Investment Performance Review Period Ending September 30, 2018

Palm Beach Gardens Police Pension Plan



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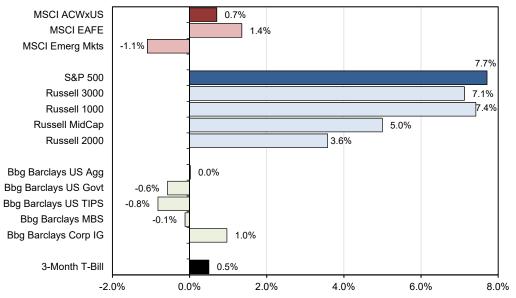


3rd Quarter 2018 Market Environment

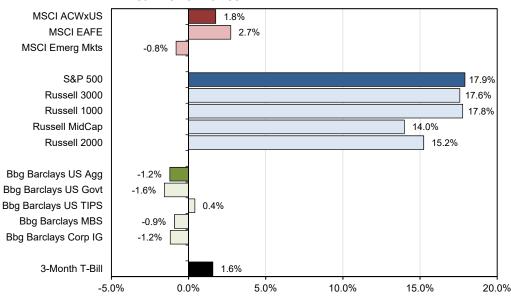


- Market returns were mixed across major equity and fixed income indices for the 3rd guarter of 2018 with many themes from the 2nd guarter repeating during the current period. Broad domestic equity indices pushed higher on continued strength in both economic and corporate earnings data. Corporate earnings continue to benefit from fiscal stimulus tailwinds in the form of the late 2017 tax reform. International indices underperformed domestic indices during the period, posting more muted returns in US dollar (USD) terms, as investors weighed relatively soft economic data, a strengthening USD and geopolitical concerns, especially around global trade relations. Fixed income returns were flat for the quarter as interest rates continued to rise. Domestic stocks rose as concerns around ongoing monetary policy tightening by the Federal Reserve (Fed) and an escalating trade war between the US and China were not substantial enough to dampen investor enthusiasm around the ongoing strength of the US economy. The US stock market represented by the Russell 3000 Index returned 7.1% and 17.6% for the guarter and 1-year period respectively.
- International equity returns finished the quarter slightly positive with the MSCI ACWI ex US Index returning 0.7%. Developed market stocks pushed higher through the period, however, relatively subdued economic growth and ongoing political and trade uncertainty tempered returns versus domestic equities. The developed market MSCI EAFE Index gained 1.4% during the quarter. Emerging market stocks struggled in comparison, posting negative returns for the period, as trade tensions grew between the US and China. In addition, a strengthening USD caused headwinds for most international markets, but caused particular difficulties for emerging market countries that issue debt in USD. The MSCI Emerging Markets Index posted a small decline of -1.1% during the 3rd quarter. The relative outperformance of developed markets can also be seen in the 1-year period with the MSCI EAFE and MSCI Emerging Markets indices returning 2.7% and -0.8% respectively.
- Interest rates on the US Treasury Yield Curve continued their year-to-date rise during the 3rd quarter as investor expectations for further Fed tightening of monetary policy increased during the period. The yield curve did flatten slightly as interest rates had the greatest increase in short-term maturities, but overall, the shift in rates was fairly consistent throughout the entire curve. The Fed did implement another interest rate increase following their September meeting citing the continued strength of the US economy and stable inflation. The broad market Bloomberg Barclays US Aggregate Index was flat for the quarter returning 0.0% and is slightly negative over the 1-year period returning -1.2%. Corporate issues rebounded following underperformance during the first half of the year and were the only investment grade sector to post a positive return during the quarter, as they benefitted from tightening credit spreads and strong investor demand.



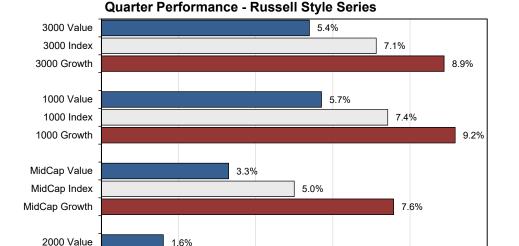


1-Year Performance





- US equity index returns were positive across the style and capitalization spectrum during the 3rd quarter of 2018. US equity markets were pushed higher by the ongoing strength in US economic data and corporate earnings. Positive data releases in GDP, unemployment, retail sales, consumer consumption and investor sentiment highlighted the continued health of the US economy. Corporate earnings released during the guarter were also impressive. Earnings reported for S&P 500 companies were up over 20% on a year-over-year basis for the second straight quarter as corporate profits continued to benefit from the new tax code. The current expansion in US equity markets now marks the longest bull market in history. While the positive economic data drove returns through the quarter, trade negotiations with China broke down with both the US and China instituting several rounds of new tariffs during the period. Currently the US is imposing tariffs on \$250 billion of Chinese imports with China placing tariffs on \$110 billion worth of goods. Further action has been threatened by both countries. While negotiations with China have been unsuccessful, progress was made in the renegotiation of the North American Free Trade Agreement (NAFTA) and discussions with the European Union (EU) appear to be moving ahead productively.
- During the quarter, large cap stocks outperformed mid and small cap equities across growth, value and core indices. The large cap Russell 1000 Index returned 7.4% for the quarter versus a 3.6% return for the Russell 2000 Index. The Russell 1000 benefitted from strong performance from some of its largest exposures. Apple Inc, Microsoft Corp and Amazon.com Inc alone make up over 10% of the index and posted quarterly returns of 22.4%, 16.4% and 17.8% respectively. Those same three stocks have gained 48.7%, 56.3% and 108.4% over the 1-year period. This strong performance from some of the index's largest constituents has helped large caps outperform small caps over the 1-year period as well with the Russell 1000 returning 17.8% over the trailing year while the Russell 2000 posted a still solid return of 15.2%.
- Growth stocks outperformed value stocks across the market cap spectrum during the 3rd quarter. The large cap Russell 1000 Growth Index was the best performing style index for the period returning a notable 9.2% for the quarter. The outperformance of growth indices relative to value indices is also evident over the 1-year period as growth indices continue to show significant outperformance relative to their value counterparts. The returns for growth indices more than double the returns of the corresponding value indices over the last 12 months. Growth benchmarks benefitted from larger exposures to more cyclical names within the information technology, consumer discretionary, health care and industrials sectors. They also benefitted from underweights to more defensive sectors such as REITs and utilities.



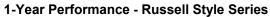
3.6%

4.0%

5.5%

6.0%

8.0%

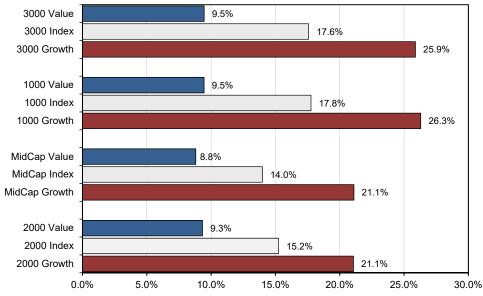


2.0%

2000 Index

2000 Growth

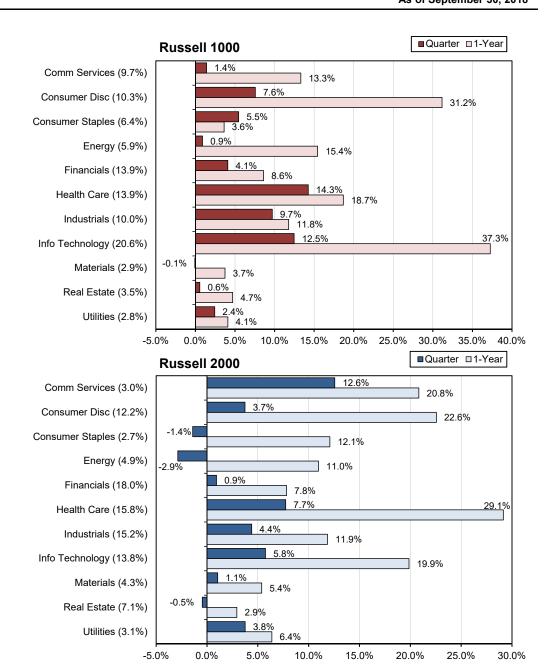
0.0%





10.0%

- Both S&P Dow Jones Indices and MSCI made changes to the Global Industry Classification Standard (GICS) sector configurations of their indices, creating a new GICS sector classification called Communication Services which replaced the Telecommunications sector on September 28, 2018. The Communication Services sector is comprised of companies in the Telecommunications sector, as well as certain companies formerly classified as Consumer Discretionary and Information Technology. As a result, the sector, went from a weighting of about 2% of the Russell 1000 Index to almost 10% post reclassification. Notable names now classified under Communication Services include Netflix, Alphabet, Facebook and Disney. This is just the second change to the GICS classifications since 1999.
- Sector performance was broadly positive across large cap sectors for the 3rd quarter. Ten of eleven sectors had positive returns for the quarter with four outpacing the Russell 1000 Index return. The consumer discretionary sector continues to do well on the back of strong retail sales and increased consumer spending, gaining 7.6% for the period. Health care and technology stocks increased 14.3% and 12.5% during the quarter respectively, with companies in both sectors reporting strong earnings. Industrials benefitted from continued economic strength returning 9.7%. The largest detractors for the quarter were the materials, real estate and energy sectors which returned -0.1%, 0.6% and 0.9% respectively. Over the trailing 1-year period, all large cap all sectors were positive. The information technology and consumer discretionary sectors were the best performers, returning over 30% over the last 12 months, and six of eleven sectors have returns over 10% for the year.
- Quarterly results for small cap sectors were generally lower relative to their large capitalization counterparts. Nine of eleven sectors had positive returns during the period with six of eleven economic sectors outpacing the Russell 2000 Index return for the quarter. Energy, consumer staples and real estate posted negative returns for the period returning -2.9%, -1.4% and -0.5% respectively. Communications services and health care were the best performers returning 12.6% and 7.7%. Over the trailing 1-year period, all eleven sectors posted gains. Health care stocks were the best performers within the Russell 2000 for the trailing year returning a solid 29.1%. Communication services, technology, and consumer discretionary also had particularly robust returns for the 1-year period.
- Using S&P 500 sector valuations as a proxy for the market, forward P/E ratios for seven 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 health care sectors were trading at a discount to their long-term average P/E ratios.





Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Apple Inc	3.97%	22.4%	48.7%	Information Technology
Microsoft Corp	3.15%	16.4%	56.3%	Information Technology
Amazon.com Inc	2.96%	17.8%	108.4%	Consumer Discretionary
Berkshire Hathaway Inc B	1.51%	14.7%	16.8%	Financials
Facebook Inc A	1.42%	-15.4%	-3.8%	Communication Services
JPMorgan Chase & Co	1.37%	8.9%	20.7%	Financials
Johnson & Johnson	1.35%	14.6%	9.1%	Health Care
Alphabet Inc Class C	1.32%	7.0%	24.4%	Communication Services
Alphabet Inc A	1.31%	6.9%	24.0%	Communication Services
Exxon Mobil Corp	1.31%	3.8%	7.9%	Energy

Top 10 Weighted Stocks					
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector	
Five Below Inc	0.31%	33.1%	137.0%	Consumer Discretionary	
Etsy Inc	0.27%	21.8%	204.4%	Consumer Discretionary	
Integrated Device Technology Inc	0.27%	47.5%	76.9%	Information Technology	
LivaNova PLC	0.27%	24.2%	76.9%	Health Care	
Haemonetics Corp	0.26%	27.8%	155.4%	Health Care	
Teladoc Health Inc	0.25%	48.8%	160.5%	Health Care	
Ligand Pharmaceuticals Inc	0.25%	32.5%	101.6%	Health Care	
HubSpot Inc	0.24%	20.4%	79.6%	Information Technology	
Primerica Inc	0.23%	21.3%	49.2%	Financials	
HealthEquity Inc	0.22%	25.7%	86.7%	Health Care	

Top 10 Performing Stocks (by Quarter)					
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector	
Advanced Micro Devices Inc	0.10%	106.1%	142.3%	Information Technology	
Square Inc A	0.10%	60.6%	243.7%	Information Technology	
Paycom Software Inc	0.03%	57.2%	107.3%	Information Technology	
Twilio Inc A	0.02%	54.0%	189.0%	Information Technology	
Atlassian Corporation PLC A	0.03%	53.8%	173.5%	Information Technology	
Molina Healthcare Inc	0.03%	51.8%	116.3%	Health Care	
DexCom Inc	0.05%	50.6%	192.4%	Health Care	
Match Group Inc	0.01%	49.5%	149.7%	Communication Services	
Fortinet Inc	0.05%	47.8%	157.4%	Information Technology	
IAC/InterActiveCorp	0.06%	42.1%	84.3%	Communication Services	

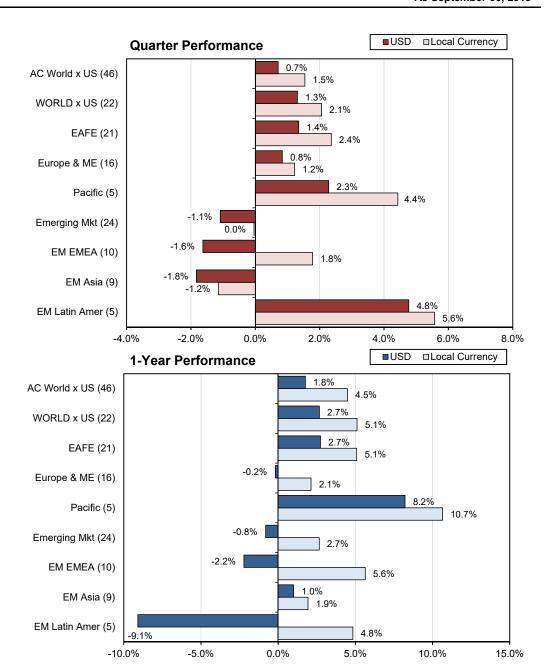
Top 10 Performing Stocks (by Quarter)					
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector	
CareDx Inc	0.04%	135.7%	679.7%	Health Care	
Reata Pharmaceuticals Inc A	0.07%	133.8%	162.9%	Health Care	
Invitae Corp	0.05%	127.6%	78.5%	Health Care	
RigNet Inc	0.01%	97.6%	18.3%	Energy	
Tandem Diabetes Care Inc	0.10%	94.6%	486.8%	Health Care	
Health Insurance Innovations Inc	0.03%	90.6%	325.2%	Financials	
Funko Inc Class A	0.01%	88.8%	N/A	Consumer Discretionary	
LSB Industries Inc	0.01%	84.5%	23.2%	Materials	
Viking Therapeutics Inc	0.04%	83.6%	812.0%	Health Care	
Ra Pharmaceuticals Inc	0.01%	81.8%	23.9%	Health Care	

Bottor	Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector	
Floor & Decor Holdings Inc	0.01%	-38.8%	-22.5%	Consumer Discretionary	
Twitter Inc	0.07%	-34.8%	68.7%	Communication Services	
IPG Photonics Corp	0.02%	-29.3%	-15.7%	Information Technology	
Visteon Corp	0.01%	-28.1%	-24.9%	Consumer Discretionary	
Zillow Group Inc A	0.01%	-26.0%	10.1%	Communication Services	
Zillow Group Inc C	0.02%	-25.1%	10.0%	Communication Services	
Western Digital Corp	0.06%	-23.7%	-30.4%	Information Technology	
Wynn Resorts Ltd	0.05%	-23.7%	-13.3%	Consumer Discretionary	
Extraction Oil & Gas Inc	0.00%	-23.1%	-26.6%	Energy	
Tesla Inc	0.13%	-22.8%	-22.4%	Consumer Discretionary	

Bottom 10 Performing Stocks (by Quarter)					
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector	
Vital Therapies Inc	0.00%	-96.0%	-94.5%	Health Care	
GTx Inc	0.00%	-89.7%	-81.4%	Health Care	
Ampio Pharmaceuticals Inc	0.00%	-76.9%	-16.9%	Health Care	
Innovate Biopharmaceuticals Inc	0.01%	-71.0%	-2.4%	Health Care	
Zion Oil & Gas Inc	0.00%	-68.4%	-62.5%	Energy	
Endologix Inc	0.01%	-66.3%	-57.2%	Health Care	
Lannett Co Inc	0.01%	-65.1%	-74.3%	Health Care	
Maiden Holdings Ltd	0.01%	-62.6%	-61.1%	Financials	
Diebold Nixdorf Inc	0.02%	-62.3%	-80.1%	Information Technology	
Sears Holdings Corp	0.00%	-59.2%	-86.7%	Consumer Discretionary	



- Broad international equity returns were mixed for the quarter. Most developed markets were positive in local currency and USD terms whereas emerging markets were negative in both local currency and USD terms. Performance was largely driven by the same catalysts as the US equity markets for the second straight quarter. We saw global macroeconomic data slow, but remain generally positive through the period, with returns being tempered by global trade tensions and ongoing political uncertainty. The USD continued to strengthen against most currencies for the period as relatively strong US economic fundamentals and the continued divergence in global monetary policy hurt US investors in international markets. The MSCI ACWI ex US Index gained 1.5% in local currency terms and 0.7% in USD terms during the 3rd quarter. Returns over the 1-year period are modestly positive in both local currency and USD terms with the MSCI ACWI ex US returning 4.5% and 1.8% respectively.
- Third quarter results for developed market international indices were positive in local currency terms and USD terms with the MSCI EAFE Index returning 2.4% and 1.4% respectively. Returns were dampened for US investors as continued strength in the USD pushed returns lower. Developed markets were pushed higher by broadly positive, but slowing, global economic and earnings data despite several significant political events in Europe during the quarter. Concerns over a "no deal" Brexit and worries over a pending budget approval in Italy weighed on returns, while markets were encouraged by progress in trade negotiations between the US and the eurozone and signs of continued political stability in Japan. The MSCI EAFE Index returned 5.1% and 2.7% for the last twelve months in local currency and USD terms respectively.
- Emerging markets underperformed relative to developed markets for the 3rd quarter, posting a flat return in local currency terms that was exacerbated by the rising USD. The MSCI Emerging Markets Index returned 0.0% and -1.1% in local currency and USD terms respectively. Returns in emerging markets were the hurt by the deterioration in trade negotiations between the US and China followed by several rounds of new tariffs enacted by both countries. Emerging market stocks were also negatively affected by rising US interest rates coupled with an appreciating USD. Many emerging market countries and companies issue debt denominated in USD and the combination of higher interest rates and a relatively weaker local currency can put stress on the balance sheets of these borrowers, especially those heavily dependent on external capital. This was particularly problematic for Turkey, Argentina and South Africa during the 3rd quarter with Argentina having to expedite their request for an emergency bailout of \$50 billion from the World Monetary Fund. In positive news, Mexico and the US made progress toward the renegotiation of NAFTA. One year returns for the MSCI Emerging Market Index were 2.7% in local currency terms and -0.8% in USD terms.



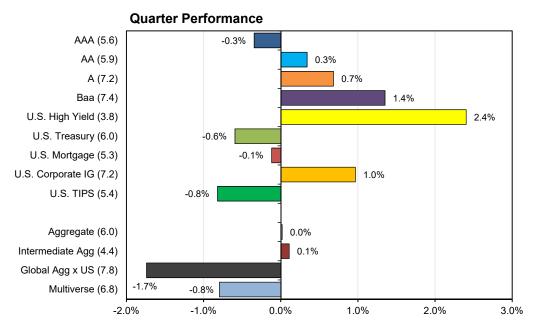


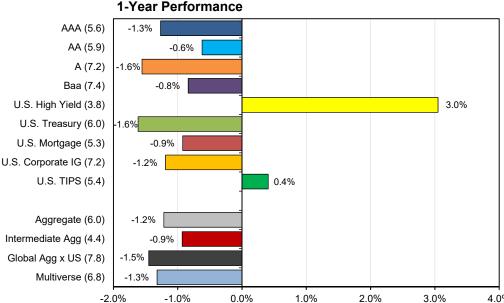
MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.4%	3.3%	-2.4%
Consumer Discretionary	11.1%	-0.5%	3.3%
Consumer Staples	11.3%	-0.1%	2.5%
Energy	6.0%	3.5%	24.6%
Financials	19.8%	0.9%	-4.0%
Health Care	10.9%	5.6%	7.1%
Industrials	14.3%	2.6%	4.2%
Information Technology	6.2%	0.3%	7.4%
Materials	8.1%	0.4%	5.1%
Real Estate	3.5%	-3.0%	1.0%
Utilities	3.3%	-0.6%	0.7%
Total	100.0%	1.4%	2.7%
MSCI - ACWIXUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	7.6%	-3.0%	-4.1%
Consumer Discretionary	10.7%	-3.2%	-1.4%
Consumer Staples	9.7%	-0.6%	1.6%
Energy	7.1%	4.1%	18.3%
Financials	22.0%	1.7%	-1.9%
Health Care	8.3%	4.5%	7.6%
Industrials	11.7%	2.8%	3.8%
Information Technology	8.5%	1.3%	5.6%
Materials	8.2%	0.4%	5.2%
Real Estate	3.2%	-3.5%	-2.7%
Utilities	3.0%	-0.9%	-1.2%
Total	100.0%	0.7%	1.8%
MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	14.8%	-9.4%	-6.0%
Consumer Discretionary	11.3%	-9.9%	-13.2%
Consumer Staples	6.7%	-2.9%	-1.9%
Energy	6.3%	14.5%	26.0%
Financials	23.3%	1.5%	0.4%
Health Care	3.1%	-7.2%	11.4%
Industrials	5.3%	2.5%	-4.3%
Information Technology	15.9%	2.2%	2.3%
Materials	7.8%	4.5%	8.6%
Real Estate	2.9%	-5.6%	-15.1%
Utilities	2.5%	-1.9%	-5.4%
Total	100.0%	-1.1%	-0.8%

	MSCI-EAFE	MSCI-ACWIXUS	Quarter	1- Year
Country	Weight	Weight	Return	Return
Japan	24.6%	16.9%	3.7%	10.2%
United Kingdom	17.5%	12.0%	-1.7%	2.9%
France	11.2%	7.7%	2.8%	4.2%
Germany	9.4%	6.5%	-0.6%	-5.4%
Switzerland	8.3%	5.7%	7.3%	1.6%
Australia	6.8%	4.7%	-0.9%	4.4%
Hong Kong	3.5%	2.4%	-1.0%	2.9%
Netherlands	3.3%	2.3%	-1.5%	-1.6%
Spain	3.0%	2.0%	-2.4%	-9.7%
Sweden	2.7%	1.9%	7.0%	-3.3%
Italy	2.3%	1.6%	-4.5%	-8.9%
Denmark	1.7%	1.2%	2.3%	-4.2%
Singapore	1.3%	0.9%	2.2%	6.9%
Finland	1.1%	0.7%	3.2%	10.3%
Belgium	1.0%	0.7%	-5.2%	-11.8%
Norway	0.8%	0.5%	6.7%	13.7%
Israel	0.6%	0.4%	5.1%	14.9%
Ireland	0.5%	0.4%	-5.4%	-6.1%
Austria	0.2%	0.2%	0.2%	-3.1%
New Zealand	0.2%	0.2%	2.4%	4.4%
Portugal	0.2%	0.1%	-0.6%	1.7%
Total EAFE Countries	100.0%	68.7%	1.4%	2.7%
Canada		6.7%	0.8%	1.9%
Total Developed Countries		75.3%	1.3%	2.7%
China		7.6%	-7.5%	-2.2%
Korea		3.7%	0.7%	1.4%
Taiwan		3.0%	6.5%	9.7%
India		2.1%	-2.3%	1.1%
Brazil		1.5%	6.1%	-14.0%
South Africa		1.5%	-7.4%	-5.1%
Russia		0.9%	6.2%	13.7%
Mexico		0.8%	6.9%	-4.4%
Thailand		0.6%	13.6%	15.2%
Malaysia		0.6%	3.8%	7.6%
Indonesia		0.5%	2.0%	-10.4%
Poland		0.3%	10.6%	-5.0%
Chile		0.3%	-2.0%	-5.7%
Philippines		0.2%	1.0%	-15.6%
Qatar		0.2%	12.8%	25.3%
United Arab Emirates		0.2%	3.1%	-6.9%
Turkey		0.2%	-20.5%	-41.7%
Colombia		0.1%	-2.5%	10.0%
Peru		0.1%	-2.1%	12.2%
Greece		0.1%	-17.6%	-14.8%
Hungary		0.1%	4.7%	-5.0%
Czech Republic		0.1%	4.0%	12.8%
Egypt		0.0%	-6.8%	-7.1%
Pakistan		0.0%	-4.9%	-20.6%
Total Emerging Countries		24.7%	-1.1%	-0.8%



- Broad fixed income benchmarks had mixed results during the 3rd quarter. Interest rates rose across all maturities on the US Treasury Yield Curve. The Federal Open Market Committee (FOMC), decided to increase short-term interest rates by 25 basis points at their September meeting citing continued strength in the economy and stable inflation. This is the third rate hike of 2018. The current Fed Funds Rate target range sits at 2.00%-2.25%. The FOMC also changed the language used in its policy statement, removing the word "accommodative", which investors took as a signal that the Fed plans to continue its trend of monetary policy tightening. The yield curve continued to flatten, although very gradually, as short-term yields rose at a greater rate than long-term yields during the quarter. The difference in yields between the 2year and 10-year Treasury now sits at just 0.24%. As the curve continues to flatten, it moves closer to becoming "inverted", which happens when shortterm maturities have greater yields than long-term securities. 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. The Bloomberg Barclays US Aggregate Index was flat during the quarter, posting a 0.0% return. Over the 1-year period the index has fallen -1.2%.
- Within investment grade credit, lower quality corporate issues outperformed higher quality issues as credit spreads tightened steadily over 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 1.4% for the quarter, while AAA was the worst performing, falling -0.3%. High yield debt outperformed relative to investment grade credit, returning 2.0%, as spreads tightened to a greater degree for these issues and the index benefitted from less sensitivity to rising interest rates due to its lower duration. Returns are negative for all investment grade quality segments when viewed over the 1-year period while high yield continues to outperform with a return of 3.0%.
- Of the Bloomberg Barclays US Aggregate Index's three broad sectors, US investment grade corporates were the best performing investment grade sector through the quarter, returning 1.0%, and the only sector to post a positive return for the period. Corporate credit outperformed as credit spreads tightened. Demand for these securities outweighed supply for the period despite considerable new issuance and a headwind from the sectors higher duration relative to other index sectors. Treasuries were the worst performing sector posting a -0.6% return. Over the 1-year period, all three broad investment grade sectors posted losses with mortgages, investment grade credit and Treasuries falling -0.9%, -1.2% and -1.6% respectively.







- Global fixed income indices continue to struggle relative to their domestic counterparts, underperforming during the 3rd quarter. These indices have lower yields and their relatively high duration acted as a headwind to performance in the current quarter as interest rates increased. The returns of these indices are also significantly influenced by fluctuations in their currency denomination relative to the USD. During the 3rd 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 -1.7% and -1.5% for the guarter 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, as well as forecasting an end to the program by the end of the year assuming the eurozone recovery continues to flourish. 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 increased interest rates by 0.25% during the guarter citing improvement in their near-term economic outlook and the Bank of Japan has changed its policy to allow flexibility for future tightening in the future.
- 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) rose steadily during the end of the 3rd quarter, ending the period at 3.05%. 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 steady increase in credit spreads through the first two quarters of 2018, followed by a smooth decline during the 3rd quarter. This decline is equivalent to an interest rate decrease on corporate bonds, which produces an additional tailwind for corporate bond index returns. These credit spreads have tightened by about 20 basis points over the last 3-months. The green band across the graph illustrates the gradual increase in the Federal Funds Rate (three increases in the last twelve months) due to the continued unwinding of accommodative 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.

1-Year Trailing Market Rates

Treasury Yield Curve

0.00

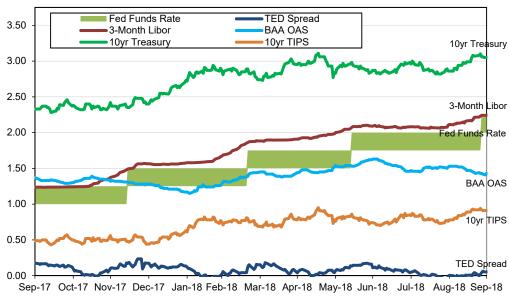
1 mo

3 mo

6 mo

1 yr

2 yr



3.50
3.50
3.00
3.00
12/31/2017
3/31/2018
9/30/2018
6/30/2018
3/31/2017
2.50
1.50
1.50

3 yr

5 yr

7 yr

10 yr

20 yr



30 yr

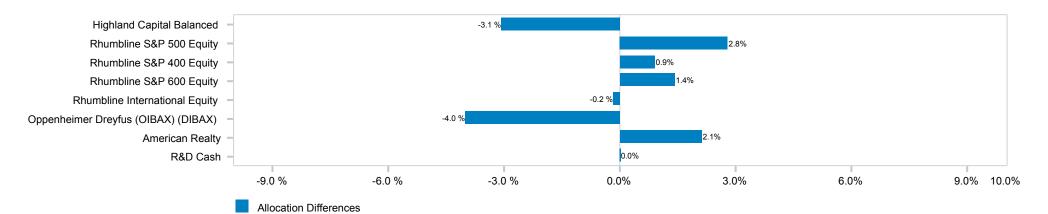
Total Fund Compliance:	Yes	No
The total plan return equaled or exceeded the total plan benchmark over the trailing three year period.	•	
The total plan return equaled or exceeded the total plan benchmark over the trailing five year period.	•	
The total plan return of the fund over the trailing three year period equaled or exceeded 6.7% (actuarial assumption rate of return).	•	
The three year total plan return ranks in the top 40% of its peer group.	•	
The five year total plan return ranks in the top 40% of its peer group.	•	
Total Equity Compliance:	Yes	No
The equity return equaled or exceeded the benchmark over the trailing three year period.		•
The equity return equaled or exceeded the benchmark over the trailing five year period.		•
Rhumbline S&P 500	Yes	No
The return equaled or exceeded the benchmark over the trailing three year period.		•
The return equaled or exceeded the benchmark over the trailing five year period.		•
The three year return ranks in the top 40% of its peer group.	•	
The five year return ranks in the top 40% of its peer group.		•
	.,	
Rhumbline S&P 400	Yes	No
The return equaled or exceeded the benchmark over the trailing three year period.		•
The return equaled or exceeded the benchmark over the trailing five year period.		•
The three year return ranks in the top 40% of its peer group.		•
The five year return ranks in the top 40% of its peer group.		•

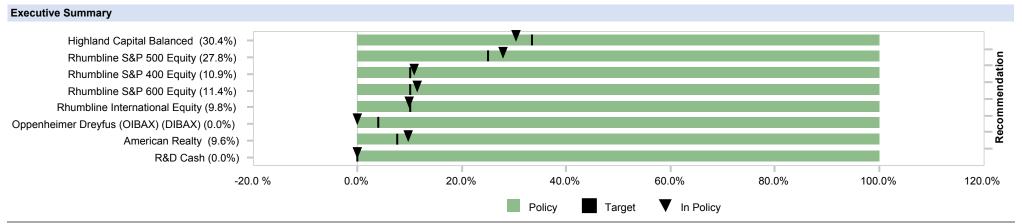


Dhamah Kara Gara Gara	V	NI-
Rhumbline S&P 600	Yes	No
The return equaled or exceeded the benchmark over the trailing three year period.	•	
The return equaled or exceeded the benchmark over the trailing five year period.	•	
The three year return ranks in the top 40% of its peer group.	•	
The five year return ranks in the top 40% of its peer group.	•	
Highland LCG	Yes	No
The return equaled or exceeded the benchmark over the trailing three year period.		•
The return equaled or exceeded the benchmark over the trailing five year period.		•
The three year return ranks in the top 40% of its peer group.		•
The five year return ranks in the top 40% of its peer group.		•
Rhumbline International Equity	Yes	No
The return equaled or exceeded the benchmark over the trailing three year period. (one year)		•
The return equaled or exceeded the benchmark over the trailing five year period. (Inception)		•
The three year return ranks in the top 40% of its peer group. (one year)	•	
The five year return ranks in the top 40% of its peer group. (Inception)	•	
Fixed Income Compliance:	Yes	No
The fixed income return equaled or exceeded the benchmark over the trailing three year period.	•	
The fixed income return equaled or exceeded the benchmark over the trailing five year period.	•	
Highland Fixed Income	Yes	No
The return equaled or exceeded the benchmark over the trailing three year period.	•	
The return equaled or exceeded the benchmark over the trailing five year period.	•	
The three year return ranks in the top 40% of its peer group.	•	
The five year return ranks in the top 40% of its peer group.		•



	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Differences (%)	Target Rebal (\$000)
Total Fund Composite	96,451,644	100.0	100.0	0.0	-
Highland Capital Balanced	29,349,318	30.4	33.5	-3.1	2,961,983
Rhumbline S&P 500 Equity	26,806,608	27.8	25.0	2.8	-2,693,697
Rhumbline S&P 400 Equity	10,528,566	10.9	10.0	0.9	-883,402
Rhumbline S&P 600 Equity	11,013,783	11.4	10.0	1.4	-1,368,619
Rhumbline International Equity	9,461,632	9.8	10.0	-0.2	183,533
Oppenheimer Dreyfus (OIBAX) (DIBAX)	-	0.0	4.0	-4.0	3,858,066
American Realty	9,289,566	9.6	7.5	2.1	-2,055,693
R&D Cash	2,172	0.0	0.0	0.0	-2,172

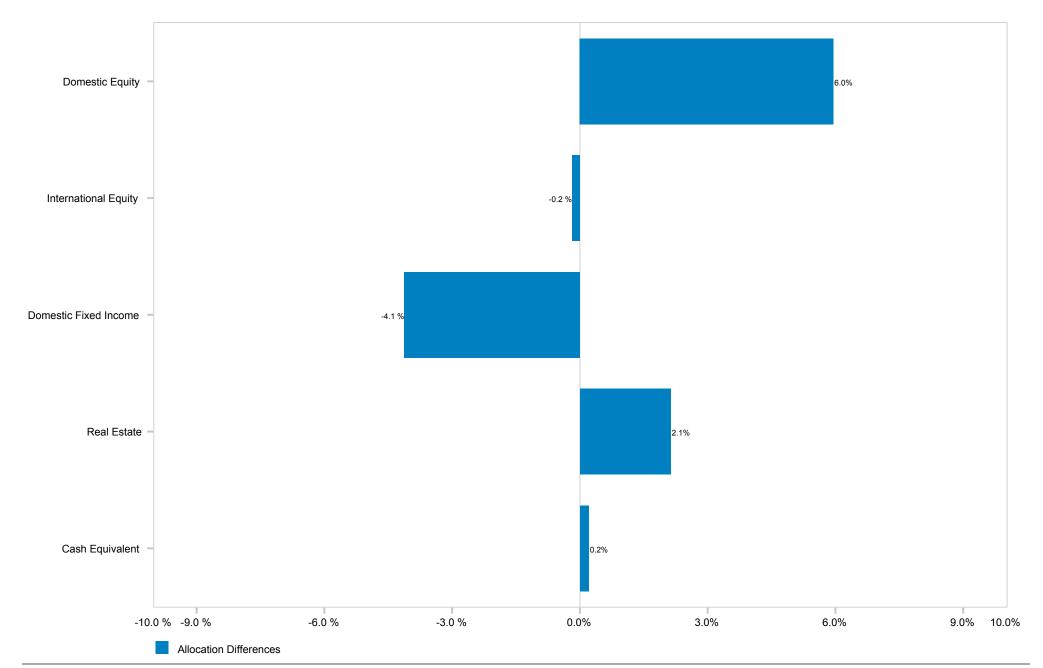




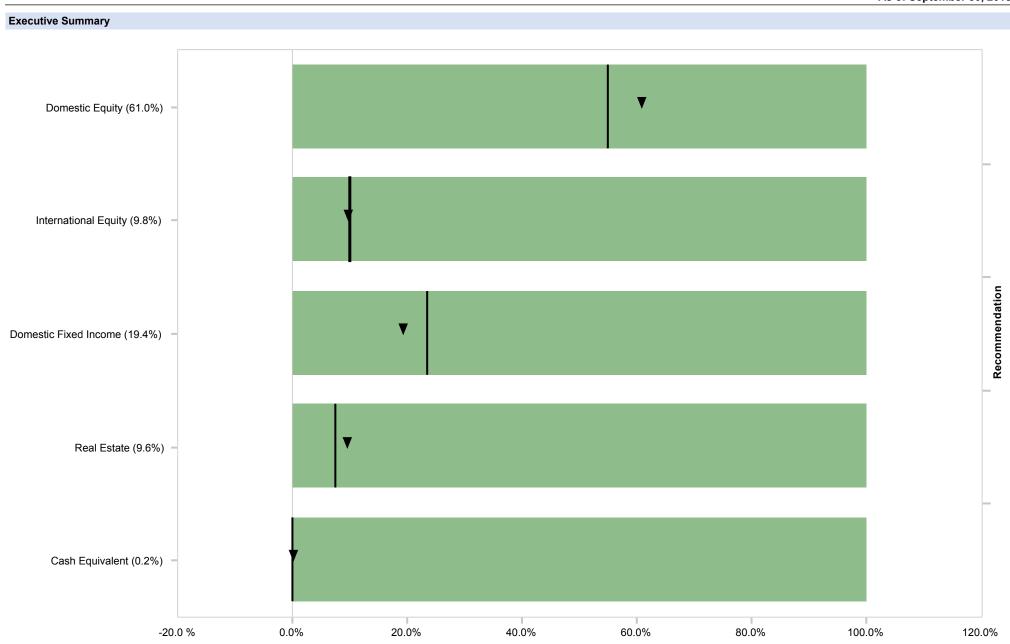


Asset Allocation Compliance					
	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Differences (%)	Target Rebal. (\$000)
Domestic Equity	58,788,280	61.0	55.0	6.0	-5,739,876
International Equity	9,461,632	9.8	10.0	-0.2	183,533
Domestic Fixed Income	18,700,143	19.4	23.5	-4.1	3,965,994
Real Estate	9,289,566	9.6	7.5	2.1	-2,055,693
Cash Equivalent	212,024	0.2	0.0	0.2	-212,024
Total Fund	96,451,644	100.0	96.0	4.0	-3,858,066









Policy

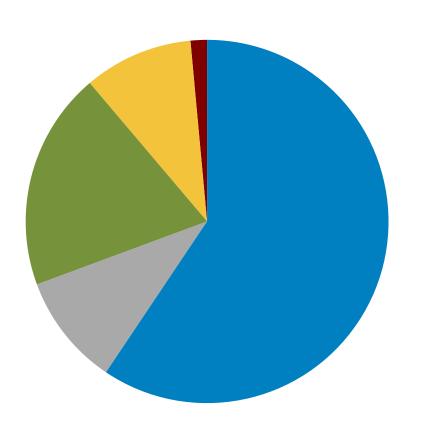
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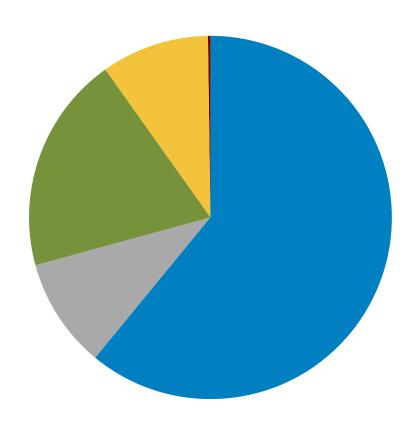
Target



Asset Allocation By Segment as of June 30, 2018 : \$93,684,867

Asset Allocation By Segment as of September 30, 2018 : \$96,451,644



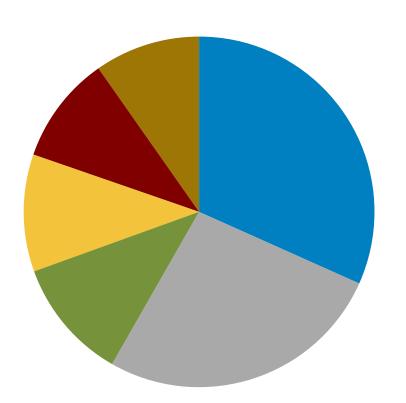


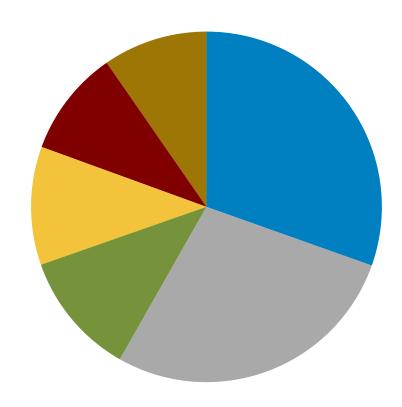
ocation			Allocation		
Segments	Market Value	Allocation	Segments	Market Value	Allocation
■ Domestic Equity	55,653,505	59.4	Domestic Equity	58,788,280	61.0
International Equity	9,333,801	10.0	International Equity	9,461,632	9.8
Domestic Fixed Income	18,208,270	19.4	Domestic Fixed Income	18,700,143	19.4
Real Estate	9,115,356	9.7	Real Estate	9,289,566	9.6
Cash Equivalent	1,373,936	1.5	Cash Equivalent	212,024	0.2



Asset Allocation By Manager as of June 30, 2018 : \$93,684,867

Asset Allocation By Manager as of September 30, 2018 : \$96,451,644





cation			Allocation		
	Market Value	Allocation		Market Value	Allocation
■ Highland Capital Balanced	29,688,911	31.7	■ Highland Capital Balanced	29,349,318	30.4
■ Rhumbline S&P 500 Equity	24,889,667	26.6	Rhumbline S&P 500 Equity	26,806,608	27.8
■ Rhumbline S&P 600 Equity	10,518,545	11.2	Rhumbline S&P 600 Equity	11,013,783	11.4
Rhumbline S&P 400 Equity	10,138,579	10.8	Rhumbline S&P 400 Equity	10,528,566	10.9
■ Rhumbline International Equity	9,333,801	10.0	Rhumbline International Equity	9,461,632	9.8
American Realty	9,115,356	9.7	American Realty	9,289,566	9.6
R&D Cash	8	0.0	R&D Cash	2,172	0.0



Asset Allocation & Performance																	
	Allo	cation								Perfo	rmance	e(%)					
	Market Value \$	%	Q	TR	FY	TD	1	YR	3 Y	′R	5	YR	Ince	ption	M	ГН	Inception Date
Total Fund Composite	96,451,644	100.0	4.22	(14)	11.27	(11)	11.27	(11)	11.93	(8)	9.56	(5)	8.07	(38)	-0.14	(71)	04/01/1992
Total Fund Policy Index			3.85	(27)	10.59	(17)	10.59	(17)	11.74	(10)	9.19	(13)	N/A		-0.24	(84)	
Difference			0.37		0.68		0.68		0.19		0.37		N/A		0.10		
All Public Plans-Total Fund Median			3.41		8.76		8.76		10.16		8.06		7.78		-0.03		
Total Equity Composite	68,249,912	70.8	5.73		16.01		16.01		16.32		12.52		6.32		-0.33		07/01/2000
Total Equity Policy Index			5.92		16.49		16.49		16.80		12.61		6.18		-0.21		
Difference			-0.19		-0.48		-0.48		-0.48		-0.09		0.14		-0.12		
Total Domestic Equity																	
Rhumbline S&P 500 Equity	26,806,608	27.8	7.70	(35)	17.87	(43)	17.87	(43)	17.26	(37)	13.90	(42)	6.05	(82)	0.57	(36)	07/01/2000
S&P 500 Index			7.71	(35)	17.91	(41)	17.91	(41)	17.31	(35)	13.95	(41)	5.93	(86)	0.57	(36)	
Difference			-0.01		-0.04		-0.04		-0.05		-0.05		0.12		0.00		
IM U.S. Large Cap Equity (SA+CF) Median			7.10		17.06		17.06		16.34		13.47		7.17		0.38		
Rhumbline S&P 400 Equity	10,528,566	10.9	3.85	(72)	14.16	(61)	14.16	(61)	15.61	(45)	11.88	(59)	10.53	(69)	-1.11	(70)	01/01/2004
S&P MidCap 400 Index			3.86	(69)	14.21	(58)	14.21	(58)	15.68	(43)	11.91	(57)	10.47	(72)	-1.10	(69)	
Difference			-0.01		-0.05		-0.05		-0.07		-0.03		0.06		-0.01		
IM U.S. Mid Cap Equity (SA+CF) Median			5.10		15.71		15.71		15.33		12.08		11.02		-0.65		
Rhumbline S&P 600 Equity	11,013,783	11.4	4.71	(41)	19.04	(35)	19.04	(35)	19.36	(28)	13.33	(27)	11.09	(39)	-3.17	(86)	01/01/2004
S&P SmallCap 600 Index			4.71	(41)	19.08	(34)	19.08	(34)	19.41	(26)	13.32	(27)	11.03	(41)	-3.17	(86)	
Difference			0.00		-0.04		-0.04		-0.05		0.01		0.06		0.00		
IM U.S. Small Cap Equity (SA+CF) Median			3.90		14.77		14.77		17.18		11.88		10.63		-2.13		
Highland Capital LCG	10,439,323	10.8	7.85	(58)	23.71	(58)	23.71	(58)	17.56	(68)	14.60	(68)	9.73	(61)	0.15	(77)	10/01/2007
Russell 1000 Growth Index	, ,		9.17	(25)	26.30	. ,	26.30	. ,		(23)	16.58	. ,	10.55	` '	0.56	` '	
Difference			-1.32	,	-2.59	()	-2.59	()	-2.99	,	-1.98	` '	-0.82	, ,	-0.41	` '	
IM U.S. Large Cap Growth Equity (SA+CF) Median			8.19		24.66		24.66		18.85		15.70		10.17		0.55		
International Equity																	
Rhumbline International Equity	9,461,632	9.8	1.37	(27)	2.74	(39)	2.74	` '	N/A		N/A		9.82	` '	0.89	` '	08/01/2016
MSCI EAFE Index			1.42	(25)	3.25	(34)	3.25	(34)	9.77	(68)	4.90	(62)	10.94	(54)	0.91	(23)	
Difference			-0.05		-0.51		-0.51		N/A		N/A		-1.12		-0.02		
IM International Equity (SA+CF) Median			0.17		1.46		1.46		11.12		5.63		11.30		-0.03		



	Alloc	cation								Perfo	rmance	(%)					
	Market Value \$	%	QT	ſR	FY	ΓD	1 \	YR	3 \	ΥR	5 `	ΥR	Ince	ption	M	ТН	Inception Date
Total Fixed Income Composite	18,700,143	19.4	0.14		-1.34		-1.34		2.12		2.24		5.14		-0.60		04/01/1994
Total Fixed Inc Policy Index			-0.23		-1.24		-1.24		1.45		1.91		5.17		-0.69		
Difference			0.37		-0.10		-0.10		0.67		0.33		-0.03		0.09		
Domestic Fixed Income																	
Highland Capital Fixed Income	18,700,143	19.4	0.14	(59)	-1.08	(76)	-1.08	(76)	2.04	(35)	2.37	(65)	5.17	(96)	-0.60	(62)	04/01/1994
Blmbg. Barc. U.S. Aggregate Index			0.02	(84)	-1.22	(90)	-1.22	(90)	1.31	(88)	2.16	(89)	5.25	(94)	-0.64	(83)	
Difference			0.12		0.14		0.14		0.73		0.21		-0.08		0.04		
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	ı		0.19		-0.74		-0.74		1.82		2.58		5.58		-0.57		
Real Estate																	
American Realty	9,289,566	9.6	2.19	(59)	8.50	(70)	8.50	(70)	8.35	(82)	10.28	(72)	10.62	(71)	2.19	(N/A)	07/01/2012
NCREIF Fund Index-Open End Diversified Core (EW)			2.08	(63)	8.82	(67)	8.82	(67)	9.08	(56)	10.84	(61)	11.13	(58)	2.08	(N/A)	
Difference			0.11		-0.32		-0.32		-0.73		-0.56		-0.51		0.11		
IM U.S. Private Real Estate (SA+CF) Median			2.35		9.69		9.69		9.53		11.41		11.65		N/A		
R&D Cash	2,172	0.0															



	Allo	cation				Performance	e(%)		
	Market Value \$	%	QTR	FYTD	1 YR	3 YR	5 YR	Inception	Inception Date
Total Fund Composite	96,451,644	100.0	4.19	11.12	11.12	11.73	9.36	7.82	04/01/1992
Total Fund Policy Index			3.85	10.59	10.59	11.74	9.19	N/A	
Difference			0.34	0.53	0.53	-0.01	0.17	N/A	
Total Equity Composite	68,249,912	70.8	5.73	16.01	16.01	16.32	12.52	6.32	07/01/2000
Total Equity Policy Index	, ,		5.92	16.49	16.49	16.80	12.61	6.18	
Difference			-0.19	-0.48	-0.48	-0.48	-0.09	0.14	
Total Domestic Equity									
Rhumbline S&P 500 Equity	26,806,608	27.8	7.69	17.81	17.81	17.20	13.84	5.93	07/01/2000
S&P 500 Index			7.71	17.91	17.91	17.31	13.95	5.93	
Difference			-0.02	-0.10	-0.10	-0.11	-0.11	0.00	
Rhumbline S&P 400 Equity	10,528,566	10.9	3.83	14.10	14.10	15.55	11.82	10.52	01/01/2004
S&P MidCap 400 Index			3.86	14.21	14.21	15.68	11.91	10.47	
Difference			-0.03	-0.11	-0.11	-0.13	-0.09	0.05	
Rhumbline S&P 600 Equity	11,013,783	11.4	4.70	18.98	18.98	19.30	13.27	11.07	01/01/2004
S&P SmallCap 600 Index			4.71	19.08	19.08	19.41	13.32	11.03	
Difference			-0.01	-0.10	-0.10	-0.11	-0.05	0.04	
Highland Capital LCG Equity	10,439,323	10.8	7.85	23.71	23.71	17.56	14.60	9.73	10/01/2007
Russell 1000 Growth Index			9.17	26.30	26.30	20.55	16.58	10.55	
Difference			-1.32	-2.59	-2.59	-2.99	-1.98	-0.82	
International Equity									
Rhumbline International Equity	9,461,632	9.8	1.36	2.68	2.68	N/A	N/A	9.77	08/01/2016
MSCI EAFE Index			1.42	3.25	3.25	9.77	4.90	10.94	
Difference			-0.06	-0.57	-0.57	N/A	N/A	-1.17	
Total Fixed Income Composite	18,700,143	19.4	0.14	-1.34	-1.34	2.12	2.24	5.14	04/01/1994
Total Fixed Inc Policy Index			-0.23	-1.24	-1.24	1.45	1.91	5.17	
Difference			0.37	-0.10	-0.10	0.67	0.33	-0.03	



	Allo	cation				Performance	(%)		
	Market Value \$	%	QTR	FYTD	1 YR	3 YR	5 YR	Inception	Inception Date
Domestic Fixed Income									
Highland Capital Fixed Income	18,700,143	19.4	0.14	-1.08	-1.08	2.04	2.37	5.17	04/01/1994
Blmbg. Barc. U.S. Aggregate Index			0.02	-1.22	-1.22	1.31	2.16	5.25	
Difference			0.12	0.14	0.14	0.73	0.21	-0.08	
Real Estate									
American Realty	9,289,566	9.6	1.91	7.31	7.31	7.17	9.10	9.44	07/01/2012
NCREIF Fund Index-ODCE (EW) (Ne	et)		1.88	7.89	7.89	8.17	9.93	10.20	
Difference			0.03	-0.58	-0.58	-1.00	-0.83	-0.76	



	Allo	cation					Pe	erformance	(%)				
	Market Value \$	%	То	То	Oct-2015 To Sep-2016	То	Oct-2013 To	Oct-2012 To	Oct-2011 To	То	То	То	Oct-2007 To Sep-2008
Total Fund Composite	96,451,644	100.0	11.27 (11)	13.60(21)	10.94 (14)	1.46 (13)	10.95 (35)	14.75 (15)	18.89 (28)	0.46(46)	10.42 (36)	5.99(9)	-13.46(57)
Total Fund Policy Index			10.59 (17)	12.80(38)	11.83 (4)	0.81 (21)	10.35 (47)	14.21 (21)	19.60 (18)	1.75(19)	10.81 (28)	1.64(51)	-12.83(50)
Difference			0.68	0.80	-0.89	0.65	0.60	0.54	-0.71	-1.29	-0.39	4.35	-0.63
All Public Plans-Total Fund Median			8.76	12.19	9.66	-0.53	10.17	12.49	17.96	0.29	9.87	1.75	-12.87
Total Equity Composite	68,249,912	70.8	16.01	19.67	13.36	0.44	14.07	24.58	28.78	-2.47	12.49	-0.91	-23.22
Total Equity Policy Index	, ,		16.49	19.69	14.30	-0.18	13.86	23.27	27.80	-0.50	11.44	-4.36	-21.04
Difference			-0.48	-0.02	-0.94	0.62	0.21	1.31	0.98	-1.97	1.05	3.45	-2.18
Total Domestic Equity													
Rhumbline S&P 500 Equity	26,806,608	27.8	17.87 (43)	18.56(57)	15.38 (25)	-0.63 (58)	19.64 (39)	19.30 (71)	30.16 (39)	1.18(44)	10.20 (49)	-6.49(60)	-21.73(59)
S&P 500 Index			17.91 (41)	18.61(55)	15.43 (24)	-0.61 (57)	19.73 (37)	19.34 (70)	30.20 (38)	1.14(46)	10.16 (50)	-6.91(65)	-21.98(64)
Difference			-0.04	-0.05	-0.05	-0.02	-0.09	-0.04	-0.04	0.04	0.04	0.42	0.25
IM U.S. Large Cap Equity (SA+CF) Median			17.06	18.85	13.19	-0.30	18.78	21.07	29.11	0.78	10.13	-5.50	-20.79
Rhumbline S&P 400 Equity	10,528,566	10.9	14.16 (61)	17.49(55)	15.21 (31)	1.45 (52)	11.81 (67)	27.55 (58)	28.90 (36)	-1.16(56)	17.78 (42)	-2.78(52)	-16.54(19)
S&P MidCap 400 Index			14.21 (58)	17.52(53)	15.33 (29)	1.40 (54)	11.82 (67)	27.68 (56)	28.54 (40)	-1.28(58)	17.78 (42)	-3.11(56)	-16.68(22)
Difference			-0.05	-0.03	-0.12	0.05	-0.01	-0.13	0.36	0.12	0.00	0.33	0.14
IM U.S. Mid Cap Equity (SA+CF) Median			15.71	17.58	11.86	1.49	13.58	28.06	27.30	-0.64	16.80	-2.72	-20.50
Rhumbline S&P 600 Equity	11,013,783	11.4	19.04 (35)	21.08(49)	18.00 (26)	3.90 (37)	5.79 (55)	31.40 (57)	33.27 (36)	0.21(38)	14.14 (58)	-10.54(77)	-13.64(22)
S&P SmallCap 600 Index			19.08 (34)	21.05(49)	18.12 (25)	3.81 (37)	5.74 (56)	31.51 (55)	33.35 (35)	0.21(38)	14.22 (57)	-10.61(77)	-13.83(23)
Difference			-0.04	0.03	-0.12	0.09	0.05	-0.11	-0.08	0.00	-0.08	0.07	0.19
IM U.S. Small Cap Equity (SA+CF) Median			14.77	20.97	14.58	2.41	6.23	32.18	31.60	-1.20	14.98	-5.17	-18.20
Highland Capital LCG	10,439,323	10.8	23.71 (58)	23.11(22)	6.68 (93)	4.64 (34)	16.29 (70)	28.73 (7)	27.51 (51)	-6.48(97)	14.63 (22)	15.31(2)	-30.80(98)
Russell 1000 Growth Index			26.30 (37)	21.94(36)	13.76 (22)	3.17 (55)	19.15 (40)	19.27 (64)	29.19 (38)	3.78(30)	12.65 (36)	-1.85(38)	-20.88(55)
Difference			-2.59	1.17	-7.08	1.47	-2.86	9.46	-1.68	-10.26	1.98	17.16	-9.92
IM U.S. Large Cap Growth Equity (SA+CF) Median			24.66	20.80	11.60	3.61	18.12	20.24	27.62	1.40	11.28	-2.99	-20.20
International Equity													
Rhumbline International Equity	9,461,632	9.8	. ,	19.24(64)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MSCI EAFE Index			, ,	19.65(61)		-8.27 (50)			14.33 (71)	-8.94(45)	3.71 (80)		-30.13(49)
Difference			-0.51	-0.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM International Equity (SA+CF) Median			1.46	21.05	11.48	-8.30	5.80	20.28	17.27	-9.58	9.57	7.03	-30.28



	Alloc	cation					Pe	rformance	(%)				
	Market Value \$	%	Oct-2017 To Sep-2018	То	То	То	То	То	Oct-2011 To Sep-2012	Oct-2010 To Sep-2011	То	Oct-2008 To Sep-2009	Oct-200 To Sep-200
Total Fixed Income Composite	18,700,143	19.4	-1.34	1.26	6.60	1.40	3.45	-2.57	6.28	5.20	8.28	11.96	1.23
Total Fixed Inc Policy Index	, ,		-1.24	-0.27	6.01	1.82	3.41	-2.11	4.98	5.18	7.78	11.18	3.84
Difference			-0.10	1.53	0.59	-0.42	0.04	-0.46	1.30	0.02	0.50	0.78	-2.61
Domestic Fixed Income													
Highland Capital Fixed Income Blmbg. Barc. U.S. Aggregate Index Difference IM U.S. Broad Market Core Fixed Income (SA+CF) Media	18,700,143 an	19.4	-1.08 (76) -1.22 (90) 0.14 -0.74	0.85(39) 0.07(86) 0.78 0.63	6.51 (20) 5.19 (80) 1.32 5.67	2.22 (87) 2.94 (59) -0.72 3.02	3.51 (95) 3.96 (81) -0.45 4.52	-2.54 (98) -1.68 (80) -0.86 -1.22	6.07 (72) 5.16 (91) 0.91 6.70	5.66(27) 5.26(49) 0.40 5.26	8.09 (89) 8.16 (87) -0.07 9.28	11.96(58) 10.56(82) 1.40 12.30	1.23(63) 3.65(32) -2.42 2.55
International Fixed Income													
Oppenheimer Dreyfus (OIBAX) (DIBAX) FTSE Non-U.S. World Government Bond Difference	-	0.0	N/A -1.57 (14) N/A	3.10(83) -3.14(100) 6.24	9.59 (82) 12.61 (59) -3.02	-4.81 (28) -7.01 (41) 2.20	2.98 (56) -0.99 (78) 3.97	-2.82 (36) -5.63 (77) 2.81	7.90 (77) 3.45 (95) 4.45	0.32(38) 4.13(4) -3.81	N/A 4.46 (90) N/A	N/A 16.04(57) N/A	N/A 5.16(2) N/A
IM International Fixed Income All (MF) Median			-3.90	6.25	13.84	-8.41	4.03	-4.01	13.45	-0.39	13.85	16.85	-3.02
Real Estate													
American Realty NCREIF Fund Index-Open End Diversified Core (EW) Difference IM U.S. Private Real Estate (SA+CF) Median	9,289,566	9.6	8.50 (70) 8.82 (67) -0.32 9.69	7.53(66) 7.81(60) -0.28 8.30	` ,	` ,	12.45 (71) 12.39 (72) 0.06 13.12	` ,	N/A 11.77 (66) N/A 13.10	N/A 18.03(46) N/A 17.30	N/A	N/A -36.09(54) N/A -35.27	N/A 3.73(57) N/A 4.80

2,172

0.0



R&D Cash

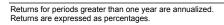
	Allo	cation					P	erformance(%)				
	Market Value \$	%	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To	Oct-2012 To	Oct-2011 To Sep-2012	Oct-2010 To Sep-2011	Oct-2009 To Sep-2010	Oct-2008 To Sep-2009	Oct-200 To Sep-200
Total Fund Composite	96,451,644	100.0	11.12	13.36	10.72	1.29	10.73	14.53	18.64	0.22	10.08	5.61	-13.73
Total Fund Policy Index			10.59	12.80	11.83	0.81	10.35	14.21	19.60	1.75	10.81	1.64	-12.83
Difference			0.53	0.56	-1.11	0.48	0.38	0.32	-0.96	-1.53	-0.73	3.97	-0.90
Total Equity Composite	68,249,912	70.8	16.01	19.67	13.36	0.44	14.07	24.58	28.78	-2.47	12.49	-0.91	-23.22
Total Equity Policy Index			16.49	19.69	14.30	-0.18	13.86	23.27	27.80	-0.50	11.44	-4.36	-21.04
Difference			-0.48	-0.02	-0.94	0.62	0.21	1.31	0.98	-1.97	1.05	3.45	-2.18
Total Domestic Equity													
Rhumbline S&P 500 Equity	26,806,608	27.8	17.81	18.50	15.31	-0.66	19.55	19.18	29.99	1.04	10.02	-6.71	-21.87
S&P 500 Index			17.91	18.61	15.43	-0.61	19.73	19.34	30.20	1.14	10.16	-6.91	-21.98
Difference			-0.10	-0.11	-0.12	-0.05	-0.18	-0.16	-0.21	-0.10	-0.14	0.20	0.11
Rhumbline S&P 400 Equity	10,528,566	10.9	14.10	17.43	15.13	1.40	11.78	27.55	28.90	-1.16	17.78	-2.78	-16.54
S&P MidCap 400 Index			14.21	17.52	15.33	1.40	11.82	27.68	28.54	-1.28	17.78	-3.11	-16.68
Difference			-0.11	-0.09	-0.20	0.00	-0.04	-0.13	0.36	0.12	0.00	0.33	0.14
Rhumbline S&P 600 Equity	11,013,783	11.4	18.98	21.01	17.92	3.85	5.76	31.40	33.27	0.21	14.14	-10.54	-13.64
S&P SmallCap 600 Index			19.08	21.05	18.12	3.81	5.74	31.51	33.35	0.21		-10.61	-13.83
Difference			-0.10	-0.04	-0.20	0.04	0.02	-0.11	-0.08	0.00	-0.08	0.07	0.19
Highland Capital LCG	10,439,323	10.8	23.71	23.11	6.68	4.64	16.29	28.73	27.51	-6.48	14.63	15.31	-30.80
Russell 1000 Growth Index			26.30	21.94	13.76	3.17	19.15	19.27	29.19	3.78	12.65	-1.85	-20.88
Difference			-2.59	1.17	-7.08	1.47	-2.86	9.46	-1.68	-10.26	1.98	17.16	-9.92
International Equity													
Rhumbline International Equity	9,461,632	9.8	2.68	19.17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MSCI EAFE Index			3.25	19.65	7.06	-8.27	4.70	24.29	14.33	-8.94	3.71	3.80	-30.13
Difference			-0.57	-0.48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Fixed Income Composite	18,700,143	19.4	-1.34	1.26	6.60	1.40	3.45	-2.57	6.28	5.20	8.28	11.96	1.23
Total Fixed Inc Policy Index			-1.24	-0.27	6.01	1.82	3.41	-2.11	4.98	5.18	7.78	11.18	3.84
Difference			-0.10	1.53	0.59	-0.42	0.04	-0.46	1.30	0.02	0.50	0.78	-2.61



	Alloc	cation					Pe	erformance(%)				
	Market Value \$	%	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013	Oct-2011 To Sep-2012	Oct-2010 To Sep-2011	Oct-2009 To Sep-2010	Oct-2008 To Sep-2009	Oct-2007 To Sep-2008
Domestic Fixed Income													
Highland Capital Fixed Income	18,700,143	19.4	-1.08	0.85	6.51	2.22	3.51	-2.54	6.07	5.66	8.09	11.96	1.23
Blmbg. Barc. U.S. Aggregate Index			-1.22	0.07	5.19	2.94	3.96	-1.68	5.16	5.26	8.16	10.56	3.65
Difference			0.14	0.78	1.32	-0.72	-0.45	-0.86	0.91	0.40	-0.07	1.40	-2.42
International Fixed Income													
Oppenheimer Dreyfus (OIBAX) (DIBAX)	-	0.0	N/A	3.10	9.59	-4.81	2.98	-2.82	7.90	0.32	N/A	N/A	N/A
FTSE Non-U.S. World Government Bor	nd		-1.57	-3.14	12.61	-7.01	-0.99	-5.63	3.45	4.13	4.46	16.04	5.16
Difference			N/A	6.24	-3.02	2.20	3.97	2.81	4.45	-3.81	N/A	N/A	N/A
Real Estate													
American Realty	9,289,566	9.6	7.31	6.34	7.85	12.82	11.34	11.10	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-ODCE (EW) (Net)			7.89	6.93	9.69	13.82	11.44	11.46	10.69	17.02	5.24	-36.63	2.82
Difference			-0.58	-0.59	-1.84	-1.00	-0.10	-0.36	N/A	N/A	N/A	N/A	N/A

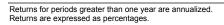


Historical Rolling P	Performance				
	QTR	1 YR	3 YR	5 YR	Inception
09/30/2018	4.22	11.27	11.93	9.56	8.07
06/30/2018	2.69	10.73	8.48	9.79	7.98
03/31/2018	-0.27	10.86	7.54	9.32	7.95
12/31/2017	4.25	15.62	8.66	10.87	8.04
09/30/2017	3.71	13.60	8.54	10.24	7.94
06/30/2017	2.81	12.92	6.76	10.41	7.87
03/31/2017	4.02	12.16	7.00	9.31	7.83
12/31/2016	2.43	9.87	6.16	10.19	7.74
09/30/2016	3.09	10.94	7.69	11.24	7.72
06/30/2016	2.12	2.09	8.45	8.36	7.67
03/31/2016	1.89	0.03	7.88	8.03	7.65
12/31/2015	3.42	1.00	9.66	8.53	7.65
09/30/2015	-5.13	1.46	8.91	9.06	7.58
06/30/2015	0.06	5.55	12.48	11.97	7.91
03/31/2015	2.88	9.19	11.63	10.75	8.00
12/31/2014	3.89	7.80	13.55	11.04	7.96
09/30/2014	-1.31	10.95	14.82	10.92	7.86
06/30/2014	3.52	18.38	11.51	13.73	8.02
03/31/2014	1.57	14.94	10.45	15.10	7.94
12/31/2013	6.92	21.12	11.41	13.81	7.96
09/30/2013	5.30	14.75	11.08	9.91	7.72
06/30/2013	0.51	13.90	12.11	7.06	7.56
03/31/2013	7.03	10.83	9.90	6.97	7.62
12/31/2012	1.30	12.13	8.93	4.48	7.37
09/30/2012	4.52	18.89	9.66	3.88	7.39
06/30/2012	-2.20	2.85	12.16	3.42	7.25
03/31/2012	8.29	5.76	16.62	4.58	7.46
12/31/2011	7.40	1.83	12.03	3.29	7.13
09/30/2011	-9.58	0.46	5.54	2.69	6.83
06/30/2011	0.57	20.27	6.29	5.50	7.48
03/31/2011	4.26	13.24	6.11	5.13	7.55
12/31/2010	5.96	13.22	2.92	4.93	7.42
09/30/2010	8.25	10.42	0.43	4.00	7.19
06/30/2010	-5.31	14.08	-1.48	2.78	6.83
03/31/2010	4.24	32.44	1.46	4.45	7.25
12/31/2009	3.34	21.96	0.66	3.43	7.10
09/30/2009	11.84	5.99	0.97	3.94	7.01
06/30/2009	9.93	-12.48	-1.61	1.52	6.42
03/31/2009	-4.01	-20.33	-5.03	-0.23	5.92
12/31/2008	-10.19	-21.04	-2.69	1.02	6.28





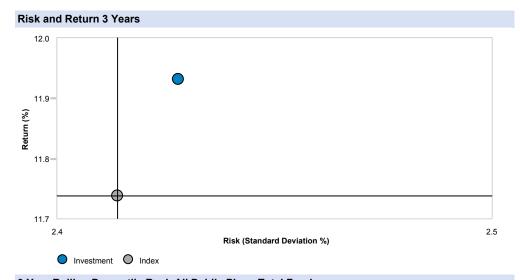
Historical Rolling P	erformance				
	QTR	1 YR	3 YR	5 YR	Inception
09/30/2018	3.85	10.59	11.74	9.19	N/A
06/30/2018	2.49	10.34	8.68	9.53	N/A
03/31/2018	-0.24	10.74	7.65	9.12	N/A
12/31/2017	4.15	15.47	8.59	10.57	N/A
09/30/2017	3.62	12.80	8.34	9.90	N/A
06/30/2017	2.87	12.63	6.59	10.11	N/A
03/31/2017	4.01	11.86	6.86	9.06	N/A
12/31/2016	1.75	9.83	6.09	9.93	N/A
09/30/2016	3.45	11.83	7.55	11.19	N/A
06/30/2016	2.17	3.29	8.25	8.19	N/A
03/31/2016	2.12	0.69	7.70	7.96	N/A
12/31/2015	3.61	0.98	9.22	8.41	N/A
09/30/2015	-4.45	0.81	8.31	9.11	N/A
06/30/2015	-0.41	4.09	11.64	12.02	N/A
03/31/2015	2.41	8.34	11.06	10.71	N/A
12/31/2014	3.44	7.66	13.13	11.13	N/A
09/30/2014	-1.34	10.35	14.66	11.19	N/A
06/30/2014	3.65	17.99	11.30	14.11	N/A
03/31/2014	1.78	14.51	10.37	16.04	N/A
12/31/2013	6.02	19.85	11.27	13.96	N/A
09/30/2013	5.49	14.21	11.60	9.38	N/A
06/30/2013	0.60	13.30	12.83	6.70	N/A
03/31/2013	6.52	10.41	10.27	6.48	N/A
12/31/2012	1.03	12.20	9.52	4.03	N/A
09/30/2012	4.65	19.60	10.48	3.62	N/A
06/30/2012	-1.97	3.15	13.12	3.07	N/A
03/31/2012	8.25	6.34	18.50	4.27	N/A
12/31/2011	7.70	2.45	12.65	3.06	N/A
09/30/2011	-9.75	1.75	4.65	2.58	N/A
06/30/2011	1.06	22.90	5.77	5.39	N/A
03/31/2011	4.29	14.20	5.25	4.87	N/A
12/31/2010	6.97	14.28	1.96	4.83	N/A
09/30/2010	9.02	10.81	-0.61	3.80	N/A
06/30/2010	-6.10	14.16	-2.82	2.66	N/A
03/31/2010	4.36	37.03	0.49	4.46	N/A
12/31/2009	3.72	22.10	-0.23	3.29	N/A
09/30/2009	12.31	1.64	0.24	4.04	N/A
06/30/2009	12.71	-15.67	-2.50	1.60	N/A
03/31/2009	-7.00	-25.49	-6.77	-0.75	N/A
12/31/2008	-13.66	-24.03	-3.20	1.30	N/A

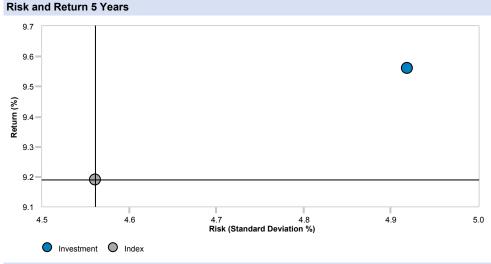


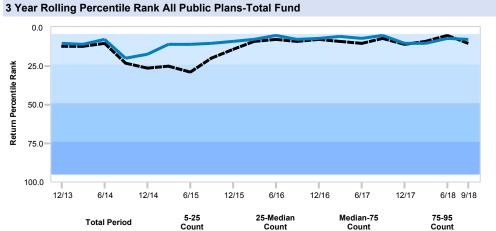


Historical Statistics 3 Years							
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	11.93	2.43	4.37	101.64	11	110.13	1
Index	11.74	2.41	4.28	100.00	11	100.00	1

Historical Statistics 5 Years							
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	9.56	4.92	1.82	103.96	17	103.29	3
Index	9.19	4.56	1.88	100.00	16	100.00	4







0 (0%)

2 (10%)

0 (0%)

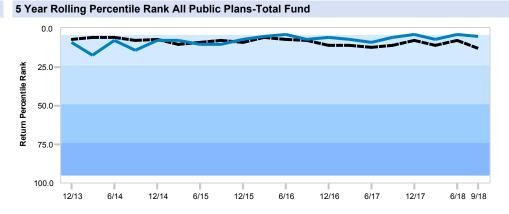
0 (0%)

0 (0%)

0 (0%)

20 (100%)

18 (90%)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	20 (100%)	0 (0%)	0 (0%)	0 (0%)
Index	20	20 (100%)	0 (0%)	0 (0%)	0 (0%)

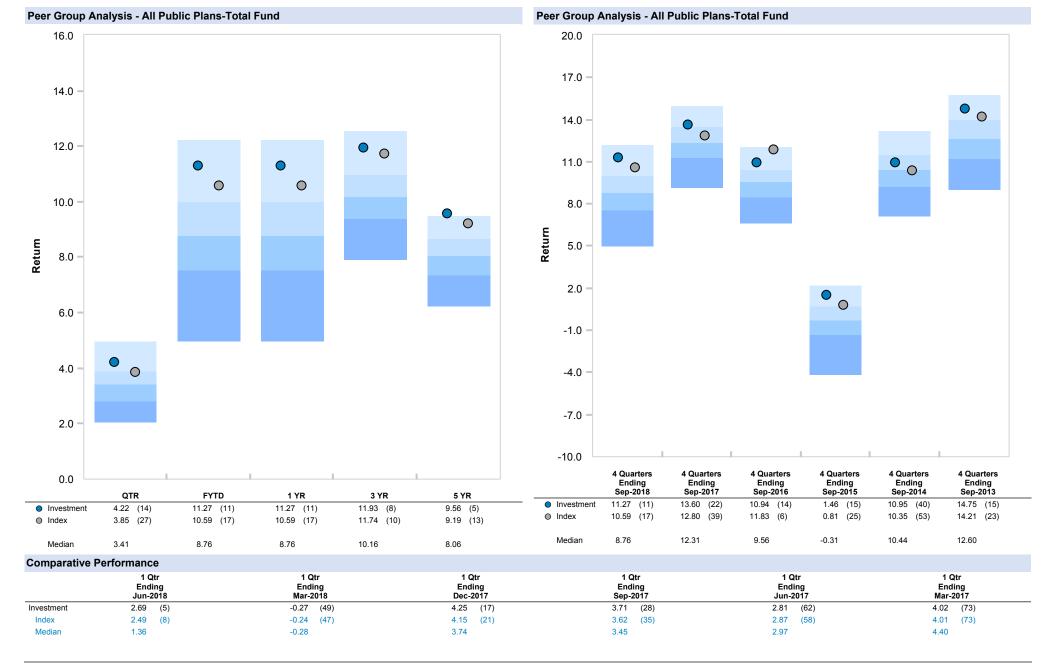


Investment

__ Index

20

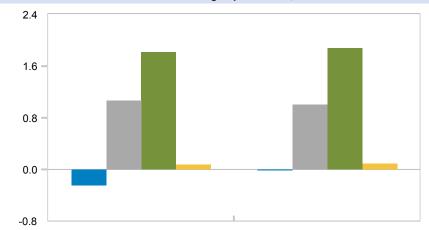
20





Risk / Reward Historical Statistics 3 Years Ending September 30, 2018 6.0 4.0 2.0 Total Fund Composite Total Fund Policy Index 0.09 0.00

Risk / Reward Historical Statistics 5 Years Ending September 30, 2018



	Total Fund Composite	Total Fund Policy Index
Alpha	-0.25	0.00
Beta	1.07	1.00
Sharpe Ratio	1.82	1.88
Treynor Ratio	0.08	0.08

Benchmark Relative Historical Statistics 3 Years Ending September 30, 2018

0.33

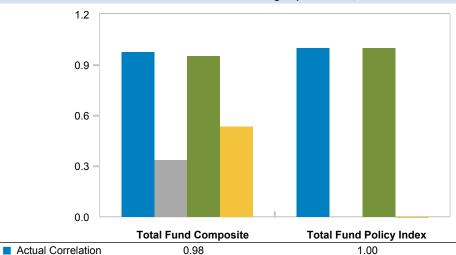
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0.53

0.98

4.37

0.11



1.00

4.28

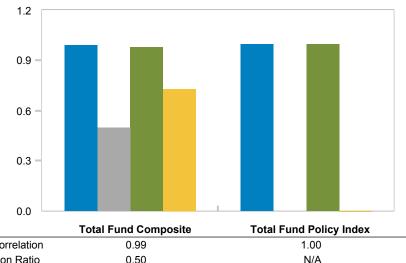
0.10

N/A

1.00

0.00

Benchmark Relative Historical Statistics 5 Years Ending September 30, 2018



	rotal Fullu Composite	Total Fully Folicy
Actual Correlation	0.99	1.00
Information Ratio	0.50	N/A
R-Squared	0.98	1.00
Tracking Error	0.73	0.00

Benchmark: Total Fund Policy Index

Information RatioR-Squared

Tracking Error

Beta

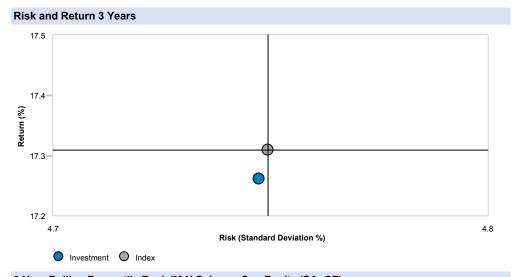
Sharpe Ratio

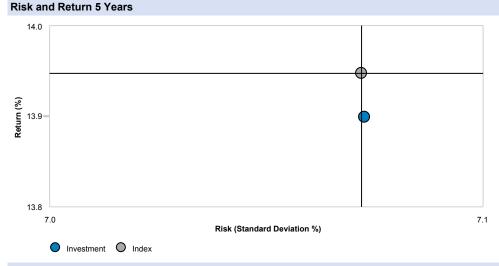
Treynor Ratio

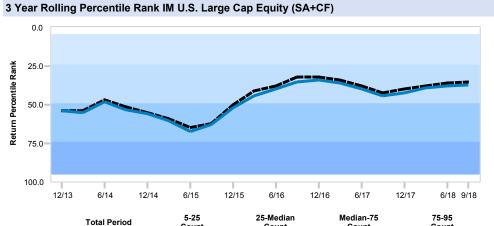


Historical Stati	stics 3 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	17.26	4.75	3.28	99.76	11	100.91	1
Index	17.31	4.75	3.29	100.00	11	100.00	1

Historical Statis	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	13.90	7.07	1.85	99.76	18	100.53	2
Index	13.95	7.07	1.85	100.00	18	100.00	2







Count

12 (60%)

13 (65%)

Count

8 (40%)

7 (35%)

Count

0 (0%)

0 (0%)

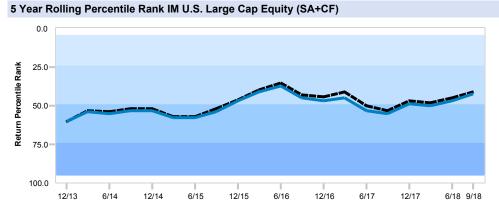
Count

0 (0%)

0 (0%)

20

20



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	0 (0%)	10 (50%)	10 (50%)	0 (0%)
Index	20	0 (0%)	11 (55%)	9 (45%)	0 (0%)



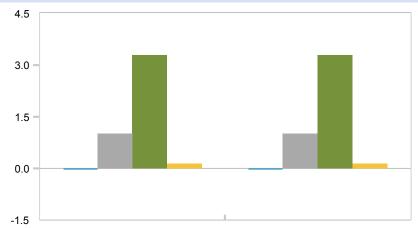
Investment

__ Index



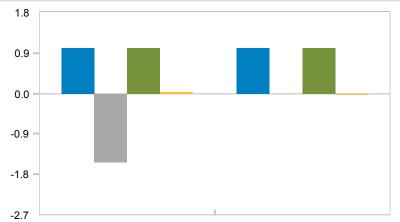


Risk / Reward Historical Statistics 3 Years Ending September 30, 2018



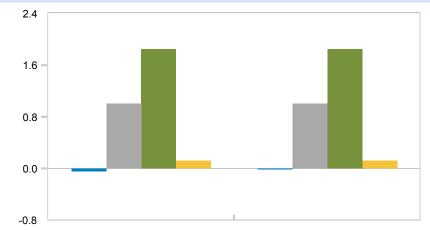
	Rhumbline S&P 500 Equity	S&P 500 Index
Alpha	-0.03	0.00
Beta	1.00	1.00
Sharpe Ratio	3.28	3.29
Trevnor Ratio	0.16	0.16

Benchmark Relative Historical Statistics 3 Years Ending September 30, 2018



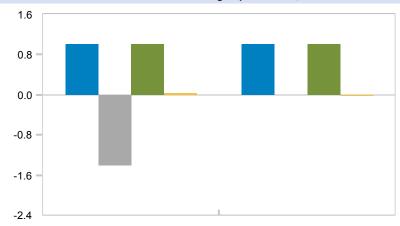
	Rhumbline S&P 500 Equity	S&P 500 Index
Actual Correlation	1.00	1.00
Information Ratio	-1.54	N/A
R-Squared	1.00	1.00
Tracking Error	0.03	0.00

Risk / Reward Historical Statistics 5 Years Ending September 30, 2018



	Rhumbline S&P 500 Equity	S&P 500 Index
■ Alpha	-0.05	0.00
■ Beta	1.00	1.00
Sharpe Ratio	1.85	1.85
Treynor Ratio	0.13	0.13

Benchmark Relative Historical Statistics 5 Years Ending September 30, 2018



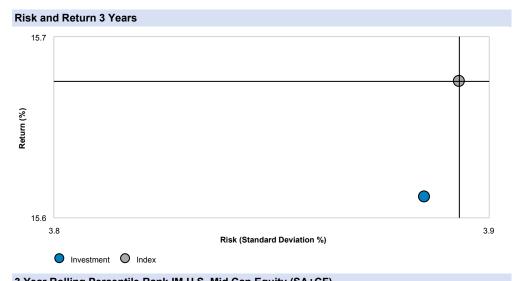
	Rhumbline S&P 500 Equity	S&P 500 Index
Actual Correlation	1.00	1.00
Information Ratio	-1.41	N/A
R-Squared	1.00	1.00
Tracking Error	0.03	0.00

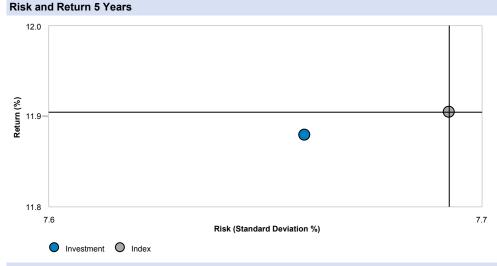
Benchmark: S&P 500 Index

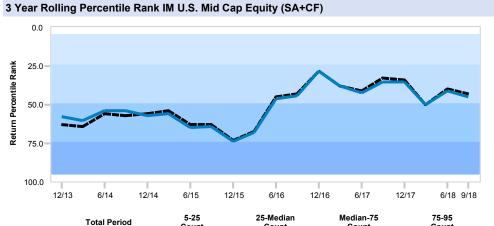


Historical Statistics 3 Years							
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	15.61	3.89	3.55	99.61	11	99.58	1
Index	15.68	3.89	3.55	100.00	11	100.00	1

Historical Statistics 5 Years							
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	11.88	7.66	1.46	99.71	16	99.48	4
Index	11.91	7.69	1.46	100.00	16	100.00	4







Count

10 (50%)

10 (50%)

Count

10 (50%)

10 (50%)

Count

0 (0%)

0 (0%)

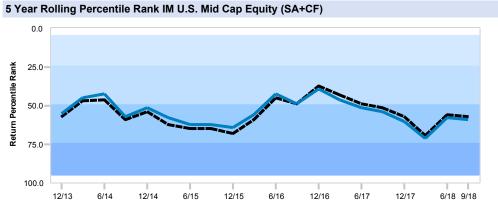
Count

0 (0%)

0 (0%)

20

20



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
Investment	20	0 (0%)	6 (30%)	14 (70%)	0 (0%)	
Index	20	0 (0%)	7 (35%)	13 (65%)	0 (0%)	



Investment

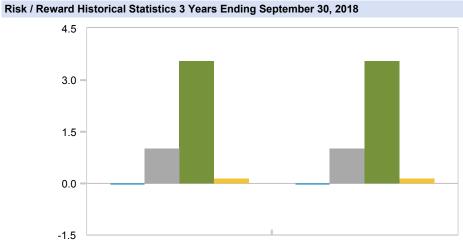
__ Index





Risk / Reward Historical Statistics 5 Years Ending September 30, 2018

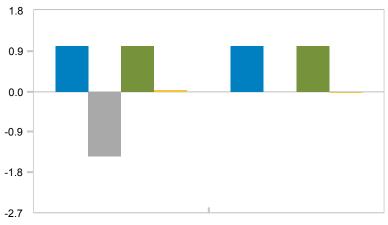
2.0



1.0			
	Rhumbline S&P 400 Equity	S&P MidCap 400 Index	
■ Alpha	-0.03	0.00	
Beta	1.00	1.00	
Sharpe Ratio	3.55	3.55	
Trevnor Ratio	0.14	0.14	

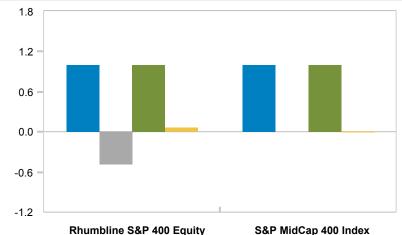
1.5 1.0 0.5 0.0 Rhumbline S&P 400 Equity S&P MidCap 400 Index 0.00 Alpha 0.02 Beta 1.00 1.00 ■ Sharpe Ratio 1.46 1.46 Treynor Ratio 0.11 0.11

Benchmark Relative Historical Statistics 3 Years Ending September 30, 2018



	Rhumbline S&P 400 Equity	S&P MidCap 400 Index
Actual Correlation	1.00	1.00
Information Ratio	-1.45	N/A
R-Squared	1.00	1.00
Tracking Error	0.04	0.00

Benchmark Relative Historical Statistics 5 Years Ending September 30, 2018



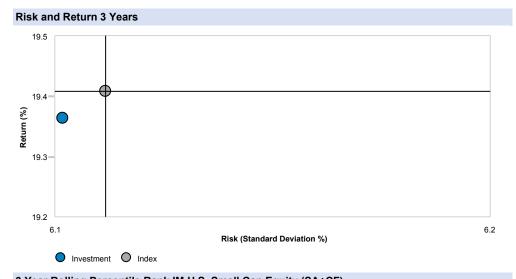
	Rhumbline S&P 400 Equity	S&P MidCap 400 In
Actual Correlation	1.00	1.00
Information Ratio	-0.49	N/A
R-Squared	1.00	1.00
Tracking Error	0.06	0.00

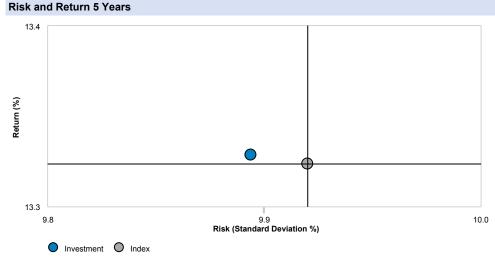
Benchmark: S&P MidCap 400 Index



Historical Stati	stics 3 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	19.36	6.10	2.87	99.78	12	N/A	N/A
Index	19.41	6.11	2.87	100.00	12	N/A	N/A

Historical Statis	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	13.33	9.89	1.29	99.92	18	99.52	2
Index	13.32	9.92	1.29	100.00	18	100.00	2







Count

17 (85%)

17 (85%)

Count

1 (5%)

1 (5%)

Count

0 (0%)

0 (0%)

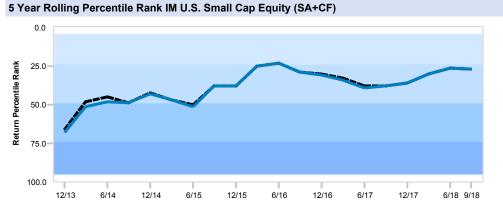
Count

2 (10%)

2 (10%)

20

20



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	2 (10%)	15 (75%)	3 (15%)	0 (0%)
Index	20	2 (10%)	17 (85%)	1 (5%)	0 (0%)



Investment

__ Index





S&P SmallCap 600 Index

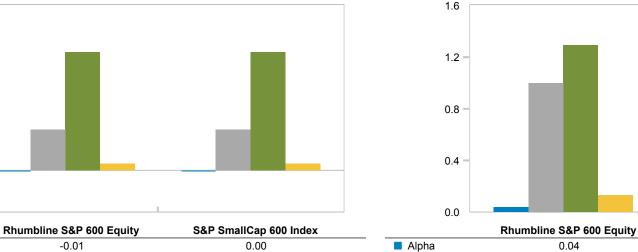
0.00

1.00

1.29

0.13

Risk / Reward Historical Statistics 3 Years Ending September 30, 2018 4.0 3.0 2.0 1.0 0.0 -1.0



Beta

■ Sharpe Ratio

Treynor Ratio

1.00

2.87

0.18

N/A

1.00

0.00

Benchmark Relative Historical Statistics 3 Years Ending September 30, 2018

-0.88

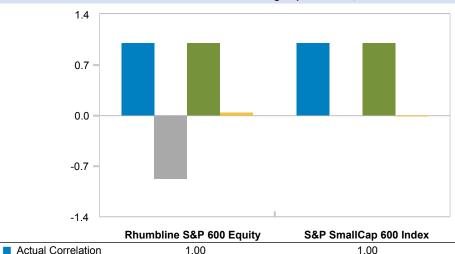
1.00

0.05

1.00

2.87

0.18



Benchmark Relative His	storical Statistics 5 Years Ending	September 30, 2018
1.2		
0.9 –		
0.6		
0.3 -		
0.0		
	Rhumbline S&P 600 Equity	S&P SmallCap 600 Index
Actual Correlation	1.00	1.00
Information Ratio	0.03	N/A
R-Squared	1.00	1.00
Tracking Error	0.05	0.00

Risk / Reward Historical Statistics 5 Years Ending September 30, 2018

1.00

1.29

0.13

Benchmark: S&P SmallCap 600 Index

Information Ratio R-Squared

Tracking Error

Alpha

Beta

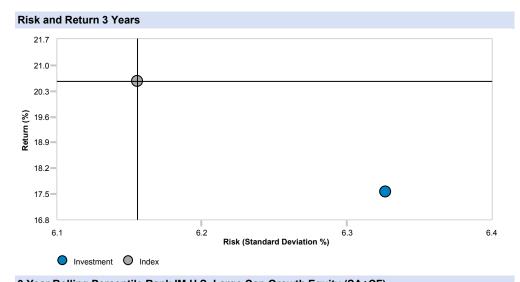
Sharpe Ratio

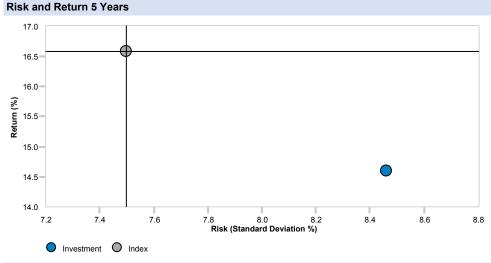
Treynor Ratio

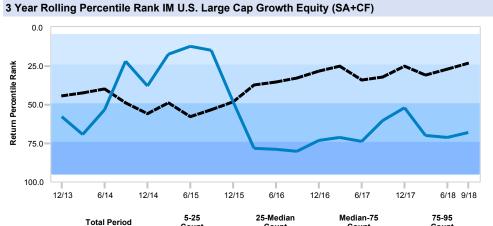


Historical Stati	stics 3 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	17.56	6.33	2.56	86.47	10	N/A	2
Index	20.55	6.16	3.06	100.00	12	N/A	N/A

Historical Statis	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	14.60	8.46	1.64	92.74	16	143.85	4
Index	16.58	7.50	2.08	100.00	19	100.00	1







Count

2 (10%)

14 (70%)

Count

11 (55%)

3 (15%)

Count

3 (15%)

0 (0%)

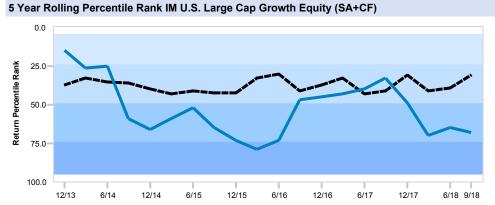
Count

4 (20%)

3 (15%)

20

20



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	2 (10%)	7 (35%)	10 (50%)	1 (5%)
Index	20	0 (0%)	20 (100%)	0 (0%)	0 (0%)



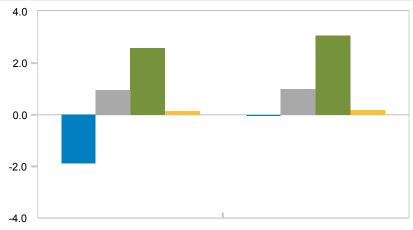
Investment

__ Index



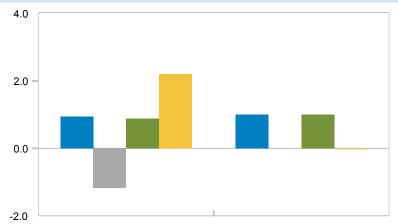


Risk / Reward Historical Statistics 3 Years Ending September 30, 2018



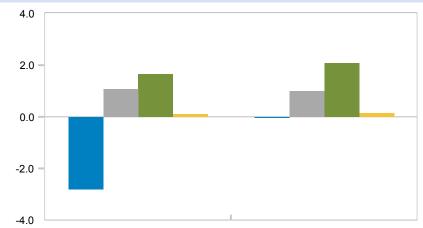
	Highland Capital Equity	Russell 1000 Growth Index
Alpha	-1.90	0.00
Beta	0.96	1.00
Sharpe Ratio	2.56	3.06
Treynor Ratio	0.17	0.19

Benchmark Relative Historical Statistics 3 Years Ending September 30, 2018



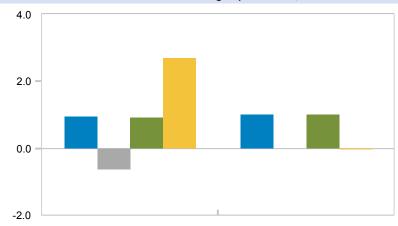
	Highland Capital Equity	Russell 1000 Growth Index
Actual Correlation	0.94	1.00
Information Ratio	-1.18	N/A
R-Squared	0.88	1.00
Tracking Error	2.21	0.00

Risk / Reward Historical Statistics 5 Years Ending September 30, 2018



	Highland Capital Equity	Russell 1000 Growth Index
■ Alpha	-2.81	0.00
Beta	1.07	1.00
Sharpe Ratio	1.64	2.08
Treynor Ratio	0.13	0.15

Benchmark Relative Historical Statistics 5 Years Ending September 30, 2018



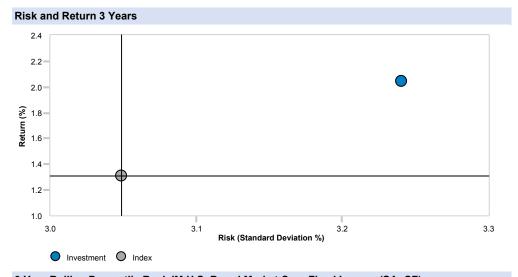
	Highland Capital Equity	Russell 1000 Growth Index
Actual Correlation	0.95	1.00
Information Ratio	-0.63	N/A
R-Squared	0.90	1.00
Tracking Error	2.70	0.00

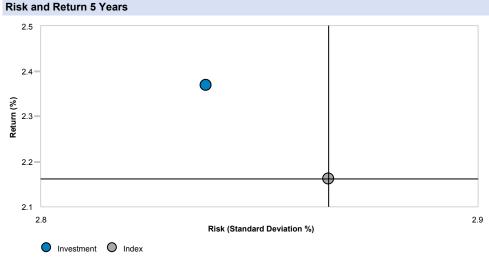
Benchmark: Russell 1000 Growth Index

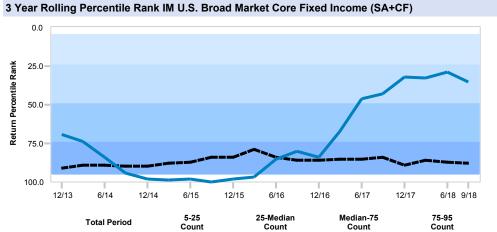


Historical Statis	stics 3 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	2.04	3.24	0.38	118.13	8	90.18	4
Index	1 31	3.05	0.18	100.00	8	100.00	4

Historical Statistics 5 Years									
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		
Investment	2.37	2.84	0.65	101.10	15	88.18	5		
Index	2.16	2.87	0.57	100.00	14	100.00	6		







6 (30%)

0 (0%)

3 (15%)

0 (0%)

11 (55%)

20 (100%)

0 (0%)

0 (0%)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	0 (0%)	0 (0%)	2 (10%)	18 (90%)
Index	20	0 (0%)	0 (0%)	0 (0%)	20 (100%)



Investment

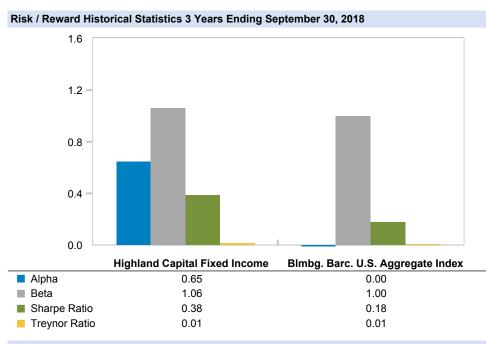
__ Index

20

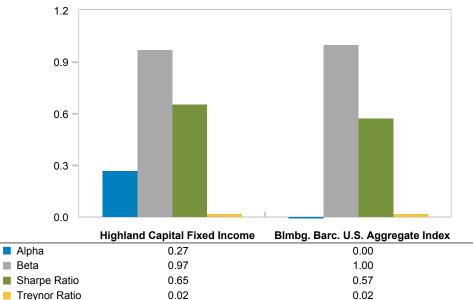
20



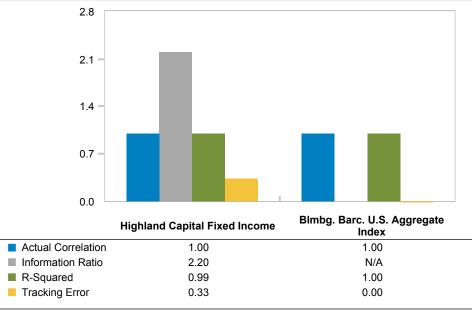




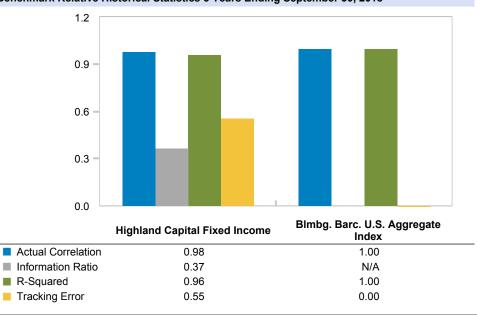
Risk / Reward Historical Statistics 5 Years Ending September 30, 2018



Benchmark Relative Historical Statistics 3 Years Ending September 30, 2018



Benchmark Relative Historical Statistics 5 Years Ending September 30, 2018

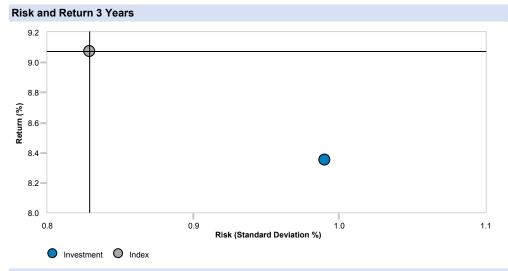


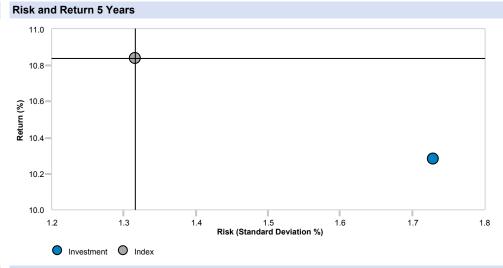
Benchmark: Blmbg. Barc. U.S. Aggregate Index

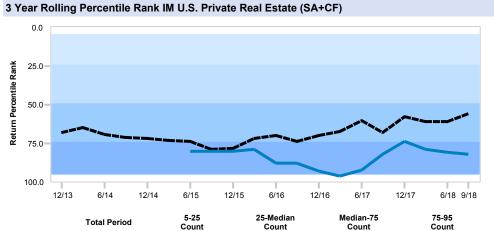


Historical Stati	stics 3 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	8.35	0.99	7.01	92.25	12	N/A	N/A
Index	9.08	0.83	7.97	100.00	12	N/A	N/A

Historical Statis	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	10.28	1.73	5.04	95.09	20	N/A	N/A
Index	10.84	1.32	6.51	100.00	20	N/A	N/A







0 (0%)

0 (0%)

1 (7%)

18 (90%)

13 (93%)

2 (10%)

0 (0%)

0 (0%)



	Total Period	5-25 Count	Count	Count	Count	
Investment	6	0 (0%)	0 (0%)	1 (17%)	5 (83%)	
Index	20	0 (0%)	1 (5%)	19 (95%)	0 (0%)	

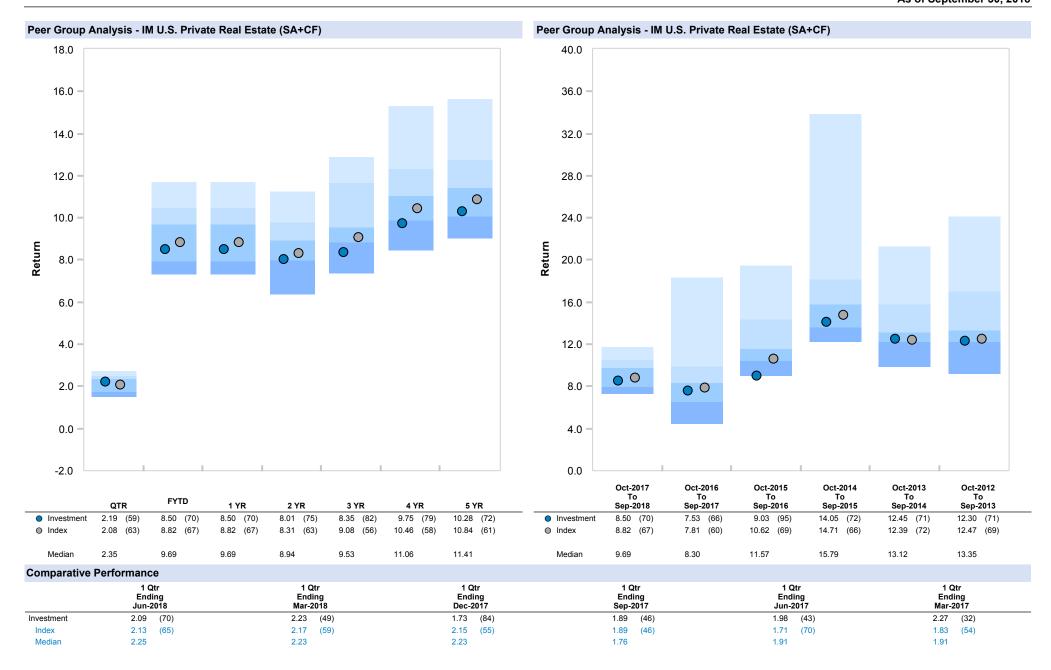


Investment

__ Index

14

20





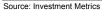
Total Policy Historical Hybrid Composition		Total Equity Historical Hybrid Composition	
Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)
Mar-1992		Jun-2000	
Blmbg. Barc. U.S. Aggregate Index	35.00	S&P 500 Index	100.00
S&P 500 Index	25.00		
S&P MidCap 400 Index	10.00	Jan-2003	
Russell 1000 Growth Index	10.00	S&P 500 Index	80.00
S&P SmallCap 600 Index	10.00	S&P MidCap 400 Index	20.00
MSCI EAFE Index	10.00	Jan-2004	
		S&P 500 Index	60.00
Oct-2010			20.00
Blmbg. Barc. U.S. Aggregate Index	31.00	S&P MidCap 400 Index	
S&P 500 Index	25.00	S&P SmallCap 600 Index	20.00
S&P MidCap 400 Index	10.00	Jan-2007	
Russell 1000 Growth Index	10.00	S&P 500 Index	62.00
MSCI EAFE Index	10.00	S&P MidCap 400 Index	15.00
S&P SmallCap 600 Index	10.00	S&P SmallCap 600 Index	15.00
FTSE Non-U.S. World Government Bond	4.00	MSCI EAFE Index	8.00
Apr-2012		Oct-2007	
Blmbg. Barc. U.S. Aggregate Index	29.00	S&P 500 Index	38.40
S&P 500 Index	25.00	S&P MidCap 400 Index	15.40
S&P MidCap 400 Index	10.00	S&P SmallCap 600 Index	15.40
Russell 1000 Growth Index	10.00	MSCI EAFE Index	15.40
MSCI EAFE Index	10.00	Russell 1000 Growth Index	15.40
S&P SmallCap 600 Index	10.00	Russell 1000 Glowth Index	13.40
FTSE Non-U.S. World Government Bond	4.00		
NCREIF Property Index	2.00		
Oct-2015			
Blmbg. Barc. U.S. Aggregate Index	26.00		
S&P 500 Index	25.00		
S&P MidCap 400 Index	10.00		
Russell 1000 Growth Index	10.00		
MSCI EAFE Index	10.00	Total Fixed Income Historical Hybrid Compositi	on
S&P SmallCap 600 Index	10.00	Allocation Mandate	Weight (%)
FTSE Non-U.S. World Government Bond	4.00	Apr-1994	770igiit (70)
NCREIF Fund Index-Open End Diversified Core (EW)	5.00	•	89.00
		Blmbg. Barc. U.S. Aggregate Index FTSE Non-U.S. World Government Bond	89.00 11.00

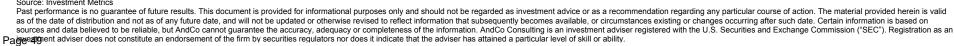


Annual Asset Class Performance

, tillia	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	YTD
Best	MSCI Emerging Markets (Net) Index 25.6 %	MSCI Emerging Markets (Net) Index 34.0 %	MSCI Emerging Markets (Net) Index 32.2 %	MSCI Emerging Markets (Net) Index 39.4 %	Blmbg. Barc. U.S. Aggregate Index 5.2 %	MSCI Emerging Markets (Net) Index 78.5 %	Russell 2000 Growth Index 29.1 %	NCREIF Fund Index-ODCE (EW) (Net) 15.0 %	MSCI Emerging Markets (Net) Index 18.2 %	Russell 2000 Growth Index 43.3 %	S&P 500 Index 13.7 %	NCREIF Fund Index-ODCE (EW) (Net) 14.2 %	Russell 2000 Value Index 31.7 %	MSCI Emerging Markets (Net) Index 37.3 %	Russell 1000 Growth Index 17.1 %
	Russell 2000 Value Index 22.2 %	NCREIF Fund Index-ODCE (EW) (Net) 19.0 %	MSCI EAFE (Net) Index 26.3 %	NCREIF Fund Index-ODCE (EW) (Net) 15.0 %	Bloomberg Barclays Global Aggregate Ex USD 4.4 %	Blmbg. Barc. U.S. Corp High Yield 58.2 %		Blmbg. Barc. U.S. Aggregate Index 7.8 %	Russell 2000 Value Index 18.1 %	Russell 2000 Index 38.8 %	Russell 1000 Value Index 13.5 %	Russell 1000 Growth Index 5.7 %	Russell 2000 Index 21.3 %	Russell 1000 Growth Index 30.2 %	Russell 2000 Growth Index 15.8 %
	MSCI EAFE (Net) Index 20.2 %	MSCI EAFE (Net) Index 13.5 %	Russell 2000 Value Index 23.5 %	Russell 1000 Growth Index 11.8 %	NCREIF Fund Index-ODCE (EW) (Net) -11.1 %	Russell 1000 Growth Index 37.2 %	Russell 2000 Value Index 24.5 %	Blmbg. Barc. U.S. Corp High Yield 5.0 %	Russell 1000 Value Index 17.5 %	Russell 2000 Value Index 34.5 %	Russell 1000 Growth Index 13.1 %	S&P 500 Index 1.4 %	Russell 1000 Value Index 17.3 %	MSCI EAFE (Net) Index 25.0 %	Russell 2000 Index 11.5 %
	Russell 2000 Index 18.3 %	Russell 1000 Value Index 7.1 %	Russell 1000 Value Index 22.2 %	MSCI EAFE (Net) Index 11.2 %	Blmbg. Barc. U.S. Corp High Yield -26.2 %	Russell 2000 Growth Index 34.5 %	MSCI Emerging Markets (Net) Index 18.9 %	Bloomberg Barclays Global Aggregate Ex USD 4.4 %	MSCI EAFE (Net) Index 17.3 %	Russell 1000 Growth Index 33.5 %	NCREIF Fund Index-ODCE (EW) (Net) 11.4 %	Blmbg. Barc. U.S. Aggregate Index 0.5 %	Blmbg. Barc. U.S. Corp High Yield 17.1 %	Russell 2000 Growth Index 22.2 %	S&P 500 Index 10.6 %
	Russell 1000 Value Index 16.5 %	Russell 1000 Growth Index 5.3 %	Russell 2000 Index 18.4 %	Bloomberg Barclays Global Aggregate Ex USD 11.0 %	Russell 2000 Value Index -28.9 %	MSCI EAFE (Net) Index 31.8 %	Russell 1000 Growth Index 16.7 %	Russell 1000 Growth Index 2.6 %	Russell 2000 Index 16.3 %	Russell 1000 Value Index 32.5 %	Blmbg. Barc. U.S. Aggregate Index 6.0 %	MSCI EAFE (Net) Index -0.8 %	S&P 500 Index 12.0 %	S&P 500 Index 21.8 %	Russell 2000 Value Index 7.1 %
	Russell 2000 Growth Index 14.3 %	S&P 500 Index 4.9 %	S&P 500 Index 15.8 %	Russell 2000 Growth Index 7.0 %	Russell 2000 Index -33.8 %	Russell 2000 Index 27.2 %	Russell 1000 Value Index 15.5 %	S&P 500 Index 2.1 %	S&P 500 Index 16.0 %	S&P 500 Index 32.4 %	Russell 2000 Growth Index 5.6 %	Russell 2000 Growth Index -1.4 %	Russell 2000 Growth Index 11.3 %	Russell 2000 Index 14.6 %	Russell 1000 Value Index 3.9 %
	Bloomberg Barclays Global Aggregate Ex USD 12.5 %	Russell 2000 Value Index 4.7 %	NCREIF Fund Index-ODCE (EW) (Net) 15.1 %	Blmbg. Barc. U.S. Aggregate Index 7.0 %	Russell 1000 Value Index -36.8 %	S&P 500 Index 26.5 %		Russell 1000 Value Index 0.4 %	Blmbg. Barc. U.S. Corp High Yield 15.8 %	MSCI EAFE (Net) Index 22.8 %	Russell 2000 Index 4.9 %	Russell 1000 Value Index -3.8 %	MSCI Emerging Markets (Net) Index 11.2 %	Russell 1000 Value Index 13.7 %	Blmbg. Barc. U.S. Corp High Yield 2.6 %
	NCREIF Fund Index-ODCE (EW) (Net) 11.5 %	Russell 2000 Index 4.6 %	Russell 2000 Growth Index 13.3 %	S&P 500 Index 5.5 %	S&P 500 Index -37.0 %	Russell 2000 Value Index 20.6 %	NCREIF Fund Index-ODCE (EW) (Net) 15.1 %	Russell 2000 Growth Index -2.9 %	Russell 1000 Growth Index 15.3 %	NCREIF Fund Index-ODCE (EW) (Net) 12.4 %	Russell 2000 Value Index 4.2 %	Russell 2000 Index -4.4 %	NCREIF Fund Index-ODCE (EW) (Net) 8.4 %	Bloomberg Barclays Global Aggregate Ex USD 10.5 %	MSCI EAFE (Net) Index -1.4 %
	Blmbg. Barc. U.S. Corp High Yield 11.1 %	Russell 2000 Growth Index 4.2 %	Blmbg. Barc. U.S. Corp High Yield 11.9 %	Blmbg. Barc. U.S. Corp High Yield 1.9 %	Russell 1000 Growth Index -38.4 %	Russell 1000 Value Index 19.7 %	S&P 500 Index 15.1 %	Russell 2000 Index -4.2 %	Russell 2000 Growth Index 14.6 %	Blmbg. Barc. U.S. Corp High Yield 7.4 %	Blmbg. Barc. U.S. Corp High Yield 2.5 %	Blmbg. Barc. U.S. Corp High Yield -4.5 %	Russell 1000 Growth Index 7.1 %	Russell 2000 Value Index 7.8 %	Blmbg. Barc. U.S. Aggregate Index -1.6 %
	S&P 500 Index 10.9 %	Blmbg. Barc. U.S. Corp High Yield 2.7 %	Russell 1000 Growth Index 9.1 %	Russell 1000 Value Index -0.2 %	Russell 2000 Growth Index -38.5 %	Bloomberg Barclays Global Aggregate Ex USD 7.5 %	MSCI EAFE (Net) Index 7.8 %	Russell 2000 Value Index -5.5 %	NCREIF Fund Index-ODCE (EW) (Net) 9.9 %	Blmbg. Barc. U.S. Aggregate Index -2.0 %	MSCI Emerging Markets (Net) Index -2.2 %	Bloomberg Barclays Global Aggregate Ex USD -6.0 %	Blmbg. Barc. U.S. Aggregate Index 2.6 %	Blmbg. Barc. U.S. Corp High Yield 7.5 %	Bloomberg Barclays Global Aggregate Ex USD -3.0 %
•	Russell 1000 Growth Index 6.3 %	Blmbg. Barc. U.S. Aggregate Index 2.4 %	Bloomberg Barclays Global Aggregate Ex USD 8.2 %	Russell 2000 Index -1.6 %	MSCI EAFE (Net) Index -43.4 %	Blmbg. Barc. U.S. Aggregate Index 5.9 %	Blmbg. Barc. U.S. Aggregate Index 6.5 %	MSCI EAFE (Net) Index -12.1 %	Blmbg. Barc. U.S. Aggregate Index 4.2 %	MSCI Emerging Markets (Net) Index -2.6 %	Bloomberg Barclays Global Aggregate Ex USD -3.1 %	Russell 2000 Value Index -7.5 %	Bloomberg Barclays Global Aggregate Ex USD 1.5 %	NCREIF Fund Index-ODCE (EW) (Net) 6.9 %	MSCI Emerging Markets (Net) Index -7.7 %
Worst	Blmbg. Barc. U.S. Aggregate Index 4.3 %	Bloomberg Barclays Global Aggregate Ex USD -8.7 %	Blmbg. Barc. U.S. Aggregate Index 4.3 %	Russell 2000 Value Index -9.8 %	MSCI Emerging Markets (Net) Index -53.3 %	NCREIF Fund Index-ODCE (EW) (Net) -31.3 %	Bloomberg Barclays Global Aggregate Ex USD 4.9 %	MSCI Emerging Markets (Net) Index -18.4 %	Bloomberg Barclays Global Aggregate Ex USD 4.1 %	Bloomberg Barclays Global Aggregate Ex USD -3.1 %	MSCI EAFE (Net) Index -4.9 %	MSCI Emerging Markets (Net) Index -14.9 %	MSCI EAFE (Net) Index 1.0 %	Blmbg. Barc. U.S. Aggregate Index 3.5 %	

Year







Δ	cti	ve	R	۵tı	ırn

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

Alpha

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

Beta

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

Consistency

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

Distributed to Paid In (DPI)

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

Down Market Capture

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

Downside Risk

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

Excess Return

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

Excess Risk

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

Information Ratio

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

Public Market Equivalent (PME)

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

R-Squared

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

Return

- Compounded rate of return for the period.

Sharpe Ratio

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

Standard Deviation

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

Total Value to Paid In (TVPI)

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

Tracking Error

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

Treynor Ratio

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

Up Market Capture

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



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