Investment Performance Review Period Ending September 30, 2018

# **City of Sioux Falls Firefighters'**

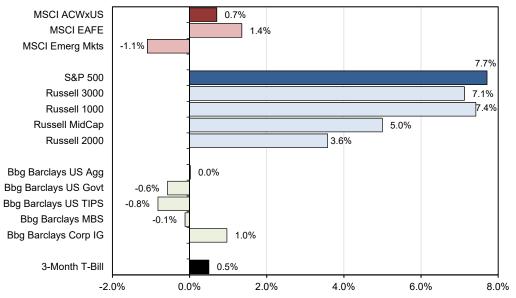


**3rd Quarter 2018 Market Environment** 

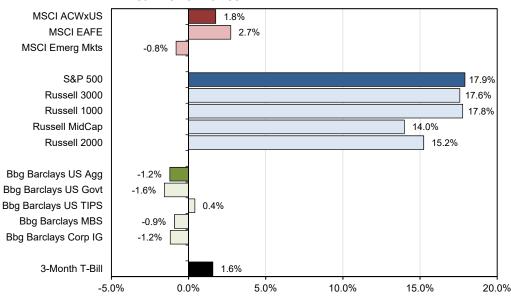


- Market returns were mixed across major equity and fixed income indices for the 3rd guarter of 2018 with many themes from the 2nd guarter repeating during the current period. Broad domestic equity indices pushed higher on continued strength in both economic and corporate earnings data. Corporate earnings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



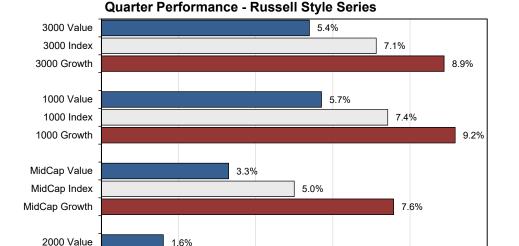


#### 1-Year Performance





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



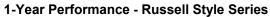
3.6%

4.0%

5.5%

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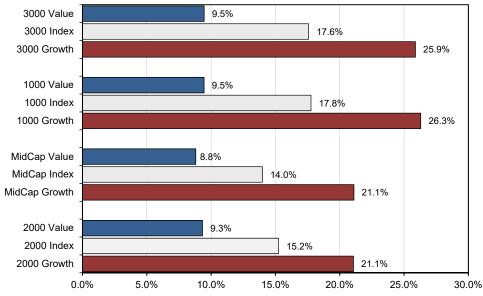


2.0%

2000 Index

2000 Growth

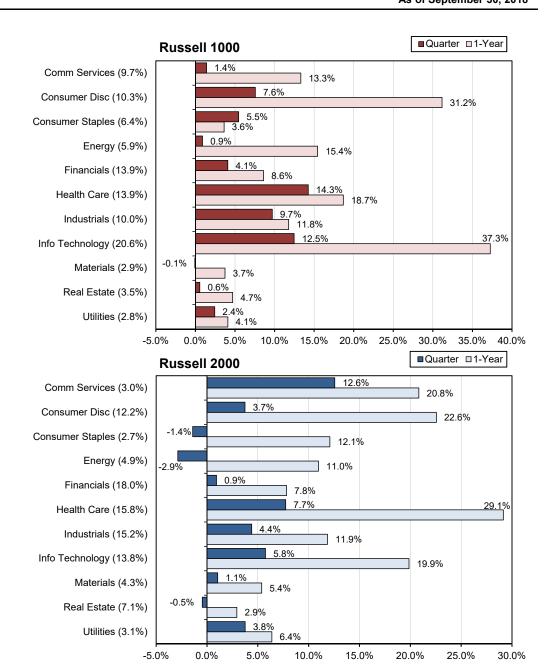
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10.0%

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





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

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

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

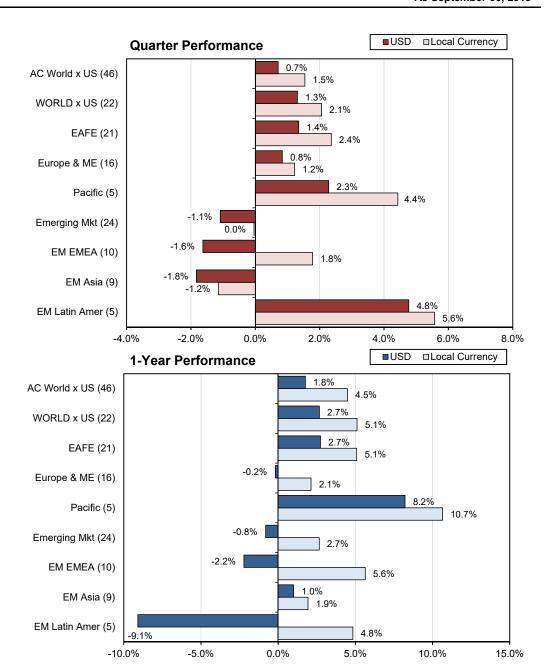
Тор	10 Performir	ng Stocks (by	( Quarter)	
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
CareDx Inc	0.04%	135.7%	679.7%	Health Care
Reata Pharmaceuticals Inc A	0.07%	133.8%	162.9%	Health Care
Invitae Corp	0.05%	127.6%	78.5%	Health Care
RigNet Inc	0.01%	97.6%	18.3%	Energy
Tandem Diabetes Care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

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

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



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



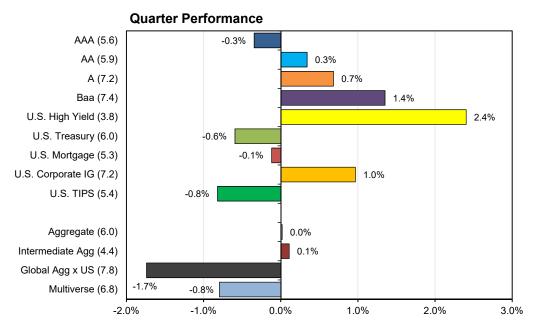


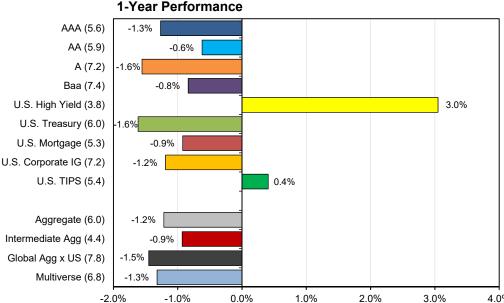
MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.4%	3.3%	-2.4%
Consumer Discretionary	11.1%	-0.5%	3.3%
Consumer Staples	11.3%	-0.1%	2.5%
Energy	6.0%	3.5%	24.6%
Financials	19.8%	0.9%	-4.0%
Health Care	10.9%	5.6%	7.1%
Industrials	14.3%	2.6%	4.2%
Information Technology	6.2%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

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



- Broad fixed income benchmarks had mixed results during the 3rd quarter. Interest rates rose across all maturities on the US Treasury Yield Curve. The Federal Open Market Committee (FOMC), decided to increase short-term interest rates by 25 basis points at their September meeting citing continued strength in the economy and stable inflation. This is the third rate hike of 2018. The current Fed Funds Rate target range sits at 2.00%-2.25%. The FOMC also changed the language used in its policy statement, removing the word "accommodative", which investors took as a signal that the Fed plans to continue its trend of monetary policy tightening. The yield curve continued to flatten, although very gradually, as short-term yields rose at a greater rate than long-term yields during the quarter. The difference in yields between the 2year and 10-year Treasury now sits at just 0.24%. As the curve continues to flatten, it moves closer to becoming "inverted", which happens when shortterm maturities have greater yields than long-term securities. Historically, an inverted yield curve has signaled a greater probability of a recession. The Fed is also continuing the reduction of the size of its balance sheet by slowing its pace of reinvestment as the securities it holds mature. The Bloomberg Barclays US Aggregate Index was flat during the quarter, posting a 0.0% return. Over the 1-year period the index has fallen -1.2%.
- Within investment grade credit, lower quality corporate issues outperformed higher quality issues as credit spreads tightened steadily over the quarter. On an absolute basis, without negating the duration differences in the sub-indices, Baa rated credit was the best performing investment grade credit quality segment returning 1.4% for the quarter, while AAA was the worst performing, falling -0.3%. High yield debt outperformed relative to investment grade credit, returning 2.0%, as spreads tightened to a greater degree for these issues and the index benefitted from less sensitivity to rising interest rates due to its lower duration. Returns are negative for all investment grade quality segments when viewed over the 1-year period while high yield continues to outperform with a return of 3.0%.
- Of the Bloomberg Barclays US Aggregate Index's three broad sectors, US investment grade corporates were the best performing investment grade sector through the quarter, returning 1.0%, and the only sector to post a positive return for the period. Corporate credit outperformed as credit spreads tightened. Demand for these securities outweighed supply for the period despite considerable new issuance and a headwind from the sectors higher duration relative to other index sectors. Treasuries were the worst performing sector posting a -0.6% return. Over the 1-year period, all three broad investment grade sectors posted losses with mortgages, investment grade credit and Treasuries falling -0.9%, -1.2% and -1.6% respectively.







- Global fixed income indices continue to struggle relative to their domestic counterparts, underperforming during the 3rd quarter. These indices have lower yields and their relatively high duration acted as a headwind to performance in the current quarter as interest rates increased. The returns of these indices are also significantly influenced by fluctuations in their currency denomination relative to the USD. During the 3rd quarter the USD strengthened against most other currencies, negatively impacting the returns on global bond indices. The return on global bonds, as represented by the Bloomberg Barclays Global Aggregate ex US Index, was -1.7% and -1.5% for the guarter and 1-year period respectively. As the global economy continues to recover, several international central banks have started to move toward less accommodative postures. Notably, the ECB, began to slow its monthly bond purchase program in September, reducing new purchases to 15 billion euro per month from 30 billion euro per month, as well as forecasting an end to the program by the end of the year assuming the eurozone recovery continues to flourish. However, they have indicated a continuation of reinvestment in maturing securities and would likely not raise interest rates from current levels until summer 2019. The Bank of England increased interest rates by 0.25% during the guarter citing improvement in their near-term economic outlook and the Bank of Japan has changed its policy to allow flexibility for future tightening in the future.
- Much of the index performance detailed in the bar graphs on the previous page is visible on a time series basis by reviewing the line graphs to the right. The '1-Year Trailing Market Rates' chart illustrates that the 10-year Treasury yield (green line) rose steadily during the end of the 3rd quarter, ending the period at 3.05%. The blue line illustrates changes in the BAA OAS (Option Adjusted Spread). This measure quantifies the additional yield premium that investors require to purchase and hold non-Treasury issues. This line illustrates a steady increase in credit spreads through the first two quarters of 2018, followed by a smooth decline during the 3rd quarter. This decline is equivalent to an interest rate decrease on corporate bonds, which produces an additional tailwind for corporate bond index returns. These credit spreads have tightened by about 20 basis points over the last 3-months. The green band across the graph illustrates the gradual increase in the Federal Funds Rate (three increases in the last twelve months) due to the continued unwinding of accommodative US monetary policy.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four calendar quarters. As mentioned, the yield curve continues to flatten as yields on shorter-term maturities have risen more than interest rates on the long end of the curve. The upward momentum of interest rates as well as a general flattening of the yield curve are clearly visible over the last twelve months.

# 1-Year Trailing Market Rates

**Treasury Yield Curve** 

0.00

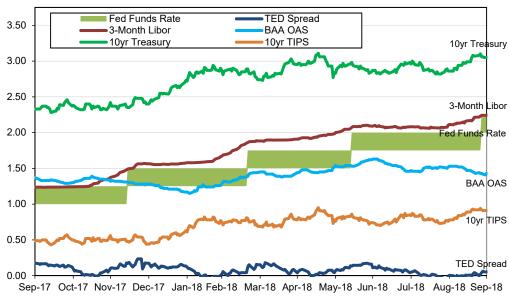
1 mo

3 mo

6 mo

1 yr

2 yr



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

3 yr

5 yr

7 yr

10 yr

20 yr



30 yr

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As of September 30, 2018

<u>Total Fund</u> The performance in the quarter of 4.1% ranked in the top decile versus all Total Plans and above the policy benchmark. The annual 9.2% return was top quartile and above the policy bogey, while the five-year 8.9% ranked in the top decile and beat the policy, as did the ten-year 9.7% performance. Performance was above average versus other Total Plans with a similar equity commitment for the quarter and for the year, top third for five years, and top decile for ten years.

<u>Total Domestic Equities</u> Top quartile return for the quarter compared to the Total Domestic Equity universe. It was top third for the year, above average for five years, and top third for ten years. It was above the Russell 3000 index for the quarter, just below for the year, above average for five years, and top third for ten years.

- Cooke & Bieler Bottom third return for the quarter and bottom quartile for the year versus Large Cap Value funds and below the Russell 1000 Value index but was near average for five years and for ten years and above the index for five and for ten.
- NTGI S&P 500 Index Fund Top third results for the quarter versus Large Cap Core funds and above average for the year and five years and average for ten years. Close tracking of index returns.
- Sawgrass Top quartile performance for the quarter versus Large Cap Growth funds and above the Russell 1000 growth index. Results were below median for the year and bottom third for five years and below the index. They were bottom third for ten years and lagged the index.
- NTGI S&P 400 Index Fund Bottom third performance for the quarter versus Mid Cap Core funds; just above average for the year, average for five years and bottom third for ten. Close tracking of index returns.
- T Rowe Price Top decile results for the quarter versus Small Cap Value funds and above the Russell 2000 Value index. Top quartile and above the index for the year, five years and for ten years.
- Summit Creek Top quartile performance versus Small Cap Growth funds and well above the Russell 2000 Growth index in the quarter. Top quartile and far above the index for the year, and above average and above the index for three years.

<u>Total International Equities</u> Top third performance versus universe for quarter; below median for the year and bottom quartile for five years. Below average for ten years. Above the MSCI ACWI–ex US index for the quarter, year, five and ten years.

- Templeton Just above average performance versus International Large Cap Value funds for the quarter and near top quartile for the year. Below the EAFE Value index for the quarter but above for the year. Top quartile for five years and ten years and above the index.
- MFS Top quartile performance for the quarter versus International Large Cap Growth funds and above the EAFE Growth index. It was top third for the year and below the index. For five years it was top quartile and just below the index and for ten years, results were top decile and above the index.
- Vanguard Emerging Markets Fund Top quartile return for the quarter and top third for the year compared to Emerging Market funds and above the index for the quarter, below for the year. Four-year results were above average and below the index.

<u>Total Domestic Fixed Income</u> Median return for quarter compared to Total Fixed funds. Below average for the year, above for five years and top quartile for ten. Above the Bloomberg Barclays Aggregate index for the quarter, equal for the year, and above for five and ten years.

- Schroder Intermediate Duration Below average return for the quarter versus
  Domestic Intermediate Duration Bond funds and just above the Bloomberg
  Barclay's Intermediate Duration Bond Index. Bottom quartile for the year and
  top quartile for five years and above the index for both periods.
- NTGI Government / Credit Index Fund Bottom third performance for the quarter versus Domestic Core Bond funds. Bottom quartile for the year, five years and ten years. Close tracking of actual index.

<u>Total Real Estate</u> Top quartile return for the quarter versus Total Real Estate Funds, below median for the year and five years, and bottom quartile for ten. Above the ODCE index for all periods.

- PGIM Real Estate. Above average for the quarter versus Private Real Estate funds. Bottom third for the year, below average for five years and bottom quartile for ten. Above the ODCE index for all periods.
- Principal Enhanced Property Fund. Account funded with \$1.5 million at year-end 2017. Top percentile performance for the quarter and above the ODCE index. Top percentile and above the index for nine months.



1 Quarter				
	Market Value 07/01/2018	Net Flows	Return On Investment	Market Value 09/30/2018
Firefighters' Total Fund	164,223,097	-1,623,608	6,665,747	169,265,237
<b>3</b>	- , -,	,,	-,,	,, -
Total Domestic Equity	79,447,640	-5,067,116	5,793,641	80,174,165
Cooke & Bieler	17,614,028	-19,815	874,027	18,468,240
NTGI S&P 500	17,997,772	-2,001,862	1,392,063	17,387,974
Sawgrass	18,228,598	-2,022,786	1,825,017	18,030,829
NTGI S&P 400	8,204,515	-849	318,475	8,522,142
T Rowe Price	8,162,347	-	376,454	8,538,801
Summit Creek	9,240,380	-1,021,804	1,007,605	9,226,180
Total International Equity	32,946,255	2,000,000	415,616	35,361,871
Templeton	13,633,118	-	134,918	13,768,036
MFS	13,955,781	-	260,804	14,216,584
International Emerging Equity				
Vanguard EM	5,357,356	2,000,000	19,894	7,377,250
Total Domestic Fixed Income	37,491,080	1,480,332	87,806	39,059,218
Schroder Intermediate Duration	27,477,627	1,481,368	79,514	29,038,509
NTGI Government / Credit	10,013,453	-1,036	8,292	10,020,709
Schroder Long Duration	-	-	-	-
Total Real Estate	14,332,985	-36,824	368,379	14,664,541
PGIM	11,231,468	-27,519	269,592	11,473,540
Principal Enhanced Property Fund, LP	3,101,518	-9,305	98,787	3,191,000
Cash	5,136	-	306	5,442



Fiscal Year To Date				
	Market Value 01/01/2018	Net Flows	Return On Investment	Market Value 09/30/2018
Eirofightoro' Total Eund	162 007 204	-1,866,301	9 224 454	169,265,237
Firefighters' Total Fund	162,907,384	-1,000,301	8,224,154	169,265,237
Total Domestic Equity	80,177,361	-8,602,831	8,599,635	80,174,165
Cooke & Bieler	19,498,395	-1,412,572	382,416	18,468,240
NTGI S&P 500	17,728,323	-2,205,551	1,865,202	17,387,974
Sawgrass	19,279,083	-3,919,785	2,671,531	18,030,829
NTGI S&P 400	7,926,482	-2,498	598,158	8,522,142
T Rowe Price	7,825,772	-	713,029	8,538,801
Summit Creek	7,919,306	-1,062,424	2,369,299	9,226,180
Total International Equity	34,009,534	2,000,000	-647,663	35,361,871
Templeton	14,127,817	-	-359,781	13,768,036
MFS	14,127,800	-	88,784	14,216,584
International Emerging Equity				
Vanguard EM	5,753,917	2,000,000	-376,667	7,377,250
Total Domestic Fixed Income	36,393,005	3,340,008	-673,795	39,059,218
Schroder Intermediate Duration	19,030,873	10,090,343	-82,707	29,038,509
NTGI Government / Credit	10,206,388	-3,151	-182,527	10,020,709
Schroder Long Duration	7,155,744	-6,747,183	-408,561	-
Total Real Estate	10,823,891	2,895,522	945,128	14,664,541
PGIM	10,823,891	-81,179	730,828	11,473,540
Principal Enhanced Property Fund, LP	-	2,976,701	214,300	3,191,000
Cash	1,503,592	-1,499,000	849	5,442



1 Year Ending September 30, 2018

1 Year				
	Market Value 10/01/2017	Net Flows	Return On Investment	Market Value 09/30/2018
Firefighters' Total Fund	159,800,637	-4,980,655	14,445,256	169,265,237
Total Domestic Equity	80,291,868	-13,171,280	13,053,577	80,174,165
Cooke & Bieler	18,944,774	-1,733,884	1,257,349	18,468,240
NTGI S&P 500	17,724,480	-3,357,407	3,020,900	17,387,974
Sawgrass	19,319,933	-5,343,935	4,054,831	18,030,829
NTGI S&P 400	7,889,153	-453,324	1,086,314	8,522,142
T Rowe Price	8,165,124	-600,000	973,676	8,538,801
Summit Creek	8,248,403	-1,682,729	2,660,506	9,226,180
Total International Equity	32,679,742	2,000,000	682,129	35,361,871
Templeton	13,631,781	· · ·	136,255	13,768,036
MFS	13,584,679	-	631,905	14,216,584
International Emerging Equity				
Vanguard EM	5,463,281	2,000,000	-86,031	7,377,250
Total Domestic Fixed Income	36,178,707	3,320,235	-439,724	39,059,218
Schroder Intermediate Duration	19,057,276	10,076,636	-95,403	29,038,509
NTGI Government / Credit	10,156,414	-4,215	-131,490	10,020,709
Schroder Long Duration	6,965,017	-6,752,186	-212,831	-
Total Real Estate	10,647,545	2,869,389	1,147,606	14,664,541
PGIM	10,647,545	-107,312	933,306	11,473,540
Principal Enhanced Property Fund, LP	-	2,976,701	214,300	3,191,000
Cash	2,774	1,000	1,668	5,442



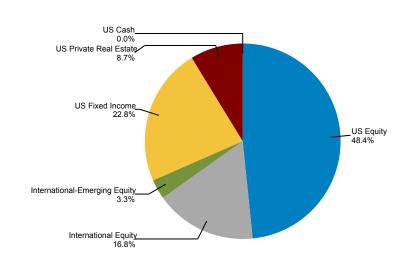
Asset Allocation Attributes														
	Domestic Equity		Domestic Equity International Equity Emerging Equity			Domestic Fixed Real		eal Estate Cash Eq		quivalent Total Fund		Fund		
	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%
Firefighters' Total Fund	78,531	46.4	27,985	16.5	7,377	4.4	38,871	23.0	14,634	8.6	1,867	1.1	169,265	100.0
Total Domestic Equity	78,531	98.0	-	-	-	-	-	-	-	-	1,643	2.0	80,174	47.4
Cooke & Bieler	17,911	97.0	-	-	-	-	-	-	-	-	557	3.0	18,468	10.9
NTGI S&P 500	17,388	100.0	-	-	-	-	-	-	-	-	-	-	17,388	10.3
Sawgrass	17,239	95.6	-	-	-	-	-	-	-	-	792	4.4	18,031	10.7
NTGI S&P 400	8,522	100.0	-	-	-	-	-	-	-	-	-	-	8,522	5.0
T Rowe Price	8,539	100.0	-	-	-	-	-	-	-	-	-	-	8,539	5.0
Summit Creek	8,933	96.8	-	-	-	-	-	-	-	-	293	3.2	9,226	5.5
Total International Equity	-	-	27,985	79.1	7,377	20.9	-	-	-	-	-	-	35,362	20.9
Templeton	-	-	13,768	100.0	-	-	-	-	-	-	-	-	13,768	8.1
MFS	-	-	14,217	100.0	-	-	-	-	-	-	-	-	14,217	8.4
International Emerging Equity														
Vanguard EM	-	-	-	-	7,377	100.0	-	-	-	-	-	-	7,377	4.4
Total Domestic Fixed Income	-	-	-	-	-	-	38,871	99.5	-	-	188	0.5	39,059	23.1
Schroder Intermediate Duration	-	-	-	-	-	-	28,851	99.4	-	-	188	0.6	29,039	17.2
NTGI Government / Credit	-	-	-	-	-	-	10,021	100.0	-	-	-	-	10,021	5.9
Total Real Estate	-	-	-	-	-	-	-	-	14,634	99.8	31	0.2	14,665	8.7
PGIM	-	-	-	-	-	-	-	-	11,474	100.0	-	-	11,474	6.8
Principal Enhanced Property Fund, LP	-	-	-	-	-	-	-	-	3,160	99.0	31	1.0	3,191	1.9
Cash	-	-	-	-	-	-	-	-	-	-	5	100.0	5	0.0



# Asset Allocation By Asset Class Total Fund

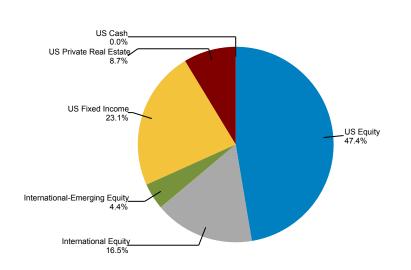
As of September 30, 2018

### June 30, 2018 : \$164,223,097



Allocation		
	Market Value	Allocation
■ US Equity	79,447,640	48.4
International Equity	27,588,899	16.8
International-Emerging Equity	5,357,356	3.3
US Fixed Income	37,491,080	22.8
■ US Private Real Estate	14,332,985	8.7
■ US Cash	5,136	0.0

## September 30, 2018 : \$169,265,237

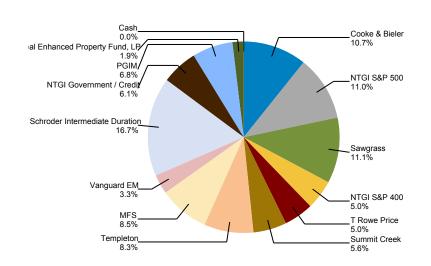


Allocation		
	Market Value	Allocation
■ US Equity	80,174,165	47.4
International Equity	27,984,620	16.5
International-Emerging Equity	7,377,250	4.4
US Fixed Income	39,059,218	23.1
US Private Real Estate	14,664,541	8.7
■ US Cash	5,442	0.0



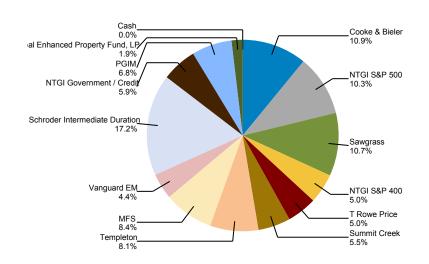
As of September 30, 2018

June 30, 2018: \$164,223,097



Allocation		
	Market Value	Allocation
Cooke & Bieler	17,614,028	10.7
■ NTGI S&P 500	17,997,772	11.0
Sawgrass	18,228,598	11.1
■ NTGI S&P 400	8,204,515	5.0
■ T Rowe Price	8,162,347	5.0
■ Summit Creek	9,240,380	5.6
Templeton	13,633,118	8.3
■ MFS	13,955,781	8.5
■ Vanguard EM	5,357,356	3.3
Schroder Intermediate Duration	27,477,627	16.7
■ NTGI Government / Credit	10,013,453	6.1
PGIM	11,231,468	6.8
■ Principal Enhanced Property Fund, LP	3,101,518	1.9
Cash	5,136	0.0

### September 30, 2018 : \$169,265,237



	Maulcat Value	Allaaatian
	Market Value	Allocation
Cooke & Bieler	18,468,240	10.9
NTGI S&P 500	17,387,974	10.3
Sawgrass	18,030,829	10.7
NTGI S&P 400	8,522,142	5.0
T Rowe Price	8,538,801	5.0
Summit Creek	9,226,180	5.5
Templeton	13,768,036	8.1
MFS	14,216,584	8.4
Vanguard EM	7,377,250	4.4
Schroder Intermediate Duration	29,038,509	17.2
NTGI Government / Credit	10,020,709	5.9
PGIM	11,473,540	6.8
Principal Enhanced Property Fund, LP	3,191,000	1.9
Cash	5,442	0.0



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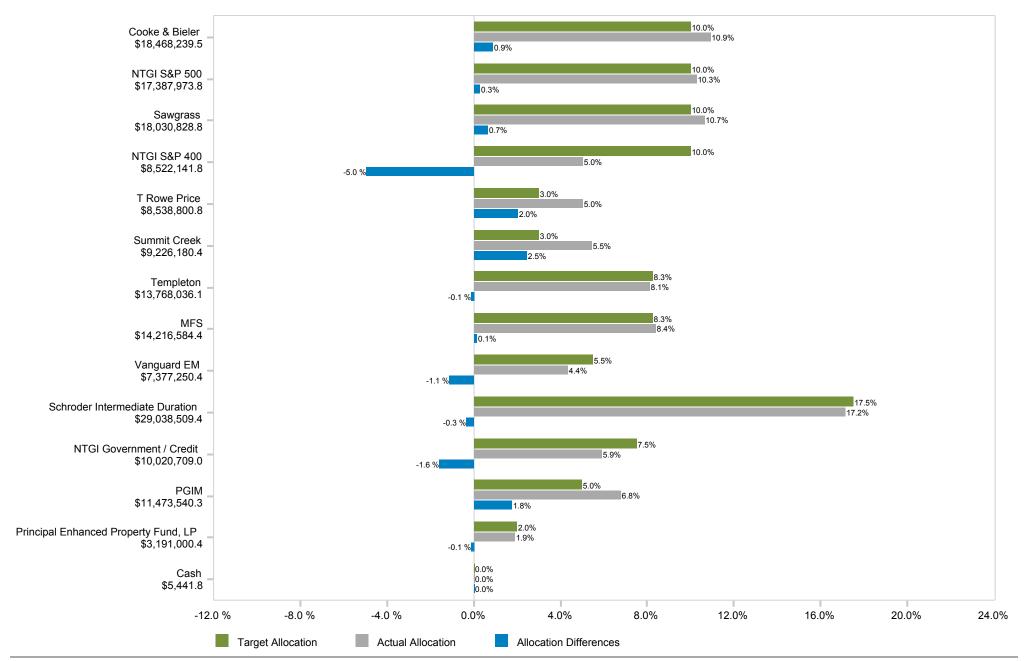
	Asset Allocation \$	Current Allocation (%)	Minimum Allocation (%)	Target Allocation (%)	Maximum Allocation (%)	Target Rebal. (\$)	Differences (%)
Firefighters' Total Fund	169,265,237	100.0		100.0		-	0.0
Total Domestic Equity	80,174,165	47.4	41.0	46.0	51.0	-2,312,156	1.4
Total International Equity	35,361,871	20.9	18.0	22.0	25.0	1,876,481	-1.1
Total Fixed Income	39,059,218	23.1	22.0	25.0	28.0	3,257,091	-1.9
Total Real Estate	14,664,541	8.7	5.0	7.0	10.0	-2,815,974	1.7

# Total Domestic Equity 46.0% Total International Equity 22.0% Total Fixed Income 25.0% Total Real Estate 0.0% 6.0% 12.0% 18.0% 24.0% 30.0% 36.0% 42.0% 48.0% 54.0% 60.0% In Policy Policy Target Outside Policy



Asset Allocation Compliance					
	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Target Rebal. (\$000)	Differences (%)
Firefighters' Total Fund	169,265,237	100.0	100.0	-	0.0
Total Equity	115,536,036	68.3	68.0	-435,675	0.3
Total Domestic Equity	80,174,165	47.4	46.0	-2,312,156	1.4
Cooke & Bieler	18,468,240	10.9	10.0	-1,541,716	0.9
NTGI S&P 500	17,387,974	10.3	10.0	-461,450	0.3
Sawgrass	18,030,829	10.7	10.0	-1,104,305	0.7
NTGI S&P 400	8,522,142	5.0	10.0	8,404,382	-5.0
T Rowe Price	8,538,801	5.0	3.0	-3,460,844	2.0
Summit Creek	9,226,180	5.5	3.0	-4,148,223	2.5
Total International Equity	35,361,871	20.9	22.0	1,876,481	-1.1
Templeton	13,768,036	8.1	8.3	196,346	-0.1
MFS	14,216,584	8.4	8.3	-252,202	0.1
Vanguard EM	7,377,250	4.4	5.5	1,932,338	-1.1
Total Fixed Income	39,059,218	23.1	25.0	3,257,091	-1.9
Total Domestic Fixed Income	39,059,218	23.1	25.0	3,257,091	-1.9
Schroder Intermediate Duration	29,038,509	17.2	17.5	582,907	-0.3
NTGI Government / Credit	10,020,709	5.9	7.5	2,674,184	-1.6
Total Real Estate	14,664,541	8.7	7.0	-2,815,974	1.7
PGIM	11,473,540	6.8	5.0	-3,010,278	1.8
Principal Enhanced Property Fund, LP	3,191,000	1.9	2.0	194,304	-0.1
Cash	5,442	0.0	0.0	-5,442	0.0







Comparative Performance												
		ΓR	FY	TD	1 \		3 `		5 \			YR
Firefighters' Total Fund	4.06	(9)	5.06	(16)	9.18	(16)	11.32	(9)	8.88	(10)	9.66	(3)
Sioux Falls Total Policy	3.53	(17)	4.84	(19)	9.00	(18)	11.41	(8)	8.62	(14)	8.54	(22)
All Master Trust - Total Fund Median	2.48		2.92		6.56		9.23		7.15		7.69	
Firefighters' Total Fund	4.06	(36)	5.06	(38)	9.18	(48)	11.32	(46)	8.88	(29)	9.66	(8)
Sioux Falls Total Policy	3.53	(55)	4.84	(44)	9.00	(54)	11.41	(41)	8.62	(37)	8.54	(47)
Master Trust >=70% Equity Median	3.66		4.59		9.08		11.20		8.33		8.41	
Total Domestic Equity	7.30	(14)	11.15	(19)	17.46	(31)	16.94	(34)	12.89	(42)	12.13	(30)
Russell 3000 Index	7.12	(19)	10.57	(31)	17.58	(29)	17.07	(30)	13.46	(27)	12.01	(38)
All Master Trust-US Equity Segment Median	6.00		9.51		16.16		16.32		12.36		11.68	
Cooke & Bieler	4.96	(67)	2.31	(88)	7.10	(93)	14.61	(51)	11.40	(58)	10.96	(49)
Russell 1000 Value Index	5.70	(49)	3.92	(71)	9.45	(77)	13.55	(71)	10.72	(71)	9.79	(85)
IM U.S. Large Cap Value Equity (SA+CF) Median	5.64		5.14		11.72		14.64		11.57		10.93	
NTGI S&P 500	7.75	(31)	10.63	(37)	18.00	(39)	17.37	(28)	14.03	(40)	12.04	(50)
S&P 500 Index	7.71	(33)	10.56	(38)	17.91	(41)	17.31	(30)	13.95	(42)	11.97	(52)
IM U.S. Large Cap Core Equity (SA+CF) Median	7.11		9.76		17.33		16.11		13.57		12.03	
Sawgrass	10.05	(13)	15.15	(60)	23.60	(59)	16.96	(76)	14.27	(73)	12.66	(71)
Russell 1000 Growth Index	9.17	(25)	17.09	(46)	26.30	(37)	20.55	(23)	16.58	(31)	14.31	(34)
IM U.S. Large Cap Growth Equity (SA+CF) Median	8.19		16.46		24.66		18.85		15.70		13.76	
NTGI S&P 400	3.88	(67)	7.55	(45)	14.29	(45)	15.71	(41)	11.96	(53)	12.58	(68)
S&P MidCap 400 Index	3.86	(71)	7.49	(49)	14.21	(49)	15.68	(47)	11.91	(58)	12.49	(80)
IM U.S. Mid Cap Core Equity (SA+CF) Median	4.46		7.48		14.19		15.64		11.98		12.82	
T Rowe Price	4.61	(4)	9.11	(23)	12.70	(26)	18.08	(23)	10.85	(12)	11.40	(18)
Russell 2000 Value Index	1.60	(30)	7.14	(43)	9.33	(58)	16.12	(38)	9.91	(23)	9.52	(57)
IM U.S. Small Cap Value Equity (MF) Median	0.97	• •	6.63	, ,	10.11	• •	14.27		7.73	, ,	9.71	• •
Summit Creek	10.91	(15)	30.05	(18)	34.84	(21)	20.55	(40)	N/A		N/A	
Russell 2000 Growth Index	5.52	(70)	15.76	(74)	21.06	(70)	17.98	(69)	12.14	(65)	12.65	(77)
IM U.S. Small Cap Growth Equity (SA+CF+MF) Median	7.71		21.00		26.62		19.36		13.22		14.03	



	Q	ΓR	FY	TD	1 \	/R	3 '	<b>r</b>	5 `	/R	10	YR
Total International Equity	1.26	(28)	-1.91	(42)	2.08	(58)	9.39	(84)	4.27	(88)	6.10	(65)
MSCI AC World ex USA (Net)	0.71	(51)	-3.09	(71)	1.76	(66)	9.97	(69)	4.12	(91)	5.18	(89)
All Master Trust-Intl. Equity Segment Median	0.71		-2.24		2.37		10.70		5.42		6.60	
Templeton	0.99	(49)	-2.55	(30)	1.00	(26)	7.70	(31)	3.24	(13)	5.14	(16)
MSCI EAFE Value Index (Net)	1.18	(43)	-3.49	(47)	-0.36	(49)	8.12	(20)	3.14	(17)	4.49	(29)
IM International Large Cap Value Equity (MF) Median	0.85		-3.57		-0.42		6.83		2.19		3.74	
MFS	1.87	(19)	0.63	(28)	4.65	(27)	9.96	(21)	5.53	(25)	7.60	(6)
MSCI EAFE Growth Index (Net)	1.53	(29)	0.58	(28)	5.85	(19)	10.26	(17)	5.62	(22)	6.20	(35)
IM International Large Cap Growth Equity (MF) Median	0.10		-2.76		1.36		8.48		4.32		5.68	
Vanguard EM	0.18	(15)	-6.73	(19)	-1.77	(32)	12.83	(17)	N/A		N/A	
MSCI Emerging Markets (Net) Index	-1.09	(25)	-7.68	(28)	-0.81	(24)	12.36	(21)	3.61	(32)	5.40	(35)
IM Emerging Markets Equity (MF) Median	-2.42		-9.72		-3.97		10.24		2.92		4.74	
Total Domestic Fixed Income	0.24	(52)	-1.86	(73)	-1.22	(71)	2.10	(62)	3.52	(38)	6.77	(22)
Blmbg. Barc. U.S. Aggregate Index	0.02	(68)	-1.60	(67)	-1.22	(71)	1.31	(86)	2.16	(75)	3.77	(87)
All Master Trust-US Fixed Income Segment Median	0.26		-1.11		-0.54		2.67		2.96		5.27	
Schroder Intermediate Duration	0.29	(70)	-0.60	(77)	-0.67	(80)	1.55	(32)	2.27	(21)	N/A	
Bloomberg Barclays Intermediate US Govt/Credit Idx	0.21	(87)	-0.76	(91)	-0.96	(97)	0.91	(94)	1.52	(91)	3.22	(91)
IM U.S. Intermediate Duration (SA+CF) Median	0.37		-0.48		-0.39		1.37		1.91		3.75	
NTGI Government / Credit	0.08	(73)	-1.79	(99)	-1.29	(95)	1.48	(75)	2.26	(82)	4.08	(81)
Blmbg. Barc. U.S. Gov't/Credit	0.06	(76)	-1.85	(100)	-1.37	(96)	1.45	(76)	2.23	(85)	3.95	(86)
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.19		-1.29		-0.74		1.82		2.58		4.58	
Total Real Estate	2.57	(20)	7.14	(38)	9.17	(62)	8.92	(66)	11.15	(55)	5.02	(88)
NCREIF Fund Index-ODCE (EW) (Net)	1.88	(69)	5.84	(77)	7.89	(76)	8.17	(84)	9.93	(78)	4.45	(100)
IM U.S. Open End Private Real Estate (SA+CF) Median	2.35		6.78		9.69		9.53		11.41		5.69	
PGIM	2.40	(43)	6.77	(52)	8.80	(67)	8.79	(78)	11.07	(56)	4.98	(90)
NCREIF Fund Index-ODCE (EW) (Net)	1.88	(69)	5.84	(77)	7.89	(76)	8.17	(84)	9.93	(78)	4.45	(100)
IM U.S. Open End Private Real Estate (SA+CF) Median	2.35		6.78		9.69		9.53		11.41		5.69	
Principal Enhanced Property Fund, LP	3.19	(1)	8.74	(1)	N/A		N/A		N/A		N/A	
NCREIF Fund Index-ODCE (EW) (Net)	1.88	(69)	5.84	(77)	7.89	(76)	8.17	(84)	9.93	(78)	4.45	(100)
IM U.S. Open End Private Real Estate (SA+CF) Median	2.35		6.78		9.69		9.53		11.41		5.69	
Cash	0.54		1.18		1.46		0.71		N/A		N/A	
90 Day U.S. Treasury Bill	0.49		1.30		1.59		0.80		0.50		0.32	



Comparative Performance										
	1 Year Ending Sep-2018		1 Year Ending Sep-2017		Ye End	1 Year Ending Sep-2016		l ear ling 2015	Ye	l ear ling 2014
Firefighters' Total Fund	9.18	(16)	14.25	(10)	10.60	(27)	-0.01	(35)	10.92	(32)
Sioux Falls Total Policy	9.00	(18)	13.88	(13)	11.40	(17)	-0.54	(46)	9.94	(47)
All Master Trust - Total Fund Median	6.55		11.65		9.40		-0.78		9.72	
Firefighters' Total Fund	9.18	(48)	14.25	(51)	10.60	(51)	-0.01	(18)	10.92	(55)
Sioux Falls Total Policy	9.00	(54)	13.88	(61)	11.40	(29)	-0.54	(30)	9.94	(76)
Master Trust >=70% Equity Median	9.08		14.30		10.61		-1.52		11.02	
Total Domestic Equity	17.46	(31)	19.65	(27)	13.78	(61)	0.32	(33)	14.29	(71)
Russell 3000 Index	17.58	(29)	18.71	(46)	14.96	(36)	-0.49	(49)	17.76	(19)
All Master Trust-US Equity Segment Median	16.16		18.60		14.39		-0.52		15.83	
Cooke & Bieler	7.10	(93)	22.25	(12)	14.97	(36)	-0.70	(27)	14.79	(83)
Russell 1000 Value Index	9.45	(77)	15.12	(76)	16.19	(25)	-4.42	(65)	18.89	(42)
IM U.S. Large Cap Value Equity (SA+CF) Median	11.72		17.92		13.13		-3.24		18.35	
NTGI S&P 500	18.00	(39)	18.60	(54)	15.53	(20)	-0.44	(59)	19.75	(44)
S&P 500 Index	17.91	(41)	18.61	(53)	15.43	(23)	-0.61	(63)	19.73	(45)
IM U.S. Large Cap Core Equity (SA+CF) Median	17.33		18.69		13.30		0.05		19.21	
Sawgrass	23.60	(59)	16.33	(86)	11.28	(53)	2.30	(65)	19.02	(41)
Russell 1000 Growth Index	26.30	(37)	21.94	(36)	13.76	(22)	3.17	(55)	19.15	(40)
IM U.S. Large Cap Growth Equity (SA+CF) Median	24.66		20.80		11.60		3.61		18.12	
NTGI S&P 400	14.29	(45)	17.43	(56)	15.43	(23)	1.48	(52)	11.89	(74)
S&P MidCap 400 Index	14.21	(49)	17.52	(49)	15.33	(32)	1.40	(65)	11.82	(83)
IM U.S. Mid Cap Core Equity (SA+CF) Median	14.19		17.51		14.02		1.49		14.26	
T Rowe Price	12.70	(26)	23.70	(22)	18.11	(42)	-1.33	(22)	3.04	(73)
Russell 2000 Value Index	9.33	(58)	20.55	(33)	18.81	(29)	-1.60	(24)	4.13	(57)
IM U.S. Small Cap Value Equity (MF) Median	10.11		18.98		17.30		-5.54		4.58	
Summit Creek	34.84	(21)	21.70	(44)	6.76	(77)	N/A		N/A	
Russell 2000 Growth Index	21.06	(70)	20.98	(51)	12.12	(48)	4.04	(46)	3.79	(48)
IM U.S. Small Cap Growth Equity (SA+CF+MF) Median	26.62		21.00		11.65		3.26		3.47	

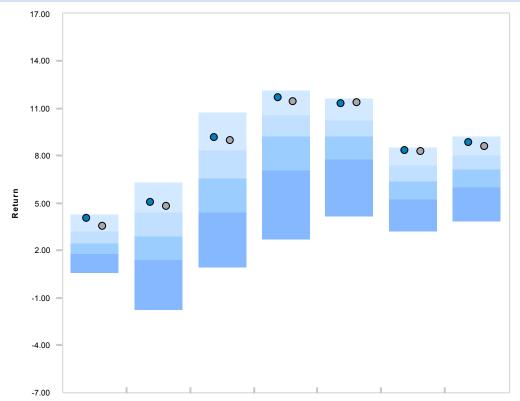


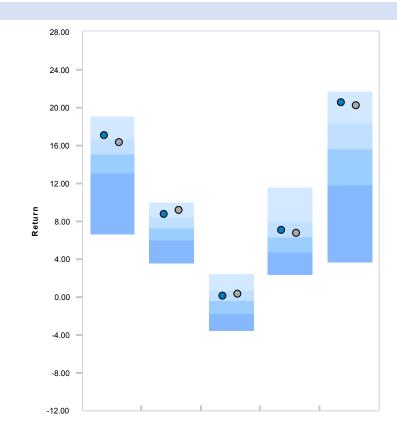
	1 Year Ending Sep-2018		1 Year Ending Sep-2017		1 Year Ending Sep-2016		1 Year Ending Sep-2015		1 Year Ending Sep-2014	
Total International Equity	2.08	(58)	20.50	(37)	6.40	(93)	-9.90	(61)	4.50	(81)
MSCI AC World ex USA (Net)	1.76	(66)	19.61	(51)	9.26	(66)	-12.16	(86)	4.77	(74
All Master Trust-Intl. Equity Segment Median	2.37		19.61		10.22		-9.25		5.83	
empleton	1.00	(26)	19.78	(68)	3.25	(53)	-9.70	(22)	3.95	(43
MSCI EAFE Value Index (Net)	-0.36	(49)	22.55	(1)	3.52	(43)	-12.60	(78)	5.65	(17
IM International Large Cap Value Equity (MF) Median	-0.42		20.52		3.34		-10.30		3.48	
1FS	4.65	(27)	20.61	(8)	5.32	(75)	-5.30	(40)	3.98	(57
MSCI EAFE Growth Index (Net)	5.85	(19)	15.68	(71)	9.47	(32)	-4.65	(30)	2.85	(66
IM International Large Cap Growth Equity (MF) Median	1.36		17.72		7.81		-5.80		4.39	
anguard EM	-1.77	(32)	22.54	(38)	19.34	(19)	-22.24	(82)	N/A	
MSCI Emerging Markets (Net) Index	-0.81	(24)	22.46	(38)	16.78	(42)	-19.28	(61)	4.30	(50
IM Emerging Markets Equity (MF) Median	-3.97		21.11		15.70		-18.44		4.28	
otal Domestic Fixed Income	-1.22	(71)	0.13	(79)	7.61	(34)	3.27	(18)	8.14	(20
Blmbg. Barc. U.S. Aggregate Index	-1.22	(71)	0.07	(80)	5.19	(68)	2.94	(25)	3.96	(68
All Master Trust-US Fixed Income Segment Median	-0.54		1.26		6.22		2.09		4.85	
schroder Intermediate Duration	-0.67	(80)	0.67	(53)	4.74	(16)	2.62	(56)	4.12	(15
Bloomberg Barclays Intermediate US Govt/Credit Idx	-0.96	(97)	0.23	(88)	3.52	(76)	2.68	(52)	2.20	(85
IM U.S. Intermediate Duration (SA+CF) Median	-0.39		0.70		3.90		2.70		2.88	
ITGI Government / Credit	-1.29	(95)	0.00	(90)	5.87	(40)	2.76	(69)	4.14	(69
Blmbg. Barc. U.S. Gov't/Credit	-1.37	(96)	-0.01	(91)	5.86	(40)	2.73	(71)	4.08	(74
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	-0.74		0.63		5.67		3.02		4.52	
Schroder Long Duration	N/A		-0.64	(85)	16.39	(16)	4.23	(15)	15.73	(5)
Blmbg. Barc. U.S. Long Government/Credit	-2.73	(78)	-0.79	(93)	14.66	(60)	3.09	(39)	12.87	(72
IM U.S. Long Duration (SA+CF) Median	-2.51		0.21		15.02		2.68		13.29	
otal Real Estate	9.17	(62)	8.00	(55)	9.59	(91)	16.08	(41)	13.11	(43
NCREIF Fund Index-ODCE (EW) (Net)	7.89	(76)	6.93	(73)	9.69	(87)	13.82	(71)	11.44	(89
IM U.S. Open End Private Real Estate (SA+CF) Median	9.69		8.29		11.32		15.45		12.78	
GIM	8.80	(67)	8.00	(55)	9.59	(91)	16.08	(41)	13.11	(43
NCREIF Fund Index-ODCE (EW) (Net)	7.89	(76)	6.93	(73)	9.69	(87)	13.82	(71)	11.44	(89
IM U.S. Open End Private Real Estate (SA+CF) Median	9.69		8.29		11.32		15.45		12.78	
rincipal Enhanced Property Fund, LP	N/A									
NCREIF Fund Index-ODCE (EW) (Net)	7.89	(76)	6.93	(73)	9.69	(87)	13.82	(71)	11.44	(89
IM U.S. Open End Private Real Estate (SA+CF) Median	9.69		8.29		11.32		15.45		12.78	

Returns for periods greater than one year are annualized. Returns are expressed as percentages.



# Peer Group Analysis - All Master Trust - Total Fund





	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2017	2016	2015	2014	2013
<ul><li>Firefighters' Total</li></ul>	4.06 (8)	5.06 (16)	9.18 (16)	11.69 (10)	11.32 (9)	8.37 (8)	8.88 (10)	Firefighters' Total	17.03 (19)	8.76 (19)	0.15 (37)	7.10 (37)	20.54 (10)
<ul><li>Sioux Falls Policy</li></ul>	3.53 (17)	4.84 (19)	9.00 (18)	11.41 (13)	11.41 (8)	8.29 (9)	8.62 (14)	<ul><li>Sioux Falls Policy</li></ul>	16.29 (31)	9.17 (14)	0.31 (33)	6.76 (43)	20.23 (12)
Median	2.48	2.92	6.55	9.22	9.23	6.42	7.15	Median	15.09	7.22	-0.43	6.36	15.62

Comparative Performance						
	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017
Firefighters' Total	1.61 (23)	-0.64 (62)	3.93 (32)	3.34 (49)	3.89 (14)	4.89 (21)
Sioux Falls Total Policy	1.95 (13)	-0.68 (65)	3.97 (29)	3.91 (16)	3.14 (39)	4.36 (46)
All Master Trust - Total Fund Median	0.90	-0.46	3.61	3.32	2.95	4.27



#### 3 Yr Rolling Under/Over Performance - 5 Years 20.0 Over Firefighters' Total (%) Performance 16.0 12.0 8.0 Under Performance 0.0 4.0 20.0 0.0 8.0 12.0 16.0 Sioux Falls Total Policy (%)

Under Performance

X Latest Date

Over Performance

Earliest Date

#### 3 Yr Rolling Percentile Ranking - 5 Years Return Percentile Rank 25.0 50.0 75.0 100.0 6/14 12/14 6/15 12/15 6/16 12/16 6/17 12/17 9/18 12/13

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
<ul><li>Firefighters' Total</li></ul>	20	20 (100%)	0 (0%)	0 (0%)	0 (0%)	
<ul> <li>Sioux Falls Policy</li> </ul>	20	18 (90%)	2 (10%)	0 (0%)	0 (0%)	

#### Peer Group Scattergram - 3 Years 12.07 $\bigcirc$ 11.36 % 10.65 9.94 9.23 9.23 8.52 5.27 5.44 5.61 5.78 5.95 6.12 6.29 6.46 6.63 Risk (Standard Deviation %)

Peer Group S	cattergran	n - 5 Years	5					
9.69		l						
ু <sup>9.12</sup> –								
9.12 — 8.55 — 7.98 —							$\circ$	
7.98								
7.41 -								
6.84	1		1		1	1	1	
5.60	5.76	5.92	6.08	6.24	6.40	6.56	6.72	6.88
			Risk (Sta	ndard Deviati	on %)			

	Return	Standard Deviation
<ul> <li>Firefighters' Total</li> </ul>	11.32	5.95
<ul> <li>Sioux Falls Policy</li> </ul>	11.41	6.39
Median	9.23	5.51

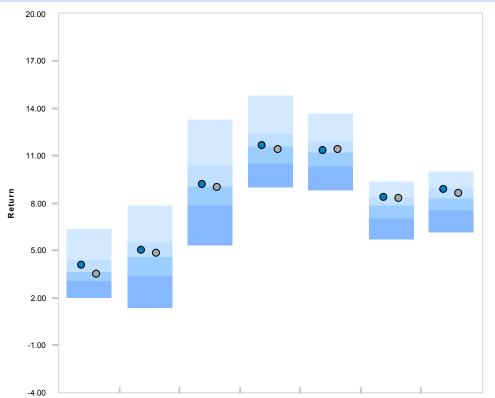
Return	Standard Deviation
8.88	6.35
8.62	6.68
7.15	5.83
	8.88 8.62

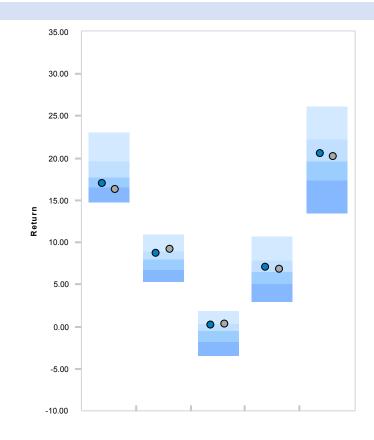
Historical Statistics - 3 Years											
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk			
Firefighters' Total	1.06	95.55	85.56	0.78	-0.10	1.71	0.92	3.06			
Sioux Falls Total Policy	0.00	100.00	100.00	0.00	N/A	1.61	1.00	3.30			

Historical Statistics - 5 Years											
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk			
Firefighters' Total	0.98	97.55	89.67	0.72	0.22	1.30	0.94	3.61			
Sioux Falls Total Policy	0.00	100.00	100.00	0.00	N/A	1.20	1.00	3.84			



# Peer Group Analysis - Master Trust >=70% Equity





	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2017	2016	2015	2014	2013
<ul> <li>Firefighters' Total Fund</li> </ul>	4.06 (36)	5.06 (38)	9.18 (48)	11.69 (47)	11.32 (46)	8.37 (28)	8.88 (29)	<ul> <li>Firefighters' Total Fund</li> </ul>	17.03 (63)	8.76 (29)	0.15 (30)	7.10 (38)	20.54 (41)
<ul><li>Sioux Falls Policy</li></ul>	3.53 (55)	4.84 (44)	9.00 (54)	11.41 (57)	11.41 (41)	8.29 (32)	8.62 (37)	<ul><li>Sioux Falls Policy</li></ul>	16.29 (83)	9.17 (21)	0.31 (27)	6.76 (43)	20.23 (43)
Median	3.66	4.59	9.08	11.60	11.20	7.89	8.33	Median	17.69	8.03	-0.58	6.45	19.65

Comparative Performance						
	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017
Firefighters' Total Fund	1.61 (39)	-0.64 (59)	3.93 (83)	3.34 (87)	3.89 (24)	4.89 (67)
Sioux Falls Total Policy	1.95 (27)	-0.68 (63)	3.97 (80)	3.91 (54)	3.14 (74)	4.36 (89)
Master Trust >=70% Equity Median	1.41	-0.54	4.43	3.95	3.42	5.15



### 3 Yr Rolling Under/Over Performance - 5 Years irefighters' Total Fund (%) 16.0 4.0 4.0 4.0 Over Performance 8.0 Under Performance 4.0 0.0 8.0 12.0 16.0 20.0 Sioux Falls Total Policy (%) Over Performance Under Performance Earliest Date X Latest Date

#### 3 Yr Rolling Percentile Ranking - 5 Years Return Percentile Rank 25.0 50.0 75.0 100.0 6/15 12/17 9/18 12/13 6/14 12/14 12/15 6/16 12/16 6/17

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
<ul><li>Firefighters' Total Fund</li></ul>	20	12 (60%)	8 (40%)	0 (0%)	0 (0%)
<ul> <li>Sioux Falls Policy</li> </ul>	20	3 (15%)	17 (85%)	0 (0%)	0 (0%)

# Peer Group Scattergram - 3 Years 11.52 11.44 11.36 11.28 11.20 11.12 5.80 6.00 6.20 6.40 6.60 6.80 Risk (Standard Deviation %)

# 9.00 8.80 8.60 8.20 6.20 6.40 6.60 6.80 7.00 7.20 Risk (Standard Deviation %)

	Return	Standard Deviation
<ul><li>Firefighters' Total Fund</li></ul>	11.32	5.95
<ul> <li>Sioux Falls Policy</li> </ul>	11.41	6.39
Median	11.20	6.56

Return	Standard Deviation
8.88	6.35
8.62	6.68
8.33	6.93
	8.88 8.62

# **Historical Statistics - 3 Years**

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Firefighters' Total Fund	1.06	95.55	85.56	0.78	-0.10	1.71	0.92	3.06
Sioux Falls Total Policy	0.00	100.00	100.00	0.00	N/A	1.61	1.00	3.30

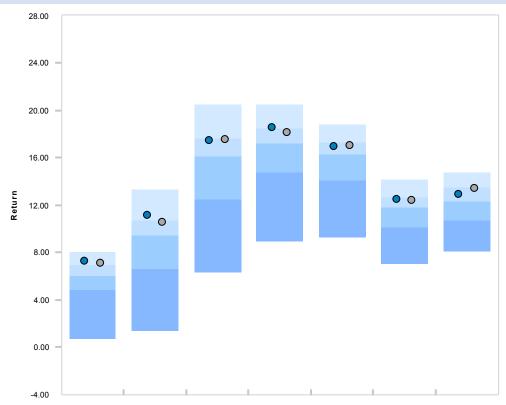
Peer Group Scattergram - 5 Years

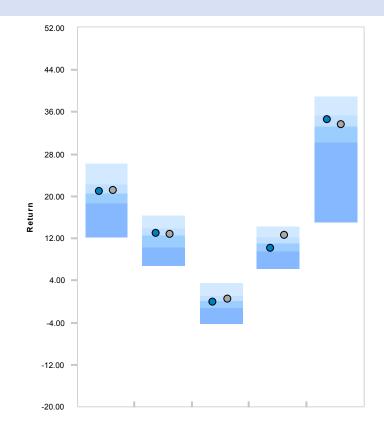
#### **Historical Statistics - 5 Years**

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Firefighters' Total Fund	0.98	97.55	89.67	0.72	0.22	1.30	0.94	3.61
Sioux Falls Total Policy	0.00	100.00	100.00	0.00	N/A	1.20	1.00	3.84



# Peer Group Analysis - All Master Trust-US Equity Segment





	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2017	2016	2015	2014	2013
<ul> <li>Total Domestic Eqty</li> </ul>	7.30 (14)	11.15 (19)	17.46 (31)	18.55 (23)	16.94 (34)	12.54 (31)	12.89 (42)	<ul> <li>Total Domestic Eqty</li> </ul>	20.88 (46)	12.94 (43)	-0.11 (56)	10.16 (64)	34.60 (34)
O Russell 3000	7.12 (19)	10.57 (31)	17.58 (29)	18.14 (33)	17.07 (30)	12.41 (37)	13.46 (27)	O Russell 3000	21.13 (42)	12.74 (46)	0.48 (41)	12.56 (21)	33.55 (47)
Median	6.00	9.51	16.16	17.25	16.32	11.80	12.36	Median	20.64	12.57	0.14	11.16	33.25

Comparative Performance						
	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017
Total Domestic Eqty	4.00 (30)	-0.40 (51)	5.68 (68)	3.97 (80)	3.96 (19)	5.82 (41)
Russell 3000	3.89 (36)	-0.64 (65)	6.34 (30)	4.57 (44)	3.02 (59)	5.74 (45)
All Master Trust-US Equity Segment Median	3.51	-0.39	6.02	4.52	3.11	5.68



Standard

### 3 Yr Rolling Under/Over Performance - 5 Years 30.0 % 24.0 Over Performance **Total Domestic** 12.0 16.0 6.0 0.0 Under Performance 6.0 12.0 30.0 0.0 18.0 24.0 Russell 3000 (%) Over Performance Under Performance Earliest Date X Latest Date

#### 3 Yr Rolling Percentile Ranking - 5 Years Return Percentile Rank 25.0 50.0 75.0 100.0 6/14 12/14 6/15 12/15 12/16 12/17 9/18 12/13 6/16

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
<ul> <li>Total Domestic Eqty</li> </ul>	20	1 (5%)	11 (55%)	8 (40%)	0 (0%)
O Russell 3000	20	2 (10%)	18 (90%)	0 (0%)	0 (0%)

#### Peer Group Scattergram - 3 Years 17.40 % 17.10 16.80 16.50 $\bigcirc$ 16.20 8.73 8.82 8.91 9.00 9.09 9.18 9.27 Risk (Standard Deviation %)

Pe	er Gr	oup S	cattergram - 5	Years					
	13.68								
8	13.32							-	
Ξ	12.96	-							
Return	12.60	· -							
	12.24	-							
	11.88		1	1	1				
		9.24	9.30	9.36	9.42	9.48	9.54	9.60	9.66
				ı	Risk (Standard D	Deviation %)			

	Return	Standard Deviation
<ul> <li>Total Domestic Eqty</li> </ul>	16.94	8.73
<ul><li>Russell 3000</li></ul>	17.07	9.17
Median	16.32	9.12

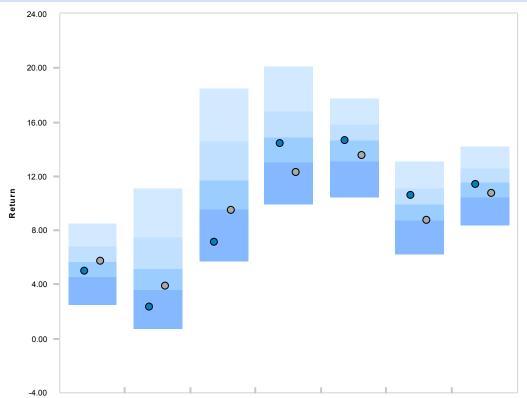
	Return	Standard Deviation
<ul> <li>Total Domestic Eqty</li> </ul>	12.89	9.30
<ul><li>Russell 3000</li></ul>	13.46	9.57
Median	12.36	9.47

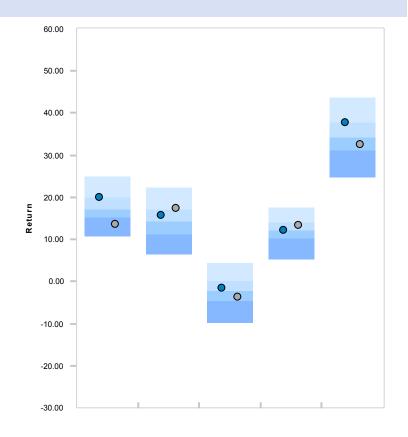
Historical Statistics	- 3 Years							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Domestic Eqty	1.82	96.51	88.54	0.94	-0.08	1.76	0.93	4.18
Russell 3000	0.00	100.00	100.00	0.00	N/A	1.69	1.00	4.41

<b>Historical Statistics</b>	- 5 Years							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Domestic Eqty	1.64	95.05	93.49	0.03	-0.32	1.31	0.96	5.06
Russell 3000	0.00	100.00	100.00	0.00	N/A	1.32	1.00	5.16



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





	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2017	2016	2015	2014	2013
Cooke & Bieler	4.96 (67)	2.31 (88)	7.10 (93)	14.43 (57)	14.61 (51)	10.57 (36)	11.40 (58)	Ocoke & Bieler	20.02 (25)	15.80 (38)	-1.65 (45)	12.04 (53)	37.64 (26)
O Russell 1000 V	5.70 (49)	3.92 (71)	9.45 (77)	12.25 (83)	13.55 (71)	8.76 (74)	10.72 (71)	O Russell 1000 V	13.66 (89)	17.34 (25)	-3.83 (70)	13.45 (35)	32.53 (62)
Median	5.64	5.14	11.72	14.90	14.64	9.93	11.57	Median	17.22	14.35	-2.22	12.24	34.26

Comparative Performance						
	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017
Cooke & Bieler	-0.37 (93)	-2.16 (57)	4.68 (84)	2.07 (92)	5.39 (4)	6.58 (8)
Russell 1000 Value	1.18 (65)	-2.83 (75)	5.33 (76)	3.11 (80)	1.34 (73)	3.27 (70)
IM U.S. Large Cap Value Equity (SA+CF) Median	1.70	-1.96	6.31	4.10	2.07	3.99



9/18

# 3 Yr Rolling Under/Over Performance - 5 Years Over Performance 18.0 12.0 0.0 12.0 Russell 1000 Value (%)

Under Performance

X Latest Date

Over Performance

Earliest Date

# 3 Yr Rolling Percentile Ranking - 5 Years 25.0 50.0 75.0 100.0

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
<ul><li>Cooke &amp; Bieler</li></ul>	20	4 (20%)	10 (50%)	6 (30%)	0 (0%)	
Russell 1000 V	20	0 (0%)	8 (40%)	12 (60%)	0 (0%)	

6/16

12/16

6/17

12/17

12/15

6/15

12/14

12/13

6/14

# Peer Group Scattergram - 3 Years 15.12 14.76 14.40 13.68 13.32 4.80 4.96 5.12 5.28 5.44 5.60 5.76 5.92 6.08 Risk (Standard Deviation %)

Peer Group Sca	attergram - 9	5 Years					
11.89							
11.60 - 11.31 - 11.02 - 2 10.73			•				
11.02							
10.73	0						
7.62	7.68	7.74	7.80	7.86	7.92	7.98	8.04
			Risk (Standard I	Deviation %)			

	Return	Standard Deviation
<ul><li>Cooke &amp; Bieler</li></ul>	14.61	5.41
<ul><li>Russell 1000 V</li></ul>	13.55	5.07
Median	14.64	5.90

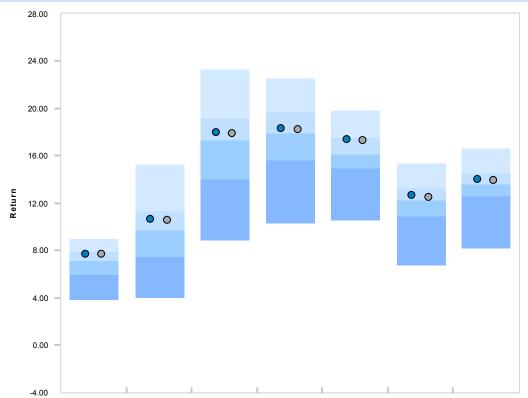
	Return	Standard Deviation
<ul><li>Cooke &amp; Bieler</li></ul>	11.40	7.78
<ul><li>Russell 1000 V</li></ul>	10.72	7.68
Median	11.57	7.98

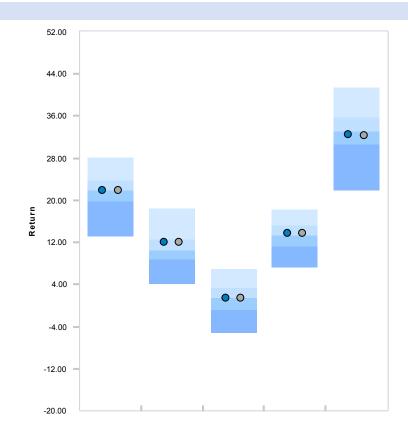
<b>Historical Statistics -</b>	3 Years							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Cooke & Bieler	3.22	97.07	74.45	1.13	0.30	1.38	0.99	4.89
Russell 1000 Value	0.00	100.00	100.00	0.00	N/A	1.34	1.00	4.55

<b>Historical Statistics -</b>	5 Years							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Cooke & Bieler	2.92	97.46	86.29	0.73	0.23	1.09	0.99	5.69
Russell 1000 Value	0.00	100.00	100.00	0.00	N/A	1.07	1.00	5.45



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

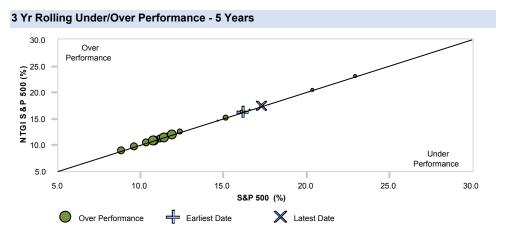




	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2017	2016	2015	2014	2013
<ul> <li>NTGI S&amp;P 500</li> </ul>	7.75 (31)	10.63 (37)	18.00 (39)	18.30 (42)	17.37 (28)	12.64 (37)	14.03 (40)	● NTGI S&P 500	21.83 (50)	12.03 (32)	1.50 (47)	13.82 (42)	32.48 (57)
O S&P 500	7.71 (33)	10.56 (38)	17.91 (41)	18.26 (43)	17.31 (30)	12.55 (42)	13.95 (42)	○ S&P 500	21.83 (50)	11.96 (34)	1.38 (51)	13.69 (44)	32.39 (59)
Median	7.11	9.76	17.33	17.91	16.11	12.23	13.57	Median	21.82	10.52	1.41	13.42	32.98

Comparative Performance						
	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017
NTGI S&P 500	3.46 (31)	-0.76 (67)	6.66 (51)	4.48 (58)	3.07 (46)	6.07 (44)
S&P 500	3.43 (33)	-0.76 (66)	6.64 (52)	4.48 (58)	3.09 (44)	6.07 (44)
IM U.S. Large Cap Core Equity (SA+CF) Median	2.89	-0.40	6.67	4.62	2.96	5.92





#### 3 Yr Rolling Percentile Ranking - 5 Years 0.0 Return Percentile Rank 25.0 75.0 100.0 6/14 12/16 6/17 12/17 9/18 12/13 12/14 6/15 12/15 6/16

		Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
_	<ul> <li>NTGI S&amp;P 500</li> </ul>	20	0 (0%)	12 (60%)	8 (40%)	0 (0%)	
	O S&P 500	20	0 (0%)	12 (60%)	8 (40%)	0 (0%)	

#### Peer Group Scattergram - 3 Years 17.63 17.22 % 16.81 16.40 15.99 15.58 4.60 4.70 4.80 4.90 5.00 5.10 5.20 5.30 5.40 Risk (Standard Deviation %)

Pee	er Gro	oup Sca	ittergram -	5 Years					
	14.20							ı	
(%)	14.00	-	8						
Return	13.80	-							
S.	13.60	-							
	13.40		-			1			
			7.08	7.14	7.20	7.26	7.32	7.38	7.44
				ı	Risk (Standard I	Deviation %)			

	Return	Standard Deviation
<ul> <li>NTGI S&amp;P 500</li> </ul>	17.37	4.76
○ S&P 500	17.31	4.75
Median	16.11	5.26

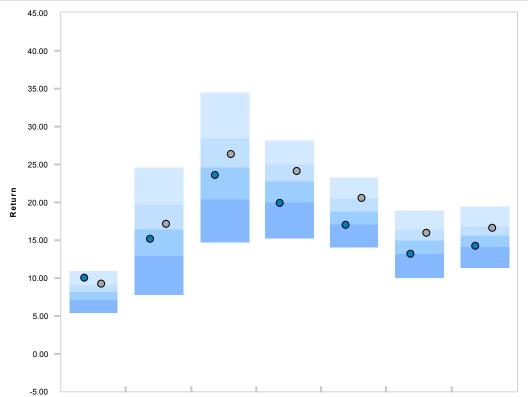
	Return	Standard Deviation
<ul> <li>NTGI S&amp;P 500</li> </ul>	14.03	7.07
○ S&P 500	13.95	7.07
Median	13.57	7.38

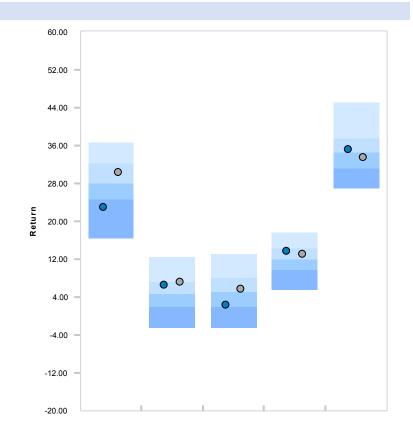
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
NTGI S&P 500	0.04	100.20	99.84	0.05	1.42	1.74	1.00	4.10
S&P 500	0.00	100.00	100.00	0.00	N/A	1.73	1.00	4.10

nistorical statistics - 5 Tears								
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
NTGI S&P 500	0.05	100.19	99.59	0.07	1.40	1.39	1.00	4.97
S&P 500	0.00	100.00	100.00	0.00	N/A	1.38	1.00	4.98



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





	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2017	2016	2015	2014	2013
<ul><li>Sawgrass</li></ul>	10.05 (13)	15.15 (60)	23.60 (59)	19.91 (77)	16.96 (76)	13.11 (76)	14.27 (73)	<ul><li>Sawgrass</li></ul>	23.01 (82)	6.49 (34)	2.24 (73)	13.77 (32)	35.25 (45)
O Russell 1000 G	9.17 (25)	17.09 (46)	26.30 (37)	24.10 (35)	20.55 (23)	15.95 (30)	16.58 (31)	O Russell 1000 G	30.21 (38)	7.08 (27)	5.67 (45)	13.05 (38)	33.48 (59)
Median	8.19	16.46	24.66	22.76	18.85	15.02	15.70	Median	28.10	4.66	4.97	11.90	34.52

Comparative Performance								
	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017		
Sawgrass	4.57 (59)	0.07 (82)	7.34 (34)	4.01 (79)	3.23 (83)	6.73 (81)		
Russell 1000 Growth	5.76 (40)	1.42 (60)	7.86 (21)	5.90 (34)	4.67 (55)	8.91 (46)		
IM U.S. Large Cap Growth Equity (SA+CF) Median	5.21	1.97	6.89	5.40	4.94	8.70		

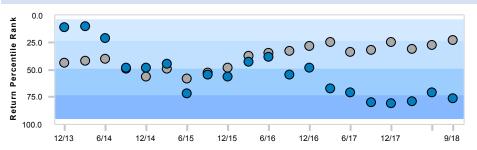


## 3 Yr Rolling Under/Over Performance - 5 Years 30.0 Over 24.0 (%) 18.0 (1.00 12 Performance × 6.0 Under Performance 0.0 6.0 30.0 0.0 12.0 18.0 24.0 Russell 1000 Growth (%)

Under Performance

X Latest Date

## 3 Yr Rolling Percentile Ranking - 5 Years

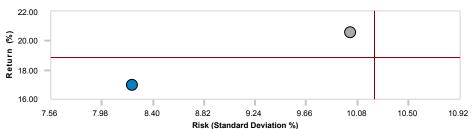


	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
<ul><li>Sawgrass</li></ul>	20	3 (15%)	6 (30%)	7 (35%)	4 (20%)	
<ul><li>Russell 1000 G</li></ul>	20	3 (15%)	14 (70%)	3 (15%)	0 (0%)	

## Peer Group Scattergram - 3 Years

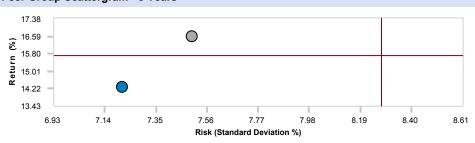
Earliest Date

Over Performance



	Risk (Standard Deviation %)						
		Return	Standard Deviation				
0	Sawgrass	16.96	8.24				
0	Russell 1000 G	20.55	10.02				
	Median	18.85	10.23				

## Peer Group Scattergram - 5 Years



	Return	Standard Deviation
<ul><li>Sawgrass</li></ul>	14.27	7.21
<ul><li>Russell 1000 G</li></ul>	16.58	7.50
Median	15.70	8.28

## **Historical Statistics - 3 Years**

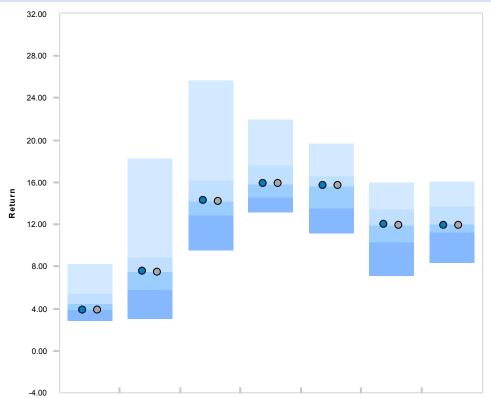
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Sawgrass	3.99	82.14	78.18	1.45	-0.81	1.87	0.76	3.57
Russell 1000 Growth	0.00	100.00	100.00	0.00	N/A	1.85	1.00	4.26

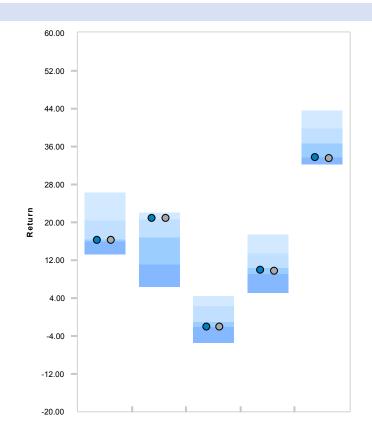
## **Historical Statistics - 5 Years**

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Sawgrass	3.49	85.01	81.96	0.82	-0.62	1.51	0.81	4.29
Russell 1000 Growth	0.00	100.00	100.00	0.00	N/A	1.51	1.00	4.88



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

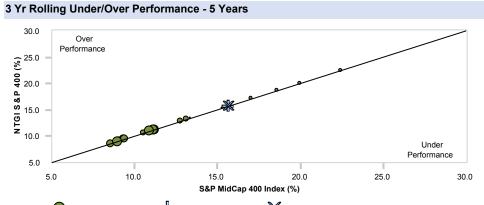




	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2017	2016	2015	2014	2013
<ul> <li>NTGI S&amp;P 400</li> </ul>	3.88 (67)	7.55 (45)	14.29 (45)	15.85 (49)	15.71 (41)	11.97 (47)	11.96 (53)	<ul> <li>NTGI S&amp;P 400</li> </ul>	16.20 (73	3) 20.79 (19)	-2.08 (67)	9.83 (57)	) 33.75 (74)
<ul><li>S&amp;P MidCap 400 Index</li></ul>	3.86 (71)	7.49 (49)	14.21 (49)	15.85 (49)	15.68 (47)	11.93 (53)	11.91 (58)	○ S&P MidCap 400 Index	16.24 (67	7) 20.74 (24)	-2.18 (76)	9.77 (66)	) 33.50 (83)
Median	4.46	7.48	14.19	15.84	15.64	11.95	11.98	Median	16.49	16.80	-0.97	10.25	36.57

Comparative Performance						
	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017
NTGI S&P 400	4.31 (22)	-0.75 (46)	6.27 (54)	3.24 (56)	1.89 (66)	3.95 (71)
S&P MidCap 400 Index	4.29 (25)	-0.77 (55)	6.25 (60)	3.22 (64)	1.97 (55)	3.94 (76)
IM U.S. Mid Cap Core Equity (SA+CF) Median	3.76	-0.76	6.27	3.47	1.98	4.70





### 3 Yr Rolling Percentile Ranking - 5 Years Return Percentile Rank 25.0 50.0 75.0 100.0 6/14 6/15 12/15 6/16 12/16 6/17 12/17 9/18 12/13 12/14 5-25 25-Median Median-75 75-95

S&P MidCap 400 Index (%)		Total Period	Count	Count	Count	Count	
	<ul> <li>NTGI S&amp;P 400</li> </ul>	20	0 (0%)	8 (40%)	12 (60%)	0 (0%)	
Over Performance	S&P MidCap 400 Index	20	0 (0%)	5 (25%)	11 (55%)	4 (20%)	
Peer Group Scattergram - 3 Years	Peer Group Scattergran	n - 5 Years					

## Peer Group Scattergram - 3 Years 15.75 15.69 15.60 15.63 15.60 10.20 10.21 10.22 10.23 10.24 Risk (Standard Deviation %)

•	. O. Gu	o cattor gram	0 100.0	
	12.03			
(%	12.00 <b>–</b> 11.97 <b>–</b> 11.94 <b>–</b>			
ב ב	11.97			
Retu	11.94 -			
	11.91 -		$\circ$	
	11.88			
	10.4	17		10.48

	Return	Standard Deviation
<ul> <li>NTGI S&amp;P 400</li> </ul>	15.71	10.23
<ul><li>S&amp;P MidCap 400 Index</li></ul>	15.68	10.22
Median	15.64	10.21

	Return	Standard Deviation
<ul> <li>NTGI S&amp;P 400</li> </ul>	11.96	10.48
<ul><li>S&amp;P MidCap 400 Index</li></ul>	11.91	10.47
Median	11.98	10.47

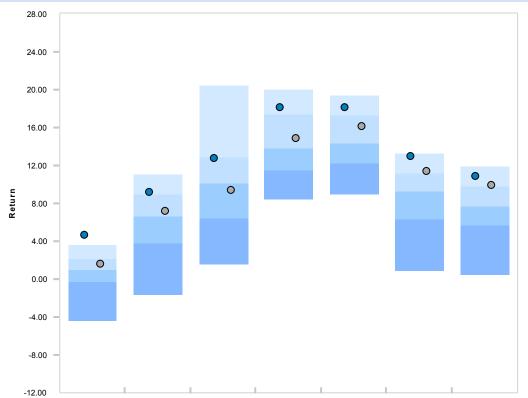
Risk (Standard Deviation %)

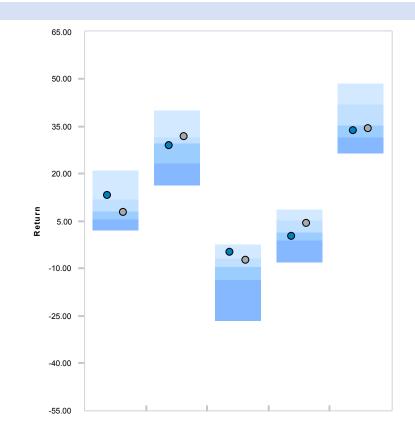
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
NTGI S&P 400	0.06	100.09	99.88	0.02	0.51	1.41	1.00	5.19
S&P MidCap 400 Index	0.00	100.00	100.00	0.00	N/A	1.41	1.00	5.20

Historical Statistics - 5	ears/							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
NTGI S&P 400	0.04	100.13	99.81	0.04	1.02	1.09	1.00	5.88
S&P MidCap 400 Index	0.00	100.00	100.00	0.00	N/A	1.08	1.00	5.89



## Peer Group Analysis - IM U.S. Small Cap Value Equity (MF)





	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2017	2016	2015	2014	2013
<ul><li>T Rowe Price</li></ul>	4.61 (4)	9.11 (23)	12.70 (26)	18.07 (18)	18.08 (23)	12.90 (13)	10.85 (12)	<ul><li>T Rowe Price</li></ul>	13.36 (17)	28.97 (57)	-4.70 (9)	0.14 (65)	33.84 (58)
O Russell 2000 V	1.60 (30)	7.14 (43)	9.33 (58)	14.80 (48)	16.12 (38)	11.41 (22)	9.91 (23)	O Russell 2000 V	7.84 (54)	31.74 (22)	-7.47 (37)	4.22 (32)	34.52 (55)
Median	0.97	6.63	10.11	13.78	14.27	9.22	7.73	Median	8.23	29.65	-9.59	1.56	35.20

Comparative Performance						
	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017
T Rowe Price	6.01 (77)	-1.61 (44)	3.29 (59)	5.90 (42)	2.30 (27)	1.31 (17)
Russell 2000 Value	8.30 (45)	-2.64 (60)	2.05 (80)	5.11 (60)	0.67 (54)	-0.13 (31)
IM U.S. Small Cap Value Equity (MF) Median	8.00	-1.97	3.59	5.56	0.84	-0.91



## 3 Yr Rolling Under/Over Performance - 5 Years 24.0 Over 18.0 **A Price** (%) 18.0 **C Price** (%) 18.0 Performance Under Performance 0.0 6.0 12.0 0.0 18.0 24.0 Russell 2000 Value (%) Over Performance Under Performance

# 3 Yr Rolling Percentile Ranking - 5 Years 25.0 50.0 12/13 6/14 12/14 6/15 12/15 6/16 12/16 6/17 12/17 9/18

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
<ul><li>T Rowe Price</li></ul>	20	9 (45%)	7 (35%)	4 (20%)	0 (0%)	
<ul><li>Russell 2000 V</li></ul>	20	4 (20%)	15 (75%)	1 (5%)	0 (0%)	

## Peer Group Scattergram - 3 Years 20.00 E 16.00 12.00 11.04 11.52 12.00 12.48 12.96 13.44 13.92 14.40 Risk (Standard Deviation %)

X Latest Date

Earliest Date

Pe	er Grou	p Scattergram -	5 Years					
(%)	12.00	•				0		
Return	8.00 —							
	6.00	11.84	12.21	12.58	12.95	13.32	13.69	14.06
				Risk (Standard I	Deviation %)			

	Return	Standard Deviation
<ul><li>T Rowe Price</li></ul>	18.08	11.64
<ul><li>Russell 2000 V</li></ul>	16.12	13.39
Median	14.27	13.78

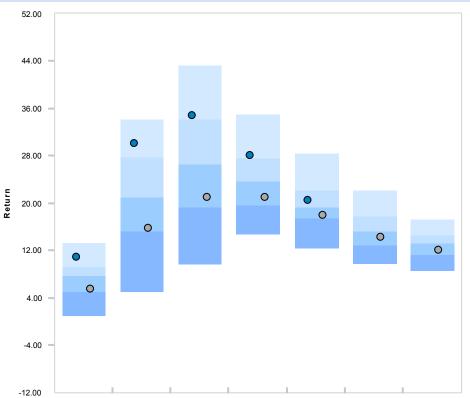
	Return	Standard Deviation
<ul><li>T Rowe Price</li></ul>	10.85	11.86
<ul><li>Russell 2000 V</li></ul>	9.91	13.40
Median	7.73	13.46

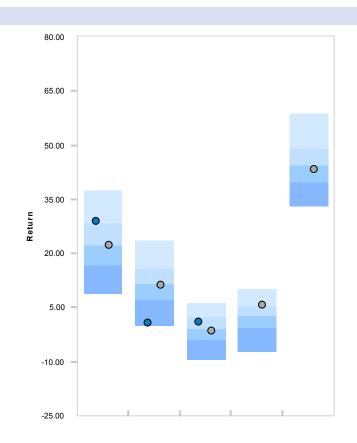
<b>Historical Statistics -</b>	3 Years							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
T Rowe Price	3.15	95.86	74.99	3.94	0.47	1.43	0.85	5.61
Russell 2000 Value	0.00	100.00	100.00	0.00	N/A	1.13	1.00	6.65

<b>Historical Statistics -</b>	5 Years							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
T Rowe Price	2.86	93.34	83.34	2.04	0.23	0.89	0.87	6.82
Russell 2000 Value	0.00	100.00	100.00	0.00	N/A	0.74	1.00	7.77



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





	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		20 <sup>-</sup>	17	201	6	2015	20	14 2	013
<ul> <li>Summit Creek</li> </ul>	10.91 (15)	30.05 (18)	34.84 (21)	28.10 (24)	20.55 (40)	N/A	N/A	<ul><li>Summit Creek</li></ul>	28.90	(20)	0.83	(93) 0.9	95 (36)	N/A	N/A	4
<ul><li>Russell 2000 Growth Index</li></ul>	5.52 (70)	15.76 (74)	21.06 (70)	21.02 (64)	17.98 (69)	14.33 (60)	12.14 (65)	Russell 2000 Growth Index	22.17	(51)	11.32	(51) -1.3	88 (54)	5.60	(24) 43.30	ე (57)
Median	7.71	21.00	26.62	23.65	19.36	15.28	13.22	Median	22.22		11.34	-0.8	88	2.57	44.30	6

Comparative Performance						
	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017
Summit Creek	11.48 (29)	5.19 (19)	3.68 (68)	6.10 (48)	8.16 (13)	8.34 (15)
Russell 2000 Growth Index	7.23 (74)	2.30 (53)	4.59 (53)	6.22 (46)	4.39 (60)	5.35 (52)
IM U.S. Small Cap Growth Equity (SA+CF+MF) Median	9.20	2.51	4.68	5.85	4.98	5.54



Count

0 (0%)

0 (0%)

## 3 Yr Rolling Under/Over Performance - 5 Years 25.0 Over Performance **Summit Creek** (%) 20.0 15.0 15.0 $\times$ Under Performance 5.0 10.0 15.0 20.0 25.0 5.0 Russell 2000 Growth Index (%) X Latest Date Earliest Date Over Performance

## 3 Yr Rolling Percentile Ranking - 5 Years Return Percentile Rank 25.0 50.0 75.0 100.0 6/14 12/14 6/15 12/15 6/16 12/16 12/17 9/18 12/13 5-25 25-Median Median-75 75-95

Count

0 (0%)

0 (0%)

Count

2 (50%)

10 (50%)

Count

2 (50%)

10 (50%)

**Total Period** 

4

20

Pe	er Grou	ıp Scattergram - 3 Years	
	21.36		1
	20.47 =		
	19.58 =		
Return	18.69 =	_	
œ	17.80 -	0	
	16.91		]

	•	•				
13.6	58					
§ 13.3	32 -					
	96 –					
12.6 12.6	30 <b>–</b>					
12.2	24 -	0				
11.8	38					
	14.01	14.02	14.03	14.04	14.05	14.06
			Risk (Standard D	Deviation %)		

	Return	Standard Deviation
<ul><li>Summit Creek</li></ul>	20.55	11.20
<ul> <li>Russell 2000 Growth Index</li> </ul>	17.98	13.20
Median	19.36	13.67

12.18

Risk (Standard Deviation %)

12.76

13.34

13.92

14.50

Return	Standard Deviation
N/A	N/A
12.14	14.02
13.22	14.05
	N/A 12.14

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Summit Creek	6.50	91.96	57.63	6.71	0.30	1.68	0.74	6.09
Russell 2000 Growth Index	0.00	100.00	100.00	0.00	N/A	1.27	1.00	8.04

Summit Creek

O Russell 2000 Growth Index

Peer Group Scattergram - 5 Years

mistorical Statistics - 5 Tea	15							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Summit Creek	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 2000 Growth Index	0.00	100.00	100.00	0.00	N/A	0.86	1.00	9.01



10.44

11.02

11.60

### Peer Group Analysis - All Master Trust-Intl. Equity Segment 44.00 16.00 36.00 12.00 28.00 00 00 00 8.00 20.00 0 Return 0 0 00 4.00 12.00 0 0 0 0.00 4.00 0 0 -4.00 -4.00 -8.00 -12.00 -12.00 -20.00 QTR **FYTD** 1 YR 2 YR 3 YR 4 YR 5 YR 2017 2016 2015 2014 2013 Total Int'l Eqty 1.26 (28) -1.91 (42) 2.08 (58) 10.91 (45) 9.39 (84) 4.21 (82) 4.27 (88) Total Int'l Eqty 26.47 (68) 2.97 (68) -3.49 (58) -5.66 (95) 16.89 (60) MSCI AC Wd exUSA-Net 0.71 (51) -3.09 (71) 1.76 (66) 10.33 (66) 9.97 (69) 3.96 (86) 4.12 (91) MSCI AC Wd exUSA-Net 27.19 (62) 4.50 (48) -5.66 (82) -3.87 (79) 15.29 (74) Median 0.71 -2.24 2.37 10.76 10.70 5.14 5.42 Median 28.11 4.25 -3.05 -2.62 18.11 **Comparative Performance** 1 Qtr 1 Qtr 1 Qtr 1 Qtr 1 Qtr 1 Qtr Ending Ending **Ending Ending** Ending Ending Jun-2018 Mar-2018 Dec-2017 Sep-2017 Jun-2017 Mar-2017 Total Int'l Eqty -2.30 (50) -0.84 (67) 4.07 (80) 5.05 (85) 6.78 (31) 8.34 (51)

5.00

4.82

(42)

6.16

6.02

(44)

5.78

6.21

(69)



7.86

8.35

(69)

MSCI AC World ex USA (Net)

All Master Trust-Intl. Equity Segment Median

-2.61 (60)

-2.31

-1.18 (77)

-0.42

12/17

9/18

## 3 Yr Rolling Under/Over Performance - 5 Years 18.0 Over Performance Total Inf'l Eq ty (%) 6.0 Under Performance -6.0 0.0 6.0 18.0 -6.0 12.0 MSCI AC World ex USA (Net) (%) Over Performance Under Performance Earliest Date

## 3 Yr Rolling Percentile Ranking - 5 Years Return Percentile Rank 25.0 50.0 75.0

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
<ul><li>Total Int'l Eqty</li></ul>	20	0 (0%)	2 (10%)	6 (30%)	12 (60%)	
<ul> <li>MSCI AC Wd exUSA-Net</li> </ul>	20	0 (0%)	0 (0%)	1 (5%)	19 (95%)	

6/16

12/16

12/15

6/15

12/14

## Peer Group Scattergram - 3 Years 11.00 (%) 10.56 10.12 9.68 $\bigcirc$ 9.24 8.80 10.35 10.44 10.53 10.62 10.71 10.80 Risk (Standard Deviation %)

X Latest Date

Pe	er Gro	oup Scattergra	m - 5 Years					
	6.02							
_	5.59 =							
%	5.59 = 5.16 = 4.73 =	-						
eturi	4.73 =	-						
ă	4.30	-						
	3.87						,	
		10.71	10.80	10.89	10.98	11.07	11.16	11.25
				Risk (Standa	rd Deviation %)			

	Return	Standard Deviation
Total Int'l Eqty	9.39	10.56
<ul><li>MSCI AC Wd exUSA-Net</li></ul>	9.97	10.73
Median	10.70	10.37

98.69

100.00

1.91

0.00

	Return	Standard Deviation	
Total Int'l Eqty	4.27	10.98	
<ul><li>MSCI AC Wd exUSA-Net</li></ul>	4.12	11.10	
Median	5.42	10.73	

0.39

0.38

0.97

1.00

<b>Historical Statistics - 3 Years</b>								
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Int'l Eqty	1.93	96.44	98.26	-0.23	-0.29	0.83	0.97	5.93
MSCI AC World ex USA (Net)	0.00	100.00	100.00	0.00	N/A	0.87	1.00	5.96
Historical Statistics - 5 Years								
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk

0.25

0.00

0.07

N/A

97.25

100.00

100.0

12/13



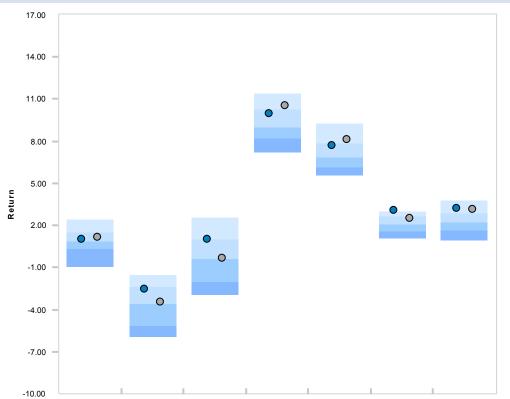
7.10

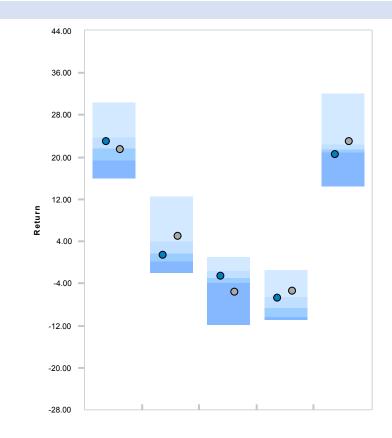
7.19

Total Int'l Eqty

MSCI AC World ex USA (Net)

## Peer Group Analysis - IM International Large Cap Value Equity (MF)

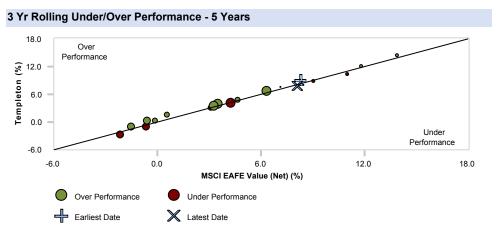




	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2017	2016	2015	2014	2013
Templeton	0.99 (49)	-2.55 (30)	1.00 (26)	9.99 (27)	7.70 (31)	3.06 (4)	3.24 (13)	<ul><li>Templeton</li></ul>	22.97 (34)	1.30 (56)	-2.67 (45)	-6.78 (29)	20.47 (82)
MSCI EAFE V (Net)	1.18 (43)	-3.49 (47)	-0.36 (49)	10.50 (16)	8.12 (20)	2.52 (31)	3.14 (17)	<ul><li>MSCI EAFE V (Net)</li></ul>	21.44 (53)	5.02 (22)	-5.68 (78)	-5.39 (14)	22.95 (20)
Median	0.85	-3.57	-0.42	8.94	6.83	2.08	2.19	Median	21.63	1.68	-2.96	-8.59	21.50

Comparative Performance						
	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017
Templeton	-1.62 (18)	-1.91 (74)	3.64 (47)	4.76 (87)	5.61 (43)	7.24 (24)
MSCI EAFE Value (Net)	-2.64 (32)	-2.03 (75)	3.24 (57)	5.87 (35)	4.78 (54)	6.05 (64)
IM International Large Cap Value Equity (MF) Median	-2.82	-1.52	3.44	5.22	4.92	6.49





## 3 Yr Rolling Percentile Ranking - 5 Years 25.0 25.0 25.0 12/13 6/14 12/14 6/15 12/15 6/16 12/16 6/17 12/17 9/18

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
<ul><li>Templeton</li></ul>	20	6 (30%)	13 (65%)	1 (5%)	0 (0%)
<ul><li>MSCI EAFE V (Net)</li></ul>	20	6 (30%)	13 (65%)	1 (5%)	0 (0%)

## Peer Group Scattergram - 3 Years 8.60 8.17 7.74 6.88 6.45 10.20 10.50 10.80 11.10 11.40 11.70 12.00 12.30 Risk (Standard Deviation %)

Peer Group Sca	attergram	- 5 Years					
3.50							
3.15					(	$\supset$	
3.15 = 2.80 = 2.45 = 2.45						_	
2.45							
2.10							
1.75		1	1		1	1	
10.80	11.00	11.20	11.40	11.60	11.80	12.00	12.20
		1	Risk (Standard D	Deviation %)			

	Return	Standard Deviation
<ul><li>Templeton</li></ul>	7.70	11.03
<ul><li>MSCI EAFE V (Net)</li></ul>	8.12	11.79
Median	6.83	10.46

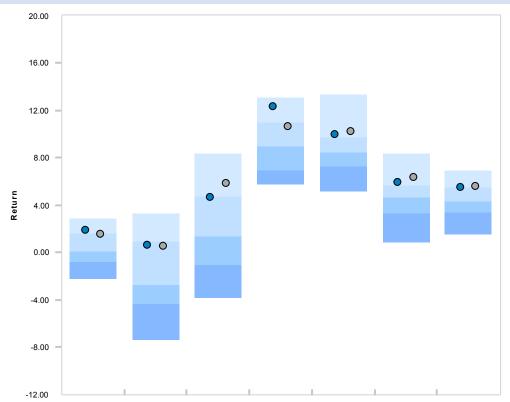
Return	Deviation
3.24	11.15
3.14	11.91
2.19	11.05
	3.24 3.14

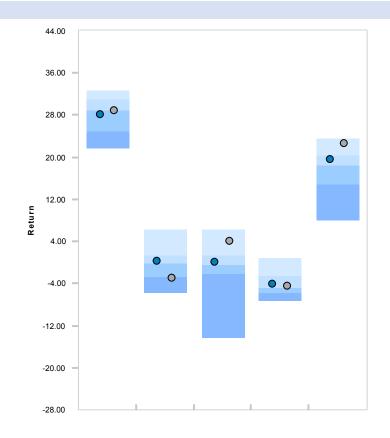
Historical Statistics - 3 Ye	ears							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Templeton	3.11	91.57	89.76	0.34	-0.16	0.66	0.90	6.81
MSCI EAFE Value (Net)	0.00	100.00	100.00	0.00	N/A	0.65	1.00	7.52

<b>Historical Statistics - 5 Y</b>	ears							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Templeton	2.99	91.52	89.33	0.36	0.00	0.30	0.91	7.32
MSCI EAFE Value (Net)	0.00	100.00	100.00	0.00	N/A	0.28	1.00	8.11



## Peer Group Analysis - IM International Large Cap Growth Equity (MF)

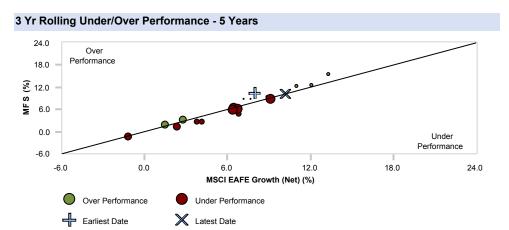




	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2017	2016	2015	2014	2013
MFS	1.87 (19)	0.63 (28)	4.65 (27)	12.35 (9)	9.96 (21)	5.92 (21)	5.53 (25)	 <ul><li>MFS</li></ul>	28.06 (57)	0.28 (46)	0.02 (43)	-4.21 (37)	19.47 (37)
MSCI EAFE G(Net)	1.53 (29)	0.58 (28)	5.85 (19)	10.66 (29)	10.26 (17)	6.33 (16)	5.62 (22)	<ul><li>MSCI EAFE G(Net)</li></ul>	28.86 (50)	-3.04 (78)	4.09 (9)	-4.43 (42)	22.55 (10)
Median	0.10	-2.76	1.36	8.98	8.48	4.64	4.32	Median	28.78	-0.06	-0.46	-4.83	18.48

Comparative Performance						
	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017
MFS	0.16 (24)	-1.37 (69)	4.00 (54)	4.38 (71)	8.98 (18)	8.24 (54)
MSCI EAFE Growth (Net)	0.11 (24)	-1.04 (58)	5.24 (9)	4.94 (54)	7.52 (40)	8.52 (48)
IM International Large Cap Growth Equity (MF) Median	-2.34	-0.71	4.07	5.14	7.14	8.37





## 3 Yr Rolling Percentile Ranking - 5 Years Return Percentile Rank 0 50.0 75.0 100.0 6/14 12/14 6/15 12/15 6/16 12/16 12/17 9/18 12/13 6/17

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
<ul><li>MFS</li></ul>	20	9 (45%)	9 (45%)	2 (10%)	0 (0%)	
<ul> <li>MSCI EAFE G(Net)</li> </ul>	20	9 (45%)	11 (55%)	0 (0%)	0 (0%)	

## Peer Group Scattergram - 3 Years 10.62 10.03 9.44 8.85 8.26 7.67 9.80 10.00 Risk (Standard Deviation %)

Peer Gro	up Scattergram - 5 Yea	irs			
6.02		•		0	
5.59 = 5.16 = 4.73 = 4.30 =					
3.87	48 10.52	10.56	10.60	10.64	10.68
		Risk (Standard Dev	viation %)		

	Return	Standard Deviation
<ul><li>MFS</li></ul>	9.96	9.94
<ul><li>MSCI EAFE G(Net)</li></ul>	10.26	10.40
Median	8.48	10.32

	Return	Standard Deviation
<ul><li>MFS</li></ul>	5.53	10.58
<ul><li>MSCI EAFE G(Net)</li></ul>	5.62	10.64
Median	4.32	10.51

Historical Statistics - 3 Years										
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk		
MFS	3.09	95.53	94.07	0.58	-0.10	0.93	0.91	5.46		
MSCI EAFE Growth (Net)	0.00	100.00	100.00	0.00	N/A	0.92	1.00	5.82		

Historical Statistics - 5 Years											
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk			
MFS	2.62	98.88	99.07	0.13	-0.03	0.52	0.96	6.83			
MSCI EAFE Growth (Net)	0.00	100.00	100.00	0.00	N/A	0.52	1.00	6.76			



### Peer Group Analysis - IM Emerging Markets Equity (MF) 25.00 65.00 20.00 50.00 15.00 0 0 0 35.00 00 10.00 5.00 00 0 20.00 Return 0.00 00 0 5.00 -5.00 00 0 0 -10.00 -10.00 00 -15.00 -25.00 -20.00 -25.00 -40.00 QTR **FYTD** 1 YR 2 YR 3 YR 4 YR 5 YR 2017 2016 2015 2014 2013 -1.77 (32) 12.83 (17) Vanguard EM 0.18 (15) -6.73 (19) 9.72 (25) 2.81 (41) N/A 32.00 (68) 16.86 (10) 15.26 (66) -6.62 (84) N/A 3.61 (32) ● MSCI Emerging Mk-Net 37.28 (42) 11.19 (30) 14.92 (63) -2.19 (43) -2.60 (58) -7.68 (28) -0.81 (24) 10.21 (19) 12.36 (21) 3.44 (31) Median -2.42 -9.72 -3.97 7.84 10.24 2.35 2.92 Median 35.37 8.35 13.66 -2.92 -1.42 **Comparative Performance** 1 Qtr 1 Qtr 1 Qtr 1 Qtr 1 Qtr 1 Qtr

**Ending** 

Dec-2017

5.32 (73)

7.44 (22)

6.38

Ending

Sep-2017

(54)

(49)

7.64

7.89

7.84

Ending

Jun-2017

(81)

(41)

4.13

6.27

5.97

Ending

Jun-2018

-9.67 (63)

-7.96 (32)

-9.06

Ending

Mar-2018

3.07 (24)

1.42 (62)

1.97



Ending

Mar-2017

11.81 (52)

11.44 (57)

11.94

Vanguard EM

MSCI Emerging Markets (Net) Index

IM Emerging Markets Equity (MF) Median

## 3 Yr Rolling Under/Over Performance - 5 Years 18.0 Over Nauguard EM (%) 12.0 6.0 6.0 Performance Under Performance -6.0 -6.0 0.0 6.0 12.0 18.0 MSCI Emerging Markets (Net) Index (%) Over Performance Under Performance Earliest Date X Latest Date

## 3 Yr Rolling Percentile Ranking - 5 Years 0.0 Return Percentile Rank 25.0 75.0 100.0 6/14 12/17 9/18 12/13 12/14 6/15 12/15 6/16 12/16 6/17

		Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
• \	Vanguard EM	8	1 (13%)	5 (63%)	2 (25%)	0 (0%)	
0 1	MSCI Emerging Mk-Net	20	1 (5%)	8 (40%)	11 (55%)	0 (0%)	

## Peer Group Scattergram - 3 Years 13.76 12.90 12.04 11.18 10.32 9.46 13.20 13.40 13.60 13.80 14.00 14.20 14.40 Risk (Standard Deviation %)

Peer Group So	attergram -	5 Years					
3.90							
<b>3</b> .60 –						0	
3.30 –							
3.00 –							
13.50	13.68	13.86	14.04	14.22	14.40	14.58	14.76
			Risk (Standard [	Deviation %)			

	Return	Standard Deviation
<ul><li>Vanguard EM</li></ul>	12.83	14.15
<ul> <li>MSCI Emerging Mk-Net</li> </ul>	12.36	14.09
Median	10.24	13.43

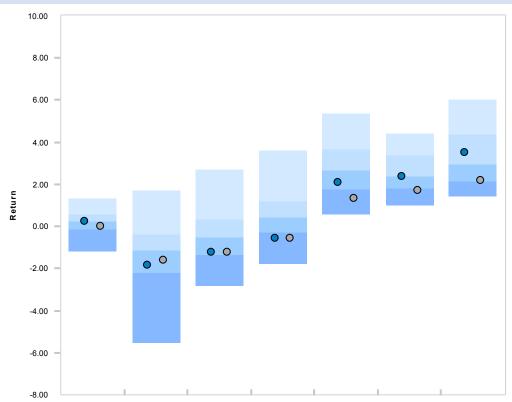
	Return	Standard Deviation		
<ul><li>Vanguard EM</li></ul>	N/A	N/A		
<ul> <li>MSCI Emerging Mk-Net</li> </ul>	3.61	14.54		
Median	2.92	13.77		

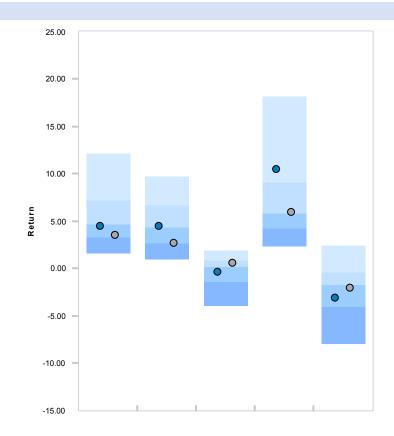
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Vanguard EM	2.86	100.07	96.85	0.64	0.15	0.87	0.98	7.19
MSCI Emerging Markets (Net) Index	0.00	100.00	100.00	0.00	N/A	0.84	1.00	7.30

mistorical statistics - 5 Tears								
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Vanguard EM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MSCI Emerging Markets (Net) Index	0.00	100.00	100.00	0.00	N/A	0.28	1.00	9.46



## Peer Group Analysis - All Master Trust-US Fixed Income Segment





	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2017	2016	2015	2014	2013
<ul><li>Total Domestic Fx</li></ul>	0.24 (52)	-1.86 (73)	-1.22 (71)	-0.55 (83)	2.10 (62)	2.39 (49)	3.52 (38)	<ul><li>Total Domestic Fx</li></ul>	4.52 (52)	4.45 (50)	-0.33 (62)	10.45 (23)	-3.13 (69)
<ul><li>Barclays Agg</li></ul>	0.02 (68)	-1.60 (67)	-1.22 (71)	-0.57 (83)	1.31 (86)	1.72 (80)	2.16 (75)	<ul><li>Barclays Agg</li></ul>	3.54 (69)	2.65 (77)	0.55 (35)	5.97 (48)	-2.02 (58)
Median	0.26	-1.11	-0.54	0.45	2.67	2.36	2.96	Median	4.70	4.33	0.16	5.87	-1.74

Comparative Performance						
	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017
Total Domestic Fx	-0.02 (43)	-2.07 (79)	0.65 (46)	0.88 (66)	1.91 (35)	1.01 (69)
Barclays Aggregate	-0.16 (54)	-1.46 (71)	0.39 (66)	0.85 (70)	1.45 (59)	0.82 (81)
All Master Trust-US Fixed Income Segment Median	-0.11	-1.08	0.60	1.11	1.58	1.32



Standard

## 3 Yr Rolling Under/Over Performance - 5 Years 8.0 Over Total Domestic Fx (%) 0.9 0.9 0.9 Performance Under Performance 0.0 2.0 4.0 6.0 8.0 0.0 Barclays Aggregate (%) Earliest Date X Latest Date Over Performance

# 3 Yr Rolling Percentile Ranking - 5 Years 25.0 25.0 75.0 12/13 6/14 12/14 6/15 12/15 6/16 12/16 6/17 12/17 9/18

		Total Period	5-2 Cou		25-Me Cou		Media Cou		75-9 Cou	
<ul><li>Total [</li></ul>	Domestic Fx	20	4	(20%)	13	(65%)	2	(10%)	1	(5%)
<ul><li>Barcla</li></ul>	ys Agg	20	0	(0%)	0	(0%)	9	(45%)	11	(55%)

# Peer Group Scattergram - 3 Years 3.15 2.70 2.25 1.80 1.35 0.90 2.40 2.60 2.80 3.00 3.20 3.40 Risk (Standard Deviation %)

Peer Group S	cattergram	ı - 5 Years	;					
4.05 3.60 – 3.15 –								
3.60 — 3.15 — 2.70 — 2.25 —	0							
1.80	2.64	2.86	3.08	3.30	3.52	3.74	3.96	4.18
			Risk (Sta	ndard Deviation	on %)			

	Return	Standard Deviation
<ul><li>Total Domestic Fx</li></ul>	2.10	3.24
<ul><li>Barclays Agg</li></ul>	1.31	2.62
Median	2.67	2.67

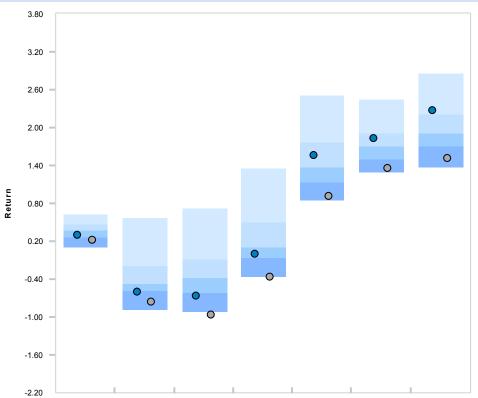
Return	Deviation
3.52	3.80
2.16	2.68
2.96	2.87
	3.52 2.16

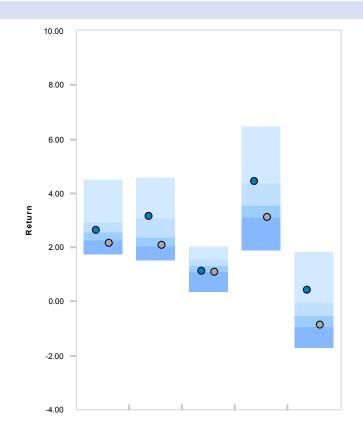
Historical Statistics -	3 Years							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Domestic Fx	1.04	128.86	114.04	0.55	0.76	0.41	1.19	2.14
Barclays Aggregate	0.00	100.00	100.00	0.00	N/A	0.20	1.00	1.81

Historical Statistics - 5 Years											
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk			
Total Domestic Fx	1.46	143.57	127.90	0.57	0.93	0.79	1.36	2.17			
Barclays Aggregate	0.00	100.00	100.00	0.00	N/A	0.62	1.00	1.62			



## Peer Group Analysis - IM U.S. Intermediate Duration (SA+CF)





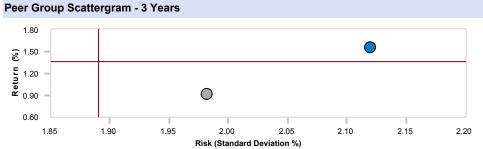
	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2017	2016	2015	2014	2013
<ul> <li>Schroder Interm Duration</li> </ul>	0.29 (70)	-0.60 (77)	-0.67 (80)	0.00 (66)	1.55 (32)	1.82 (34)	2.27 (21)	<ul> <li>Schroder Interm Duration</li> </ul>	2.65 (41)	3.14 (24)	1.12 (73)	4.44 (23)	0.42 (16)
<ul><li>Barclays Interm G/C</li></ul>	0.21 (87)	-0.76 (91)	-0.96 (97)	-0.37 (96)	0.91 (94)	1.35 (92)	1.52 (91)	<ul><li>Barclays Interm G/C</li></ul>	2.14 (84)	2.08 (73)	1.07 (76)	3.13 (76)	-0.86 (70)
Median	0.37	-0.48	-0.39	0.11	1.37	1.70	1.91	Median	2.54	2.39	1.30	3.57	-0.53

	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017
Schroder Interm Duration	0.09 (60)	-0.98 (69)	-0.07 (75)	0.74 (46)	1.10 (29)	0.86 (33)
Bloomberg Barclays Intermediate US Govt/Credit Idx	0.01 (86)	-0.98 (69)	-0.20 (94)	0.60 (83)	0.94 (70)	0.78 (59)
IM U.S. Intermediate Duration (SA+CF) Median	0.12	-0.90	0.01	0.72	1.01	0.81

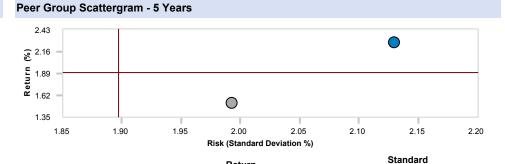


## 3 Yr Rolling Under/Over Performance - 5 Years Over Performance ·#· 88 Under Performance 1.5 3.0 4.5 6.0 0.0 Bloomberg Barclays Intermediate US Govt/Credit Idx (%) Earliest Date X Latest Date Over Performance

### 3 Yr Rolling Percentile Ranking - 5 Years Return Percentile Rank 25.0 50.0 0000000000000 100.0 12/14 6/15 12/15 6/16 12/16 12/17 9/18 12/13 5-25 25-Median Median-75 75-95 **Total Period** Count Count Count Count Schroder Interm Duration 20 13 (65%) 7 (35%) 0 (0%) 0 (0%) Barclays Interm G/C 20 0 (0%) 0 (0%) 0 (0%) 20 (100%)



0.00							
0.60	I		1			I	
1.85	1.90	1.95	2.00	2.05	2.10	2.15	2.20
			Risk (Standard I	Deviation %)			
			Return			Standard Deviation	
<ul><li>Schroder I</li></ul>	Interm Duration		1.55			2.12	
<ul> <li>Barclays I</li> </ul>	nterm G/C		0.91			1.98	
Median			1.37			1.89	



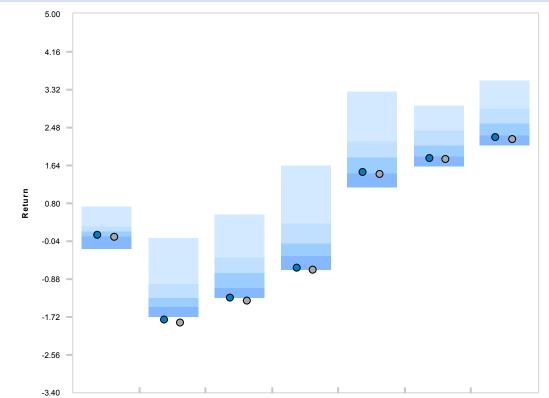
Return	Standard Deviation
2.27	2.13
1.52	1.99
1.91	1.90
	2.27 1.52

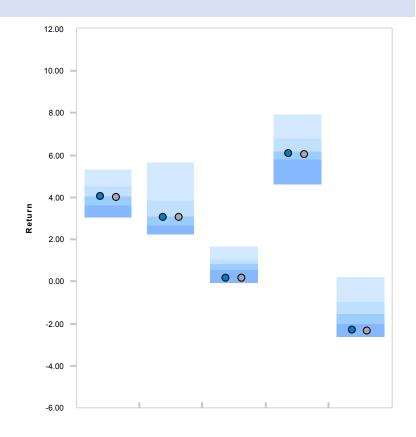
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Schroder Interm Duration	0.77	113.82	90.07	0.65	0.83	0.36	1.00	1.31
Bloomberg Barclays Intermediate US Govt/Credit Idx	0.00	100.00	100.00	0.00	N/A	0.06	1.00	1.31

HISTORICAI STATISTICS - 5 Years	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Schroder Interm Duration	0.67	114.80	88.58	0.73	1.12	0.83	1.02	1.15
Bloomberg Barclays Intermediate US Govt/Credit Idx	0.00	100.00	100.00	0.00	N/A	0.51	1.00	1.18



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





	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2017	2016	2015	2014	2013
<ul><li>NTGI G/C</li></ul>	0.08 (73)	-1.79 (99)	-1.29 (95)	-0.65 (95)	1.48 (75)	1.80 (82)	2.26 (82)	<ul><li>NTGI G/C</li></ul>	4.05 (51)	3.04 (54)	0.17 (87)	6.10 (57)	-2.29 (90)
<ul><li>Barclays G/C</li></ul>	0.06 (76)	-1.85 (100)	-1.37 (96)	-0.69 (96)	1.45 (76)	1.77 (85)	2.23 (85)	<ul><li>Barclays G/C</li></ul>	4.00 (54)	3.05 (54)	0.15 (89)	6.01 (64)	-2.35 (92)
Median	0.19	-1.29	-0.74	-0.09	1.82	2.09	2.58	Median	4.06	3.10	0.82	6.17	-1.56

Comparative Performance						
	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017
NTGI G/C	-0.31 (95)	-1.56 (90)	0.50 (52)	0.81 (85)	1.69 (26)	1.00 (44)
Blmbg. Barc. U.S. Gov't/Credit	-0.33 (95)	-1.58 (91)	0.49 (55)	0.81 (85)	1.69 (26)	0.96 (49)
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	-0.09	-1.37	0.51	0.93	1.54	0.94



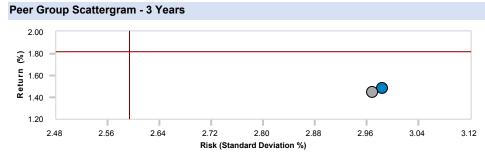
# 3 Yr Rolling Under/Over Performance - 5 Years Over Performance 1.5 Under Performance Outer Performance 1.5 Blimbg. Barc. U.S. Gov't/Credit (%)

X Latest Date

100.00

## 3 Yr Rolling Percentile Ranking - 5 Years Return Percentile Rank 25.0 50.0 75.0 100.0 6/14 6/16 12/16 12/17 9/18 12/13 12/14 6/15 12/15 6/17

		Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
	NTGI G/C	20	0 (0%)	0 (0%)	11 (55%)	9 (45%)
C	Barclays G/C	20	0 (0%)	0 (0%)	9 (45%)	11 (55%)



Earliest Date

Over Performance

## Peer Group Scattergram - 5 Years 2.80 2.60 2.40 2.20 2.59 2.66 2.73 2.80 2.87 2.94 3.01 3.08 3.15 Risk (Standard Deviation %)

	Return	Standard Deviation
<ul><li>NTGI G/C</li></ul>	1.48	2.98
<ul><li>Barclays G/C</li></ul>	1.45	2.97
Median	1.82	2.59

0.00

	Return	Standard Deviation	
NTGI G/C	2.26	3.05	
<ul><li>Barclays G/C</li></ul>	2.23	3.04	
Median	2.58	2.66	

0.57

1.00

<b>Historical Statistics - 3 Years</b>								
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
NTGI G/C	0.07	100.99	100.48	0.02	0.43	0.24	1.00	2.03
Blmbg. Barc. U.S. Gov't/Credit	0.00	100.00	100.00	0.00	N/A	0.23	1.00	2.03
Historical Statistics - 5 Years								
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
NTGI G/C	0.09	100.82	100.26	0.03	0.40	0.58	1.00	1.85

0.00

100.00

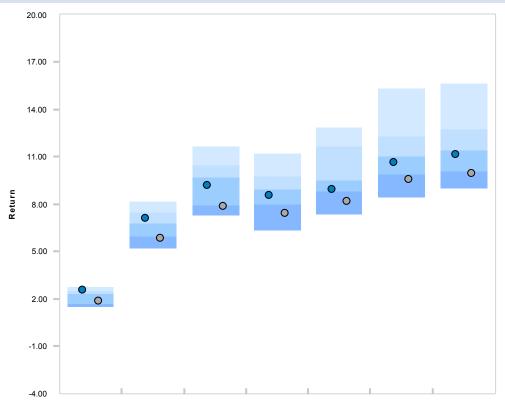
N/A

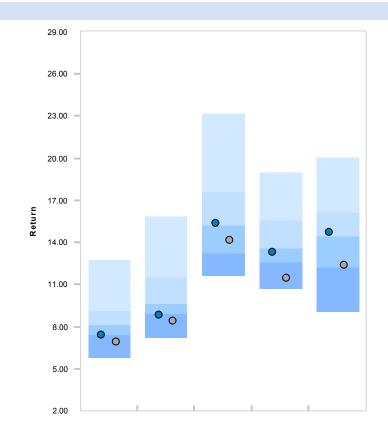


1.86

Blmbg. Barc. U.S. Gov't/Credit

## Peer Group Analysis - IM U.S. Open End Private Real Estate (SA+CF)





	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2017	2016	2015	2014	2013
<ul> <li>Total Real Estate</li> </ul>	2.57 (20)	7.14 (38)	9.17 (62)	8.59 (54)	8.92 (66)	10.67 (55)	11.15 (55)	<ul> <li>Total Real Estate</li> </ul>	7.43 (76)	8.80 (81)	15.36 (44)	13.32 (56)	14.71 (43)
<ul><li>NCREIF Fund Index</li></ul>	1.88 (69)	5.84 (77)	7.89 (76)	7.41 (82)	8.17 (84)	9.55 (81)	9.93 (78)	<ul><li>NCREIF Fund Index</li></ul>	6.92 (84)	8.36 (84)	14.18 (72)	11.42 (90)	12.36 (71)
Median	2.35	6.78	9.69	8.94	9.53	11.06	11.41	Median	8.08	9.63	15.23	13.59	14.47

Comparative Performance						
	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017
Total Real Estate	1.92 (80)	2.48 (30)	1.90 (79)	2.22 (34)	1.64 (78)	1.47 (75)
NCREIF Fund Index-ODCE (EW) (Net)	1.89 (81)	1.96 (75)	1.94 (75)	1.68 (61)	1.51 (85)	1.62 (57)
IM U.S. Open End Private Real Estate (SA+CF) Median	2.25	2.22	2.25	1.75	1.91	1.91



## 3 Yr Rolling Under/Over Performance - 5 Years 18.0 Over Total Real Estate (%) 0.01 0.01 Performance Under Performance 6.0 12.0 9.0 15.0 18.0 6.0 NCREIF Fund Index-ODCE (EW) (Net) (%) Earliest Date X Latest Date Over Performance

# 3 Yr Rolling Percentile Ranking - 5 Years 25.0 50.0 12/13 6/14 12/14 6/15 12/15 6/16 12/16 6/17 12/17 9/18

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
<ul> <li>Total Real Estate</li> </ul>	20	0 (0%)	1 (5%)	19 (95%)	0 (0%)	
<ul> <li>NCREIF Fund Inde</li> </ul>	ex 20	0 (0%)	0 (0%)	1 (5%)	19 (95%)	

## Peer Group Scattergram - 3 Years 9.90 **Return** (%) 9.00 9.00 8.55 8.10 $\bigcirc$ 8.10 7.65 0.72 0.81 0.90 0.99 1.08 1.17 1.26 1.35 1.44 Risk (Standard Deviation %)

Pe	er Gro	up Scatte	ergran	n - 5 Years						
	12.00									
	11.50									
§ -	11.50 11.00 10.50	-								
etur	10.50	-								
œ	10.00	-								
	9.50									
			1.26	1.35	1.44	1.53	1.62	1.71	1.80	1.89
					Risk (Sta	ndard Deviati	on %)			

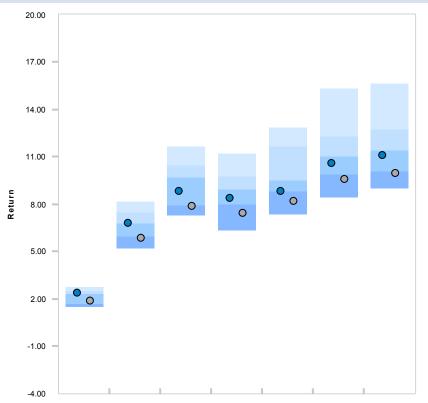
	Return	Standard Deviation
<ul><li>Total Real Estate</li></ul>	8.92	0.89
<ul> <li>NCREIF Fund Index</li> </ul>	8.17	0.82
Median	9.53	1.29

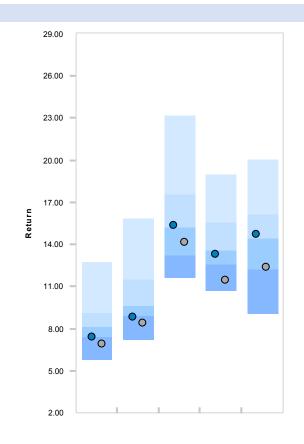
Historical Statistics - 3 Years								
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Real Estate	0.63	108.93	N/A	0.12	1.12	2.17	1.07	0.00
NCREIF Fund Index-ODCE (EW) (Net)	0.00	100.00	N/A	0.00	N/A	2.15	1.00	0.00

Historical Statistics - 5 Years								
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Real Estate	1.02	111.89	N/A	0.05	1.12	2.18	1.11	0.00
NCREIF Fund Index-ODCE (EW) (Net)	0.00	100.00	N/A	0.00	N/A	2.20	1.00	0.00



## Peer Group Analysis - IM U.S. Open End Private Real Estate (SA+CF)





	QTR	FYTD	1 YR	2 YR	3 YR	4 Y	R 5	YR			2017	2016	2015	2014	2013
• PGIM	2.40 (43)	6.77 (52)	8.80 (67)	8.40 (57)	8.79 (	78) 10.57	(56) 11.0	7 (56)	• F	PGIM	7.43 (76)	8.80 (81)	5.36 (44)	3.32 (56)	4.71 (43)
<ul> <li>NCREIF Fund Index-ODCE (EW) (Net)</li> </ul>	1.88 (69)	5.84 (77)	7.89 (76)	7.41 (82)	8.17 (8	84) 9.55	(81) 9.9	3 (78)	0 1	NCREIF Fund Index-ODCE (EW) (Net)	6.92 (84)	8.36 (84)	4.18 (72)	1.42 (90)	2.36 (71)
Median	2.35	6.78	9.69	8.94	9.53	11.06	11.4	1	ľ	Median	8.08	9.63	5.23	3.59	4.47

	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017
PGIM	1.81 (89)	2.41 (35)	1.90 (79)	2.22 (34)	1.64 (78)	1.47 (75)
NCREIF Fund Index-ODCE (EW) (Net)	1.89 (81)	1.96 (75)	1.94 (75)	1.68 (61)	1.51 (85)	1.62 (57)
IM U.S. Open End Private Real Estate (SA+CF) Median	2.25	2.22	2.25	1.75	1.91	1.91



## 3 Yr Rolling Under/Over Performance - 5 Years 18.0 Over Performance 15.0 % 12.0 **B** 12.0 9.0 Under Performance 6.0 12.0 9.0 15.0 18.0 6.0 NCREIF Fund Index-ODCE (EW) (Net) (%)

X Latest Date

# 3 Yr Rolling Percentile Ranking - 5 Years 25.0 50.0 12/13 6/14 12/14 6/15 12/15 6/16 12/16 6/17 12/17 9/18 Total 5-25 25-Median Median-75 75-95

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
● PGIM	20	0 (0%)	1 (5%)	18 (90%)	1 (5%)	
<ul><li>NCREIF Fund Index-ODCE (EW) (Net)</li></ul>	20	0 (0%)	0 (0%)	1 (5%)	19 (95%)	

## Peer Group Scattergram - 3 Years 9.90 **Return** (%) 9.00 9.55 8.55 $\bigcirc$ 8.10 7.65 0.72 0.81 0.90 0.99 1.08 1.17 1.26 1.35 1.44 Risk (Standard Deviation %)

Earliest Date

Over Performance

NCREIF Fund Index-ODCE (EW) (Net)

Pe	er Group Sca	ttergram - 8	5 Years					
	12.00							
<u>.</u>	. 11.50 —							
€ -	11.50 -							
etur	10.50 -							
œ	10.00							
	9.50							
	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90
			1	Risk (Standard I	Deviation %)			

	Return	Standard Deviation
<ul><li>PGIM</li></ul>	8.79	0.87
<ul> <li>NCREIF Fund Index-ODCE (EW) (Net)</li> </ul>	8.17	0.82
Median	9.53	1.29

0.00

100.00

	Return	Deviation
• PGIM	11.07	1.69
<ul><li>NCREIF Fund Index-ODCE (EW) (Net)</li></ul>	9.93	1.31
Median	11.41	1.78

2.20

1.00

N/A

Historical Statistics - 3 Years								
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
PGIM	0.57	107.45	N/A	0.10	1.04	2.17	1.06	0.00
NCREIF Fund Index-ODCE (EW) (Net)	0.00	100.00	N/A	0.00	N/A	2.15	1.00	0.00
Historical Statistics - 5 Years								
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
PGIM	1.00	111.16	N/A	0.02	1.07	2.17	1.11	0.00

0.00

N/A

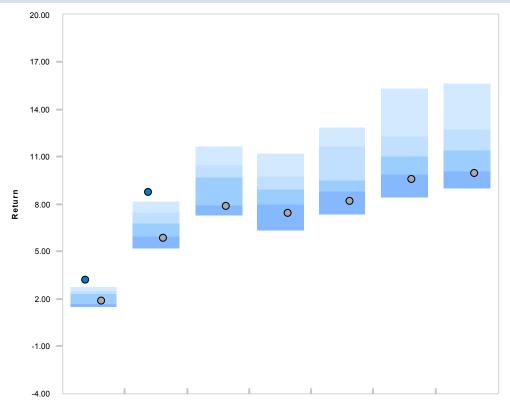


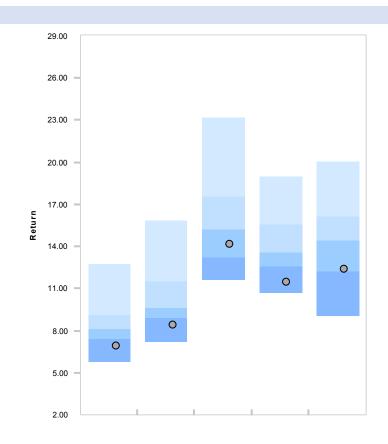
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## Peer Group Analysis - IM U.S. Open End Private Real Estate (SA+CF)





	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2017	2016	2015	2014	2013
<ul> <li>Principal Enhanced</li> </ul>	3.19 (1)	8.74 (1)	N/A	N/A	N/A	N/A	N/A	<ul> <li>Principal Enhanced</li> </ul>	N/A	N/A	N/A	N/A	N/A
<ul><li>NCREIF Fund Index</li></ul>	1.88 (69)	5.84 (77)	7.89 (76)	7.41 (82)	8.17 (84)	9.55 (81)	9.93 (78)	<ul><li>NCREIF Fund Index</li></ul>	6.92 (84)	8.36 (84)	14.18 (72)	11.42 (90)	12.36 (71)
Median	2.35	6.78	9.69	8.94	9.53	11.06	11.41	Median	8.08	9.63	15.23	13.59	14.47

Comparative Performance						
	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017
Principal Enhanced	2.33 (44)	2.99 (12)	N/A	N/A	N/A	N/A
NCREIF Fund Index-ODCE (EW) (Net)	1.89 (81)	1.96 (75)	1.94 (75)	1.68 (61)	1.51 (85)	1.62 (57)
IM U.S. Open End Private Real Estate (SA+CF) Median	2.25	2.22	2.25	1.75	1.91	1.91



Portfolio Characteristics (Benchmark: Russell 1000 Value Index)							
	Portfolio	Benchmark					
Wtd. Avg. Mkt. Cap (\$)	79,616,894,196	126,935,326,977					
Median Mkt. Cap (\$)	33,597,288,270	9,935,306,040					
Price/Earnings ratio	16.5	16.4					
Price/Book ratio	2.4	2.2					
5 Yr. EPS Growth Rate (%)	11.1	7.2					
Current Yield (%)	2.0	2.5					
Beta (5 Years, Monthly)	0.99	1.00					
Number of Stocks	50	727					

Top Ten Equity Holdings (Benchmark: Russell 1000 Value Index)						
	Portfolio Wt	Benchmark Wt	Active Wt	Qtr Rtrn		
AerCap Holdings NV	3.3	0.0	3.3	6.2		
Allergan PLC	3.2	0.5	2.7	14.7		
Crown Holdings Inc	3.0	0.0	3.0	7.2		
Arrow Electronics Inc	3.0	0.0	3.0	-2.1		
Verizon Communications Inc	3.0	1.6	1.4	7.4		
Gildan Activewear Inc	3.0	0.0	3.0	8.5		
IntercontinentalExchange	2.8	0.2	2.6	2.1		
Brookfield Asset Management	2.6	0.0	2.6	10.2		
Colfax Corp	2.5	0.0	2.5	17.7		
Chubb Ltd	2.5	0.5	2.0	5.8		

Ten Best Performers (Benchmark: Russell 1000 Value Index)							
	Portfolio Wt	Benchmark Wt	Active Wt	<b>Quarterly Rtrn</b>			
World Fuel Services Corp	1.3	0.0	1.3	35.9			
Ball Corp	1.8	0.1	1.7	24.0			
Abbott Laboratories	1.3	0.9	0.4	20.3			
Progressive Corp (The)	1.4	0.0	1.4	20.1			
Colfax Corp	2.5	0.0	2.5	17.7			
Eaton Corp Plc	2.2	0.3	1.9	17.0			
Snap-On Inc	2.0	0.1	1.9	14.8			
Berkshire Hathaway Inc	2.0	2.7	-0.7	14.7			
Allergan PLC	3.2	0.5	2.7	14.7			
Johnson & Johnson	2.5	2.2	0.3	14.6			

Ten Worst Performers (Ben	Fen Worst Performers (Benchmark: Russell 1000 Value Index)							
	Portfolio Wt	Benchmark Wt	Active Wt	Quarterly Rtrn				
Whirlpool Corp	1.7	0.1	1.6	-18.1				
Applied Materials Inc.	1.8	0.0	1.8	-15.9				
Hanesbrands Inc	1.6	0.0	1.6	-15.6				
Omnicom Group Inc.	2.3	0.0	2.3	-10.0				
State Street Corp	2.4	0.2	2.2	-9.5				
Schlumberger Ltd	1.5	0.6	0.9	-8.4				
CBRE Group Inc	1.5	0.1	1.4	-7.6				
Synchrony Financial	1.8	0.1	1.7	-6.2				
Wells Fargo & Co	2.2	1.7	0.5	-4.5				
Axalta Coating Systems Ltd	1.2	0.0	1.2	-3.8				

Buy and Hold Sector Attribution (Benchmark: Russell 1000 Value Index)						Portfolio Comparison			
	Alloc	ation	Perfo	mance		Attribution			Cooke & Bieler
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Total	Market Capitalization (%)	
Communication Services	5.7	6.7	-0.91	6.21	-0.41	-0.01	-0.41	Greater than 25000M	53.2
Consumer Discretionary	9.2	5.5	-3.05	0.32	-0.31	-0.20	-0.51	16000M To 25000M	6.1
Consumer Staples	4.3	7.3	1.15	4.71	-0.15	0.03	-0.12	12000M To 16000M	8.7
Energy	4.9	11.1	7.06	1.48	0.27	0.26	0.54	8000M To 12000M	10.0
Financials	27.0	23.3	4.66	4.19	0.13	-0.06	0.07	5000M To 8000M	15.2
Health Care	13.0	13.9	11.24	15.60	-0.57	-0.09	-0.65	3000M To 5000M	2.5
Industrials	15.8	7.9	11.18	8.32	0.45	0.21	0.66	1000M To 3000M	1.3
Information Technology	9.7	9.6	-0.48	8.21	-0.85	0.00	-0.84	Cash	3.1
Materials	6.1	4.1	11.88	-0.09	0.73	-0.12	0.62		
Real Estate	1.7	4.9	-7.63	0.72	-0.14	0.16	0.02		
Utilities	0.0	5.7	0.00	2.44	0.00	0.19	0.19		
Cash	2.6	0.0	0.00	0.00	0.00	-0.15	-0.15		
Total	100.0	100.0	5.10	5.69	-0.84	0.24	-0.60		



Portfolio Characteristics (Benchmark: Russell 1000 Growth Index)						
	Portfolio	Benchmark				
Wtd. Avg. Mkt. Cap (\$)	215,861,301,959	313,613,099,484				
Median Mkt. Cap (\$)	66,495,168,490	12,897,250,560				
Price/Earnings ratio	25.0	29.3				
Price/Book ratio	5.9	7.5				
5 Yr. EPS Growth Rate (%)	8.4	16.3				
Current Yield (%)	1.3	1.2				
Beta (5 Years, Monthly)	0.81	1.00				
Number of Stocks	49	542				

Top Ten Equity Holdings (Benchmark: Russell 1000 Growth Index)						
	Portfolio Wt	Benchmark Wt	Active Wt	Qtr Rtrn		
Apple Inc	4.9	7.9	-3.0	22.4		
Microsoft Corp	4.7	5.9	-1.2	16.4		
Alphabet Inc	3.8	2.6	1.2	6.9		
Home Depot Inc. (The)	3.4	1.7	1.7	6.7		
Walt Disney Co (The)	3.2	0.9	2.3	12.5		
Amgen Inc	3.0	0.9	2.1	13.1		
Mastercard Inc	3.0	1.5	1.5	13.4		
TJX Companies Inc (The)	2.9	0.5	2.4	18.2		
Lab Corp	2.8	0.0	2.8	-3.3		
Unitedhealth Group Inc	2.7	1.8	0.9	8.8		

	Portfolio Wt	Benchmark Wt	Active Wt	Quarterly Rtrn
Apple Inc	4.9	7.9	-3.0	22.4
Abbott Laboratories	1.8	0.0	1.8	20.3
TJX Companies Inc (The)	2.9	0.5	2.4	18.2
Lockheed Martin Corp	1.8	0.6	1.2	17.8
Cooper Companies Inc. (The)	2.0	0.0	2.0	17.7
Oracle Corp	2.6	0.1	2.5	17.5
Microsoft Corp	4.7	5.9	-1.2	16.4
Honeywell International Inc	2.4	0.6	1.8	16.1
F5 Networks Inc	2.3	0.1	2.2	15.6
AutoZone Inc	1.9	0.1	1.8	15.6

T W (D (	D !! 4000 /	•		
Ten Worst Performers (Benchmark	: Russell 1000 (	Growth Index)		
	Portfolio Wt	Benchmark Wt	Active Wt	Quarterly Rtrn
Lab Corp	2.8	0.0	2.8	-3.3
Cognizant Technology	1.8	0.3	1.5	-2.1
Varian Medical Systems Inc	8.0	0.1	0.7	-1.6
Expeditors Intl	1.8	0.1	1.7	0.6
Marsh & McLennan Companies Inc.	1.9	0.1	1.8	1.4
AbbVie Inc	1.7	1.0	0.7	2.1
Illinois Tool Works Inc.	1.4	0.3	1.1	2.6
Citrix Systems Inc.	1.0	0.1	0.9	6.0
VMware Inc	1.0	0.1	0.9	6.2
Coca-Cola Co (The)	1.6	1.0	0.6	6.2
D46 -				

Buy and Hold Sector Attribution (Benchmark: Russell 1000 Growth Index)						Portfolio Comparison			
	Allo	cation	Perfor	mance		Attribution			Sawgrass
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Total	Market Capitalization (%)	
Communication Services	10.7	13.2	8.58	-1.07	1.03	0.25	1.29	Greater than 25000M	73.6
Consumer Discretionary	15.0	15.2	10.66	10.27	0.06	0.00	0.06	16000M To 25000M	11.7
Consumer Staples	7.6	5.7	10.16	6.11	0.31	-0.06	0.25	12000M To 16000M	8.2
Energy	0.0	1.0	0.00	-4.95	0.00	0.14	0.14	8000M To 12000M	0.8
Financials	3.8	4.4	7.21	3.25	0.15	0.04	0.19	5000M To 8000M	1.4
Health Care	14.7	13.4	8.69	12.72	-0.59	0.05	-0.54	Cash	4.3
Industrials	13.2	11.9	10.40	10.66	-0.03	0.02	-0.01		
Information Technology	28.5	31.3	13.57	13.80	-0.07	-0.13	-0.20		
Materials	2.6	1.8	12.02	-0.10	0.32	-0.08	0.24		
Real Estate	0.0	2.2	0.00	0.19	0.00	0.19	0.19		
Cash	3.9	0.0	0.00	0.00	0.00	-0.36	-0.36		
Total	100.0	100.0	10.39	9.14	1.18	0.07	1.25		



Portfolio Characteristics (Benchmark: Russell 2000 Growth Index)						
	Portfolio	Benchmark				
Wtd. Avg. Mkt. Cap (\$)	3,671,062,454	2,645,563,149				
Median Mkt. Cap (\$)	2,579,195,310	1,042,920,070				
Price/Earnings ratio	41.5	25.4				
Price/Book ratio	4.4	4.5				
5 Yr. EPS Growth Rate (%)	21.1	17.5				
Current Yield (%)	0.2	0.6				
Beta (3 Years, Monthly)	0.74	1.00				
Number of Stocks	55	1,253				

Top Ten Equity Holdings (Benchmark: Russell 2000 Growth Index)						
	Portfolio Wt	Benchmark Wt	Active Wt	Qtr Rtrn		
RealPage Inc	3.3	0.0	3.3	19.6		
Icon PLC	3.1	0.0	3.1	16.0		
LHC Group Inc	3.0	0.3	2.7	20.3		
Carbonite Inc	3.0	0.1	2.9	2.1		
EPAM Systems Inc	3.0	0.0	3.0	10.8		
Grand Canyon Education Inc	2.9	0.0	2.9	1.1		
NV5 Global Inc	2.8	0.1	2.7	25.1		
Omnicell Inc	2.7	0.2	2.5	37.1		
BioTelemetry Inc	2.7	0.2	2.5	43.2		
Bio-Techne Corp	2.6	0.0	2.6	38.2		

	Portfolio Wt	Benchmark	Active Wt	Quarterly Rtrn
	roitiono wt	Wt	Active Wt	Quarterly Killi
BioTelemetry Inc	2.7	0.2	2.5	43.2
Alarm.com Holdings Inc	2.0	0.2	1.8	42.1
Bio-Techne Corp	2.6	0.0	2.6	38.2
Omnicell Inc	2.7	0.2	2.5	37.1
Five Below Inc	1.7	0.6	1.1	33.1
Ollie's Bargain Outlet Holdings Inc	2.0	0.4	1.6	32.6
Ligand Pharmaceuticals	1.2	0.5	0.7	32.5
Duluth Holdings Inc	1.6	0.0	1.6	32.2
GrubHub Inc	1.8	0.0	1.8	32.1
Cambrex Corp	2.5	0.1	2.4	30.8

Ten Worst Performers (Benchmark: Russell 2000 Growth Index)					
	Portfolio Wt	Benchmark Wt	Active Wt	Quarterly Rtrn	
TechTarget Inc	1.0	0.0	1.0	-31.6	
Cutera Inc	0.7	0.0	0.7	-19.2	
Axos Financial Inc	0.2	0.2	0.0	-15.9	
WageWorks Inc	2.1	0.1	2.0	-14.5	
Chuy's Holdings Inc	0.9	0.0	0.9	-14.5	
LogMeIn Inc	2.1	0.0	2.1	-13.4	
Littelfuse Inc	1.3	0.0	1.3	-13.1	
Maco Tech Solutions	0.6	0.0	0.6	-10.6	
Medidata Solutions Inc	1.3	0.4	0.9	-9.0	
Ellie Mae Inc	1.2	0.3	0.9	-8.7	

uy and Hold Sector Attri								Portfolio Comparison	
	Alloc	Allocation		Performance	Attribution			Summit Creek	
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Total	Market Capitalization (%)	
Communication Services	0.0	3.2	0.00	14.53	0.00	-0.29	-0.29	12000M To 16000M	1.8
Consumer Discretionary	20.8	14.9	16.78	4.73	2.50	-0.04	2.46	8000M To 12000M	8.7
Consumer Staples	0.0	2.9	0.00	2.95	0.00	0.07	0.07	5000M To 8000M	18.6
Energy	0.0	2.4	0.00	-6.45	0.00	0.29	0.29	3000M To 5000M	13.7
inancials	3.8	7.7	-8.00	1.74	-0.37	0.15	-0.22	1000M To 3000M	39.8
lealth Care	25.6	26.5	20.77	7.59	3.37	-0.02	3.35	500M To 1000M	10.3
ndustrials	14.9	18.2	3.84	3.99	-0.02	0.05	0.03	200M To 500M	2.9
nformation Technology	29.4	17.0	8.25	8.14	0.03	0.33	0.36	Less than 200M	1.0
/laterials	1.5	4.3	14.21	1.04	0.20	0.12	0.32	Cash	3.2
Real Estate	0.0	2.5	0.00	1.85	0.00	0.09	0.09		
Itilities	0.0	0.4	0.00	4.47	0.00	0.00	0.00		
ash	4.1	0.0	0.00	0.00	0.00	-0.22	-0.22		
otal	100.0	100.0	11.70	5.46	5.71	0.53	6.24		



Fund Name : T Rowe Price Small-Cap Value Fund, Inc

Fund Family: T. Rowe Price Associates Inc

Ticker: PRSVX

Inception Date: 06/30/1988

Fund Assets: \$8,764 Million

Portfolio Turnover: 17%

Portfolio Assets: \$10,811 Million
Portfolio Manager: J. David Wagner

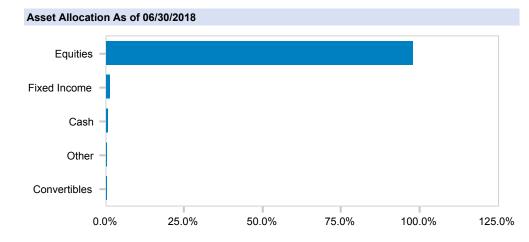
PM Tenure: 2016

Fund Style: IM U.S. SMID Cap Core Equity (MF)

Style Benchmark: Russell 2500 Index

## **Fund Investment Policy**

The Fund seeks long-term capital growth by investing primarily in the common stock of companies with relatively small market capitalizations which are believed to be undervalued and have good prospects for capital appreciation.



Top Ten Securities As of 06/30/2018		
T Rowe Price Government Money Fund	1.7 %	
Western Alliance Bancorp ORD	1.1 %	
Quidel Corp ORD	1.1 %	
Home BancShares Inc ORD	1.1 %	
Nomad Foods Ltd ORD	1.0 %	
Green Dot Corp ORD	1.0 %	
ONE Gas Inc ORD	1.0 %	
BankUnited Inc ORD	0.9 %	
Landstar System Inc ORD	0.9 %	
Littelfuse Inc ORD	0.9 %	

## Fund Characteristics As of 06/30/2018

Total Securities 316

Avg. Market Cap \$2,957 Million

 P/E
 30.2

 P/B
 3.5

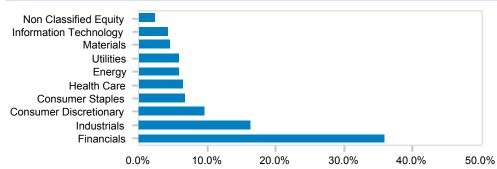
 Div. Yield
 1.9%

 Annual EPS
 19.9

 5Yr EPS
 11.1

 3Yr EPS Growth
 13.8

## Sector/Quality Allocation As of 06/30/2018





Fund Name: Templeton Institutional Funds: International Equity Series; Primary Shares

Fund Family: Franklin Templeton Investments

Ticker: TFEQX Inception Date: 10/18/1990

Fund Assets: -

Portfolio Turnover: 16%

Portfolio Assets: -

Portfolio Manager : Nori/Docal/Sweeting PM Tenure : 1999--2001--2003

Fund Style: IM International Multi-Cap Core Equity (MF)

Style Benchmark: MSCI EAFE IMI

## **Fund Investment Policy**

The Fund seeks long-term capital growth through a flexible policy of investing in equity securities and debt obligations of companies and governments outside the United States.

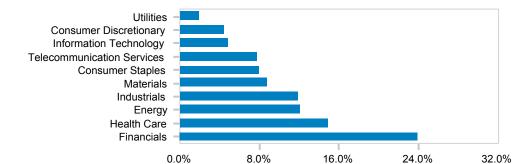
# Asset Allocation As of 03/31/2018 Equities - Cash - Other - Convertibles - Fixed Income - 150.0% 50.0% 100.0% 150.0%

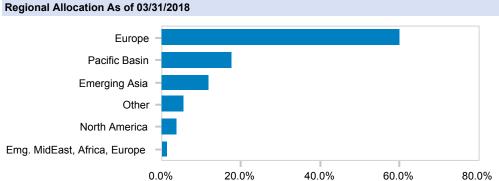
Sector/Quality Allocation As of 03/31/2018

Top Ten Securities As of 03/31/2018	
Samsung Electronics Co Ltd ORD	2.9 %
BP PLC ORD	2.9 %
BNP Paribas SA ORD	2.1 %
Roche Holding AG Par	2.0 %
Standard Chartered PLC ORD	2.0 %
UBS Group AG ORD	1.8 %
HSBC Holdings PLC ORD	1.8 %
Royal Dutch Shell PLC DR	1.8 %
Total SA ORD	1.7 %
Suntory Beverage & Food Ltd ORD	1.6 %

Top 5 Countries As of 03/31/20	018
United Kingdom	16.3 %
Japan	12.9 %
France	10.2 %
Germany	9.6 %
Netherlands	7.9 %
Fund Characteristics As of 03	/31/2018

Fund Characteristics	As of 03/31/2018
Total Securities	90
Avg. Market Cap	\$62,908 Million
P/E	21.0
P/B	1.9
Div. Yield	3.1%
Annual EPS	27.2
5Yr EPS	3.3
3Yr EPS Growth	8.0







Fund Name: MFS Institutional Trust: MFS Institutional International Equity Fund

Fund Family: MFS Investment Management

Ticker: MIEIX
Inception Date: 01/31/1996

Fund Assets: \$10,188 Million

Portfolio Turnover: 17%

Portfolio Assets : \$10,188 Million
Portfolio Manager : Ling/Benzinho
PM Tenure : 2009--2016

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

Style Benchmark: MSCI EAFE Growth

## **Fund Investment Policy**

The Fund seeks capital appreciation. The Fund normally invests at least 80% of its net assets in non-U.S. equity securities. The Fund uses a bottom-up investment approach. Stocks are selected primarily based on fundamental analysis of issuers and their potential.

# Asset Allocation As of 06/30/2018 Equities Cash Fixed Income Convertibles Other 0.0% 50.0% 100.0% 150.0%

Top Ten Securities As of 06/30/2018	
Nestle SA ORD	3.4 %
Bayer AG ORD	2.9 %
AIA Group Ltd ORD	2.8 %
Hoya Corp ORD	2.6 %
SAP SE ORD	2.5 %
Air Liquide SA ORD	2.5 %
Roche Holding AG Par	2.4 %
Schneider Electric SE ORD	2.4 %
Pernod Ricard SA ORD	2.2 %
Terumo Corp ORD	2.1 %

Ton Ton Conveition As of 06/20/2049

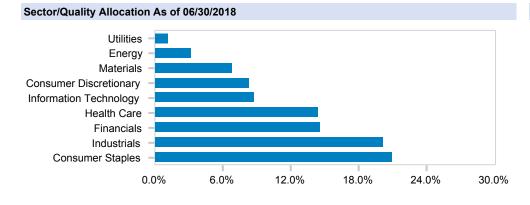
Top 5 Countries As o	f 06/30/2018
France	15.5 %
Japan	13.7 %
United Kingdom	12.5 %
Switzerland	11.8 %
Germany	10.3 %
Fund Characteristics	As of 06/30/2018
Total Securities	82
Avg. Market Cap	\$69,113 Million
P/E	22.6
P/B	4.1

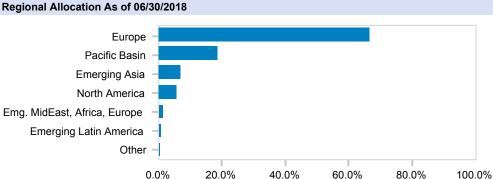
2.7%

22.9

10.7

10.1





Div. Yield

5Yr EPS

Annual EPS

3Yr EPS Growth



Fund Name: Vanguard Trustees' Equity Fund: Vanguard Emerging Markets Select Stock Fund; P

Investor Shares

Fund Family: Vanguard Group Inc

Ticker: VMMSX

Inception Date: 06/14/2011 Fund Assets: \$648 Million

Portfolio Turnover: 44%

Portfolio Assets: \$648 Million

Portfolio Manager: Team Managed

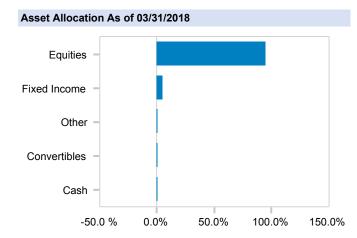
PM Tenure:

Fund Style: IM Emerging Markets Equity (MF)

Style Benchmark: MSCI Emerging Markets Index

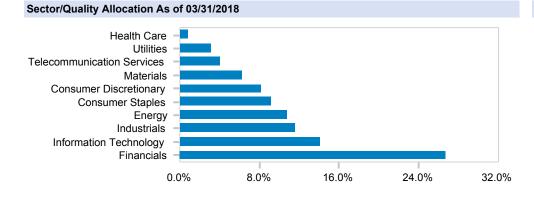
## **Fund Investment Policy**

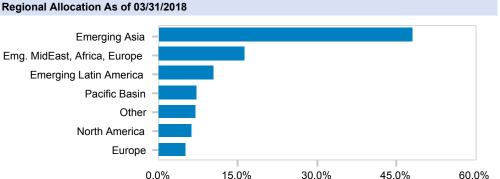
The Fund seeks long-term capital appreciation. The Fund invests in small-, mid-, and large-capitalization companies and is expected to diversify its assets among companies located in emerging markets around the world. The Fund invests at least 80% of its assets in common stocks of companies located in emerging markets.



4.8 %
3.0 %
2.6 %
2.5 %
2.2 %
2.1 %
2.0 %
1.4 %
1.2 %
1.2 %

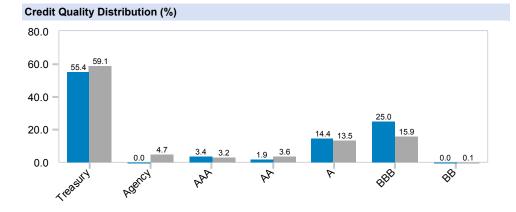
Top 5 Countries As o	of 03/31/2018
China	25.7 %
Taiwan	10.8 %
Brazil	10.2 %
India	7.1 %
Russian Federation	6.7 %
Fund Characteristics	As of 03/31/2018
otal Securities	316
Avg. Market Cap	\$78,917 Million
P/E	21.1
P/B	2.9
Div. Yield	3.2%
Annual EPS	24.2
5Yr EPS	7.5
3Yr EPS Growth	7.7

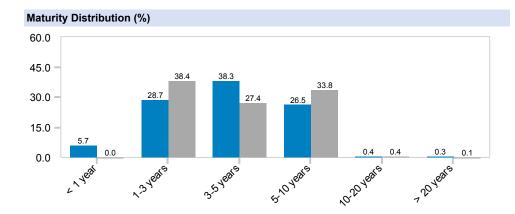


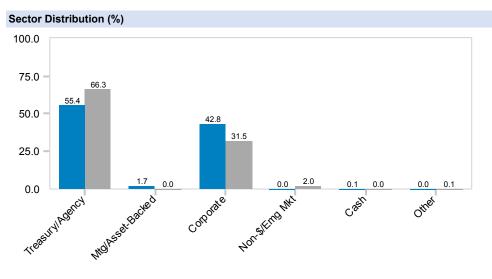


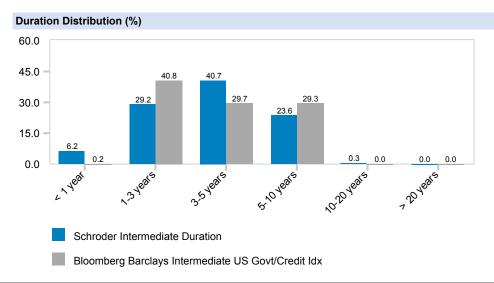


Portfolio	Benchmark
4.68	4.37
AA-	AA
2.86	2.64
2.90	2.67
3.91	3.91
	4.68 AA- 2.86 2.90











	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
Firefighters' Total Fund	0.53	169,265,237	892,109	
Domestic Equity				
Cooke & Bieler	0.45	18,468,240	83,107	0.45 % of Assets
NTGI S&P 500	0.05	17,387,974	8,694	0.05 % of First \$100 M 0.02 % Thereafter
Sawgrass	0.50	18,030,829	90,154	0.50 % of Assets
NTGI S&P 400	0.05	8,522,142	4,261	0.05 % of First \$100 M 0.02 % Thereafter
T Rowe Price	0.80	8,538,801	68,310	0.80 % of Assets
Summit Creek	1.00	9,226,180	92,262	1.00 % of Assets
International Equity				
MFS	0.71	14,216,584	100,938	0.71 % of Assets
Templeton	0.78	13,768,036	107,391	0.78 % of Assets
Vanguard EM	0.93	7,377,250	68,608	0.93 % of Assets
Domestic Fixed Income				
NTGI Government / Credit	0.05	10,020,709	5,010	0.05 % of First \$100 M 0.02 % Thereafter
Schroder Intermediate Duration	0.38	29,038,509	110,346	0.38 % of First \$30 M 0.25 % of Next \$70 M 0.13 % Thereafter
Real Estate				
PGIM	1.00	11,473,540	114,735	1.00 % of Assets
Principal Enhanced Property Fund, LP	1.20	3,191,000	38,292	1.20 % of Assets
Cash	0.00	5,442	-	0.00 % of Assets



<sup>\*</sup> Principal Enhanced Property Fund fee is 1.2% of assets plus 15% of excess over 11% IRR

Comparative Performance						
	QTR	FYTD	1 YR	3 YR	5 YR	10 YR
Firefighters' Total Fund	3.98	4.83	8.87	11.00	8.58	9.26
Sioux Falls Total Policy	3.53	4.84	9.00	11.41	8.62	8.54
Total Domestic Equity	7.21	10.87	17.07	16.53	12.52	11.71
Russell 3000 Index	7.12	10.57	17.58	17.07	13.46	12.01
Cooke & Bieler	4.85	1.98	6.63	14.04	10.83	10.37
Russell 1000 Value Index	5.70	3.92	9.45	13.55	10.72	9.79
NTGI S&P 500	7.74	10.59	17.95	17.32	13.98	11.99
S&P 500 Index	7.71	10.56	17.91	17.31	13.95	11.97
Sawgrass	9.91	14.73	22.99	16.38	13.73	12.11
Russell 1000 Growth Index	9.17	17.09	26.30	20.55	16.58	14.31
ITGI S&P 400	3.87	7.51	14.24	15.66	11.91	12.53
S&P MidCap 400 Index	3.86	7.49	14.21	15.68	11.91	12.49
Rowe Price	4.61	9.11	12.70	18.08	10.81	10.91
Russell 2000 Value Index	1.60	7.14	9.33	16.12	9.91	9.52
Summit Creek	10.65	29.11	33.53	19.38	N/A	N/A
Russell 2000 Growth Index	5.52	15.76	21.06	17.98	12.14	12.65



	QTR	FYTD	1 YR	3 YR	5 YR	10 YR
Total International Equity	1.26	-1.91	2.08	9.39	4.23	5.68
MSCI AC World ex USA (Net)	0.71	-3.09	1.76	9.97	4.12	5.18
Templeton	0.99	-2.55	1.00	7.70	3.19	4.70
MSCI EAFE Value Index (Net)	1.18	-3.49	-0.36	8.12	3.14	4.49
MFS	1.87	0.63	4.65	9.96	5.49	7.18
MSCI EAFE Growth Index (Net)	1.53	0.58	5.85	10.26	5.62	6.20
Vanguard EM	0.18	-6.73	-1.77	12.83	N/A	N/A
MSCI Emerging Markets (Net) Index	-1.09	-7.68	-0.81	12.36	3.61	5.40
Total Domestic Fixed Income	0.18	-2.00	-1.42	1.88	3.29	6.54
Blmbg. Barc. U.S. Aggregate Index	0.02	-1.60	-1.22	1.31	2.16	3.77
Schroder Intermediate Duration	0.22	-0.79	-0.93	1.27	2.00	N/A
Bloomberg Barclays Intermediate US Govt/Credit Idx	0.21	-0.76	-0.96	0.91	1.52	3.22
NTGI Government / Credit	0.07	-1.82	-1.34	1.43	2.22	4.04
Blmbg. Barc. U.S. Gov't/Credit	0.06	-1.85	-1.37	1.45	2.23	3.95
otal Real Estate	2.31	6.33	8.09	7.93	10.18	4.00
NCREIF Fund Index-ODCE (EW) (Net)	1.88	5.84	7.89	8.17	9.93	4.45
PGIM	2.16	6.00	7.76	7.81	10.11	3.97
NCREIF Fund Index-ODCE (VW)	2.09	6.48	8.68	8.80	10.72	5.58
Principal Enhanced Property Fund, LP	2.89	7.76	N/A	N/A	N/A	N/A
NCREIF Fund Index-ODCE (EW) (Net)	1.88	5.84	7.89	8.17	9.93	4.45
Cash	0.54	1.18	1.46	0.71	N/A	N/A
90 Day U.S. Treasury Bill	0.49	1.30	1.59	0.80	0.50	0.32



Δ	cti	ve	R	۵tı	ırn

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

## Alpha

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

### Beta

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

## Consistency

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

## Distributed to Paid In (DPI)

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

## **Down Market Capture**

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

## **Downside Risk**

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

## **Excess Return**

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

## Excess Risk

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

## Information Ratio

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

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

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

## R-Squared

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

## Return

- Compounded rate of return for the period.

## Sharpe Ratio

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

## Standard Deviation

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

## Total Value to Paid In (TVPI)

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

## **Tracking Error**

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

## **Treynor Ratio**

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

## **Up Market Capture**

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



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