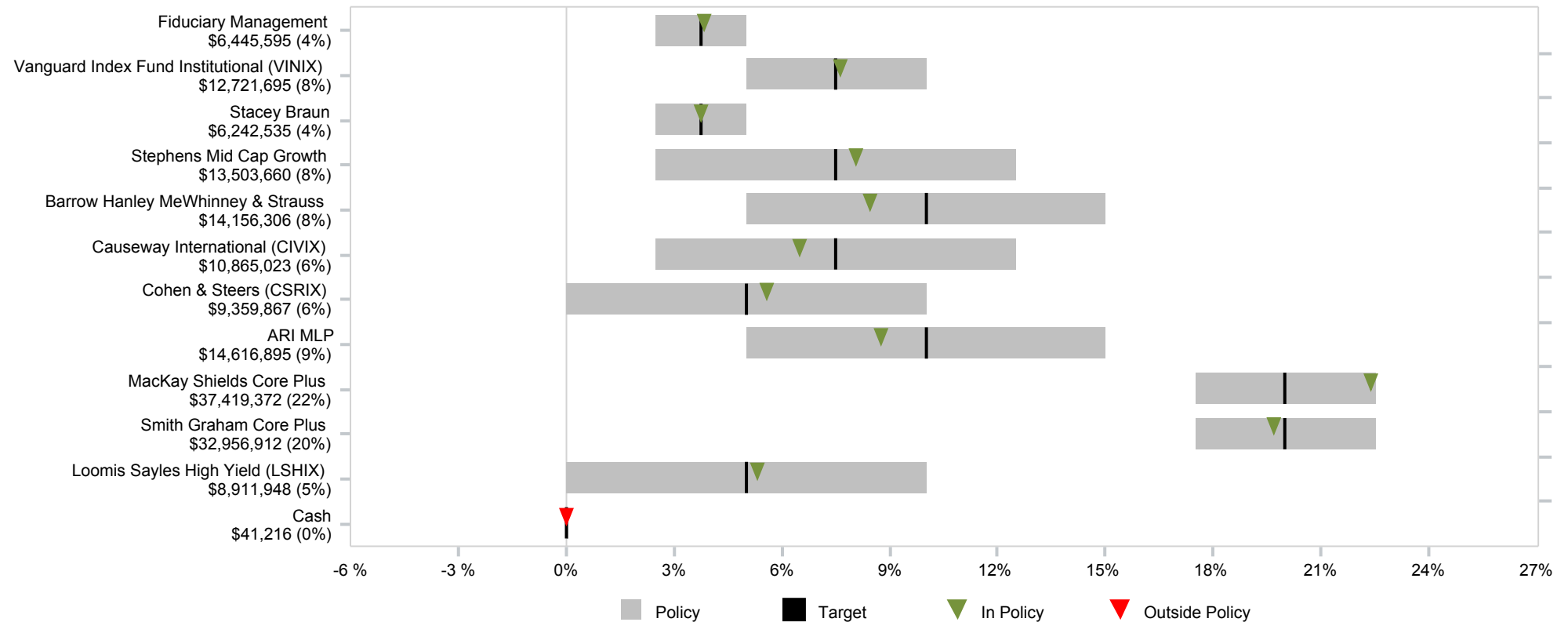
Source: Morningstar and Investment Managers

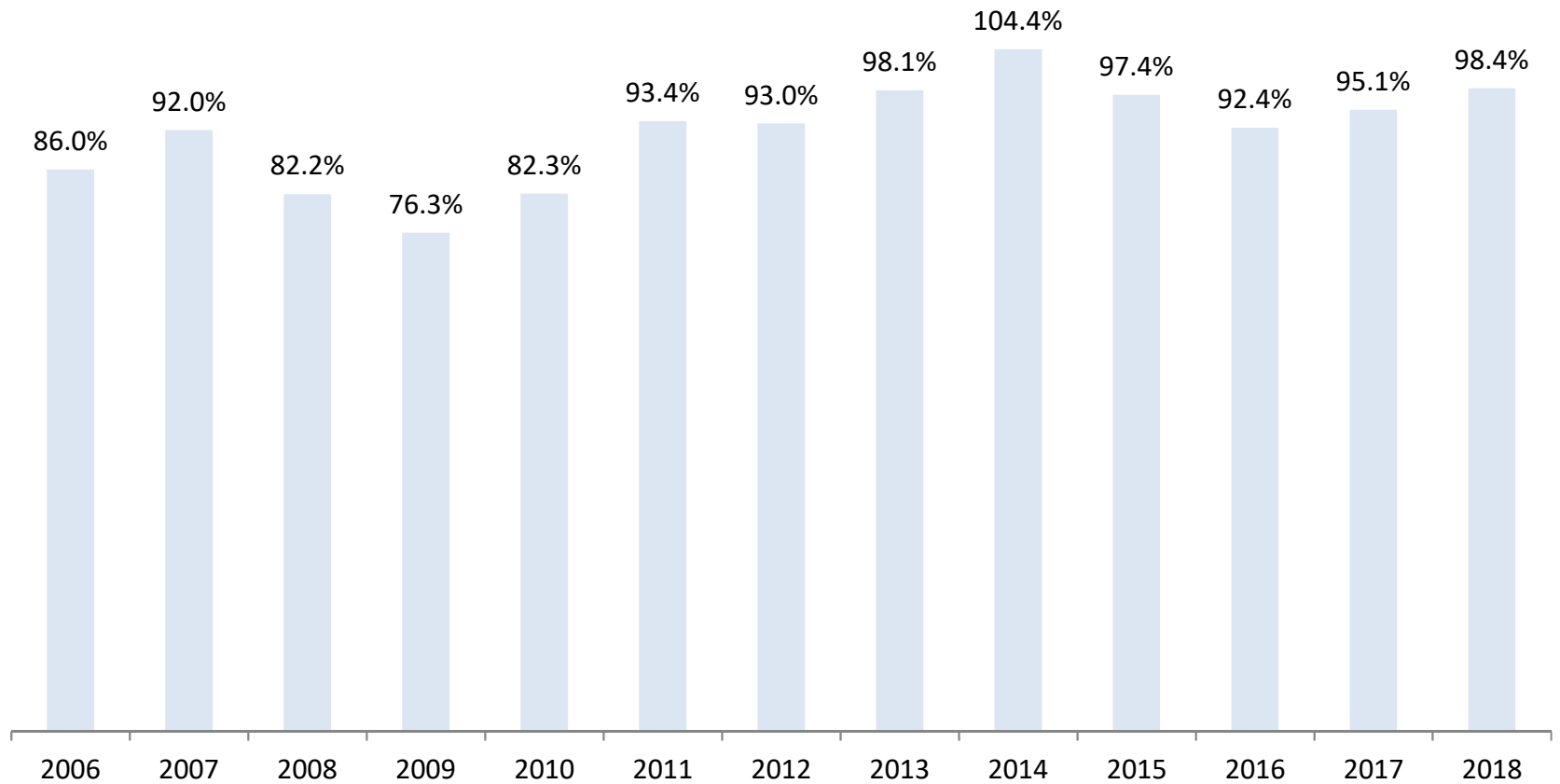


Asset Allocation Compliance

	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Differences (%)	Minimum Allocation (%)	Maximum Allocation (%)
Total Fund Composite	167,241,024	100.0	100.0	0.0		
Fiduciary Management	6,445,595	3.9	3.8	0.1	2.5	5.0
Vanguard Index Fund Institutional (VINIX)	12,721,695	7.6	7.5	0.1	5.0	10.0
Stacey Braun	6,242,535	3.7	3.8	0.0	2.5	5.0
Stephens Mid Cap Growth	13,503,660	8.1	7.5	0.6	2.5	12.5
Barrow Hanley MeWhinney & Strauss	14,156,306	8.5	10.0	-1.5	5.0	15.0
Causeway International (CIVIX)	10,865,023	6.5	7.5	-1.0	2.5	12.5
Cohen & Steers (CSRIX)	9,359,867	5.6	5.0	0.6	0.0	10.0
ARI MLP	14,616,895	8.7	10.0	-1.3	5.0	15.0
MacKay Shields Core Plus	37,419,372	22.4	20.0	2.4	17.5	22.5
Smith Graham Core Plus	32,956,912	19.7	20.0	-0.3	17.5	22.5
Loomis Sayles High Yield (LSHIX)	8,911,948	5.3	5.0	0.3	0.0	10.0
Cash	41,216	0.0	0.0	0.0	0.0	0.0

Executive Summary





Source: Port of Houston Authority Restated Retirement Plan Actuarial Valuation Report as of August 1, 2018. The funded ratio is calculated by dividing the actuarial value of assets by the actuarial accrued liability.

The 2013 funded status was calculated as 100.7%, prior to reduction of the actuarial assumption from 7.25% to 7.00%. The actuarial assumption was reduced from 7.00% to 6.75% by the Port Commission on December 13, 2016. The effective date of the change is January 1, 2017 for reporting purposes.

<b>Active Return</b>	- Arithmetic difference between the manager's performance and the designated benchmark return over a specified time period.
<b>Alpha</b>	- 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.
<b>Beta</b>	- A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.
<b>Consistency</b>	- 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.
<b>Distributed to Paid In (DPI)</b>	- 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.
<b>Down Market Capture</b>	- The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance
<b>Downside Risk</b>	- 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.
<b>Excess Return</b>	- Arithmetic difference between the manager's performance and the risk-free return over a specified time period.
<b>Excess Risk</b>	- A measure of the standard deviation of a portfolio's performance relative to the risk free return.
<b>Information Ratio</b>	- 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.
<b>Public Market Equivalent (PME)</b>	- 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.
<b>R-Squared</b>	- 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.
<b>Return</b>	- Compounded rate of return for the period.
<b>Sharpe Ratio</b>	- 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.
<b>Standard Deviation</b>	- 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.
<b>Total Value to Paid In (TVPI)</b>	- 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
<b>Tracking Error</b>	- This is a measure of the standard deviation of a portfolio's returns in relation to the performance of its designated market benchmark.
<b>Treynor Ratio</b>	- 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.
<b>Up Market Capture</b>	- 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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