Investment Performance Review Period Ending December 31, 2019

# Palm Beach Gardens Police Pension Plan



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First and foremost, "Thank you" for giving AndCo the opportunity to serve you. On behalf of our entire organization, we are extremely grateful and appreciative of our client partnerships and 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 that we remain steadfast in this core belief and continue to build an organization with a service model that is independent, singularly focused, customized and passionately delivered.

2020 is a big year for AndCo. We are celebrating our 20-year anniversary of serving our valuable clients. As we start 2020, we are 89 people strong advising approximately \$92 billion in client assets – a record high. In 2019 we hired 9 new team members. All departments within AndCo have grown over the years as we thoughtfully invest in our firm to provide the services you expect. We have included our organizational chart in this report which your consultant will review to provide you a visualization of our continued commitment to service and quality.

2020 will also represent another year of significant investment in the organization. As a result, your feedback is invaluable as we continue to focus our reinvestment in areas that will enhance our services to clients. We would like to thank everyone for their participation in our client survey last year. Your honesty and candor allowed us to accurately assess where we are strong and where there are opportunities for improvement. The areas where our clients indicate potential room for improvement drive much of our investment and focus. This is a primary reason why we hired 7 new team members in our research group last year to help promote investment ideas and support our consultants. Today, we have 19 dedicated research analysts. As 2020 progresses, we are targeting additional investments within our finance, compliance, human resources, information technology, marketing and research departments.

Moreover, each January we have our annual firmwide retreat. This retreat is a great time for all of our employees to spend time together and for us to reinforce everyone's understanding of AndCo's primary purpose, share results highlighted by our strategic goals, and review areas of focus for the upcoming year. Since the inception of AndCo, the idea has been to make the firm a multigenerational organization owned and operated by its employees. As a result, since 2015, along with the strategic elements of our annual retreat, we also announce new partners of the firm to support our succession plan and the long-term sustainability of the organization. Today we have a total of 10 partners controlling 100% of the company. This year we added two new partners Kim Spurlin and Evan Scussel. Kim has been on our Executive Leadership team for the past 7 years and currently serves as our CFO. Evan has been on our research team for 7 years and was recently promoted to a Research Director. We couldn't be happier for both Kim and Evan.

The evolution of our firm would not be possible without great client partners like you. Our name reminds us who we work for every day "Our Client" &Co. You will always be our first priority. As we continue to discuss strategic decisions regarding our firm, please know every decision is filtered through the following question "How does this benefit our clients?" and if it doesn't benefit you, we don't do it, it's that simple. We said this last year and we'll say it again next year. If this commitment ever falters, you need to find a new consultant.

We know each of our clients is facing many challenges and we want to be there to help support you through all environments. We are honored and humbled that you have chosen AndCo as your partner. We do not take that relationship and responsibility 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, Cl

CE



## **Organizational Chart**

#### **PARTNERSHIP**

Evan Scussel, CFA, CAIA Mike Welker, CFA

Bryan Bakardjiev, CFA Jason Purdy

**Dan Johnson** Kim Spurlin, CPA **David Ray Steve Gordon** 

**Donna Sullivan Trov Brown, CFA** 

#### **LEADERSHIP & MANAGEMENT**

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CEO

Bryan Bakardjiev, CFA Derek Tangeman, CFP,

COO

Kim Spurlin, CPA

**CFO** 

Sara Searle

CCO

Rachel Brignoni, MHR

**CHRO** 

**Steve Gordon** Partner

**Troy Brown, CFA** 

**Executive Director** 

**David Ray** 

**Executive Director** 

**Dan Johnson** 

Consulting Director

**CIMA** 

Marketing Director

Evan Scussel, CFA, CAIA

Research Director

**Jack Evatt** Consulting Director

**Jacob Peacock** Consulting Director

**Jason Purdy** I.T. Director

Philip Schmitt, CIMA

Research Director

## **OPERATIONS**

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**OPERATIONS** Dan Osika, CFA **Jerry Camel** 

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**Michael Fleiner** 

Michael Holycross, CIMA

**Mike Bostler** 

Paul Murray, CPFA

**Peter Brown** 

**Tim Nash** 

**Tim Walters** 

**Tony Kay** 

**Trevor Jackson** 

Tyler Grumbles, CFA, CIPM

## **CLIENT SOLUTIONS**

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**Albert Sauerland** 

**Amy Foster** 

**Annie Lopez** 

**Brooke Wilson, CIPM** 

**David Gough, CPFA** 

**Grace Niebrzydowski Jeff Pruniski** 

**Donnell Lehrer** 

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**Meghan Haines** Misha Bell

Rosemarie Kieskowski

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Private & Hedged Fixed Income

**David Julier** 

Real Estate & Real Assets

**Elizabeth Wolfe** 

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Private & Public Equity

**Jeffrey Karansky** 

Public Equity

**Jeremy Fisch** 

Public Multi Assets & Fixed Income

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Operational Due Diligence

Josue Christiansen, CIPM

Public Equity

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Private & Hedged Equity

Justin Ellsesser, CFA, CAIA

Private Equity

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Hedged & Public Multi Assets

Kai Petersen, CFA

Asset Liability & Capital Markets

Kevin Laake, CFA

Private Equity

Matthew Ogren

Public Fixed Income

Philip Schmitt, CIMA

Fixed Income & Capital Markets

Rob Mills, CAIA

Real Estate & Real Assets

Tim Kominiarek, CAIA

Private Equity & Infrastructure

Zac Chichinski, CFA, CIPM

Public Equity

Updated as of 01/13/20





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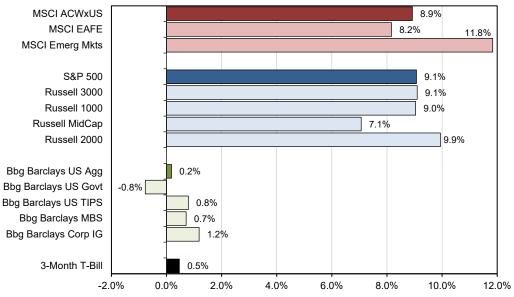


4th Quarter 2019 Market Environment

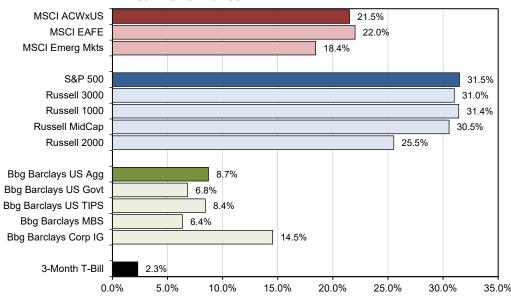


- Broad asset class returns were positive during the 4<sup>th</sup> quarter of 2019 with the exception of the US Gov't bond index. Both US and international equity markets benefited from positive developments concerning trade disruptions. Generally, the dispersion between US and international developed equities was muted during the quarter. Emerging markets significantly outperformed as previously noted trade tensions between the US and China eased. Monetary policy remained supportive with the Federal Reserve (Fed) cutting rates once during the period in addition to providing liquidity to the market through security purchases which acted as a catalyst to risk assets. Within domestic equity markets, the performance dispersion between large cap and small cap stocks reversed during the quarter with the S&P 500 Index returning 9.1% versus a return of 9.9% for the small cap Russell 2000 Index. 2019 performance of US equity markets was the highest since 2013 with large and mid-cap stocks returning 31.5% and 30.5%, respectively, while small cap stocks posted a return of 25.5%.
- International equity market returns were strong during the 4<sup>th</sup> quarter. Similar to US markets, international performance was impacted by continued monetary policy relief from the Bank of Japan and the European Central Bank, positive developments around global trade, and likely resolution on Brexit. International returns were also buoyed by a weakening US dollar (USD) which declined against most major currencies during the period. Emerging markets outperformed relative to developed markets during the period with the MSCI Emerging Markets Index posting a gain of 11.8% compared to a return of 8.2% for the MSCI EAFE Index. Both developed and emerging markets posted strong returns over the 1-year period, returning 22.0% and 18.4% respectively.
- Fixed income index performance was muted during the 4<sup>th</sup> quarter. The broad market Bloomberg Barclays Aggregate Index managed to gain 0.2% as investors favored equities and interest rates were generally flat during the quarter as concerns over an immanent US recession eased. Investment grade corporate bonds delivered solid performance for the 4<sup>th</sup> quarter returning 1.2%, which outperformed Treasury and securitized issues. Corporate bonds benefitted from the same increased investor risk appetite that fueled equity returns during the quarter. Overall, the bond market delivered strong trailing 1-year returns with the Bloomberg Barclays Aggregate posting a return of 8.7%.

### **Quarter Performance**

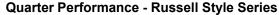


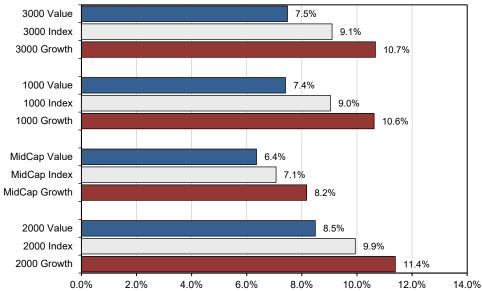
#### 1-Year Performance



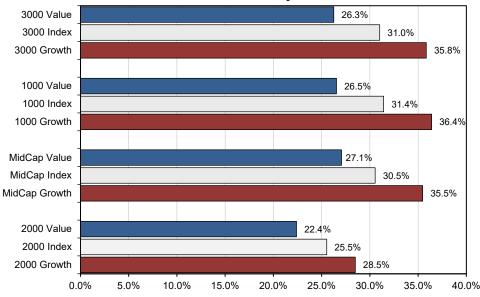


- Against the largely positive global economic backdrop detailed on the previous page, the US equity market delivered strong gains across the capitalization and style spectrum for the 4<sup>th</sup> quarter of 2019. Growth stocks outperformed value stocks for the full capitalization range during the period. Further, as is often the case during periods of strong "risk-on" performance, small cap growth stocks outpaced large cap growth stocks due primarily to an expectation that smaller companies have accelerated earnings growth relative to large companies.
- The Russell 2000 Growth Index was the best performing style index for the period, returning 11.4%, while large cap and mid-cap growth returned a solid 10.6% and 8.2% respectively. The outperformance of small cap stocks across the style spectrum for the period represented a reversal from previous quarters. The small cap Russell 2000 Index gained 9.9% during the period versus a 9.0% return for the large cap Russell 1000 Index.
- When viewed over the most recent 1-year period, large cap stocks significantly outperformed small cap stocks with the Russell 1000 posting a strong 31.4% gain while the Russell 2000 delivered a solid 25.5% return. Unsurprisingly, given the recent strong market environment, value stocks also trailed their growth counterparts over the trailing 1-year period. The technology-heavy Russell 1000 Growth Index was the best performing index over the 1-year period delivering a stellar 36.5% return compared to a return of 26.5% for the Russell 1000 Value Index



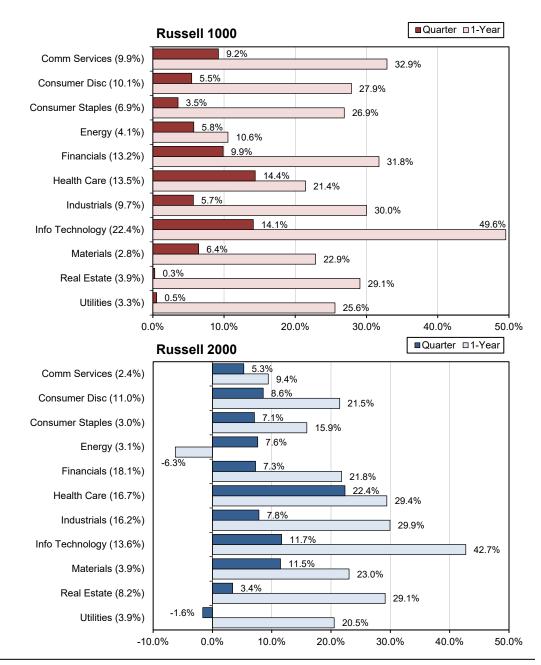


## 1-Year Performance - Russell Style Series





- Performance was positive across all eleven large cap economic sectors for the 4th guarter but four outpaced the return of the broader Russell 1000 Index. The more economically sensitive sectors, such as technology, financials and communication services posted returns of 14.1%, 9.9% and 9.2%, respectively, as investors' expectations of future economic growth improved. Health care stocks rallied as the cost and drug pricing rhetoric from Democratic Presidential candidates softened. Technology was also a leader with stocks such as Apple experiencing strong holiday sales and Microsoft making a strong earnings announcement. Not surprisingly, defensive sectors such as consumer staples, industrials and energy underperformed the broader market during the period. All eleven economic sectors were also positive over the 1-year trailing period with each sector posting a return in excess of 20% for the year. Similar to the quarter's results, economically sensitive sectors outpaced defensive ones by a considerable margin. The technology sector was 2019's standout performer, posting an impressive 49.6% for the year. The sector was buoyed by Apple's 89.0% return and Microsoft's 57.6% return for the year. The financial sector, which returned 31.8% for the year, also experienced strong earnings as recessionary fears subsided and the US yield curve moved toward a more normal, positively slope. The only other economic sector to outperform the broader Russell 1000 index return of 31.4% for the 1-year period was the communication services sector, which posted a return of 32.9% for the year.
- Quarterly results for small cap sectors were mixed compared to their large cap counterparts with seven of the eleven economic sectors outpacing their corresponding large cap equivalents. Ten of the eleven small cap sectors produced positive absolute returns during the quarter, but similar to large cap performance, only three sectors managed to outpace the broad Russell 2000 Index. Economically sensitive sectors were also the strongest performers in the small cap space as investors expressed an appetite for risk. The health care sector was the quarter's standout, posting a return of 22.4% for the quarter. The technology and materials sectors also posted double-digit performance for the period with returns of 11.7% and 11.5% respectively. While not a significant weight in the index, the utilities, which are considered defensive, was the only negative sector, posting a loss of -1.6%. Over the trailing 1-year period, returns were broadly positive with only the highly cyclical energy sector, largely tied to oil prices, producing negative performance with a return of -6.3%. Similar to large cap performance, technology led the way with the sector returning a stellar 42.7% for the year. Returns were also impressive in the industrials, health care and real estate sectors, which posted gains of 29.9%, 29.4% and 29.1%, respectively, and finished ahead of the Russell 2000 index return of 25.5% for the year.





Top 10 Weighted Stocks						
Russell 1000 Weight 1-Qtr Return Return Sector						
Apple Inc	4.40%	31.5%	89.0%	Information Technology		
Microsoft Corp	4.02%	13.8%	57.6%	Information Technology		
Amazon.com Inc	2.57%	6.4%	23.0%	Consumer Discretionary		
Facebook Inc A	1.65%	15.3%	56.6%	Communication Services		
Berkshire Hathaway Inc B	1.49%	8.9%	10.9%	Financials		
JPMorgan Chase & Co	1.46%	19.4%	47.3%	Financials		
Alphabet Inc A	1.35%	9.7%	28.2%	Communication Services		
Alphabet Inc Class C	1.35%	9.7%	29.1%	Communication Services		
Johnson & Johnson	1.31%	13.5%	16.2%	Health Care		
Visa Inc Class A	1.08%	9.4%	43.3%	Information Technology		

Top 10 Weighted Stocks						
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector		
NovoCure Ltd	0.35%	12.7%	151.7%	Health Care		
The Medicines Co	0.30%	69.9%	343.8%	Health Care		
Generac Holdings Inc	0.29%	28.4%	102.4%	Industrials		
Lumentum Holdings Inc	0.29%	48.1%	88.8%	Information Technology		
Teladoc Health Inc	0.29%	23.6%	68.9%	Health Care		
Arrowhead Pharmaceuticals Inc	0.28%	125.1%	410.7%	Health Care		
Haemonetics Corp	0.28%	-8.9%	14.8%	Health Care		
Marriott Vacations Worldwide Corp	0.25%	24.8%	85.9%	Consumer Discretionary		
Performance Food Group Co	0.25%	11.9%	59.5%	Consumer Staples		
Trex Co Inc	0.25%	-1.2%	51.4%	Industrials		

Top 10 Performing Stocks (by Quarter)						
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector		
Tesla Inc	0.20%	73.7%	25.7%	Consumer Discretionary		
Sarepta Therapeutics Inc	0.03%	71.3%	18.2%	Health Care		
Ubiquiti Inc	0.01%	60.1%	91.6%	Information Technology		
Advanced Micro Devices Inc	0.16%	58.2%	148.4%	Information Technology		
Qorvo Inc	0.05%	56.8%	91.4%	Information Technology		
Zillow Group Inc A	0.01%	54.8%	45.5%	Communication Services		
Align Technology Inc	0.07%	54.2%	33.2%	Health Care		
Zillow Group Inc C	0.02%	54.1%	45.5%	Communication Services		
Transocean Ltd	0.01%	53.9%	-0.9%	Energy		
Skyworks Solutions Inc	0.07%	53.2%	84.1%	Information Technology		

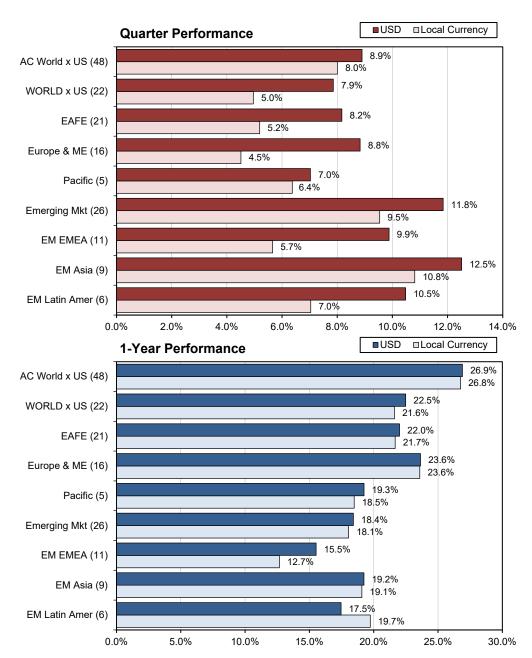
Top 10 Performing Stocks (by Quarter)						
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector		
Constellation Pharmaceuticals Inc	0.03%	629.3%	1074.8%	Health Care		
Forty Seven Inc	0.04%	513.2%	150.4%	Health Care		
ChemoCentryx Inc	0.08%	483.3%	262.5%	Health Care		
Axsome Therapeutics Inc	0.12%	410.7%	3565.2%	Health Care		
Kodiak Sciences Inc	0.08%	400.3%	913.4%	Health Care		
Karuna Therapeutics Inc	0.02%	361.6%	N/A	Health Care		
Intra-Cellular Therapies Inc	0.07%	359.3%	201.2%	Health Care		
Synthorx Inc	0.03%	329.6%	302.1%	Health Care		
Mersana Therapeutics Inc	0.01%	262.7%	40.4%	Health Care		
VBI Vaccines Inc	0.01%	192.9%	-13.8%	Health Care		

Bottom 10 Performing Stocks (by Quarter)					
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector	
Beyond Meat Inc	0.01%	-49.1%	N/A	Consumer Staples	
Sage Therapeutics Inc	0.01%	-48.5%	-24.6%	Health Care	
Chesapeake Energy Corp	0.00%	-41.4%	-60.7%	Energy	
ServiceMaster Global Holdings Inc	0.02%	-30.8%	5.2%	Consumer Discretionary	
Twitter Inc	0.08%	-22.2%	11.5%	Communication Services	
Taubman Centers Inc	0.01%	-22.1%	-27.0%	Real Estate	
Elastic NV	0.01%	-21.9%	-10.0%	Information Technology	
Etsy Inc	0.02%	-21.6%	-6.9%	Consumer Discretionary	
Sinclair Broadcast Group Inc	0.01%	-21.5%	29.0%	Communication Services	
Ventas Inc	0.07%	-19.9%	3.4%	Real Estate	

Bottom 10 Performing Stocks (by Quarter)						
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector		
resTORbio Inc	0.00%	-83.1%	-82.7%	Health Care		
TransEnterix Inc	0.00%	-81.8%	-95.0%	Health Care		
Unit Corp	0.00%	-79.4%	-95.1%	Energy		
Cyclerion Therapeutics Inc Ord Shrs	0.00%	-77.6%	N/A	Health Care		
Waitr Holdings Inc Class A	0.00%	-74.9%	-97.1%	Consumer Discretionary		
Intelsat SA	0.02%	-69.2%	-67.1%	Communication Services		
Contura Energy Inc	0.01%	-67.6%	-86.2%	Energy		
McDermott International Inc	0.01%	-66.5%	-89.7%	Energy		
Pareteum Corp	0.00%	-66.1%	-74.1%	Communication Services		
Exela Technologies Inc	0.00%	-65.4%	-89.5%	Information Technology		



- Broad international equity returns were positive in both local currency and USD terms for the 4th quarter as investors benefited from a broad "risk-on" environment. US investors also benefited as the USD weakened relative to most major developed and emerging market currencies during the period. Within the broader currency moves that boosted USD return, the British pound and the Euro appreciated relative to the USD during the quarter which acted as a headwind to holdings in those sub-markets. However, the macro impact of the USD weakness for the period was positive for US investors for the broad market international indexes. The MSCI EAFE and ACWI ex US Indexes returned 8.2% and 7.9% respectively for the quarter. Similar to US markets, international equity markets were buoyed by loose central bank monetary policies which supplied the markets with liquidity. Christine Lagarde assumed the presidency of the European Central Bank (ECB) and announced that interest rates would remain negative at -0.5% while the Bank of Japan's key rate also remains in negative territory at -0.1%. The People's Bank of China announced during the quarter that it would continue with its prudent monetary policy with the goal of providing stimulus measures as needed.
- As previously noted, results for developed market indexes were strongly positive for the 4th quarter. European stocks moved higher on expectations of a trade resolution between China and the US. In the UK, Prime Minster Boris Johnson received a resounding mandate in recent elections resulting in a large majority in Parliament. The results make it highly likely that the UK will leave the European Union. The decrease in Brexit uncertainty led the British pound to rally against most major currencies. In contrast, the economy in Hong Kong fell into recession as continued political protests and the Chinese government's response detracted from growth. While not as strong as US equity market returns, each of the broad, developed market benchmarks posted returns in excess of 20% for the trailing 1-year period.
- For the 4th quarter, emerging markets reversed the recent trend and managed to outperform developed international markets. The MSCI Emerging Markets Index returned a strong USD return of 11.8%. As previously noted, the prospect of reduced trade tensions between the US and China stoked returns in emerging markets. As a result, countries with greater sensitivities to commodity prices and global trade activity performed well during the period. As evidence, Russia and Brazil, both large energy exporters, returned 16.6% and 15.6%, respectively, during the quarter. For the full year, emerging markets delivered strong returns in both local currency and USD terms. The MSCI Emerging Markets Index climbed 18.4% in local currency and 18.1% in USD terms. The narrow performance differential between local currency and USD emerging market returns is also observable across each of the international benchmarks for the 1-year period as the year's currency volatility largely balanced out.



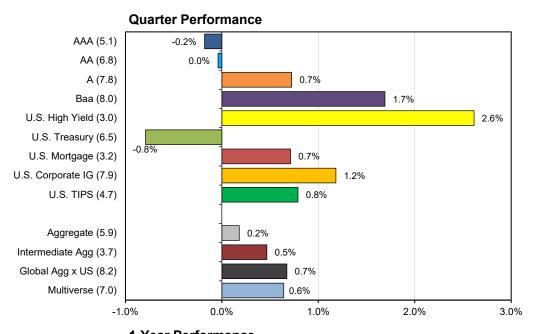


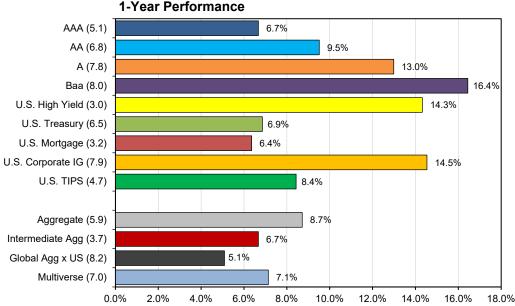
Sector Weight	Quarter Return	1-Year Return
5.2%	4.8%	12.7%
11.6%	9.4%	24.8%
11.3%	1.9%	18.9%
4.9%	3.8%	7.6%
18.6%	8.4%	17.7%
12.2%	12.4%	30.7%
15.0%	10.0%	26.2%
7.1%	12.6%	37.7%
7.1%	10.5%	22.9%
3.5%	4.2%	14.8%
3.7%	5.3%	19.2%
100.0%	8.2%	22.0%
Sector Weight	Quarter Return	1-Year Return
6.7%	7.0%	12.1%
11.8%	11.4%	27.7%
9.4%	1.9%	17.5%
6.5%	6.5%	14.8%
21.4%	8.1%	17.2%
8.9%	12.5%	27.7%
11.9%	9.6%	24.0%
9.4%	15.5%	40.7%
7.4%	10.8%	18.6%
3.2%	7.3%	17.1%
3.4%	4.8%	17.4%
100.0%	8.9%	26.9%
0	0 - 1 - 5 - 1	4.7
		1-Year Return
		11.2%
	-	35.1%
		10.7%
		19.8%
		12.6%
		3.7%
		7.1%
-		41.6%
7 /10/.	12.3%	5.9%
7.4%		
3.0%	17.6%	23.9%
	5.2% 11.6% 11.3% 4.9% 18.6% 12.2% 15.0% 7.1% 7.1% 3.5% 3.7% 100.0%  Sector Weight 6.7% 11.8% 9.4% 6.5% 21.4% 8.9% 11.9% 9.4% 7.4% 3.2% 3.4%	5.2%       4.8%         11.6%       9.4%         11.3%       1.9%         4.9%       3.8%         18.6%       8.4%         12.2%       12.4%         15.0%       10.0%         7.1%       12.6%         7.1%       10.5%         3.5%       4.2%         3.7%       5.3%         100.0%       8.2%         Sector Weight       Quarter Return         6.7%       7.0%         11.8%       11.4%         9.4%       1.9%         6.5%       6.5%         21.4%       8.1%         8.9%       12.5%         11.9%       9.6%         9.4%       15.5%         7.4%       10.8%         3.2%       7.3%         3.4%       4.8%         100.0%       8.9%         Sector Weight       Quarter Return         11.0%       9.8%         14.2%       16.7%         6.3%       2.6%         7.4%       9.8%         24.2%       9.8%         24.2%       9.8%         24.2%       9.8%

	MSCI-EAFE	MSCI-ACWIXUS	Quarter	1- Year
Country	Weight	Weight	Return	Return
Japan	24.5%	16.1%	7.6%	19.6%
United Kingdom	16.5%	10.8%	10.0%	21.1%
France	11.4%	7.5%	8.5%	25.7%
Switzerland	9.3%	6.1%	7.6%	32.3%
Germany	8.7%	5.7%	9.9%	20.8%
Australia	6.8%	4.5%	4.3%	22.9%
Netherlands	4.0%	2.6%	7.4%	32.1%
Hong Kong	3.5%	2.3%	7.3%	10.3%
Spain	2.8%	1.9%	6.0%	12.0%
Sweden	2.7%	1.8%	13.1%	21.2%
Italy	2.3%	1.5%	8.1%	27.3%
Denmark	1.8%	1.2%	13.1%	28.2%
Singapore	1.3%	0.8%	7.4%	15.0%
Belgium	1.0%	0.7%	-1.1%	20.3%
Finland	0.9%	0.6%	3.0%	9.5%
Norway	0.6%	0.4%	4.3%	10.4%
Ireland	0.6%	0.4%	18.5%	37.5%
Israel	0.6%	0.4%	7.2%	9.6%
New Zealand	0.3%	0.2%	17.4%	38.2%
Austria	0.2%	0.2%	8.0%	14.5%
Portugal	0.2%	0.1%	8.7%	23.7%
Total EAFE Countries	100.0%	65.8%	8.2%	22.0%
Canada	100.0%	6.7%	4.9%	27.5%
Total Developed Countries		72.5%	7.9%	22.5%
China		9.4%	14.7%	23.5%
Korea		3.2%	13.4%	12.5%
Taiwan		3.2%	17.9%	36.4%
India		2.4%	5.3%	7.6%
Brazil		2.1%	14.2%	26.3%
South Africa		1.3%	13.1%	10.0%
Russia		1.1%	16.8%	50.9%
Saudi Arabia		0.7%	2.7%	7.2%
Thailand		0.7%	-0.9%	9.5%
Mexico		0.6%	6.2% 7.0%	11.4%
Indonesia		0.5%		9.1%
Malaysia		0.5%	3.1% 2.9%	-2.0% 10.5%
Philippines		0.3%	2.9%	-1.0%
Qatar		0.3%		
Poland		0.2%	4.1%	-5.9%
Chile		0.2%	-8.8%	-16.9%
United Arab Emirates		0.2%	-1.5%	4.0%
Turkey		0.1%	-0.1%	11.1%
Colombia		0.1%	14.4%	30.8%
Peru		0.1%	6.0%	4.8%
Greece		0.1%	12.7%	43.2%
Hungary		0.1%	22.2%	19.4%
Argentina		0.0%	15.4%	-20.8%
Czech Republic		0.0%	8.9%	4.2%
Egypt		0.0%	5.6%	41.8%
Pakistan		0.0%	26.5%	9.7%
Total Emerging Countries		27.5%	11.8%	18.4%
Total ACWIxUS Countries		100.0%	8.9%	26.9%



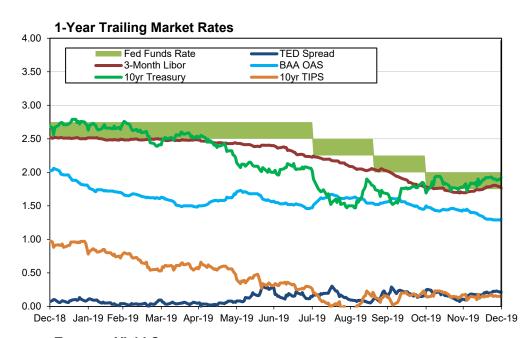
- Fixed income markets extended their gains in the 4th guarter, except for US Treasury bonds which declined during the period. Interest rates rose modestly across the US Treasury Yield Curve through the quarter as investors' confidence generally improved which resulted in bond prices falling. The Fed continued to provide liquidity by cutting short-term interest rates by 25 basis points to between 1.50% and 1.75% in October. The Fed began expanding its balance sheet by purchasing securities to provide the market with liquidity which is another form of monetary easing. The Fed made no changes to monetary policy at their December meeting and signaled that they would remain on hold but would continue to monitor the economy closely for any further deterioration. Importantly, the US Treasury Yield Curve normalized between the 2-year and 10-year issues which suggests that the threat of an imminent recession has been reduced. An inverted yield curve has historically preceded a recession within the next 6-24 months. The bellwether Bloomberg Barclays US Aggregate Index added 0.2% during the 4th guarter while returning 8.7% for the 1-year period ending in December.
- Within investment grade credit, lower quality issues resumed their outperformance over higher quality issues as investors' appetites for risk increased during the quarter. Bonds rated Baa were the best performing investment grade credit quality segment returning 1.7% for the quarter, while AAA was the worst performing, returning -0.2%. High yield corporate bonds outpaced all other credit sectors during the quarter returning 2.6%. For the full year both investment grade and high yield bonds delivered strong performance returning 14.5% and 14.3% respectively.
- Performance across defensive sectors such as US Treasury bonds, mortgage backed securities and TIPS were mixed during the quarter mostly due to their duration profiles. Rising interest rates during the quarter acted as a headwind to performance. As a result, US Treasury bonds, mortgage bonds and TIPS returned -0.8%, 0.7% and 0.8% respectively. Overall, fears of rising inflation remain relatively low while expectations for a positive economic environment remain strong. As a result, for the full 1-year period, US Treasury, mortgages and TIPS returned 6.9%, 6.4% and 8.4% respectively, trailing all corporate credit sectors significantly over the full year.

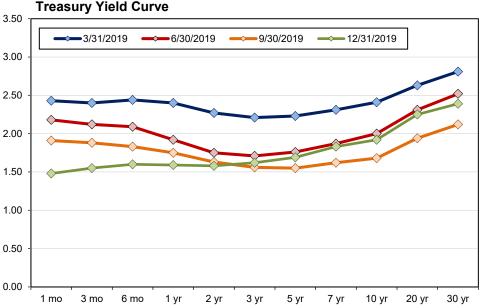






- Global fixed income returns were positive during the 4th quarter. Generally, global central bank monetary policy remains supportive as low economic growth persists in much of the world outside of the US. As a result, negative interest rates persist in much of Europe and Japan. However, the number of bonds with negative yields declined in recent months as future expectations for economic growth improved. As mentioned previously, we saw currency volatility increase during the quarter with the USD moving lower against most major developed and emerging market currencies. The depreciation of the USD acted as a catalyst for US investors compared to local investors. Global bonds, as represented by the Bloomberg Barclays Global Aggregate ex US Index, returned was 0.7% during the quarter which outperformed US bonds represented by the Bloomberg Barclays Aggregate Index. For the full 1-year period, global bonds underperformed domestic bonds 5.1% versus 8.7% respectively.
- Much of the index performance detailed in the bar graphs on the previous page is visible on a time series basis by reviewing the line graphs to the right. The '1-Year Trailing Market Rates' chart illustrates that over the last year, the 10-year Treasury yield (green line) fell from highs near 2.8%, to yields below 1.5% before ending the guarter at 1.92%. 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 the continued decline from nearly 2.5% in the 1st quarter of 2019 to less than 1.6% in 4th quarter as investors sought out higher yielding assets and concerns regarding trade and the potential for a recession in the US declined. Spreads tightened by about 24 basis points during the guarter. Spread tightening is equivalent to an interest rate decrease on corporate bonds, which produces an additional tailwind for corporate bond index returns. The green band across the graph illustrates the decrease in the Federal Funds Rate due to the recent easing in US monetary policy. The Fed cut the Fed Funds Rate three times during the year on fears that economic growth was decelerating.
- The lower graph provides a snapshot of the US Treasury Yield Curve at the end of each of the last four calendar quarters. Interest rates were broadly lower over the full year as the Fed cut interest rates and expectations of future economic growth declined. During the year, the US Treasury curve was inverted between 2-year and 10-year rates. After multiple rate cuts, the curve finished the year with a more normalized shape with the long end of the curve higher than the short end.







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 6.6% (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.		•

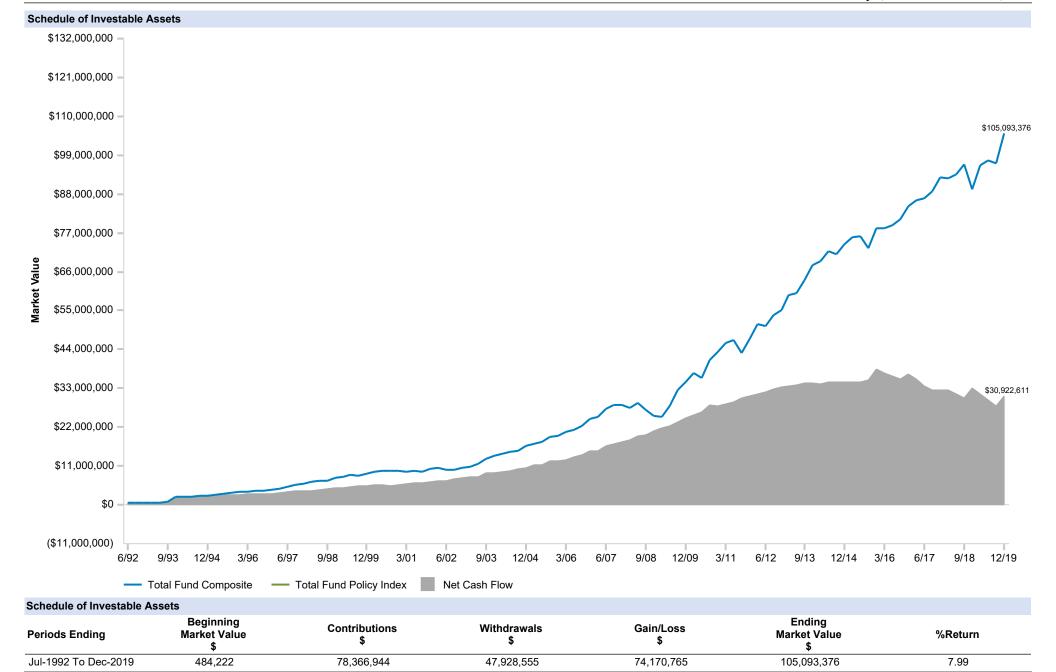


Rhumbline S&P 600	Yes	No
The return equaled or exceeded the benchmark over the trailing three year period.		•
The return equaled or exceeded the benchmark over the trailing five year period.		•
The three year return ranks in the top 40% of its peer group.		•
The five year return ranks in the top 40% 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.		•



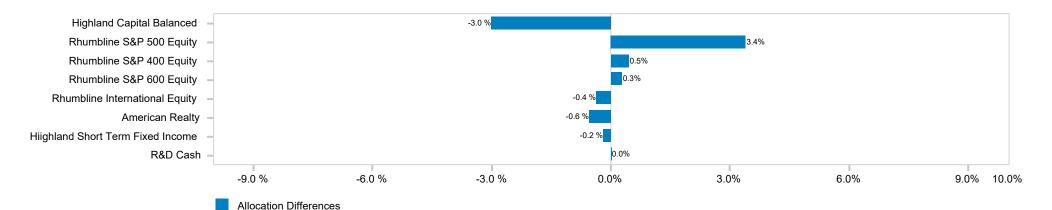
The five year return ranks in the top 40% of its peer group.

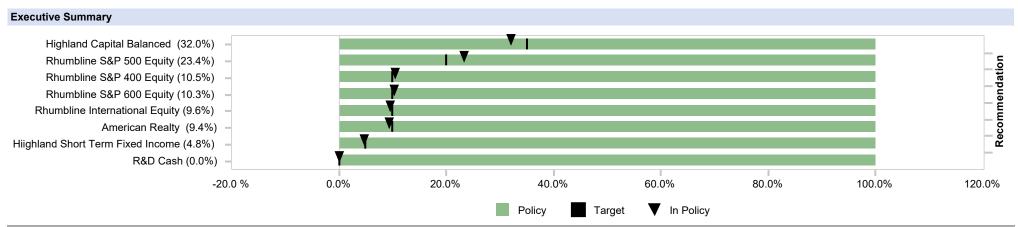
July 1, 1992 To December 31, 2019





	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Differences (%)	Target Rebal. (\$000)
Total Fund Composite	105,093,376	100.0	100.0	0.0	-
Highland Capital Balanced	33,606,492	32.0	35.0	-3.0	3,176,190
Rhumbline S&P 500 Equity	24,591,356	23.4	20.0	3.4	-3,572,680
Rhumbline S&P 400 Equity	10,988,280	10.5	10.0	0.5	-478,943
Rhumbline S&P 600 Equity	10,801,195	10.3	10.0	0.3	-291,857
Rhumbline International Equity	10,120,492	9.6	10.0	-0.4	388,845
American Realty	9,929,189	9.4	10.0	-0.6	580,149
Hiighland Short Term Fixed Income	5,054,150	4.8	5.0	-0.2	200,518
R&D Cash	2,223	0.0	0.0	0.0	-2,223

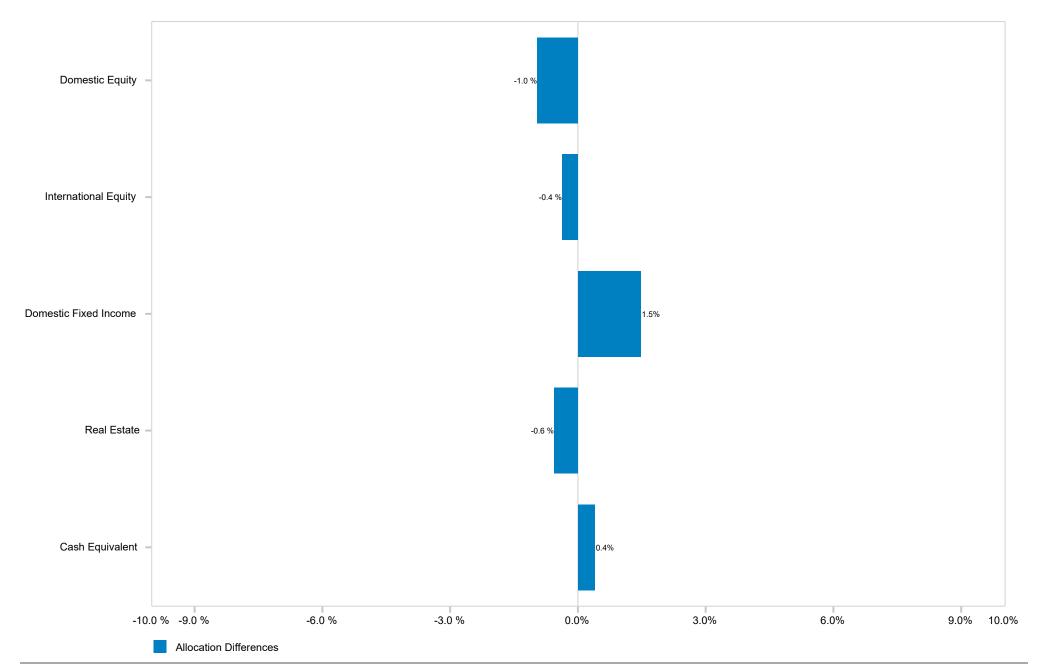






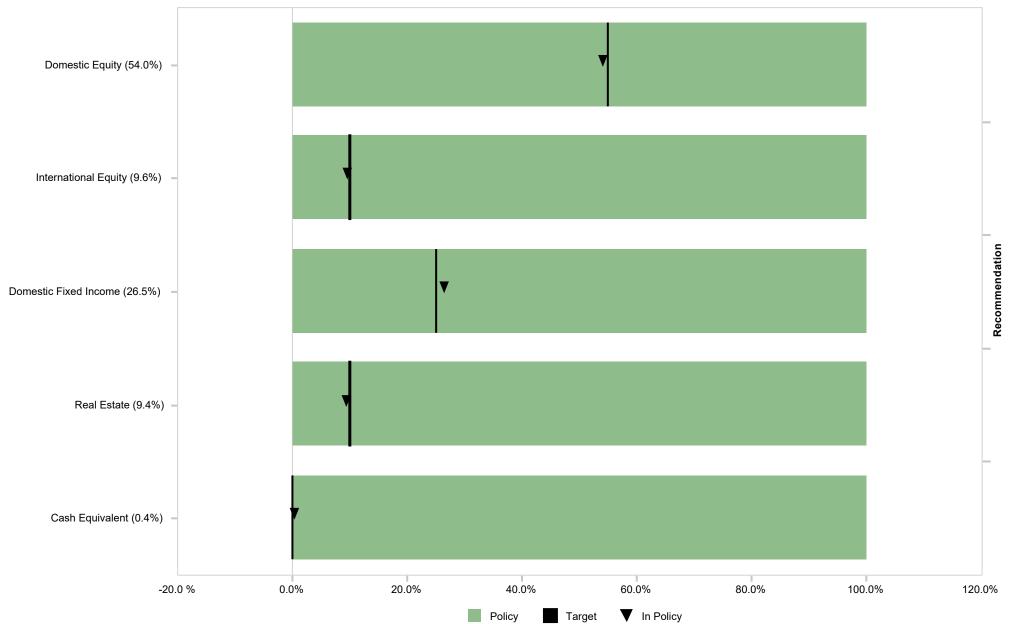
<b>Asset Allocation Compliance</b>					
	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Differences (%)	Target Rebal. (\$000)
Domestic Equity	56,795,927	54.0	55.0	-1.0	1,005,430
International Equity	10,120,492	9.6	10.0	-0.4	388,845
Domestic Fixed Income	27,826,467	26.5	25.0	1.5	-1,553,123
Real Estate	9,929,189	9.4	10.0	-0.6	580,149
Cash Equivalent	421,301	0.4	0.0	0.4	-421,301
Total Fund	105,093,376	100.0	100.0	0.0	-







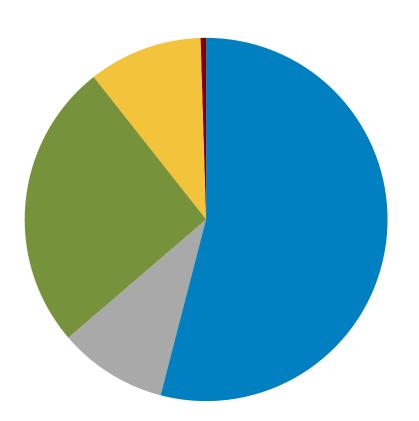


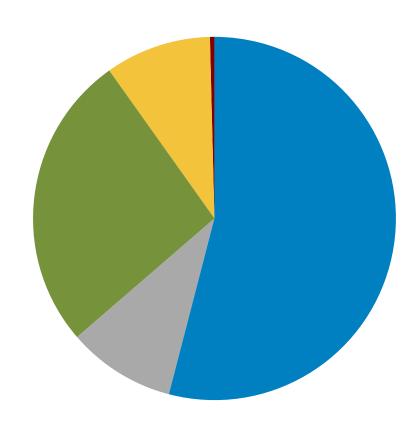




Asset Allocation By Segment as of September 30, 2019 : \$96,620,484

Asset Allocation By Segment as of December 31, 2019 : \$105,093,376



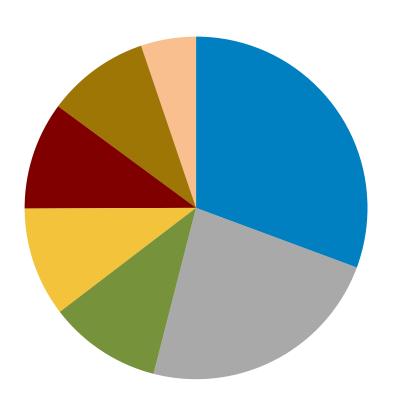


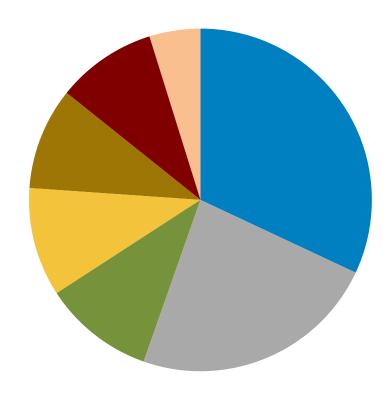
cation			Allocation		
Segments	Market Value	Allocation	Segments	Market Value	Allocation
■ Domestic Equity	52,203,399	54.0	■ Domestic Equity	56,795,927	54.0
International Equity	9,359,168	9.7	International Equity	10,120,492	9.6
■ Domestic Fixed Income	24,772,200	25.6	Domestic Fixed Income	27,826,467	26.5
Real Estate	9,813,181	10.2	Real Estate	9,929,189	9.4
■ Cash Equivalent	472,537	0.5	Cash Equivalent	421,301	0.4



Asset Allocation By Manager as of September 30, 2019 : \$96,620,484

Asset Allocation By Manager as of December 31, 2019 : \$105,093,376





ocation			Allocation		
	Market Value	Allocation		Market Value	Allocation
■ Highland Capital Balanced	29,619,377	30.7	■ Highland Capital Balanced	33,606,492	32.0
■ Rhumbline S&P 500 Equity	22,549,706	23.3	■ Rhumbline S&P 500 Equity	24,591,356	23.4
■ Rhumbline S&P 400 Equity	10,266,532	10.6	Rhumbline S&P 400 Equity	10,988,280	10.5
Rhumbline S&P 600 Equity	9,984,439	10.3	Rhumbline S&P 600 Equity	10,801,195	10.3
■ American Realty	9,813,181	10.2	Rhumbline International Equity	10,120,492	9.6
■ Rhumbline International Equity	9,359,168	9.7	American Realty	9,929,189	9.4
Hiighland Short Term Fixed Income	5,025,867	5.2	Hiighland Short Term Fixed Income	5,054,150	4.8
R&D Cash	2,215	0.0	R&D Cash	2,223	0.0



Asset Allocation & Performance										
	Allo	ocation				Perfo	rmance(%)			
	Market Value \$	%	QTR	FYTD	1 YR	3 YR	5 YR	Inception	мтн	Inception Date
Total Fund Composite	105,093,376	100.0	5.53 (44)	5.53 (44)	20.13 (42)	10.07 (26)	8.15 (2)	7.99 (N/A)	2.03 (49)	04/01/1992
Total Fund Policy Index			5.75 (32)	5.75 (32)	21.36 (23)	10.41 (18)	8.34 (1)	N/A	2.05 (43)	
Difference			-0.22	-0.22	-1.23	-0.34	-0.19	N/A	-0.02	
All Public Plans-Total Fund Median			5.32	5.32	19.86	9.52	7.07	N/A	2.02	
Total Equity Composite	66,916,419	63.7	8.65	8.65	28.17	12.75	10.23	6.34	3.05	07/01/2000
Total Equity Policy Index			8.74	8.74	28.72	13.33	10.64	6.24	3.02	
Difference			-0.09	-0.09	-0.55	-0.58	-0.41	0.10	0.03	
Total Domestic Equity										
Rhumbline S&P 500 Equity	24,591,356	23.4	9.05 (40)	9.05 (40)	31.41 (39)	15.23 (41)	11.65 (38)	6.35 (82)	3.01 (33)	07/01/2000
S&P 500 Index			9.07 (39)	9.07 (39)	31.49 (38)	15.27 (40)	11.70 (37)	6.24 (88)	3.02 (32)	
Difference			-0.02	-0.02	-0.08	-0.04	-0.05	0.11	-0.01	
IM U.S. Large Cap Equity (SA+CF) Median			8.70	8.70	30.12	14.56	11.01	7.36	2.79	
Rhumbline S&P 400 Equity	10,988,280	10.5	7.03 (60)	7.03 (60)	, ,	9.23 (71)	9.01 (64)	9.97 (71)	2.80 (27)	01/01/2004
S&P MidCap 400 Index			7.06 (57)	7.06 (57)	26.20 (78)	9.26 (70)	9.03 (62)	9.90 (77)	2.81 (26)	
Difference			-0.03	-0.03	-0.10	-0.03	-0.02	0.07	-0.01	
IM U.S. Mid Cap Equity (SA+CF) Median			7.20	7.20	29.75	11.96	9.64	10.62	2.15	
Rhumbline S&P 600 Equity	10,801,195	10.3	8.18 (57)	8.18 (57)	22.74 (73)	8.35 (54)	9.55 (41)	10.05 (50)	2.97 (31)	01/01/2004
S&P SmallCap 600 Index			8.21 (57)	8.21 (57)	22.78 (72)	8.36 (54)	9.56 (41)	10.00 (53)	2.99 (30)	
Difference			-0.03	-0.03	-0.04	-0.01	-0.01	0.05	-0.02	
IM U.S. Small Cap Equity (SA+CF) Median			8.49	8.49	25.87	8.76	8.82	10.04	2.41	
Highland Capital LCG	10,415,097	9.9	10.45 (26)	10.45 (26)	34.35 (45)	18.52 (59)	12.65 (66)	9.72 (70)	3.31 (14)	10/01/2007
Russell 1000 Growth Index			10.62 (25)	10.62 (25)	36.39 (26)	20.49 (41)	14.63 (31)	10.65 (39)	3.02 (31)	
Difference			-0.17	-0.17	-2.04	-1.97	-1.98	-0.93	0.29	
IM U.S. Large Cap Growth Equity (SA+CF) Median			9.58	9.58	33.80	19.28	13.50	10.32	2.70	
International Equity										
Rhumbline International Equity	10,120,492	9.6	8.13 (80)	8.13 (80)	22.26 (53)	9.71 (66)	N/A	8.23 (69)	3.24 (83)	08/01/2016
MSCI EAFE Index			8.21 (79)	8.21 (79)		10.11 (59)	6.18 (59)	9.04 (55)	3.27 (82)	
Difference			-0.08	-0.08	-0.40	-0.40	N/A	-0.81	-0.03	
IM International Equity (SA+CF) Median			9.98	9.98	22.62	10.74	6.61	9.35	4.34	



	Allo	cation				Perfo	rmance(%)			
	Market Value \$	%	QTR	FYTD	1 YR	3 YR	5 YR	Inception	МТН	Inception Date
Total Fixed Income Composite	27,826,467	26.5	0.14	0.14	7.79	4.29	3.29	5.26	-0.11	04/01/1994
Total Fixed Inc Policy Index			0.15	0.15	8.34	4.09	2.94	5.31	0.03	
Difference			-0.01	-0.01	-0.55	0.20	0.35	-0.05	-0.14	
Domestic Fixed Income										
Highland Capital Fixed Income	22,805,998	21.7	0.05 (77)	0.05 (77)	7.94 (95)	4.11 (77)	3.39 (57)	5.30 (98)	-0.16 (79)	04/01/1994
Blmbg. Barc. U.S. Aggregate Index			0.18 (56)	0.18 (56)	8.72 (77)	4.03 (87)	3.05 (89)	5.40 (95)	-0.07 (54)	
Difference			-0.13	-0.13	-0.78	0.08	0.34	-0.10	-0.09	
IM U.S. Broad Market Core Fixed Income (SA+CF) Media	n		0.22	0.22	9.24	4.41	3.46	5.74	-0.06	
Hiighland Short Term Fixed Income	5,054,150	4.8	0.57 (97)	0.57 (97)	N/A	N/A	N/A	N/A	0.14 (98)	06/01/2019
ICE BofAML 1-3 Year Treasury			0.50 (97)	0.50 (97)	3.54 (99)	1.84 (96)	1.39 (94)	1.61 (98)	0.21 (97)	
Difference			0.07	0.07	N/A	N/A	N/A	N/A	-0.07	
IM Flexible Portfolio (MF) Median			4.09	4.09	16.31	6.70	4.74	8.85	2.17	
Real Estate										
American Realty	9,929,189	9.4	1.46 (72)	1.46 (72)	6.31 (65)	7.70 (54)	9.08 (76)	9.95 (69)	1.46 (N/A)	07/01/2012
NCREIF Fund Index-Open End Diversified Core (EW)			1.53 (58)	1.53 (58)	6.08 (77)	7.37 (72)	9.27 (62)	10.29 (64)	1.53 (N/A)	
Difference			-0.07	-0.07	0.23	0.33	-0.19	-0.34	-0.07	
IM U.S. Private Real Estate (SA+CF) Median			1.59	1.59	7.02	7.71	9.54	10.70	N/A	
R&D Cash	2,223	0.0								



	Allo	cation				Performance	(%)		
	Market Value \$	%	QTR	FYTD	1 YR	3 YR	5 YR	Inception	Inceptior Date
Total Fund Composite	105,093,376	100.0	5.46	5.46	19.89	9.86	7.95	7.75	04/01/1992
Total Fund Policy Index			5.75	5.75	21.36	10.41	8.34	N/A	
Difference			-0.29	-0.29	-1.47	-0.55	-0.39	N/A	
Total Equity Composite	66,916,419	63.7	8.65	8.65	28.17	12.75	10.23	6.34	07/01/2000
Total Equity Policy Index			8.74	8.74	28.72	13.33	10.64	6.24	
Difference			-0.09	-0.09	-0.55	-0.58	-0.41	0.10	
Total Domestic Equity									
Rhumbline S&P 500 Equity	24,591,356	23.4	9.04	9.04	31.34	15.17	11.59	6.23	07/01/2000
S&P 500 Index			9.07	9.07	31.49	15.27	11.70	6.24	
Difference			-0.03	-0.03	-0.15	-0.10	-0.11	-0.01	
Rhumbline S&P 400 Equity	10,988,280	10.5	7.02	7.02	26.04	9.18	8.95	9.94	01/01/2004
S&P MidCap 400 Index			7.06	7.06	26.20	9.26	9.03	9.90	
Difference			-0.04	-0.04	-0.16	-0.08	-0.08	0.04	
Rhumbline S&P 600 Equity	10,801,195	10.3	8.17	8.17	22.68	8.30	9.49	10.03	01/01/2004
S&P SmallCap 600 Index			8.21	8.21	22.78	8.36	9.56	10.00	
Difference			-0.04	-0.04	-0.10	-0.06	-0.07	0.03	
Highland Capital LCG Equity	10,415,097	9.9	10.45	10.45	34.35	18.52	12.65	9.72	10/01/2007
Russell 1000 Growth Index			10.62	10.62	36.39	20.49	14.63	10.65	
Difference			-0.17	-0.17	-2.04	-1.97	-1.98	-0.93	
International Equity									
Rhumbline International Equity	10,120,492	9.6	8.12	8.12	22.20	9.65	N/A	8.18	08/01/2016
MSCI EAFE Index			8.21	8.21	22.66	10.11	6.18	9.04	
Difference			-0.09	-0.09	-0.46	-0.46	N/A	-0.86	



	Allocation								Perfori	mance(%	<b>5</b> )				
	Market Value \$	%	Q.	TR	FY	TD	1	YR	3	YR	5	YR	Ince	ption	Inception Date
Total Fixed Income Composite	27,826,467	26.5	0.14		0.14		7.79		4.29		3.29		5.26		04/01/1994
Total Fixed Inc Policy Index			0.15		0.15		8.34		4.09		2.94		5.31		
Difference			-0.01		-0.01		-0.55		0.20		0.35		-0.05		
Domestic Fixed Income															
Highland Capital Fixed Income	22,805,998	21.7	0.05		0.05		7.94		4.11		3.39		5.30		04/01/1994
Blmbg. Barc. U.S. Aggregate Index			0.18		0.18		8.72		4.03		3.05		5.40		
Difference			-0.13		-0.13		-0.78		0.08		0.34		-0.10		
Hiighland Short Term Fixed Income	5,054,150	4.8	0.47	(97)	0.47	(97)	N/A		N/A		N/A		N/A		06/01/2019
ICE BofAML 1-3 Year Treasury			0.50	(97)	0.50	(97)	3.54	(99)	1.84	(96)	1.39	(94)	1.61	(98)	
Difference			-0.03	,	-0.03	( )	N/A	,	N/A	, ,	N/A	,	N/A	( )	
IM Flexible Portfolio (MF) Median			4.09		4.09		16.31		6.70		4.74		8.85		
Real Estate															
American Realty	9,929,189	9.4	1.18		1.18		5.14		6.52		7.88		8.77		07/01/2012
NCREIF Fund Index-ODCE (EW) (Net)			1.31		1.31		5.18		6.47		8.35		9.36		
Difference			-0.13		-0.13		-0.04		0.05		-0.47		-0.59		



Asset Allocation & Performance							_		404				
		cation						rformance	` '				
	Market Value	%	Oct-2018 To	Oct-2017 To	Oct-2016 To	Oct-2015 To	Oct-2014 To	Oct-2013 To	Oct-2012 To	Oct-2011	Oct-2010 To	Oct-2009 To	Oct-2008 To
	value \$	70				' Sep-2016							
Total Fund Composite	105,093,376	100.0	2.38 (89)	11.27 (3)	13.60(18)	10.94 (20)	1.46 (10)	10.95 (32)	14.75 (11)	18.89 (26)	0.46(53)	10.42 (37)	5.99(13)
Total Fund Policy Index			3.81 (64)	10.59 (5)	12.80(33)	11.83 (9)	0.81 (17)	10.35 (44)	14.21 (17)	19.60 (16)	1.75(30)	10.81 (30)	1.64(49)
Difference			-1.43	0.68	0.80	-0.89	0.65	0.60	0.54	-0.71	-1.29	-0.39	4.35
All Public Plans-Total Fund Median			4.30	7.09	11.82	9.74	-0.78	9.93	12.00	17.58	0.67	9.90	1.43
Total Equity Composite	66,916,419	63.7	-0.28	16.01	19.67	13.36	0.44	14.07	24.58	28.78	-2.47	12.49	-0.91
Total Equity Policy Index	, ,		0.24	16.49	19.69	14.30	-0.18	13.86	23.27	27.80	-0.50	11.44	-4.36
Difference			-0.52	-0.48	-0.02	-0.94	0.62	0.21	1.31	0.98	-1.97	1.05	3.45
Total Domestic Equity													
Rhumbline S&P 500 Equity	24,591,356	23.4	4.21 (39)	17.87 (42)	18.56(57)	15.38 (26)	-0.63 (57)	19.64 (39)	19.30 (71)	30.16 (39)	1.18(44)	10.20 (49)	-6.49(60)
S&P 500 Index			4.25 (38)	17.91 (40)	18.61(56)	15.43 (24)	-0.61 (57)	19.73 (37)	19.34 (70)	30.20 (38)	1.14(46)	10.16 (50)	-6.91(65)
Difference			-0.04	-0.04	-0.05	-0.05	-0.02	-0.09	-0.04	-0.04	0.04	0.04	0.42
IM U.S. Large Cap Equity (SA+CF) Median			3.35	17.08	18.85	13.27	-0.33	18.78	21.08	29.11	0.78	10.15	-5.51
Rhumbline S&P 400 Equity	10,988,280	10.5	-2.49 (77)	14.16 (59)	17.49(54)	15.21 (31)	1.45 (53)	11.81 (67)	27.55 (58)	28.90 (36)	-1.16(56)	17.78 (42)	-2.78(52)
S&P MidCap 400 Index			-2.49 (78)	14.21 (56)	17.52(53)	15.33 (29)	1.40 (55)	11.82 (67)	27.68 (57)	28.54 (40)	-1.28(59)	17.78 (42)	-3.11(55)
Difference			0.00	-0.05	-0.03	-0.12	0.05	-0.01	-0.13	0.36	0.12	0.00	0.33
IM U.S. Mid Cap Equity (SA+CF) Median			1.88	15.01	17.57	11.86	1.57	13.68	28.24	27.28	-0.63	16.79	-2.72
Rhumbline S&P 600 Equity	10,801,195	10.3	-9.35 (71)	19.04 (34)	21.08(48)	18.00 (25)	3.90 (37)	5.79 (55)	31.40 (57)	33.27 (36)	0.21(38)	14.14 (59)	-10.54(77)
S&P SmallCap 600 Index			-9.34 (71)	19.08 (34)	21.05(49)	18.12 (24)	3.81 (37)	5.74 (56)	31.51 (55)	33.35 (36)	0.21(38)	14.22 (58)	-10.61(77)
Difference			-0.01	-0.04	0.03	-0.12	0.09	0.05	-0.11	-0.08	0.00	-0.08	0.07
IM U.S. Small Cap Equity (SA+CF) Median			-7.04	14.83	20.93	14.59	2.39	6.23	32.19	31.62	-1.21	14.99	-5.25
Highland Capital LCG	10,415,097	9.9	1.61 (69)	23.71 (57)	23.11(23)	6.68 (93)	4.64 (33)	16.29 (70)	28.73 (8)	27.51 (52)	-6.48(97)	14.63 (22)	15.31(2)
Russell 1000 Growth Index			3.71 (53)	26.30 (37)	21.94(38)	13.76 (23)	3.17 (54)	19.15 (40)	19.27 (64)	29.19 (39)	3.78(30)	12.65 (36)	-1.85(37)
Difference			-2.10	-2.59	1.17	-7.08	1.47	-2.86	9.46	-1.68	-10.26	1.98	17.16
IM U.S. Large Cap Growth Equity (SA+CF) Median			3.86	24.44	20.82	11.64	3.53	18.19	20.25	27.69	1.38	11.29	-3.00
International Equity													
Rhumbline International Equity	10,120,492	9.6	-1.08 (48)	2.74 (38)	19.24(64)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MSCI EAFE Index			-0.82 (44)	3.25 (33)	19.65(61)	7.06 (77)	-8.27 (49)	4.70 (63)	24.29 (32)	14.33 (72)	-8.94(44)	3.71 (80)	3.80(65)
Difference			-0.26	-0.51	-0.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM International Equity (SA+CF) Median			-1.42	1.40	21.06	11.48	-8.41	5.80	20.14	17.28	-9.61	9.60	7.09



	Alloc	cation					Pe	rformance	(%)				
	Market Value \$	%	Oct-2018 To Sep-2019	То	Oct-2016 To Sep-2017	To	То	То	То	Oct-2011 To Sep-2012	Oct-2010 To Sep-2011	То	То
Total Fixed Income Composite	27,826,467	26.5	9.60	-1.34	1.26	6.60	1.40	3.45	-2.57	6.28	5.20	8.28	11.96
Total Fixed Inc Policy Index			9.91	-1.24	-0.27	6.01	1.82	3.41	-2.11	4.98	5.18	7.78	11.18
Difference			-0.31	-0.10	1.53	0.59	-0.42	0.04	-0.46	1.30	0.02	0.50	0.78
Domestic Fixed Income													
Highland Capital Fixed Income	22,805,998	21.7	9.86 (87)	-1.08 (74)	0.85(39)	6.51 (18)	2.22 (89)	3.51 (95)	-2.54 (98)	6.07 (71)	5.66(27)	8.09 (89)	11.96(57)
Blmbg. Barc. U.S. Aggregate Index			10.30 (70)	-1.22 (87)	0.07(85)	5.19 (81)	2.94 (61)	3.96 (81)	-1.68 (79)	5.16 (90)	5.26(50)	8.16 (86)	10.56(83)
Difference			-0.44	0.14	0.78	1.32	-0.72	-0.45	-0.86	0.91	0.40	-0.07	1.40
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			10.46	-0.75	0.61	5.66	3.02	4.47	-1.26	6.60	5.26	9.22	12.28
Hiighland Short Term Fixed Income	5,054,150	4.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ICE BofAML 1-3 Year Treasury			4.36 (34)	0.03 (88)	0.24(99)	0.88 (97)	1.16 (11)	0.50 (97)	0.36 (85)	0.56 (98)	1.20(28)	2.53 (96)	3.46(49)
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM Flexible Portfolio (MF) Median			2.59	3.38	9.02	8.55	-4.23	7.99	8.17	15.66	-0.87	9.52	3.22
International Fixed Income													
Oppenheimer Dreyfus (OIBAX) (DIBAX)	-	0.0	N/A	N/A	3.10(83)	9.59 (82)	-4.81 (28)	2.98 (56)	-2.82 (36)	7.90 (77)	0.32(38)	N/A	N/A
FTSE Non-U.S. World Government Bond			6.78 (70)	-1.57 (14)	-3.14(100)	12.61 (59)	-7.01 (41)	-0.99 (78)	-5.63 (77)	3.45 (95)	4.13(4)	4.46 (90)	16.04(57)
Difference			N/A	N/A	6.24	-3.02	2.20	3.97	2.81	4.45	-3.81	N/A	N/A
IM International Fixed Income All (MF) Median			9.08	-3.90	6.23	13.82	-8.41	4.03	-4.01	13.45	-0.39	13.85	16.85
Real Estate													
American Realty	9,929,189	9.4	6.81 (54)	8.50 (63)	7.53(64)	9.03 (92)	14.05 (70)	12.45 (69)	12.30 (72)	N/A	N/A	N/A	N/A
NCREIF Fund Index-Open End Diversified Core (EW)			6.17 (75)	8.82 (57)	7.81(59)	10.62 (68)	14.71 (64)	12.39 (70)	12.47 (70)	11.77 (65)	18.03(46)	6.14 (50)	-36.09(55)
Difference			0.64	-0.32	-0.28	-1.59	-0.66	0.06	-0.17	N/A	N/A	N/A	N/A
IM U.S. Private Real Estate (SA+CF) Median			6.97	9.01	8.29	11.49	15.70	13.05	13.35	13.05	16.96	6.09	-34.80
R&D Cash	2,223	0.0											



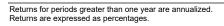
	Allo	cation					P	erformance(	%)				
	Market Value \$	%	Oct-2018 To Sep-2019	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013	Oct-2011 To Sep-2012	Oct-2010 To Sep-2011	Oct-2009 To Sep-2010	Oct-2008 To Sep-2009
Total Fund Composite	105,093,376	100.0	2.21	11.12	13.36	10.72	1.29	10.73	14.53	18.64	0.22	10.08	5.61
Total Fund Policy Index			3.81	10.59	12.80	11.83	0.81	10.35	14.21	19.60	1.75	10.81	1.64
Difference			-1.60	0.53	0.56	-1.11	0.48	0.38	0.32	-0.96	-1.53	-0.73	3.97
Total Equity Composite	66,916,419	63.7	-0.28	16.01	19.67	13.36	0.44	14.07	24.58	28.78	-2.47	12.49	-0.91
Total Equity Policy Index			0.24	16.49	19.69	14.30	-0.18	13.86	23.27	27.80	-0.50	11.44	-4.36
Difference			-0.52	-0.48	-0.02	-0.94	0.62	0.21	1.31	0.98	-1.97	1.05	3.45
Total Domestic Equity													
Rhumbline S&P 500 Equity	24,591,356	23.4	4.16	17.81	18.50	15.31	-0.66	19.55	19.18	29.99	1.04	10.02	-6.71
S&P 500 Index			4.25	17.91	18.61	15.43	-0.61	19.73	19.34	30.20	1.14	10.16	-6.91
Difference			-0.09	-0.10	-0.11	-0.12	-0.05	-0.18	-0.16	-0.21	-0.10	-0.14	0.20
Rhumbline S&P 400 Equity	10,988,280	10.5	-2.54	14.10	17.43	15.13	1.40	11.78	27.55	28.90	-1.16	17.78	-2.78
S&P MidCap 400 Index			-2.49	14.21	17.52	15.33	1.40	11.82	27.68	28.54	-1.28	17.78	-3.11
Difference			-0.05	-0.11	-0.09	-0.20	0.00	-0.04	-0.13	0.36	0.12	0.00	0.33
Rhumbline S&P 600 Equity	10,801,195	10.3	-9.39	18.98	21.01	17.92	3.85	5.76	31.40	33.27	0.21	14.14	-10.54
S&P SmallCap 600 Index			-9.34	19.08	21.05	18.12	3.81	5.74	31.51	33.35	0.21	14.22	-10.61
Difference			-0.05	-0.10	-0.04	-0.20	0.04	0.02	-0.11	-0.08	0.00	-0.08	0.07
Highland Capital LCG	10,415,097	9.9	1.61	23.71	23.11	6.68	4.64	16.29	28.73	27.51	-6.48	14.63	15.31
Russell 1000 Growth Index			3.71	26.30	21.94	13.76	3.17	19.15	19.27	29.19	3.78	12.65	-1.85
Difference			-2.10	-2.59	1.17	-7.08	1.47	-2.86	9.46	-1.68	-10.26	1.98	17.16
International Equity													
Rhumbline International Equity	10,120,492	9.6	-1.13	2.68	19.17	N/A							
MSCI EAFE Index			-0.82	3.25	19.65	7.06	-8.27	4.70	24.29	14.33	-8.94	3.71	3.80
Difference			-0.31	-0.57	-0.48	N/A							



	Allo	cation					Pe	erformance(	%)				0-4-0000
	Market Value \$	%	Oct-2018 To Sep-2019	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
Total Fixed Income Composite	27,826,467	26.5	9.60	-1.34	1.26	6.60	1.40	3.45	-2.57	6.28	5.20	8.28	11.96
Total Fixed Inc Policy Index			9.91	-1.24	-0.27	6.01	1.82	3.41	-2.11	4.98	5.18	7.78	11.18
Difference			-0.31	-0.10	1.53	0.59	-0.42	0.04	-0.46	1.30	0.02	0.50	0.78
Domestic Fixed Income													
Highland Capital Fixed Income	22,805,998	21.7	9.86	-1.08	0.85	6.51	2.22	3.51	-2.54	6.07	5.66	8.09	11.96
Blmbg. Barc. U.S. Aggregate Index			10.30	-1.22	0.07	5.19	2.94	3.96	-1.68	5.16	5.26	8.16	10.56
Difference			-0.44	0.14	0.78	1.32	-0.72	-0.45	-0.86	0.91	0.40	-0.07	1.40
Hiighland Short Term Fixed Income	5,054,150	4.8	N/A										
ICE BofAML 1-3 Year Treasury			4.36 (34)	0.03 (88)	0.24 (99)	0.88 (97)	1.16 (11)	0.50 (97)	0.36 (85)	0.56 (98)	1.20 (28)	2.53 (96)	3.46 (49)
Difference			N/A										
IM Flexible Portfolio (MF) Median			2.59	3.38	9.02	8.55	-4.23	7.99	8.17	15.66	-0.87	9.52	3.22
International Fixed Income													
Oppenheimer Dreyfus (OIBAX) (DIBAX)	-	0.0	N/A	N/A	3.10	9.59	-4.81	2.98	-2.82	7.90	0.32	N/A	N/A
FTSE Non-U.S. World Government Bond	d		6.78	-1.57	-3.14	12.61	-7.01	-0.99	-5.63	3.45	4.13	4.46	16.04
Difference			N/A	N/A	6.24	-3.02	2.20	3.97	2.81	4.45	-3.81	N/A	N/A
Real Estate													
American Realty	9,929,189	9.4	5.64	7.31	6.34	7.85	12.82	11.34	11.10	N/A	N/A	N/A	N/A
NCREIF Fund Index-ODCE (EW) (Net)			5.26	7.89	6.93	9.69	13.82	11.44	11.46	10.69	17.02	5.24	-36.63
Difference			0.38	-0.58	-0.59	-1.84	-1.00	-0.10	-0.36	N/A	N/A	N/A	N/A

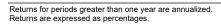


Historical Rolling F	Performance				
	QTR	1 YR	3 YR	5 YR	Inception
12/31/2019	5.53	20.13	10.07	8.15	7.99
09/30/2019	1.03	2.38	8.98	7.81	7.85
06/30/2019	3.17	5.62	9.71	7.31	7.89
03/31/2019	9.21	5.12	9.34	7.38	7.84
12/31/2018	-10.06	-4.00	6.84	5.84	7.56
09/30/2018	4.22	11.27	11.93	9.56	8.07
06/30/2018	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





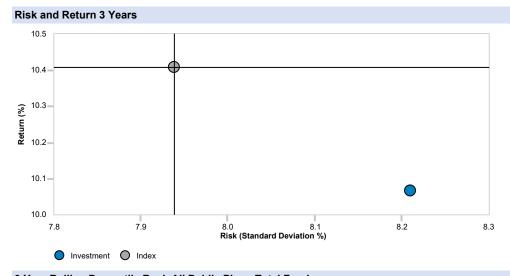
Historical Rolling P	Performance				
	QTR	1 YR	3 YR	5 YR	Inception
12/31/2019	5.75	21.36	10.41	8.34	N/A
09/30/2019	1.14	3.81	9.00	7.86	N/A
06/30/2019	3.59	6.59	9.82	7.33	N/A
03/31/2019	9.53	5.46	9.32	7.34	N/A
12/31/2018	-9.54	-3.95	6.79	5.78	N/A
09/30/2018	3.85	10.59	11.74	9.19	N/A
06/30/2018	2.49	10.34	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

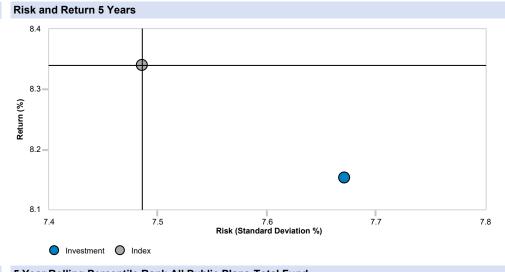


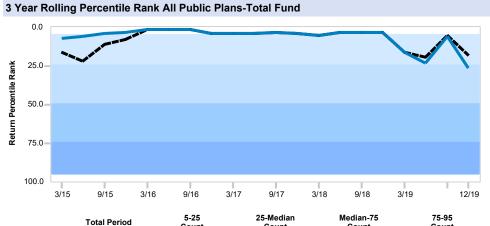


Historical Statistics 3 Years										
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters			
Investment	10.07	8.21	1.01	100.95	10	107.05	2			
Index	10.41	7.04	1.08	100.00	10	100.00	2			

Historical Statistics 5 Years								
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters	
Investment	8.15	7.67	0.94	99.92	17	105.18	3	
Index	8.34	7.49	0.98	100.00	16	100.00	4	







Count

1 (5%)

0 (0%)

Count

19 (95%)

20 (100%)

20

20

Count

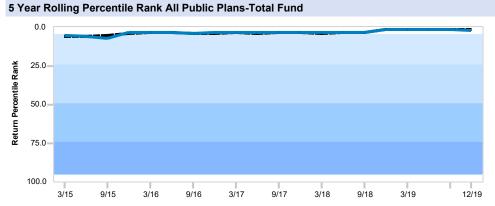
0 (0%)

0 (0%)

Count

0 (0%)

0 (0%)



	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

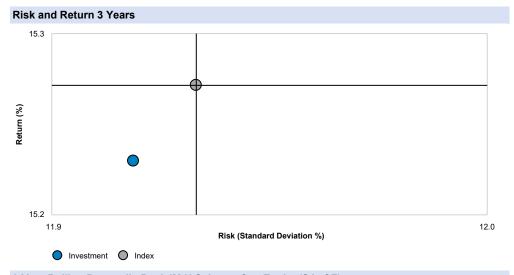
\_\_ Index

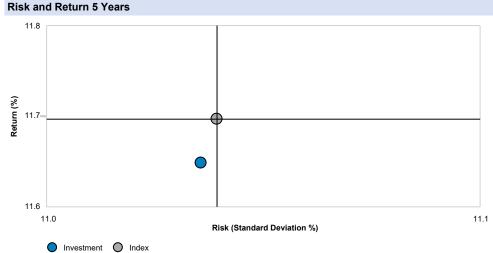


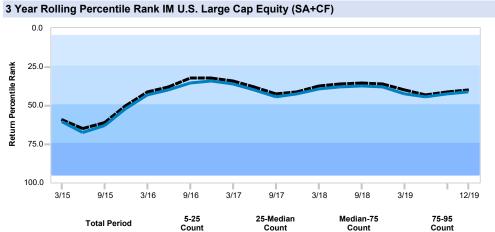


<b>Historical Stati</b>	stics 3 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	15.23	11.92	1.12	99.83	10	99.95	2
Index	15.27	11.93	1.12	100.00	10	100.00	2

Historical Statistics 5 Years								
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters	
Investment	11.65	11.04	0.98	99.76	17	100.15	3	
Index	11.70	11.04	0.98	100.00	17	100.00	3	







0 (0%)

0 (0%)

Count

16 (80%)

17 (85%)

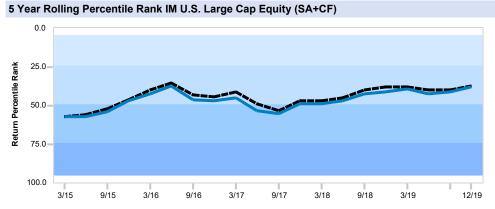
Count

4 (20%)

3 (15%)

0 (0%)

0 (0%)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	0 (0%)	15 (75%)	5 (25%)	0 (0%)
Index	20	0 (0%)	16 (80%)	4 (20%)	0 (0%)



Investment

\_\_ Index

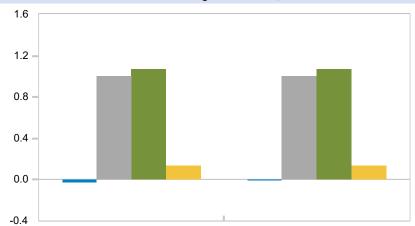
20

20



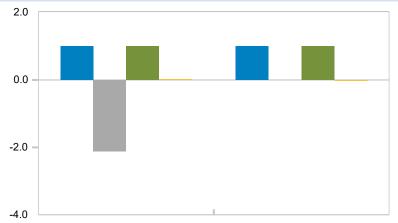


# Risk / Reward Historical Statistics 3 Years Ending December 31, 2019



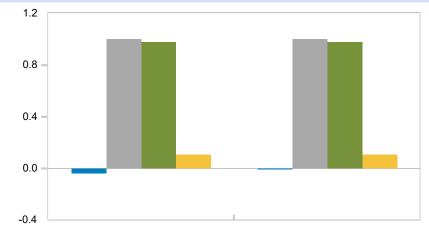
	Rhumbline S&P 500 Equity	S&P 500 Index
■ Alpha	-0.03	0.00
Beta	1.00	1.00
Sharpe Ratio	1.07	1.07
Trevnor Ratio	0.14	0.14

## Benchmark Relative Historical Statistics 3 Years Ending December 31, 2019



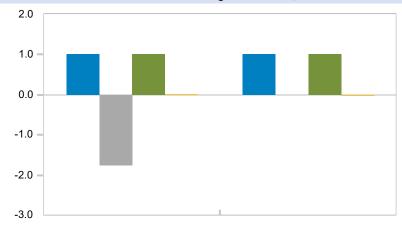
	Rhumbline S&P 500 Equity	S&P 500 Index
Actual Correlation	1.00	1.00
Information Ratio	-2.11	N/A
R-Squared	1.00	1.00
Tracking Error	0.02	0.00

# Risk / Reward Historical Statistics 5 Years Ending December 31, 2019



	Rhumbline S&P 500 Equity	S&P 500 Index
Alpha	-0.04	0.00
Beta	1.00	1.00
Sharpe Ratio	0.98	0.98
Treynor Ratio	0.11	0.11

## Benchmark Relative Historical Statistics 5 Years Ending December 31, 2019



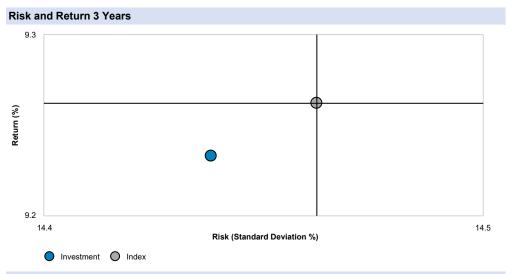
	Rhumbline S&P 500 Equity	S&P 500 Index
Actual Correlation	1.00	1.00
Information Ratio	-1.76	N/A
R-Squared	1.00	1.00
Tracking Error	0.03	0.00

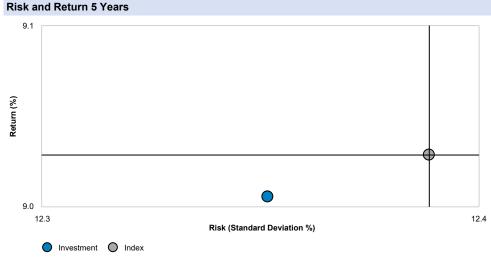
Benchmark: S&P 500 Index

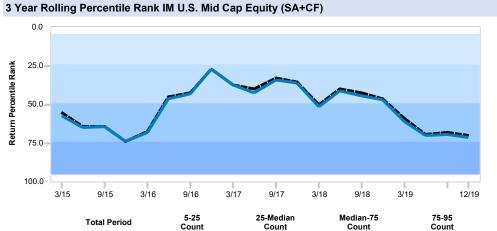


<b>Historical Stati</b>	stics 3 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	9.23	14.44	0.57	99.80	9	99.87	3
Index	0.26	14.46	0.57	100.00	0	100.00	2

<b>Historical Statis</b>	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	9.01	12.35	0.68	99.69	15	99.64	5
Index	9.03	12.39	0.68	100.00	15	100.00	5







10 (50%)

11 (55%)

10 (50%)

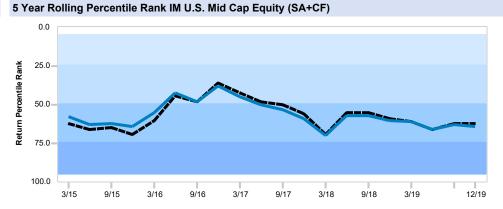
9 (45%)

0 (0%)

0 (0%)

0 (0%)

0 (0%)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	0 (0%)	5 (25%)	15 (75%)	0 (0%)
Index	20	0 (0%)	6 (30%)	14 (70%)	0 (0%)



Investment

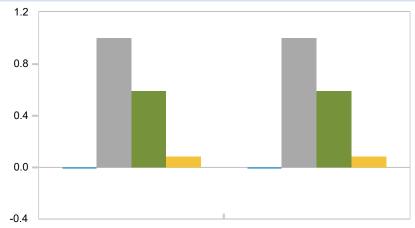
\_\_ Index

20



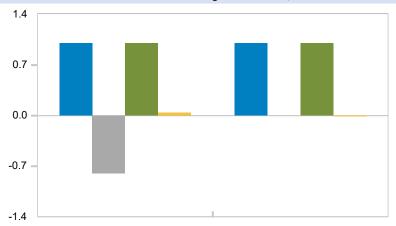


# Risk / Reward Historical Statistics 3 Years Ending December 31, 2019



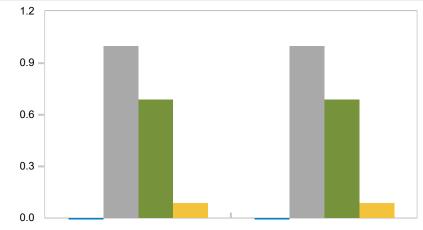
	Rhumbline S&P 400 Equity	S&P MidCap 400 Index
Alpha	-0.01	0.00
Beta	1.00	1.00
Sharpe Ratio	0.59	0.59
Trevnor Ratio	0.08	0.08

## Benchmark Relative Historical Statistics 3 Years Ending December 31, 2019



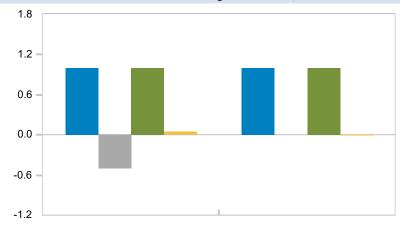
	Rhumbline S&P 400 Equity	S&P MidCap 400 Index
Actual Correlation	1.00	1.00
Information Ratio	-0.80	N/A
R-Squared	1.00	1.00
Tracking Error	0.04	0.00

# Risk / Reward Historical Statistics 5 Years Ending December 31, 2019



	Rhumbline S&P 400 Equity	S&P MidCap 400 Index
Alpha	0.00	0.00
■ Beta	1.00	1.00
Sharpe Ratio	0.68	0.68
Treynor Ratio	0.08	0.08

## Benchmark Relative Historical Statistics 5 Years Ending December 31, 2019



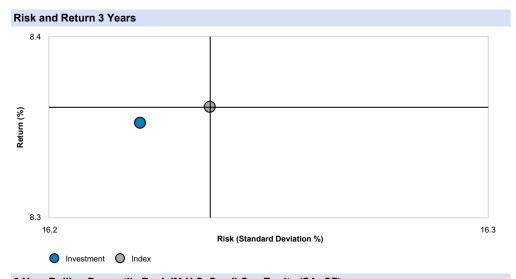
	Rhumbline S&P 400 Equity	S&P MidCap 400 Index
Actual Correlation	1.00	1.00
Information Ratio	-0.50	N/A
R-Squared	1.00	1.00
Tracking Error	0.05	0.00

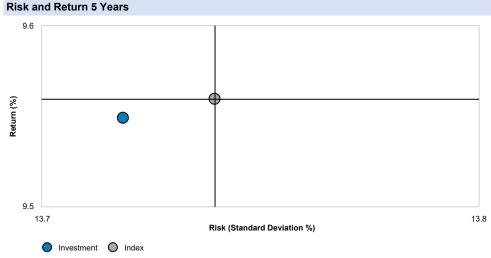
Benchmark: S&P MidCap 400 Index



Historical Stati	stics 3 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	8.35	16.22	0.48	99.85	10	99.84	2
Index	8.36	16.24	0.48	100.00	10	100.00	2

Historical Statistics 5 Years							
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	9.55	13.72	0.67	99.85	17	99.79	3
Index	9.56	13.74	0.67	100.00	17	100.00	3







Count

14 (70%)

13 (65%)

Count

0 (0%)

0 (0%)

Count

4 (20%)

4 (20%)

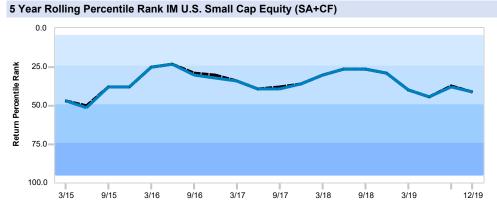
Count

2 (10%)

3 (15%)

20

20



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
Investment	20	2 (10%)	17 (85%)	1 (5%)	0 (0%)	
Index	20	2 (10%)	18 (90%)	0 (0%)	0 (0%)	



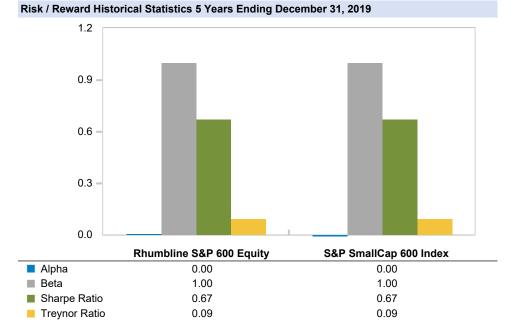
Investment

\_\_ Index





# Risk / Reward Historical Statistics 3 Years Ending December 31, 2019 1.2 0.8 0.4 -0.4 Rhumbline S&P 600 Equity S&P SmallCap 600 Index



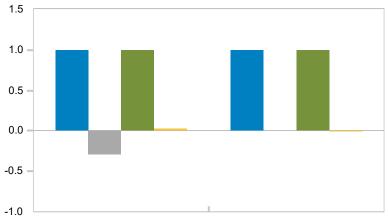
# Benchmark Relative Historical Statistics 3 Years Ending December 31, 2019

0.00

1.00

0.50

0.08



0.00

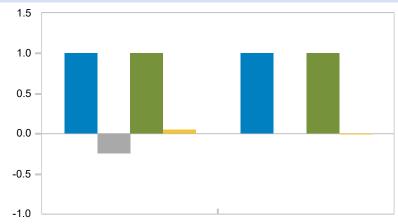
1.00

0.50

0.08

	Rhumbline S&P 600 Equity	S&P SmallCap 600 Index
Actual Correlation	1.00	1.00
Information Ratio	-0.29	N/A
R-Squared	1.00	1.00
Tracking Error	0.03	0.00

## Benchmark Relative Historical Statistics 5 Years Ending December 31, 2019



	Rhumbline S&P 600 Equity	S&P SmallCap 600 Index
Actual Correlation	1.00	1.00
Information Ratio	-0.25	N/A
R-Squared	1.00	1.00
Tracking Error	0.05	0.00

Benchmark: S&P SmallCap 600 Index

Alpha

Beta

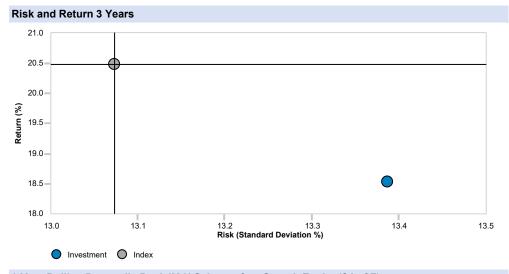
Sharpe Ratio

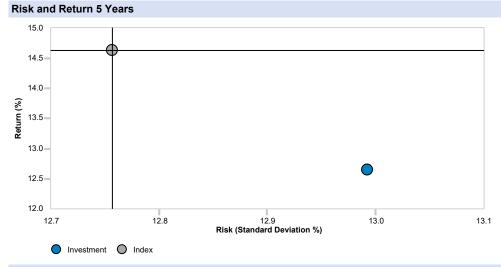
Treynor Ratio

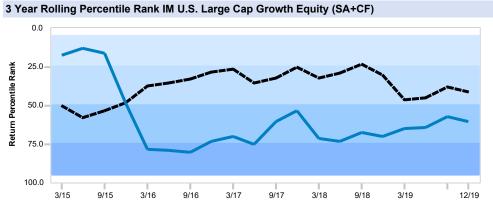


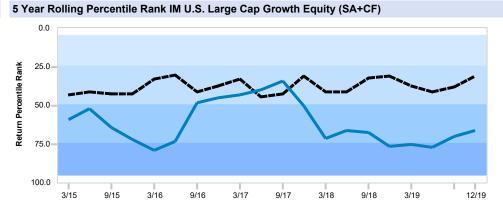
Historical Statistics 3 Years							
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	18.52	13.39	1.22	96.29	11	105.16	1
Index	20.40	13.07	1 37	100.00	11	100.00	4

Historical Statistics 5 Years							
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	12.65	12.99	0.92	93.79	16	113.69	4
Index	14.63	12.76	1.08	100.00	18	100.00	2





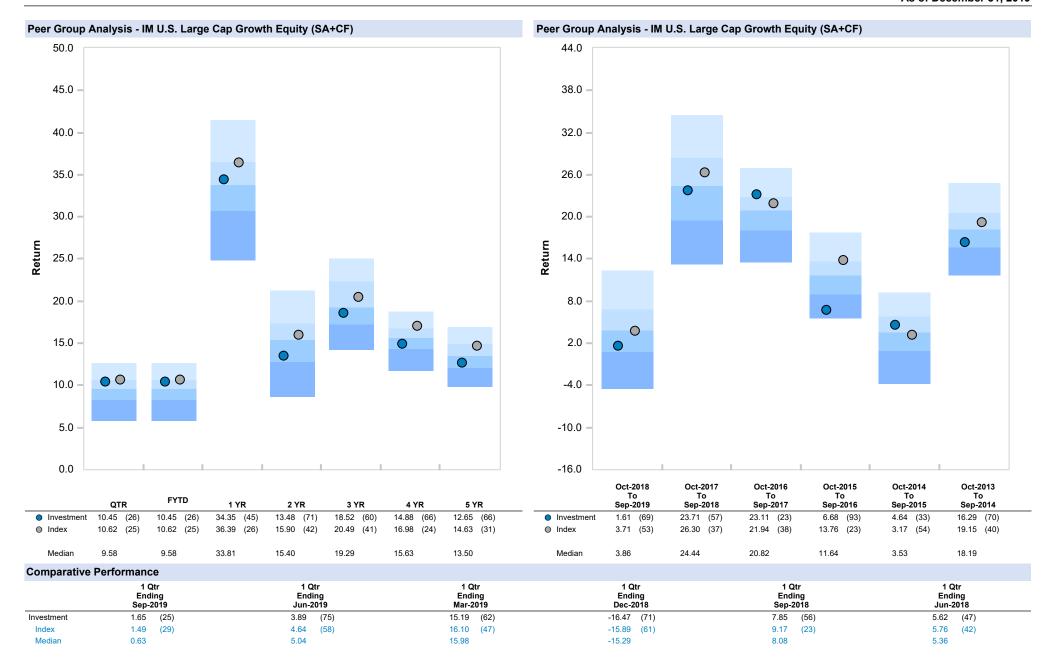




	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
_ Investment	20	3 (15%)	1 (5%)	13 (65%)	3 (15%)
Index	20	2 (10%)	16 (80%)	2 (10%)	0 (0%)

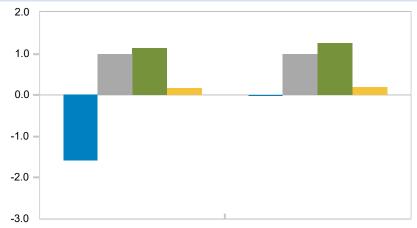
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
Investment	20	0 (0%)	6 (30%)	11 (55%)	3 (15%)	
Index	20	0 (0%)	20 (100%)	0 (0%)	0 (0%)	





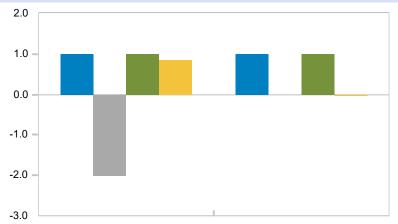


# Risk / Reward Historical Statistics 3 Years Ending December 31, 2019



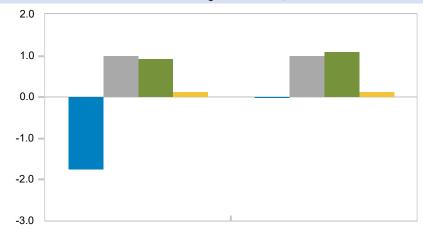
	Highland Capital Equity	Russell 1000 Growth Index
Alpha	-1.57	0.00
•	****	
■ Beta	0.99	1.00
Sharpe Ratio	1.14	1.25
Trevnor Ratio	0.17	0.19

## Benchmark Relative Historical Statistics 3 Years Ending December 31, 2019



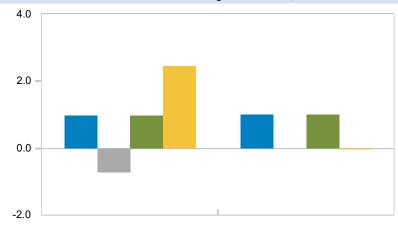
	<b>Highland Capital Equity</b>	Russell 1000 Growth Index
Actual Correlation	1.00	1.00
Information Ratio	-2.01	N/A
R-Squared	1.00	1.00
Tracking Error	0.86	0.00

# Risk / Reward Historical Statistics 5 Years Ending December 31, 2019



	<b>Highland Capital Equity</b>	Russell 1000 Growth Index
■ Alpha	-1.75	0.00
■ Beta	1.00	1.00
Sharpe Ratio	0.92	1.08
Treynor Ratio	0.12	0.14

## Benchmark Relative Historical Statistics 5 Years Ending December 31, 2019



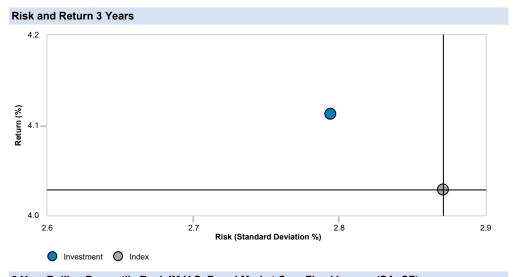
	Highland Capital Equity	Russell 1000 Growth Index
Actual Correlation	0.98	1.00
Information Ratio	-0.72	N/A
R-Squared	0.96	1.00
Tracking Error	2.44	0.00

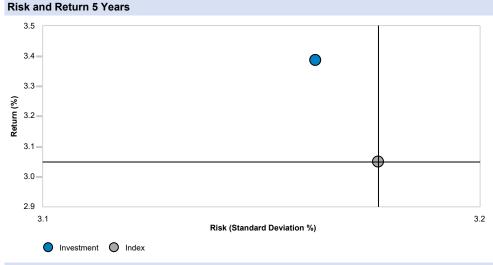
Benchmark: Russell 1000 Growth Index

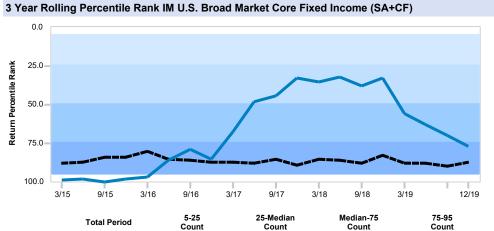


Historical Statis	stics 3 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	4.11	2.79	0.88	99.17	10	93.47	2
Index	4.03	2.87	0.83	100.00	10	100.00	2

Historical Statistics 5 Years							
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	3.39	3.16	0.76	104.72	15	91.10	5
Index	3.05	3.18	0.66	100.00	15	100.00	5







7 (35%)

0 (0%)

4 (20%)

0 (0%)

9 (45%)

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%)	7 (35%)	13 (65%)
Index	20	0 (0%)	0 (0%)	0 (0%)	20 (100%)



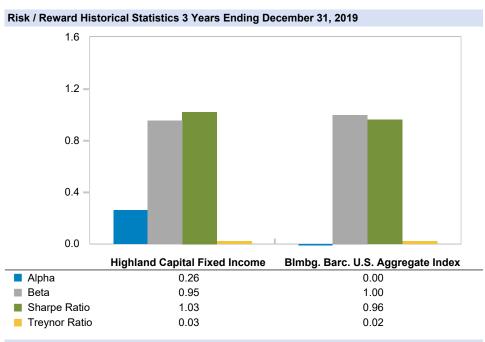
Investment

\_\_ Index

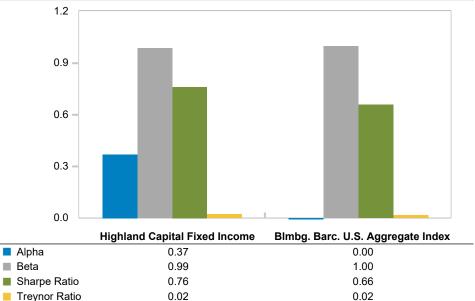
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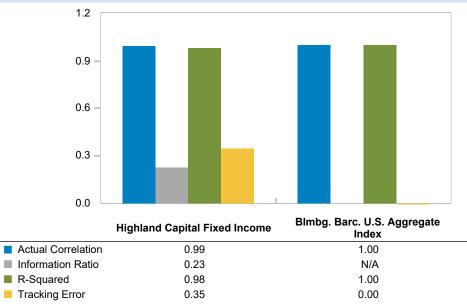




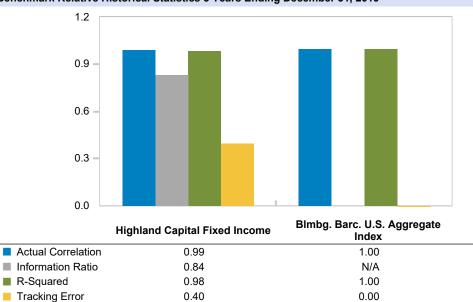
# Risk / Reward Historical Statistics 5 Years Ending December 31, 2019



## Benchmark Relative Historical Statistics 3 Years Ending December 31, 2019



## Benchmark Relative Historical Statistics 5 Years Ending December 31, 2019

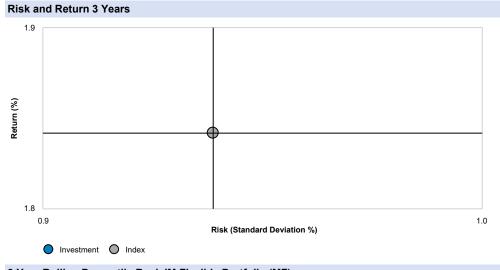


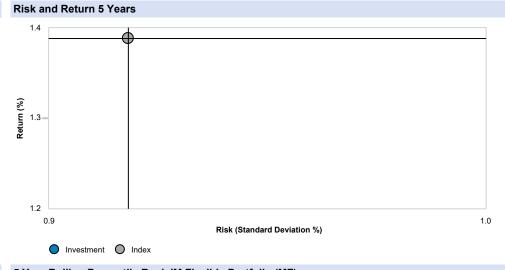
Benchmark: Blmbg. Barc. U.S. Aggregate Index

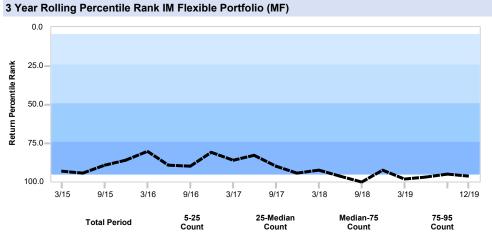


Historical Statistics 3 Years							
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Index	1.84	0.94	0.21	100.00	10	100.00	2

Historical Statistics 5 Years							
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Index	1.39	0.92	0.40	100.00	15	100.00	5





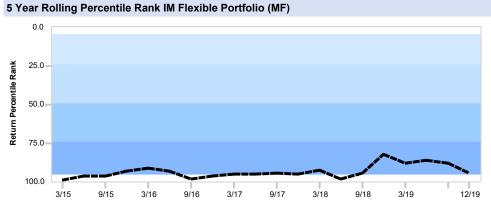


0 (0%)

0 (0%)

20 (100%)

0 (0%)

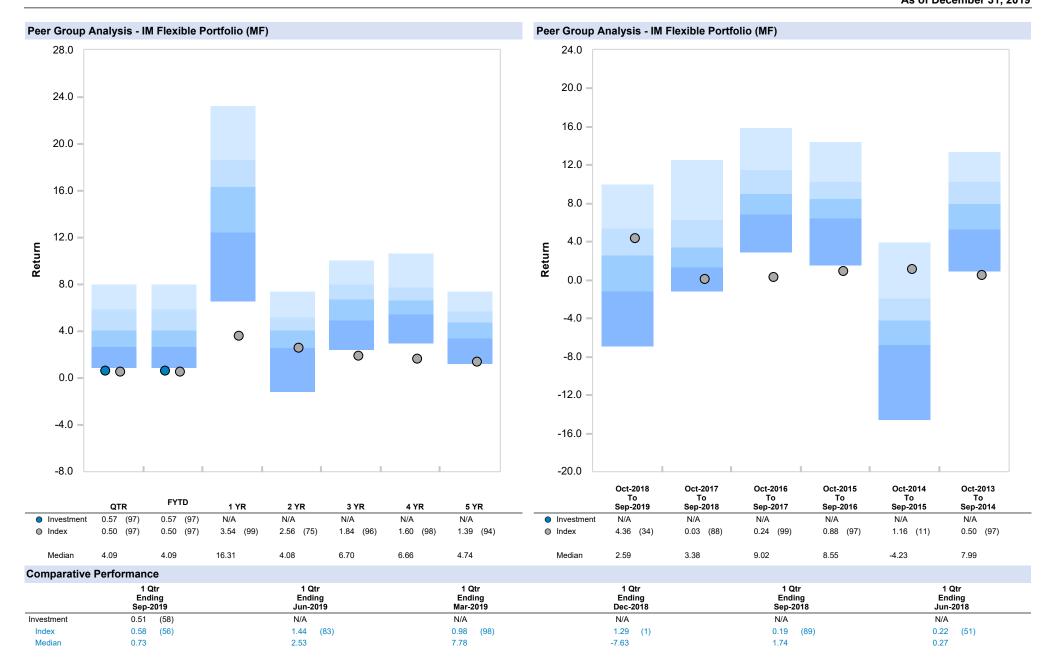


	Total Period	Count	Count	Count	Count	
Investment	0	0	0	0	0	
Index	20	0 (0%)	0 (0%)	0 (0%)	20 (100%)	

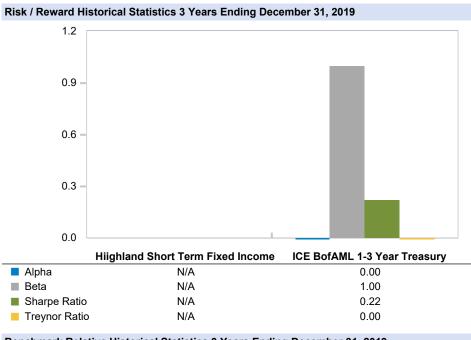


Investment

\_\_ Index

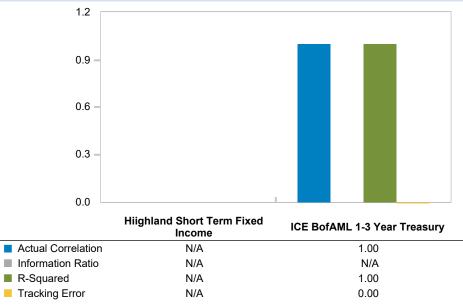




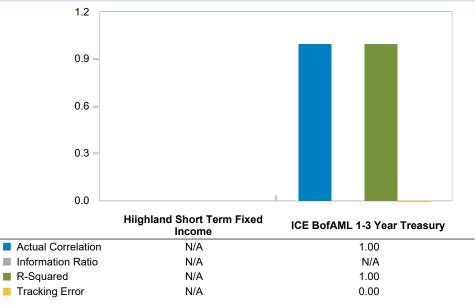


# Risk / Reward Historical Statistics 5 Years Ending December 31, 2019 1.2 0.9 0.6 0.3 0.0 **Hiighland Short Term Fixed Income ICE BofAML 1-3 Year Treasury** 0.00 Alpha N/A Beta N/A 1.00 ■ Sharpe Ratio N/A 0.39 Treynor Ratio N/A 0.00

## Benchmark Relative Historical Statistics 3 Years Ending December 31, 2019





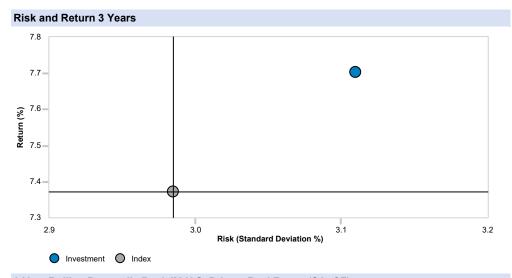


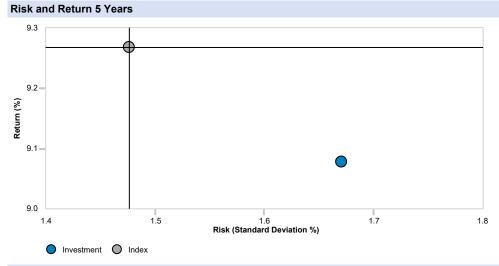
Benchmark: ICE BofAML 1-3 Year Treasury

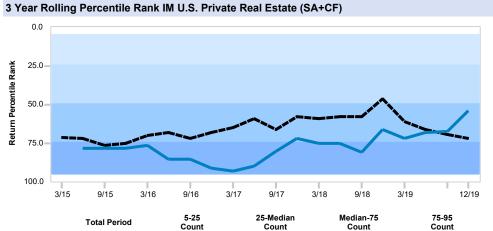


Historical Statistics 3 Years							
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	7.70	3.11	1.87	104.36	12	N/A	N/A
Index	7 37	2 99	1.85	100.00	12	N/A	N/A

Historical Statistics 5 Years							
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	9.08	1.67	3.98	98.03	20	N/A	N/A
Index	9.27	1.48	4.32	100.00	20	N/A	N/A







Count

0 (0%)

Count

8 (42%)

18 (90%)

11 (58%)

1 (5%)

Count

0 (0%)

0 (0%)



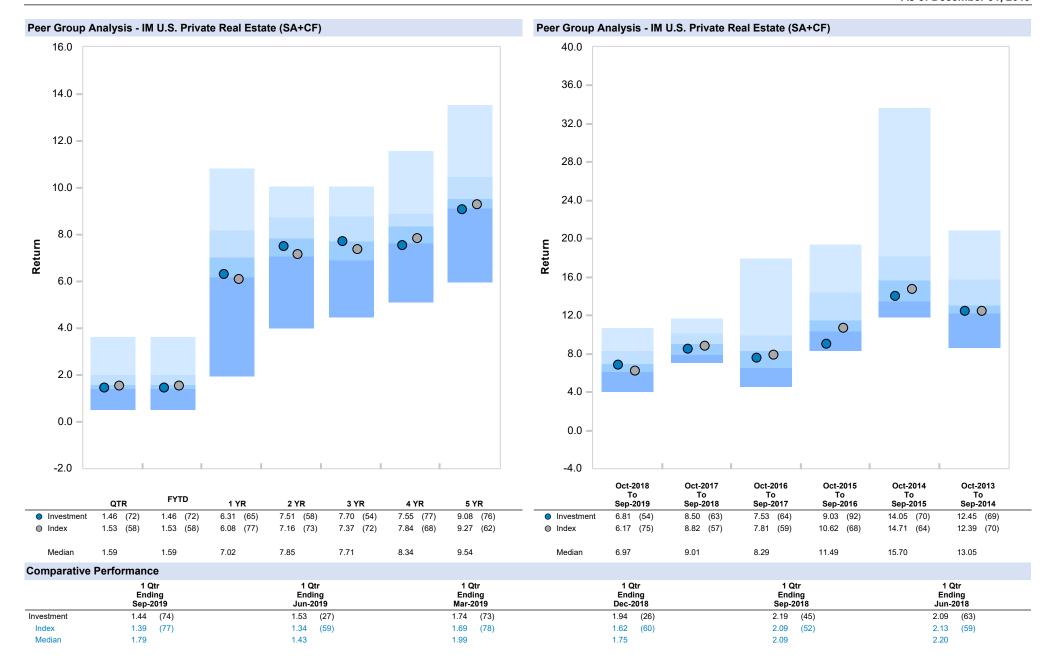
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	11	0 (0%)	0 (0%)	0 (0%)	11 (100%)
Index	20	0 (0%)	0 (0%)	20 (100%)	0 (0%)



Investment

\_\_ Index

19





	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
Rhumbline S&P 500 Equity	0.05	24,591,356	12,296	0.05 % of Assets
Rhumbline S&P 400 Equity	0.05	10,988,280	5,494	0.05 % of Assets
Rhumbline S&P 600 Equity	0.05	10,801,195	5,401	0.05 % of Assets
Rhumbline International Equity	0.05	10,120,492	5,060	0.05 % of Assets
Highland Capital Balanced	0.41	33,606,492	138,524	0.50 % of First \$10 M 0.38 % Thereafter
Hiighland Short Term Fixed Income	0.30	5,054,150	15,162	0.30 % of Assets
American Realty	1.10	9,929,189	109,221	1.10 % of Assets
R&D Cash		2,223	-	
Total Fund Composite	0.28	105,093,376	291,159	

Allocation Mandate	Weight (%)	
Mar-1992		
Blmbg. Barc. U.S. Aggregate Index	35.00	
S&P 500 Index	25.00	
S&P MidCap 400 Index	10.00	
Russell 1000 Growth Index	10.00	
S&P SmallCap 600 Index	10.00	
MSCI EAFE Index	10.00	
Oct-2010		
Blmbg. Barc. U.S. Aggregate Index	31.00	
S&P 500 Index	25.00	
S&P MidCap 400 Index	10.00	
Russell 1000 Growth Index	10.00	
MSCI EAFE Index	10.00	
S&P SmallCap 600 Index	10.00	
FTSE Non-U.S. World Government Bond	4.00	
Apr-2012		
Blmbg. Barc. U.S. Aggregate Index	29.00	
S&P 500 Index	25.00	
S&P MidCap 400 Index	10.00	
Russell 1000 Growth Index	10.00	
MSCI EAFE Index	10.00	
S&P SmallCap 600 Index	10.00	
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	
S&P SmallCap 600 Index	10.00	
FTSE Non-U.S. World Government Bond	4.00	
NCREIF Fund Index-Open End Diversified Core (EW)	5.00	



osition	
Weight (%)	
100.00	
20.00	
60.00	
20.00	
20.00	
00.00	
15.00	
8.00	
38.40	
15.40	
15.40	
15.40	
15.40	
	100.00  80.00 20.00  60.00 20.00  20.00  62.00 15.00 15.00 8.00  38.40 15.40 15.40 15.40

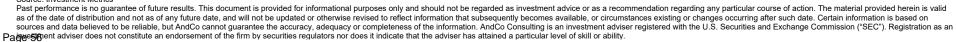
Total Fixed Income Historical Hybrid Composition						
Allocation Mandate	Weight (%)					
Apr-1994						
Blmbg. Barc. U.S. Aggregate Index	89.00					
FTSE Non-U.S. World Government Bond	11.00					



## **Annual Asset Class Performance**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Best	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 %	NCREIF Fund Index-ODCE (EW) (Net) 7.3 %	Russell 1000 Growth Index 36.4 %
	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 %	Russell 2000 Index 26.9 %	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 %	Blmbg. Barc. U.S. Aggregate Index 0.0 %	S&P 500 Index 31.5 %
	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 1000 Growth Index -1.5 %	Russell 2000 Growth Index 28.5 %
	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 %	Blmbg. Barc. U.S. Corp High Yield -2.1 %	Russell 1000 Value Index 26.5 %
	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 %	Bloomberg Barclays Global Aggregate Ex USD -2.1 %	Russell 2000 Index 25.5 %
	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 %	S&P 500 Index -4.4 %	Russell 2000 Value Index 22.4 %
	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 %	Blmbg. Barc. U.S. Corp High Yield 15.1 %	Russell 1000 Value Index 0.4 %		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 %	Russell 1000 Value Index -8.3 %	MSCI EAFE (Net) Index 22.0 %
	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 %	Russell 2000 Growth Index -9.3 %	MSCI Emerging Markets (Net) Index 18.4 %
	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 %	Russell 2000 Index -11.0 %	Blmbg. Barc. U.S. Corp High Yield 14.3 %
	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 %	Russell 2000 Value Index -12.9 %	Blmbg. Barc. U.S. Aggregate Index 8.7 %
	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 EAFE (Net) Index -13.8 %	Bloomberg Barclays Global Aggregate Ex USD 5.1 %
Worst	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 %	MSCI Emerging Markets (Net) Index -14.6 %	

Source: Investment Metrics





Active	Return
--------	--------

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

#### Alpha

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

#### Beta

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

#### Consistency

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

#### Distributed to Paid In (DPI)

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

## **Down Market Capture**

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

## Downside Risk

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

#### **Excess Return**

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

## Excess Risk

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

## Information Ratio

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

#### **Public Market Equivalent (PME)**

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

## R-Squared

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

#### Return

- Compounded rate of return for the period.

## Sharpe Ratio

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

#### Standard Deviation

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

## Total Value to Paid In (TVPI)

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

#### **Tracking Error**

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

#### **Treynor Ratio**

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

## **Up Market Capture**

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



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

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