Investment Performance Review Period Ending September 30, 2022

# **City of Eustis Firefighters' Pension Fund**



**3rd Quarter 2022 Market Environment** 



## The Economy

- Broadly, global markets declined during the 3rd quarter as inflation remained elevated, causing global central banks further drain liquidity from the market, and geopolitical risks increased as the conflict in Ukraine escalated.
- While inflation moderated slightly in the US, it showed signs of increasing, especially in Europe, where UK and German inflation reached multi-decade highs. US CPI was 8.3% in August, down from 9.1% at the end of the 2nd guarter.
- The US Federal Reserve Bank (the Fed) continued to increase interest rates during the quarter by raising 0.75% at the July and September meetings. Importantly, the Fed signaled it was committed to fight inflation by additional rate hikes if needed.
- The US labor market showed its resiliency during the quarter by adding an estimated 1.1 million jobs. As a result, the unemployment rate fell to 3.5% in September. The number of workers re-entering the workforce increased slightly during the period as wage growth remained strong.
- Real estate markets were under pressure during the quarter as rising interest rates pushed mortgages to their highest levels since 2007. As of September, the average 30-year fixed mortgage was roughly 6.7%, up from roughly 3.0% last year at the same time.

### **Equity (Domestic and International)**

- US equities declined during the 3rd quarter as concerns regarding inflation, the path of interest rates, and a slowing global economy acted as headwinds. Small cap growth was the best performing domestic segment of the equity market relative to other US market capitalizations and styles during the period while large cap value performed the worst.
- Momentum was decidedly negative in international stocks during the 3rd quarter. The escalating conflict in Ukraine, rising inflation in Europe, and tightening monetary policy all contributed to the decline. The continued strength of the US dollar, which rose against most major developed market and emerging market currencies, also acted as a headwind. Finally, China continued its zero-tolerance policy regarding Covid-19, which led to additional restrictions.

#### **Fixed Income**

- While inflation fell slightly during the quarter, the Fed continued increasing interest rates which acted as a headwind for fixed income performance during the quarter. US interest rates moved significantly higher during the quarter with the US 10-Year Treasury bond rising 83 basis points to close at 3.80%.
- Performance across all bond market sectors was negative during the quarter, with US high yield corporate bonds and US Treasury bonds down the least.
- The combination of higher coupons and a shorter maturity profile relative to high quality government bonds was the primary driver of the relative outperformance of high yield bonds during the period.
- US Treasury bonds declined less than other investment grade bond market sectors during the quarter. During periods of increased volatility, investors have historically preferred the safety of government bonds over those with credit risk.

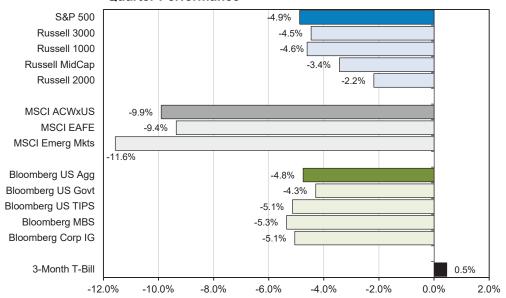
#### **Market Themes**

- Central banks remained hawkish during the quarter with several banks raising interest rates to fight higher inflation. The Fed, the Bank of England, and European Central Bank all raised rates during the quarter. Additionally, the Fed is currently allowing bonds to mature without reinvesting (quantitative tightening), while other banks are also considering similar actions. The outcome would be additional liquidity from the market.
- The escalating crisis in Ukraine spilled over as several gas pipelines were attacked in the Baltic Sea. The result was further disruption of energy supplies to Europe, Germany in particular. Energy costs have risen significantly since the start of the conflict which have negatively impacted economic activity in the region.
- US equity markets experienced their third consecutive quarter of negative performance during the 3rd quarter. Growth-oriented stocks outperformed value stocks as investors believe the Fed will begin slowing the rise of interest rates as economic growth declines. Historically, growth stocks have outperformed value stocks as the economy reaches the trough following a recession.
- Interest rates rose across the Treasury yield curve during the quarter as the Fed hiked interest rates by 0.75% at both the July and September meetings. The 3rd quarter marks the third consecutive quarter the bond market has suffered negative absolute returns. Long-term mortgage and investment grade corporate bonds underperformed during the quarter given their maturity profiles. High yield bonds outperformed primarily due to their shorter maturity profile and higher coupons.

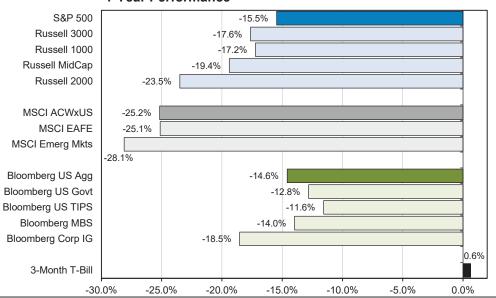


- Negative momentum continued during the 3rd quarter as broad US equity markets experienced negative returns. Factors that contributed to performance included elevated inflation, tighter monetary policy, continued geopolitical events in Ukraine, and expectations of slower economic growth. For the period, the S&P 500 large cap benchmark returned -4.9%, compared to -3.4% for mid-cap and -2.2% for small cap indices.
- Like domestic equities, developed markets international equities also suffered negative results for the 3rd quarter. Europe was negatively impacted by higher-than-expected inflation, the conflict in Ukraine, uncertainty regarding energy supplies, and rising interest rates. Emerging markets were also negatively impacted by war in Ukraine and a strengthening USD. During the period, the MSCI EAFE Index returned -9.4% while the MSCI Emerging Markets Index declined by -11.6%.
- For the quarter, performance of the bond market was broadly negative due to continued concerns about inflation and the FOMC's decision to raise interest rates twice during the period. The Bloomberg (BB) US Aggregate Index returned -4.8%, for the period while Investment Grade Corporate bonds posted a return of -5.1%.
- Performance for developed equity markets was strongly negative over the trailing 1-year period. The primary drivers of return during the period were weakening global economic growth, more restrictive monetary policy from global central banks, and elevated inflation. The S&P 500 large cap stock index led equity market performance for the year with a return of -15.5%. The outlier was the MSCI ACWI ex-US index which declined by -25.2% for the year.
- Over the trailing 1-year period, international markets fell with the developed market MSCI EAFE Index returning -25.1% while the MSCI Emerging Markets Index fell by -28.1%. Global economic growth slowed throughout the year and both developed and emerging markets were negatively impacted by a strong USD and continued geopolitical concerns.
- Bond market returns disappointed over the trailing 1-year period due primarily to concerns about rising inflation and the expectation of higher future interest rates. US TIPS were the best performing sector returning -11.6% while investment grade corporate bonds was the worst, falling -18.5%.

#### **Quarter Performance**



#### 1-Year Performance



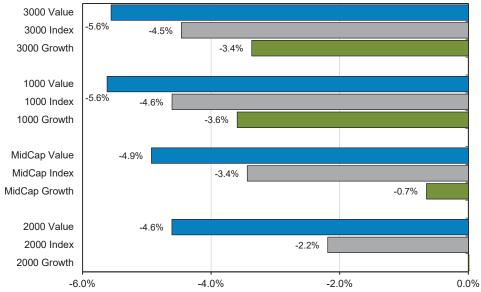
Source: Investment Metrics



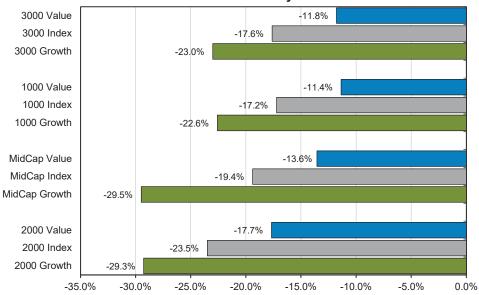
- Volatility was high during the 3rd quarter as broad US equity markets rose sharply before falling to close the period with negative results across both the style and market capitalization spectrums. Leadership switched during the quarter with small cap stocks outperforming, followed by mid and large cap issues. The Russell 2000 Index declined by -2.2% for the quarter while the Russell Mid Cap Index and the Russell 1000 Index fell by -3.4% and -4.6%, respectively.
- Performance across styles and market capitalizations was disparate during the quarter. Large, mid, and small cap growth stocks all outperformed their value counterparts. For the period, the Russell 2000 Growth Index was the best relative performing style index, posting a return of 0.0%. Large and mid cap value stocks were the laggards during the period with the Russell Large Cap Value Index and Russell Mid Cap Value Index falling by -5.6% and -4.9%, respectfully.

- Performance across all market capitalizations and styles was negative over the trailing 1-year period. Unlike the 3rd quarter, large cap stocks outperformed mid and small cap stocks for the year. The Russell 1000 Index return of -17.2% for the year, significantly outperformed both its mid and small cap growth index counterparts. The outlier during the period was the Russell 2000 Index which returned -23.5%.
- There was wide performance dispersion within across all style-based indexes. Value significantly outperformed growth over the year. Within large cap stocks, the Russell 1000 Value returned -11.4% compared to -22.6% for the Russell Large Cap Growth benchmark. The Russell Mid Cap Value Index returned -13.6% while the Russell 2000 Value Index returned -17.7% for the period. In comparison, the Russell Mid Cap Growth Index returned -29.5%, while the Russell 2000 Growth Index declined by -29.3%.

## **Quarter Performance - Russell Style Series**



## 1-Year Performance - Russell Style Series

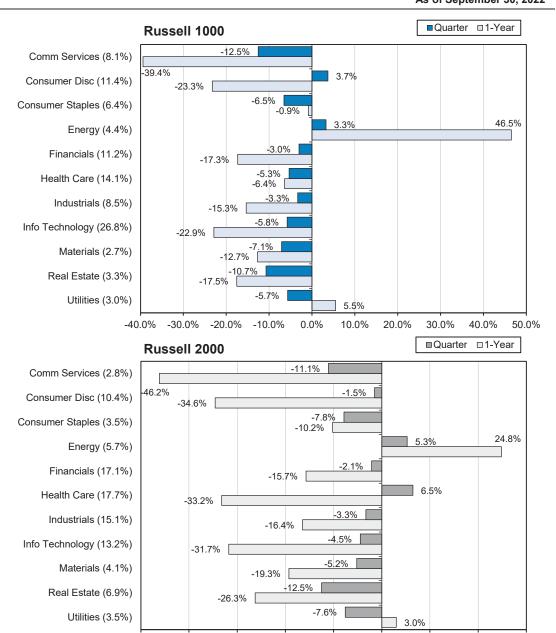


Source: Investment Metrics



- Economic sector performance was negative across nine of the eleven large cap economic sectors for the 3rd quarter. Four sectors outpaced the return of the broad index on a relative basis during the period.
- Consumer Discretionary (3.7%) and Energy (3.3%) were the only sectors with positive absolute performance during the period. Additionally, Financials (-3.0%) and Industrials (-3.3%) outperformed the broad index. Strong consumer demand acted as a tailwind for consumer-related stocks during the quarter. Energy continued its relative outperformance as the price of oil remained elevated.
- For the full year, six sectors exceeded the return of the broad large cap benchmark: Energy (46.5%), Utilities (5.5%), Consumer Staples (-0.9%), Health Care (-6.4%), Materials (-12.7%), and Industrials (-15.3%). The weakest economic sector performance in the Russell 1000 for the year was Communication Services which declined by returns (-39.4%).

- Small cap sector performance was also mixed during the quarter with two economic sectors posting positive performance relative to return of the broader Russell 2000 Index (-2.2%). Health Care (6.5%), and Energy (5.3%) were the best performing sectors for the period. Real Estate (-12.5%), and Communication Services (-11.1%) were the worst performing sectors for the quarter.
- For the trailing 1-year period, six of the eleven sectors outpaced the broad benchmark's return. Not surprisingly, sector performance was led by Energy (24.8%), Utilities (3.0%), Consumer Staples (-10.2%), Financials (-15.7%), and Industrials (-16.4%). The weakest sector over the full year was Communication Services (-46.2%), followed by Consumer Discretionary (-34.6%).



-10.0%

0.0%

10.0%

20.0%

-50.0%

-40.0%

-30.0%

-20.0%



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



30.0%

	Top 10 W	eighted Stoc	ks	
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Apple Inc	6.31%	1.22%	-1.79%	Information Technology
Microsoft Corp	5.21%	-9.12%	-16.69%	Information Technology
Amazon.com Inc	3.00%	6.39%	-31.20%	Consumer Discretionary
Tesla Inc	2.02%	18.17%	2.61%	Consumer Discretionary
Alphabet Inc Class A	1.72%	-12.22%	-28.45%	Communication Services
Alphabet Inc Class C	1.55%	-12.09%	-27.85%	Communication Services
Berkshire Hathaway Inc Class B	1.44%	-2.20%	-2.17%	Financials
UnitedHealth Group Inc	1.41%	-1.36%	30.94%	Health Care
Johnson & Johnson	1.28%	-7.35%	3.82%	Health Care
Exxon Mobil Corp	1.09%	2.91%	55.15%	Energy

	Top 10 W	eighted Stoc	ks	
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
ShockWave Medical Inc	0.45%	45.5%	35.1%	Health Care
Biohaven Pharmaceutical Holding Co	0.43%	3.7%	8.8%	Health Care
Chart Industries Inc	0.31%	10.1%	-3.5%	Industrials
Karuna Therapeutics Inc	0.30%	77.8%	83.9%	Health Care
Apellis Pharmaceuticals Inc	0.28%	51.0%	107.2%	Health Care
Murphy USA Inc	0.28%	18.2%	65.3%	Consumer Discretionary
Texas Roadhouse Inc	0.27%	19.8%	-2.4%	Consumer Discretionary
SouthState Corp	0.27%	3.2%	8.5%	Financials
RBC Bearings Inc	0.27%	12.4%	-2.1%	Industrials
EMCOR Group Inc	0.27%	12.3%	0.5%	Information Technology

Тор	10 Performir	ng Stocks (b	y Quarter)	
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Signify Health Inc Ordinary Shares	0.01%	111.23%	63.12%	Health Care
First Solar Inc	0.04%	94.14%	38.56%	Information Technology
Wolfspeed Inc	0.04%	62.90%	28.03%	Information Technology
Penumbra Inc	0.02%	52.26%	-28.86%	Health Care
Oak Street Health Inc Ordinary Shares	0.01%	49.15%	-42.35%	Health Care
Sarepta Therapeutics Inc	0.03%	47.47%	19.53%	Health Care
Constellation Energy Corp	0.08%	45.54%	N/A	Energy
The Trade Desk Inc Class A	0.08%	42.64%	-15.01%	Information Technology
Nutanix Inc Class A	0.01%	42.38%	-44.75%	Information Technology
Enphase Energy Inc	0.11%	42.12%	85.02%	Energy

Тор	10 Performir	ng Stocks (b	y Quarter)	
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Akero Therapeutics Inc	0.04%	260.3%	52.3%	Health Care
Forma Therapeutics Holdings Inc	0.03%	189.6%	-14.0%	Health Care
Velo3D Inc	0.01%	185.5%	-52.9%	Industrials
Ventyx Biosciences Inc	0.04%	185.4%	N/A	Health Care
Verve Therapeutics Inc	0.06%	124.8%	-26.9%	Health Care
AN2 Therapeutics Inc	0.00%	124.3%	N/A	Health Care
Prothena Corp PLC	0.10%	123.3%	-14.9%	Health Care
Target Hospitality Corp Class A	0.02%	121.0%	238.3%	Consumer Discretionary
1Life Healthcare Inc Ordinary Shares	0.14%	118.8%	-15.3%	Health Care
Global Blood Therapeutics Inc	0.19%	113.1%	167.3%	Health Care

Botton	Bottom 10 Performing Stocks (by Quarter)					
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector		
Sotera Health Co Ordinary Shares	0.00%	-65.2%	-73.9%	Health Care		
Novavax Inc	0.00%	-64.6%	-91.2%	Health Care		
Spectrum Brands Holdings Inc	0.00%	-52.1%	-58.4%	Consumer Staples		
AMC Entertainment Holdings Inc	0.01%	-48.6%	-81.7%	Communication Services		
WeWork Inc	0.00%	-47.2%	N/A	Real Estate		
The Scotts Miracle Gro Co A	0.01%	-45.4%	-70.1%	Materials		
AppLovin Corp Ordinary Shares	0.01%	-43.4%	-73.1%	Information Technology		
Azenta Inc	0.01%	-40.6%	-58.1%	Health Care		
NCR Corp	0.01%	-38.9%	-51.0%	Information Technology		
Enhabit Inc Shs	0.00%	-38.9%	N/A	Health Care		

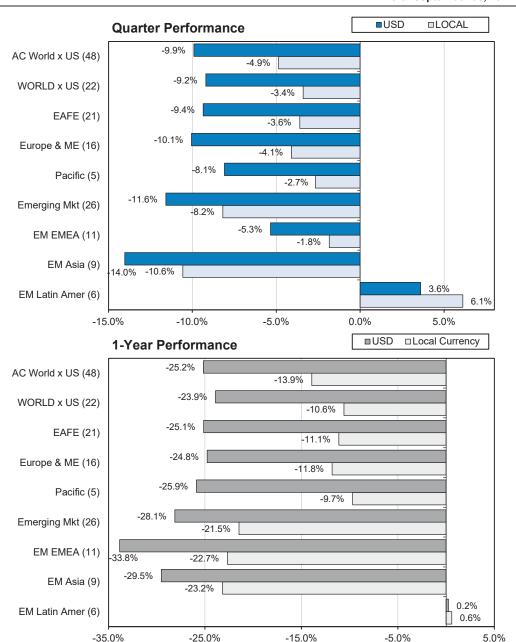
Botton	n 10 Perform	ing Stocks (	by Quarter)	
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Leafly Holdings Inc	0.00%	-84.9%	0.0%	Communication Services
VistaGen Therapeutics Inc	0.00%	-82.7%	N/A	Health Care
Faraday Future Intelligent Electric Inc	0.00%	-75.5%	N/A	Consumer Discretionary
SelectQuote Inc Ordinary Shares	0.00%	-70.6%	-94.4%	Financials
IronNet Inc	0.00%	-68.8%	N/A	Information Technology
Core Scientific Inc Ord Shs - Class A	0.00%	-67.9%	N/A	Consumer Discretionary
Rockley Photonics Holdings Ltd	0.00%	-67.4%	N/A	Information Technology
Loyalty Ventures Inc Ordinary Shares	0.00%	-66.1%	0.0%	Communication Services
Cryptyde Inc	0.00%	-65.9%	0.0%	Materials
Vintage Wine Estates Inc	0.00%	-64.8%	-72.9%	Consumer Staples

Source: Morningstar Direct



Most developed and emerging market international equity indexes tracked in the chart posted negative returns in both US dollar (USD) and local currency (LC) terms for the 3rd quarter. The outlier during the period was the Latin America region. Higher commodity prices and demand benefited export-driven countries like Brazil. The developed market MSCI EAFE Index returned -9.4% in USD and -3.6% in LC terms for the period, while the MSCI Emerging Markets Index declined by -11.6% in USD and -8.2% in LC terms.

The trailing 1-year results for international developed and emerging markets were broadly negative across most regions and currencies. The MSCI EAFE Index returned -25.1% in USD for the year and -11.1% in LC terms. Similarly, returns across emerging markets were broadly lower with the exception being Latin America with the MSCI Emerging Markets Index declining by -28.1% in USD and -25.1% in LC terms. Latin America regional index's return were the outlier, rising by 0.2% in USD and 0.6% in LC term. In contrast, performance in the EMEA regional benchmark significantly detracted from emerging market index performance with the EMEA Index returning -33.8% in USD and -22.7% in LC terms, respectively, due primarily to concerns related to Ukraine.



Source: MSCI Global Index Monitor (Returns are Net)



MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	4.8%	-13.7%	-28.6%
Consumer Discretionary	11.3%	-9.8%	-32.3%
Consumer Staples	11.3%	-7.1%	-17.3%
Energy	4.9%	-5.0%	6.0%
Financials	17.6%	-9.6%	-22.1%
Health Care	13.5%	-10.6%	-19.8%
Industrials	15.0%	-8.3%	-31.5%
Information Technology	7.9%	-8.3%	-38.9%
Materials	7.5%	-8.9%	-21.3%
Real Estate	2.8%	-13.1%	-29.1%
Utilities	3.4%	-13.3%	-20.3%
Total	100.0%	-9.4%	-25.1%

MSCI - ACWIXUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	6.1%	-16.5%	-32.0%
Consumer Discretionary	11.4%	-13.0%	-32.3%
Consumer Staples	9.4%	-6.4%	-16.7%
Energy	6.2%	-6.3%	-5.0%
Financials	20.7%	-7.9%	-18.3%
Health Care	9.6%	-11.0%	-23.5%
Industrials	12.1%	-8.2%	-28.7%
Information Technology	10.8%	-12.1%	-39.3%
Materials	8.2%	-7.9%	-21.1%
Real Estate	2.4%	-14.5%	-29.8%
Utilities	3.4%	-10.9%	-16.0%
Total	100.0%	-9.9%	-25.2%

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	9.7%	-19.3%	-36.2%
Consumer Discretionary	14.0%	-18.7%	-33.7%
Consumer Staples	6.6%	-4.5%	-17.8%
Energy	5.3%	-2.6%	-30.1%
Financials	22.6%	-5.1%	-14.3%
Health Care	3.9%	-13.8%	-42.8%
Industrials	5.8%	-9.9%	-20.8%
Information Technology	18.3%	-15.5%	-36.1%
Materials	8.7%	-7.4%	-26.3%
Real Estate	2.0%	-19.3%	-31.9%
Utilities	3.2%	-4.3%	-8.0%
Total	100.0%	-11.6%	-28.1%

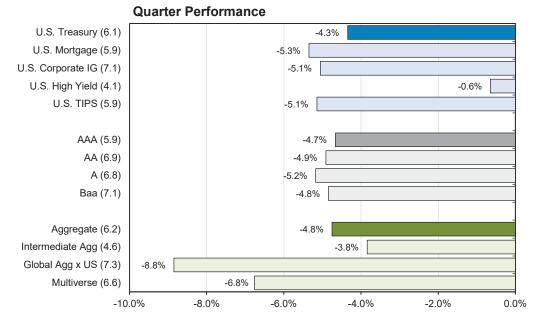
	MSCI-EAFE	MSCI-ACWIxUS	Quarter	1- Year
Country	Weight	Weight	Return	Return
Japan	22.6%	14.1%	-7.7%	-29.3%
United Kingdom	15.5%	9.7%	-10.8%	-14.1%
France	11.3%	7.1%	-8.9%	-24.0%
Switzerland	10.7%	6.7%	-7.5%	-16.5%
Australia	8.0%	5.0%	-6.7%	-16.4%
Germany	7.6%	4.7%	-12.6%	-37.1%
Netherlands	4.1%	2.6%	-10.7%	-38.2%
Sweden	3.4%	2.1%	-8.8%	-35.7%
Hong Kong	3.0%	1.9%	-17.0%	-22.3%
Denmark	2.6%	1.7%	-12.3%	-23.5%
Spain	2.4%	1.5%	-14.1%	-25.6%
Italy	2.3%	1.4%	-8.5%	-28.5%
Singapore	1.6%	1.0%	-1.5%	-22.1%
Belgium	1.0%	0.6%	-13.2%	-27.3%
Finland	1.0%	0.6%	-7.2%	-25.0%
Norway	0.8%	0.5%	-15.3%	-20.7%
Israel	0.8%	0.5%	-1.9%	-21.8%
Ireland	0.6%	0.4%	-5.5%	-38.9%
Portugal	0.2%	0.1%	-11.0%	-12.9%
Austria	0.2%	0.1%	-15.2%	-40.9%
New Zealand	0.2%	0.1%	-8.6%	-33.4%
Total EAFE Countries	100.0%	62.5%	-9.4%	-25.1%
Canada	100.076	8.2%	-7.8%	-12.6%
Total Developed Countries		70.7%	-9.2%	-23.9%
China		9.2%	-22.5%	-35.4%
Taiwan		4.0%	-14.5%	-30.5%
India		4.5%	6.5%	-9.9%
Korea		3.1%	-16.4%	-40.7%
Brazil		1.7%	8.5%	4.3%
Saudi Arabia		1.4%	-0.1%	1.9%
South Africa		1.0%	-12.3%	-19.2%
Mexico		0.7%	-5.4%	-7.4%
Thailand		0.6%	-5.4%	-6.8%
Indonesia		0.6%		
			7.8%	14.3%
Malaysia		0.4%	-7.1%	-15.9%
United Arab Emirates		0.4%	-2.5%	5.1%
Qatar		0.4%	3.1%	12.7%
Kuwait		0.3%	-5.5%	6.4%
Philippines		0.2%	-13.6%	-26.3%
Poland		0.2%	-25.1%	-51.9%
Chile		0.2%	3.2%	0.6%
Turkey		0.1%	16.3%	3.8%
Peru		0.1%	-0.9%	3.0%
Greece		0.1%	-7.5%	-25.2%
Colombia		0.0%	-18.5%	-23.6%
Czech Republic		0.0%	-19.2%	-9.8%
Hungary		0.0%	-15.0%	-54.3%
Egypt		0.0%	-1.3%	-28.8%
Total Emerging Countries		29.3%	-11.6%	-28.1%
Total ACWIxUS Countries		100.0%	-9.9%	-25.2%

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

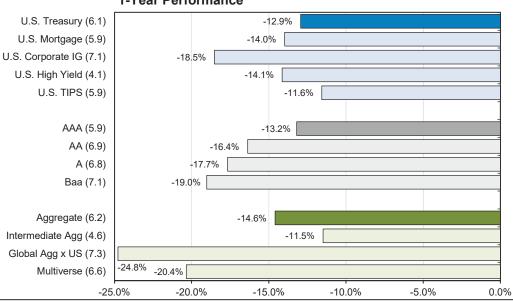
As a result of the GICS classification changes on 9/28/2018 and certain associated reporting limitations, sector performance represents backward looking performance for the prior year of each sector's current constituency, post creation of the Communication Services sector.



- Fixed income market results were broadly negative during the 3rd quarter. Investors' concerns about rising inflation, combined with expectations of higher US interest rates, detracted from performance. As a result, US Treasury yields continued to rise across the maturity curve throughout the quarter.
- The return for the BB US Aggregate Bond Index, the bellwether investment grade benchmark, was down -4.8% for the period.
- Performance across the investment grade index's segments was also negative during the period with the US Corporate Investment Grade bonds returning -5.1% and the US Mortgage index component posting a return of -5.3%.
- High yield bonds outperformed their investment grade counterparts, but still
  declined by -0.6%. US TIPS, which have delivered strong performance in
  recent periods, posted a decline of -5.1% as investors' expectations of future
  inflation declined.
- Outside of domestic markets, the BB Global Aggregate ex US Index posted a return of -8.8% for the quarter. Like domestic bonds, global bond index performance was negatively impacted by rising interest rates and a strengthening USD, which acted as a drag on domestic index returns.
- Over the trailing 1-year period, domestic investment grade benchmark performance was negative, led lower by investment grade corporate bonds (-18.5%), followed by mortgage-backed bonds (-14.0%), US Treasury bonds (-12,9%), and US TIPS (-11.6%). The bellwether Bloomberg US Aggregate Bond Index (-14.6%) declined for the year.
- Lower quality high yield corporate bonds outperformed their investment grade counterparts on a relative basis with the Bloomberg US High Yield Index returning -14.1% for the period.
- Performance for non-US bonds was broadly negative for the year with the developed market Bloomberg Global Aggregate ex US Index falling by -24.9%. The combination of rising interest rates overseas, persistent inflation, and USD strength hindered index performance for the year.



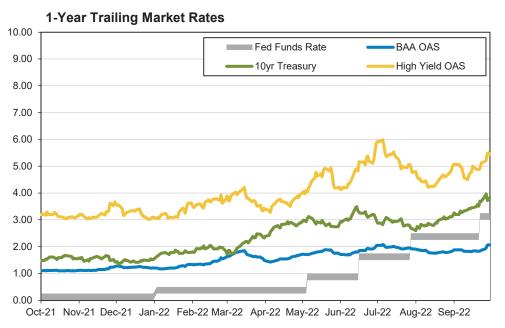
## 1-Year Performance

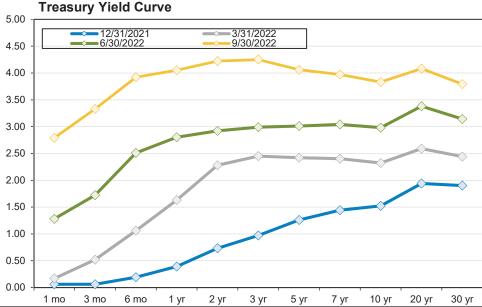


Source: Bloomberg



- The gray band across the graph illustrates the range of the current Fed Funds Rate. In the 3rd quarter this year, the Fed raised its target rate range from 1.75% to 3.25%. During its recent September meeting, the Federal Open Market Committee (FOMC) stated it intends to continue to remove liquidity from the market by raising interest rates and also allowing bonds held on its balance sheet to mature without reinvesting those proceeds. Importantly, the FOMC stated that it will remain vigilant in its fight against persistently higher inflation.
- The yield on the US 10-year Treasury (green line) ended the period higher as concerns over the pace of inflation, combined with the Fed's announced rate increase, drove yields higher. Interest rates continued to climb during the quarter, reaching a high of roughly 4.00% during the latter part of September 2022, before settling at 3.83% at the end of the month.
- 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-US Treasury investment grade issues. For the full year, the spread widened slightly from 1.10% to 2.06%. High Yield OAS was largely unchanged during the year as spreads rose from 3.17% to 5.43%. High Yield spreads reached as high as 5.80% in early July before trading lower the remainder of the quarter.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four quarters. Short-term rates continued to rise during the 3rd quarter as the FOMC continued raising rates to combat rising inflation. Both intermediate and longer-term rates were modestly higher across the curve, albeit less dramatically than short-term rates. The curve remained inverted between 2-year rates and 10-year rates. Said differently, the short-term rate was higher than the long-term rate. Historically, a persistent inversion of these two key rates has been an indication of a future recession withing 6- to 24-months.





Source: US Department of Treasury, FRED (Federal Reserve of St. Louis)

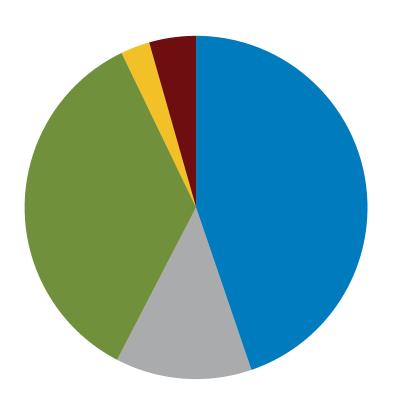


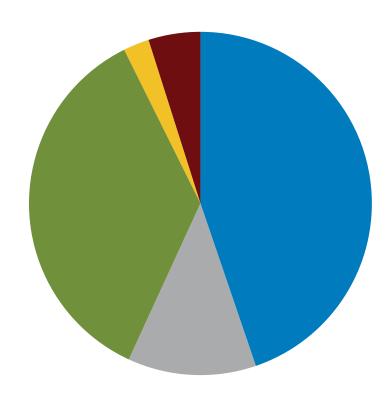
Page Intentionally Left Blank



Asset Allocation By Segment as of June 30, 2022 : \$11,714,599

Asset Allocation By Segment as of September 30, 2022 : \$11,202,413



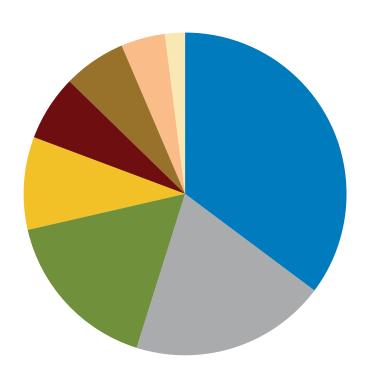


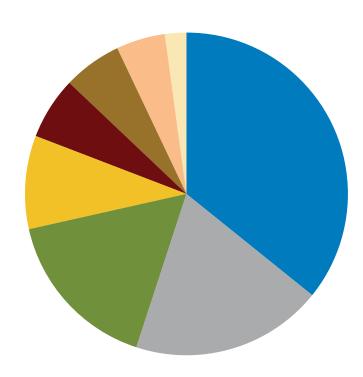
cation			Allocation		
Segments	Market Value	Allocation	Segments	Market Value	Allocation
■ Domestic Equity	5,244,508	44.8	■ Domestic Equity	5,014,449	44.8
International Equity	1,505,934	12.9	International Equity	1,355,390	12.1
Fixed Income	4,124,701	35.2	■ Fixed Income	4,009,747	35.8
Cash Equivalent	321,997	2.7	Cash Equivalent	273,223	2.4
■ Global Other	517,459	4.4	■ Global Other	549,604	4.9



Asset Allocation By Manager as of June 30, 2022 : \$11,714,599

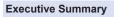
Asset Allocation By Manager as of September 30, 2022 : \$11,202,413

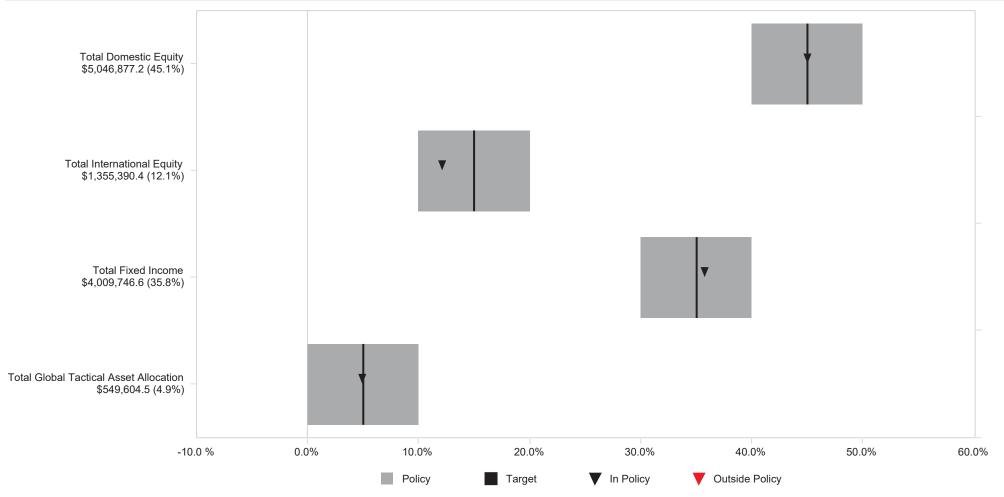




cation			Allocation		
	Market Value	Allocation		Market Value	Allocation
■ Baird Aggregate Bond Fund (BAGIX)	4,124,701	35.2	■ Baird Aggregate Bond Fund (BAGIX)	4,009,747	35.8
■ Dana Large Cap Value	2,301,579	19.6	Dana Large Cap Value	2,154,296	19.2
■ Fidelity 500 Index (FXAIX)	1,939,023	16.6	■ Fidelity 500 Index (FXAIX)	1,844,263	16.5
Vanguard Growth Index Fund (VIGAX)	1,089,678	9.3	Vanguard Growth Index Fund (VIGAX)	1,048,318	9.4
■ American Funds EuroPacific Gr R6 (RERGX)	770,735	6.6	American Funds EuroPacific Gr R6 (RERGX)	698,809	6.2
■ Dodge & Cox Int'l (DODFX)	735,199	6.3	■ Dodge & Cox Int'l (DODFX)	656,582	5.9
■ Blackrock Multi-Asset Income -K (BKMIX)	517,459	4.4	■ Blackrock Multi-Asset Income -K (BKMIX)	549,604	4.9
Receipt & Disbursement	236,224	2.0	Receipt & Disbursement	240,794	2.1

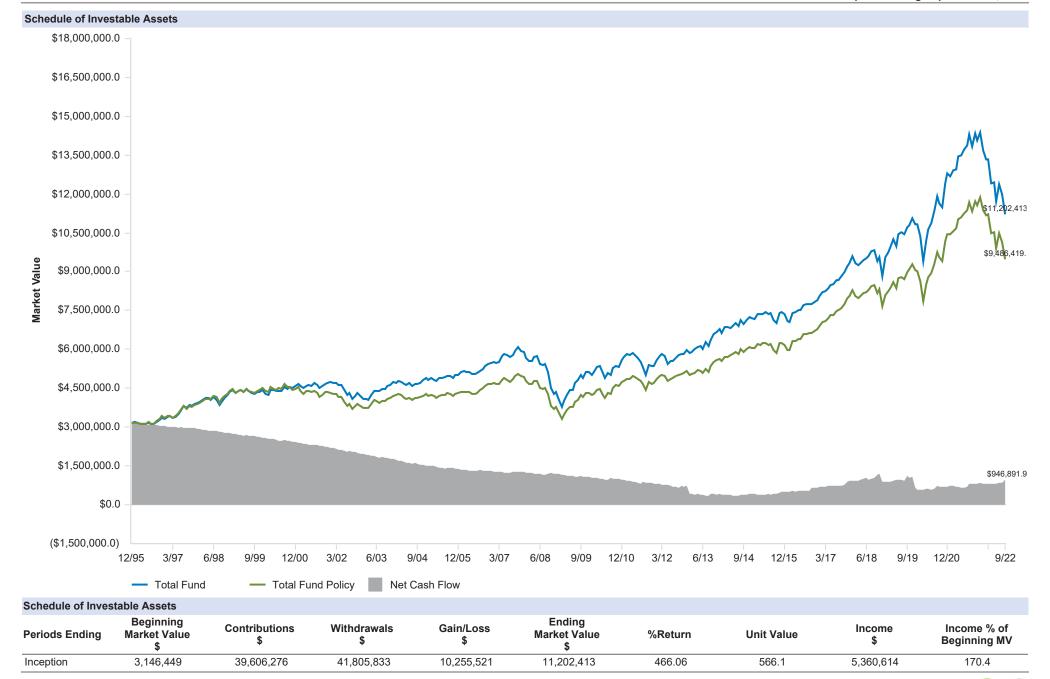






Asset Allocation Compliance								
	Asset Allocation \$	Current Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Min. Rebal. (\$000)	Max. Rebal. (\$000)	Target Rebal. (\$000)
Total Fund	11,202,413	100.0	N/A	N/A	100.0	-	-	-
Total Domestic Equity	5,046,877	45.1	40.0	50.0	45.0	-565,912	554,329	-5,791
Total International Equity	1,355,390	12.1	10.0	20.0	15.0	-235,149	885,092	324,972
Total Fixed Income	4,009,747	35.8	30.0	40.0	35.0	-649,023	471,219	-88,902
Total Global Tactical Asset Allocation	549,604	4.9	0.0	10.0	5.0	-549,604	570,637	10,516







1 Quarter Ending September 30, 2022

Financial Reconciliation Quarter to Date									
	Market Value 07/01/2022	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Market Value 09/30/2022
Total Domestic Equity	5,330,281	-	-	-	-3,740	-875	25,083	-303,871	5,046,877
Dana Large Cap Value	2,301,579	-	-	-	-3,740	-875	14,532	-157,200	2,154,296
Allspring Growth R6 (SGRHX)	-	-	-	-	-	-	-	-	-
Vanguard Growth Index Fund (VIGAX)	1,089,678	-	-	-	-	-	2,070	-43,430	1,048,318
Fidelity 500 Index (FXAIX)	1,939,023	-	-	-	-	-	8,481	-103,241	1,844,263
Total International Equity	1,505,934	-	-	-	-	-	-	-150,544	1,355,390
American Funds EuroPacific Gr R6 (RERGX)	770,735	-	-	-	-	-	-	-71,927	698,809
Dodge & Cox Int'l (DODFX)	735,199	-	-	-	-	-	-	-78,617	656,582
Total Fixed Income	4,124,701	80,137	-	-	-	-	27,437	-222,528	4,009,747
Baird Aggregate Bond Fund (BAGIX)	4,124,701	80,137	-	-	-	-	27,437	-222,528	4,009,747
Total Global Tactical Asset Allocation	517,459	53,424	-	-	-	-	7,170	-28,448	549,604
Blackrock Multi-Asset Income -K (BKMIX)	517,459	53,424	-	-	-	-	7,170	-28,448	549,604
Receipt & Disbursement	236,224	-133,561	327,169	-149,589	-	-40,526	1,078	-	240,794
Total Fund	11,714,599	-	327,169	-149,589	-3,740	-41,401	60,767	-705,391	11,202,413



	Market Value	Net			Management	Other		Apprec./	Market Value
	10/01/2021	Transfers	Contributions	Distributions	Fees	Expenses	Income	Deprec.	09/30/2022
Total Domestic Equity	6,378,889	-387	-	-	-14,643	-3,523	90,591	-1,404,049	5,046,877
Dana Large Cap Value	2,114,661	305,000	-	-	-14,643	-3,523	56,368	-303,566	2,154,296
Allspring Growth R6 (SGRHX)	1,385,263	-915,387	-	-	-	-	-	-469,877	-
Vanguard Growth Index Fund (VIGAX)	1,028,559	305,000	-	-	-	-	6,279	-291,520	1,048,318
Fidelity 500 Index (FXAIX)	1,850,406	305,000	-	-	-	-	27,944	-339,087	1,844,263
Total International Equity	2,027,932	-		-	-	-	32,058	-704,600	1,355,390
American Funds EuroPacific Gr R6 (RERGX)	2,027,932	-760,771	-	-	-	-	32,058	-600,411	698,809
Dodge & Cox Int'l (DODFX)	-	760,771	-	-	-	-	-	-104,189	656,582
Total Fixed Income	4,640,510	80,137	-	-	-	-	95,596	-806,497	4,009,747
Baird Aggregate Bond Fund (BAGIX)	4,640,510	80,137	-	-	-	-	95,596	-806,497	4,009,747
Total Global Tactical Asset Allocation	583,287	53,424	-	-	-	-	32,274	-119,381	549,604
Blackrock Multi-Asset Income -K (BKMIX)	583,287	53,424	-	-	-	-	32,274	-119,381	549,604
Receipt & Disbursement	220,125	-133,174	823,460	-599,520	-	-71,397	1,300	-	240,794
Total Fund	13,850,743	-	823,460	-599,520	-14,643	-74,920	251,820	-3,034,527	11,202,413



																	Inception
	QT	R	FY1	ΓD	1 Y	R	3 Y	R	5 Y	'R	7 Y	R	10 YR		Inception		Date
Total Fund (Gross)	-5.43	(90)	-20.04	(98)	-20.04	(98)	2.15	(84)	4.58	(45)	6.00	(58)	6.70	(32)	6.70	(42)	01/01/1996
Total Fund Policy	-5.35	(88)	-17.43	(80)	-17.43	(80)	2.49	(78)	4.12	(65)	5.99	(59)	6.34	(53)	6.46	(51)	
Difference	-0.08		-2.61		-2.61		-0.34		0.46		0.01		0.36		0.24		
All Public Plans-Total Fund Median	-4.42		-15.26		-15.26		3.38		4.46		6.13		6.39		6.46		
Total Fund (Net)	-5.48		-20.15		-20.15		2.04		4.46		5.85		6.47		6.23		01/01/1996
Total Fund Policy	-5.35		-17.43		-17.43		2.49		4.12		5.99		6.34		6.46		
Difference	-0.13		-2.72		-2.72		-0.45		0.34		-0.14		0.13		-0.23		
Total Equity	-6.28		-23.66		-23.66		4.74		6.14		8.37		9.20		8.38		01/01/1996
Total Equity Policy	-5.80		-19.42		-19.42		5.50		6.36		9.14		9.62		7.79		
Difference	-0.48		-4.24		-4.24		-0.76		-0.22		-0.77		-0.42		0.59		
Total Domestic Equity	-5.23		-20.63		-20.63		6.62		8.18		9.92		10.63		9.17		05/01/2011
Total Domestic Equity Policy	-4.46		-17.63		-17.63		7.70		8.62		10.90		11.39		10.69		
Difference	-0.77		-3.00		-3.00		-1.08		-0.44		-0.98		-0.76		-1.52		
Dana Large Cap Value	-6.21	(62)	-10.53	(57)	-10.53	(57)	5.43	(69)	5.93	(69)	7.95	(83)	N/A		8.29	(75)	07/01/2013
Russell 1000 Value Index	-5.62	(47)	-11.36	(65)	-11.36	(65)	4.36	(83)	5.29	(78)	8.15	(78)	9.17	(81)	8.03	(81)	
Difference	-0.59		0.83		0.83		1.07		0.64		-0.20		N/A		0.26		
IM U.S. Large Cap Value Equity (SA+CF) Median	-5.76		-9.69		-9.69		6.57		6.82		9.29		10.10		9.04		
Vanguard Growth Index Fund (VIGAX)	-3.80	(31)	-25.86	(38)	-25.86	(38)	9.51	(16)	10.99	(17)	N/A		N/A		12.49	(17)	06/01/2016
CRSP U.S. Large Cap Growth TR Index	-3.78	(31)	-25.84	(38)	-25.84	(38)	9.54	(16)	11.01	(17)	12.60	(16)	12.65	(20)	12.52	(17)	
Difference	-0.02		-0.02		-0.02		-0.03		-0.02		N/A		N/A		-0.03		
IM U.S. Large Cap Growth Equity (MF) Median	-4.41		-27.73		-27.73		7.08		9.29		10.99		11.66		11.07		
Fidelity 500 Index (FXAIX)	-4.89	(42)	-15.49	(31)	-15.49	(31)	N/A		N/A		N/A		N/A		-9.93	(29)	06/01/2021
S&P 500 Index	-4.88	(42)	-15.47	(31)	-15.47	(31)	8.16	(24)	9.24	(26)	11.40	(15)	11.70	(15)	-9.91	(28)	
Difference	-0.01		-0.02		-0.02		N/A		N/A		N/A		N/A		-0.02		
IM U.S. Large Cap Core Equity (MF) Median	-5.16		-17.11		-17.11		7.23		8.43		10.39		10.78		-11.51		



	QT	R	FY	ΓD	1 YR		3 YR		5 Y	′R	7 Y	'R	10 YR		YR Incer		Inceptior Date
Total International Equity	-10.00		-33.16		-33.16		-1.40		-0.41		3.30		4.31		2.83		05/01/2011
Total International Equity Policy	-9.80		-24.79		-24.79		-1.07		-0.34		3.78		4.26		2.66		
Difference	-0.20		-8.37		-8.37		-0.33		-0.07		-0.48		0.05		0.17		
American Funds EuroPacific Gr R6 (RERGX)	-9.33	(39)	-32.85	(73)	-32.85	(73)	-1.24	(58)	-0.23	(52)	3.75	(36)	N/A		2.35	(34)	05/01/2014
MSCI AC World ex USA	<b>-</b> 9.80	(64)	-24.79	(9)	-24.79	(9)	-1.07	(54)	-0.34	(55)	3.78	(35)	3.48	(60)	1.42	(58)	
Difference	0.47		-8.06		-8.06		-0.17		0.11		-0.03		N/A		0.93		
IM International Large Cap Growth Equity (MF) Median	-9.57		-28.73		-28.73		-0.84		-0.14		3.19		3.89		1.70		
Dodge & Cox Int'l (DODFX)	-10.69	(54)	N/A		N/A		N/A		N/A		N/A		N/A		-18.52	(28)	06/01/2022
MSCI AC World ex USA Value	-10.29	(41)	-19.46	(21)	-19.46	(21)	-1.54	(72)	-1.51	(73)	2.87	(25)	2.47	(84)	-18.37	(27)	
Difference	-0.40		N/A		N/A		N/A		N/A		N/A		N/A		-0.15		
IM International Large Cap Value Equity (MF) Median	-10.55		-21.68		-21.68		-1.14		-1.27		2.33		3.58		-19.60		
Total Fixed Income	-4.67		-15.27		-15.27		-3.07		-0.09		0.86		0.79		3.99		01/01/1996
Total Fixed Income Policy	-4.75		-14.60		-14.60		-3.26		-0.27		0.54		0.89		4.09		
Difference	0.08		-0.67		-0.67		0.19		0.18		0.32		-0.10		-0.10		
Baird Aggregate Bond Fund (BAGIX)	-4.67	(51)	-15.27	(50)	-15.27	(50)	-3.08	(41)	-0.09	(28)	0.86	(28)	N/A		0.73	(22)	04/01/2015
Blmbg. U.S. Aggregate Index	-4.75	(60)	-14.60	(24)	-14.60	(24)	-3.26	(55)	-0.27	(44)	0.54	(55)	0.89	(51)	0.44	(47)	
Difference	0.08		-0.67		-0.67		0.18		0.18		0.32		N/A		0.29		
IM U.S. Broad Market Core Fixed Income (MF) Median	-4.67		-15.29		-15.29		-3.22		-0.33		0.58		0.90		0.41		
Total Global Tactical Asset Allocation	-3.69	(42)	-14.56	(48)	-14.56	(48)	-0.64	(65)	N/A		N/A		N/A		-0.20	(65)	07/01/2019
Total Global Tactical Asset Policy	-5.40	. ,	-16.91	(62)	-16.91	(62)	0.97	` '	N/A		N/A		N/A		1.34	` '	
Difference	1.71	(/	2.35	()	2.35	(/	-1.61	V/	N/A		N/A		N/A		-1.54	( /	
IM Flexible Portfolio (MF) Median	-4.54		-14.79		-14.79		0.33		1.60		3.75		3.99		0.50		
Blackrock Multi-Asset Income -K (BKMIX)	-3.47	(40)	-14.36	(46)	-14.36	(46)	-0.56	(64)	N/A		N/A		N/A		-0.12	(63)	07/01/2019
50% MSCI World/50% BC Agg	-5.40	(59)	-16.91	(62)	-16.91	(62)	0.97	(44)	2.82	(33)	N/A		N/A		1.34	(41)	
Difference	1.93		2.55		2.55		-1.53		N/A		N/A		N/A		-1.46		
IM Flexible Portfolio (MF) Median	-4.54		-14.79		-14.79		0.33		1.60		3.75		3.99		0.50		



Comparative Performance Fiscal Year to Date							
	Oct-2021	Oct-2020	ct-2020 Oct-2019 To To		Oct-2017	Oct-2016	Oct-2015
	To Sep-2022	Sep-2021	Sep-2020	To Sep-2019	To Sep-2018	To Sep-2017	To Sep-2016
Total Fund (Gross)	-20.04 (98)	17.95 (76)	13.01 (4)	8.77 (1)	7.89 (50)	10.97 (70)	8.38 (72)
Total Fund Policy	-17.43 (80)	17.70 (79)	10.78 (25)	5.67 (10)	7.54 (59)	11.19 (65)	10.43 (18)
Difference	-2.61	0.25	2.23	3.10	0.35	-0.22	-2.05
All Public Plans-Total Fund Median	-15.26	19.87	8.51	3.99	7.86	11.68	9.33
Total Fund (Net)	-20.15	17.84	12.91	8.66	7.72	10.71	8.15
Total Fund Policy	-17.43	17.70	10.78	5.67	7.54	11.19	10.43
Difference	-2.72	0.14	2.13	2.99	0.18	-0.48	-2.28
Total Equity	-23.66	28.65	17.00	3.17	13.62	18.10	10.32
Total Equity Policy	-19.42	30.03	12.06	2.04	13.62	19.14	13.68
Difference	-4.24	-1.38	4.94	1.13	0.00	-1.04	-3.36
Total Domestic Equity	-20.63	29.86	17.61	4.29	17.21	17.70	11.20
Total Domestic Equity Policy	-17.63	31.88	15.00	2.92	17.58	18.71	14.96
Difference	-3.00	-2.02	2.61	1.37	-0.37	-1.01	-3.76
Dana Large Cap Value	-10.53 (57)	33.37 (68)	-1.79 (43)	4.25 (37)	9.17 (78)	16.63 (62)	9.79 (82)
Russell 1000 Value Index	-11.36 (65)	35.01 (58)	-5.03 (65)	4.00 (39)	9.45 (76)	15.12 (77)	16.19 (25)
Difference	0.83	-1.64	3.24	0.25	-0.28	1.51	-6.40
IM U.S. Large Cap Value Equity (SA+CF) Median	-9.69	37.00	-3.30	2.49	11.73	17.80	13.30
Allspring Growth R6 (SGRHX)	N/A	28.22 (48)	37.21 (35)	4.59 (30)	30.23 (19)	21.35 (34)	10.38 (46)
Russell 3000 Growth Index	-23.01 (20)	27.57 (55)	36.12 (36)	2.70 (41)	25.89 (37)	21.87 (30)	13.64 (17)
Difference	N/A	0.65	1.09	1.89	4.34	-0.52	-3.26
IM U.S. Multi-Cap Growth Equity (MF) Median	-29.32	28.02	31.24	1.38	23.43	19.40	9.88
/anguard Growth Index Fund (VIGAX)	-25.86 (38)	28.11 (20)	38.28 (28)	4.52 (25)	22.67 (71)	19.81 (58)	N/A
CRSP U.S. Large Cap Growth TR Index	-25.84 (38)	28.13 (20)	38.32 (27)	4.55 (25)	22.70 (71)	19.86 (57)	13.56 (16)
Difference	-0.02	-0.02	-0.04	-0.03	-0.03	-0.05	N/A
IM U.S. Large Cap Growth Equity (MF) Median	-27.73	25.85	34.07	2.15	24.80	20.19	10.85
/anguard Index 500 Admiral (VFIAX)	N/A	N/A	15.11 (46)	4.22 (42)	N/A	N/A	N/A
S&P 500 Index	-15.47 (31)	30.00 (38)	15.15 (46)	4.25 (41)	17.91 (33)	18.61 (45)	15.43 (18)
Difference	N/A	N/A	-0.04	-0.03	N/A	N/A	N/A
IM U.S. Large Cap Core Equity (MF) Median	-17.11	29.04	14.72	3.57	16.73	18.34	13.01
Fidelity 500 Index (FXAIX)	-15.49 (31)	N/A	N/A	N/A	N/A	N/A	N/A
S&P 500 Index	-15.47 (31)	30.00 (38)	15.15 (46)	4.25 (41)	17.91 (33)	18.61 (45)	15.43 (18)
Difference	-0.02	N/A	N/A	N/A	N/A	N/A	N/A
IM U.S. Large Cap Core Equity (MF) Median	-17.11	29.04	14.72	3.57	16.73	18.34	13.01

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



	Oct-2 To Sep-2	)	Oct-2 To Sep-2	)	Oct-2 To Sep-2	)	Oct-2 To Sep-2	)	Oct-2 To Sep-2		Oct-2 To Sep-2	)	Oct-2 To Sep-2	)
Highland Capital Core Value Equity	N/A		15.84	(83)	14.02	(40)								
S&P 500 Index	-15.47	(55)	30.00	(58)	15.15	(40)	4.25	(38)	17.91	(43)	18.61	(58)	15.43	(21)
Difference	N/A		-2.77		-1.41									
IM U.S. Large Cap Core Equity (SA+CF) Median	-15.25		30.87		13.05		3.16		17.41		19.04		13.17	
Total International Equity	-33.16		24.76		14.97		-0.65		2.87		19.30		7.36	
Total International Equity Policy	-24.79		24.45		3.45		-0.72		2.25		20.15		9.80	
Difference	-8.37		0.31		11.52		0.07		0.62		-0.85		-2.44	
Highland Capital International	N/A		N/A		N/A		N/A		4.38	(31)	17.89	(77)	6.09	(73)
MSCI EAFE Index	-24.75	(39)	26.29	(44)	0.93	(73)	-0.82	(39)	3.25	(41)	19.65	(60)	7.06	(63)
Difference	N/A		N/A		N/A		N/A		1.13		-1.76		-0.97	
IM International Large Cap Core Equity (SA+CF) Median	-25.19		25.45		4.64		-1.66		2.57		20.45		8.18	
American Funds EuroPacific Gr R6 (RERGX)	-32.85	(73)	24.76	(27)	14.97	(50)	1.14	(54)	1.47	(62)	20.63	(8)	8.52	(32)
MSCI AC World ex USA	-24.79	(9)	24.45	(29)	3.45	(91)	-0.72	(71)	2.25	(54)	20.15	(15)	9.80	(19)
Difference	-8.06		0.31		11.52		1.86		-0.78		0.48		-1.28	
IM International Large Cap Growth Equity (MF) Median	-28.73		20.62		14.87		1.35		2.48		17.62		7.50	
Dodge & Cox Int'l (DODFX)	N/A													
MSCI AC World ex USA Value	-19.46	(21)	32.15	(35)	-10.32	(99)	-3.89	(46)	1.02	(48)	22.23	(9)	7.62	(36)
Difference	N/A													
IM International Large Cap Value Equity (MF) Median	-21.68		30.49		-4.80		-4.12		0.83		19.39		5.27	
Total Fixed Income	-15.27		-0.29		7.79		10.67		-1.24		0.87		5.78	
Total Fixed Income Policy	-14.60		-0.90		6.98		10.30		-1.22		0.07		5.19	
Difference	-0.67		0.61		0.81		0.37		-0.02		0.80		0.59	
ICC Fixed Income	N/A													
Blmbg. U.S. Aggregate Index	-14.60	(62)	-0.90	(84)	6.98	(76)	10.30	(69)	-1.22	(87)	0.07	(84)	5.19	(81)
Difference	N/A													
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	-14.38		-0.02		7.53		10.42		-0.75		0.63		5.67	
Baird Aggregate Bond Fund (BAGIX)	-15.27	(50)	-0.31	(65)	7.79	(22)	10.69	(8)	-1.24	(44)	0.87	(33)	5.78	(30)
Blmbg. U.S. Aggregate Index	-14.60	(24)	-0.90	(83)	6.98	(49)	10.30	(24)	-1.22	(42)	0.07	(65)	5.19	(53)
Difference	-0.67		0.59		0.81		0.39		-0.02		0.80		0.59	
IM U.S. Broad Market Core Fixed Income (MF) Median	-15.29		0.16		6.94		9.78		-1.32		0.49		5.23	



	Oct-2021 To Sep-2022	Oct-2020 To Sep-2021	Oct-2019 To Sep-2020	Oct-2018 To Sep-2019	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016
Total Global Tactical Asset Allocation	-14.56 (48)	12.13 (77)	2.40 (53)	N/A	N/A	N/A	N/A
Total Global Tactical Asset Policy	-16.91 (62)	13.29 (72)	9.36 (17)	N/A	N/A	N/A	N/A
Difference	2.35	-1.16	-6.96	N/A	N/A	N/A	N/A
IM Flexible Portfolio (MF) Median	-14.79	16.31	2.56	2.63	3.45	9.51	8.68
Blackrock Multi-Asset Income -K (BKMIX)	-14.36 (46)	12.13 (77)	2.40 (53)	N/A	N/A	N/A	N/A
50% MSCI World/50% BC Agg	-16.91 (62)	13.29 (72)	9.36 (17)	6.40 (19)	4.93 (35)	8.80 (57)	N/A
Difference	2.55	-1.16	-6.96	N/A	N/A	N/A	N/A
IM Flexible Portfolio (MF) Median	-14.79	16.31	2.56	2.63	3.45	9.51	8.68



# City of Eustis Firefighters' Pension Fund

# Compliance Checklist as of 09/30/2022

То	tal Fund Compliance:	Yes	No	N/A
1.	The Total Plan return equaled or exceeded the actuarial earnings assumption of 7.6% over the trailing three year period.		✓	
2.	The Total Plan return equaled or exceeded the actuarial earnings assumption of 7.6% over the trailing five year period.		✓	
3.	The Total Plan return equaled or exceeded the total plan benchmark over the trailing three year period.		✓	
4.	The Total Plan return equaled or exceeded the total plan benchmark over the trailing five year period.	✓		
5.	The Total Plan return ranked within the top 40th percentile of its peer group over the trailing three and five year periods.		✓	
6.	Manager reports compliance with PFIA	✓		

Equity Compliance:	Yes No N/A
1. Total equity returns meet or exceed the benchmark over the trailing three year period.	✓
2. Total equity returns meet or exceed the benchmark over the trailing five year period.	✓
3. The total equity allocation was less than 65% of the total plan assets at market.	✓
4. The total foreign equity allocation was less than 25% of the total plan assets at market.	✓

Fixed Income Compliance:	Yes	No	N/A
1. Total fixed income returns meet or exceed the benchmark over the trailing three year period.	✓		
2. Total fixed income returns meet or exceed the benchmark over the trailing five year period.	✓		
3. The average quality of the fixed portfolio was investment grade or better	✓		

M	lanager Compliance:	FXAIX		Dana			DODFX			BKMIX			RERGX		
		Yes No	N/A	Yes	No	N/A	Yes	No I	N/A	Yes I	No	N/A	Yes I	No	N/A
1	. Manager outperformed the index over the trailing three year period.		✓	✓					✓		✓			✓	
2	. Manager outperformed the index over the trailing five year period.		✓	✓					✓			✓	✓		
3	. Manager ranked within the top 40th percentile over trailing three period.		✓		✓				✓		✓			✓	
4	. Manager ranked within the top 40th percentile over trailing five year period.		✓		✓				✓			✓		✓	
5	. Less than four consecutive quarters of under performance relative to the benchmark.	✓		✓					✓	✓			✓		
6	. Three-year down-market capture ratio less than the index.		✓		✓				✓	✓				✓	



# City of Eustis Firefighters' Pension Fund

# Compliance Checklist as of 09/30/2022

M	anager Compliance:	BAGIX			VIGAX										
		Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes N	o N/A
1.	Manager outperformed the index over the trailing three year period.	✓				✓									
2.	Manager outperformed the index over the trailing five year period.	✓				✓									
3.	Manager ranked within the top 40th percentile over trailing three period.		✓		✓										
4.	Manager ranked within the top 40th percentile over trailing five year period.	✓			✓										
5.	Less than four consecutive quarters of under performance relative to the benchmark.	✓			✓										
6.	Three-year down-market capture ratio less than the index.		✓			✓									



# Eustis Firefighters' Retirement Plan Fee Analysis

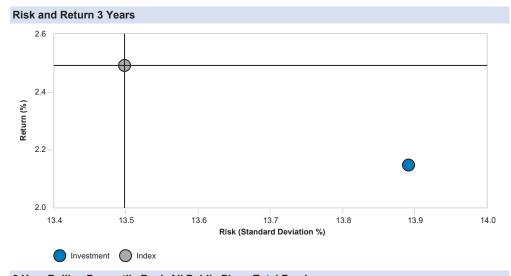
As of September 30, 2022

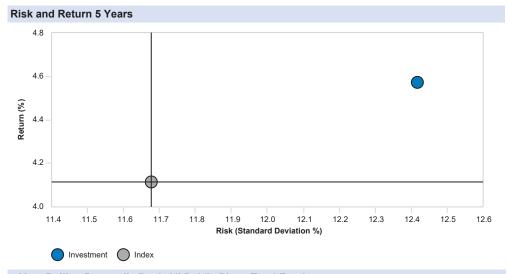
	Estimated	Market Value	Estimated	Fac Calcadula
	Annual Fee (%)	(\$)	Annual Fee (\$)	Fee Schedule
Dana Large Cap Value	0.65	2,154,296	14,003	0.65 % of Assets
Vanguard Growth Index Fund (VIGAX)	0.05	1,048,318	524	0.05 % of Assets
Fidelity 500 Index (FXAIX)	0.02	1,844,263	277	0.02 % of Assets
Total Domestic Equity	0.29	5,046,877	14,804	
American Funds EuroPacific Gr R6 (RERGX)	0.46	698,809	3,215	0.46 % of Assets
Dodge & Cox Int'l (DODFX)	0.62	656,582	4,071	0.62 % of Assets
Total International Equity	0.54	1,355,390	7,285	
Baird Aggregate Bond Fund (BAGIX)	0.30	4,009,747	12,029	0.30 % of Assets
Total Fixed Income	0.30	4,009,747	12,029	
Blackrock Multi-Asset Income -K (BKMIX)	0.51	549,604	2,803	0.51 % of Assets
Total Global Tactical Asset Allocation	0.51	549,604	2,803	
Receipt & Disbursement		240,794	-	
Total Fund	0.33	11,202,413	36,921	

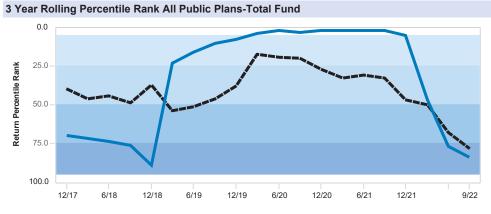


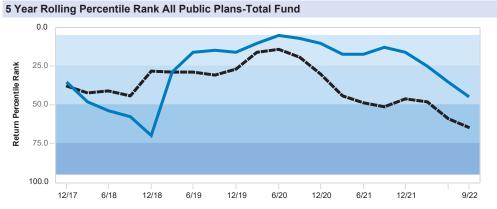
<b>Historical Stati</b>	stics 3 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	2.15	13.89	0.18	103.14	7	105.43	5
Index	2.49	13.50	0.20	100.00	7	100.00	5

<b>Historical Stati</b>	Historical Statistics 5 Years											
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters					
Investment	4.58	12.42	0.33	106.64	13	105.04	7					
Index	4.12	11.68	0.30	100.00	13	100.00	7					









	Total Period	5-28 Cour		25-Me Cou		Media Cou		75-9 Cou		
Investment	20	12	(60%)	1	(5%)	3	(15%)	4	(20%)	
Index	20	3	(15%)	13	(65%)	3	(15%)	1	(5%)	

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	12 (60%)	5 (25%)	3 (15%)	0 (0%)
Index	20	3 (15%)	14 (70%)	3 (15%)	0 (0%)

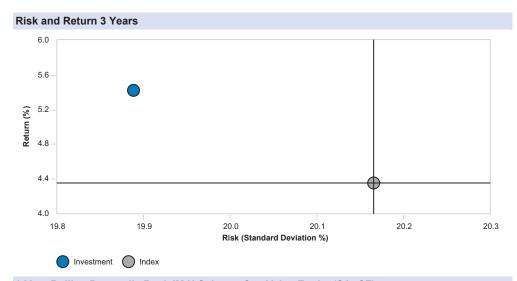


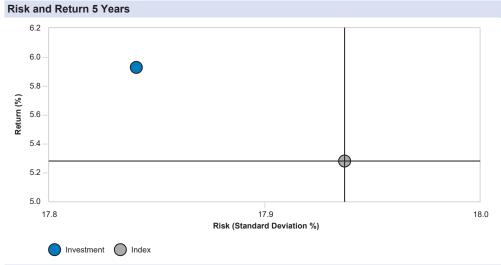


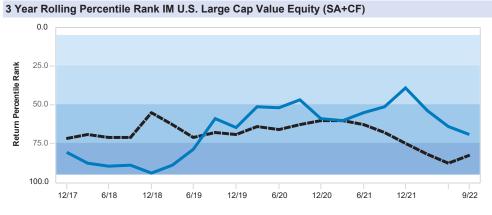


<b>Historical Stati</b>	stics 3 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	5.43	19.89	0.34	103.43	7	100.33	5
Index	4.36	20.17	0.28	100.00	7	100.00	5

<b>Historical Statis</b>	Historical Statistics 5 Years											
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters					
Investment	5.93	17.84	0.35	102.27	13	100.16	7					
Index	5.29	17.94	0.31	100.00	13	100.00	7					







5 Ye	ar Ro	Iling Pe	rcentile	Rank IM	U.S. Lar	ge Cap V	alue Equ	uity (SA+	CF)		
	0.0										
ntile Rank	25.0 —										
Return Perœntile Rank	50.0 –	***								<u> </u>	
ă	75.0 –										
	100.0	12/17	6/18	12/18	6/19	12/19	6/20	12/20	6/21	12/21	9/22

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
Investment	20	0 (0%)	2 (10%)	11 (55%)	7 (35%)	
Index	20	0 (0%)	0 (0%)	17 (85%)	3 (15%)	

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
Investment	18	0 (0%)	0 (0%)	11 (61%)	7 (39%)	
Index	20	0 (0%)	0 (0%)	13 (65%)	7 (35%)	



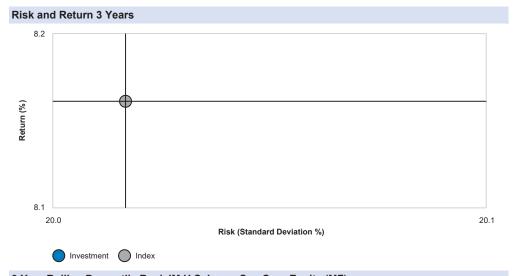


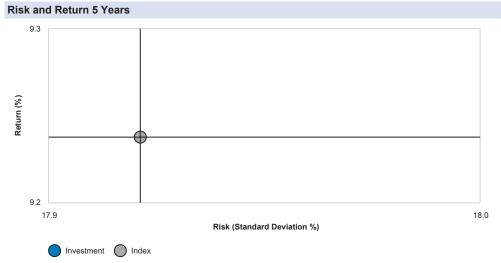


As	of	Se	otem	ber	30.	2022
~3	O.	36	Dieiii	IDEI	JU,	2022

Historical Statistics 3 Years										
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters			
Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Index	8.16	20.02	0.46	100.00	8	100.00	4			

Historical Statistics 5 Years									
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		
Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Index	9.24	17.92	0.52	100.00	14	100.00	6		







Count

13 (65%)

Count

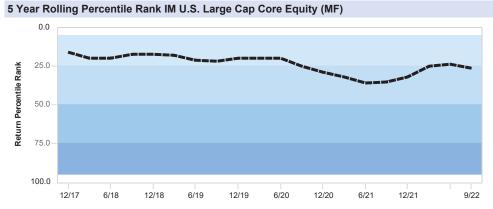
0 (0%)

Count

0 (0%)

Count

7 (35%)



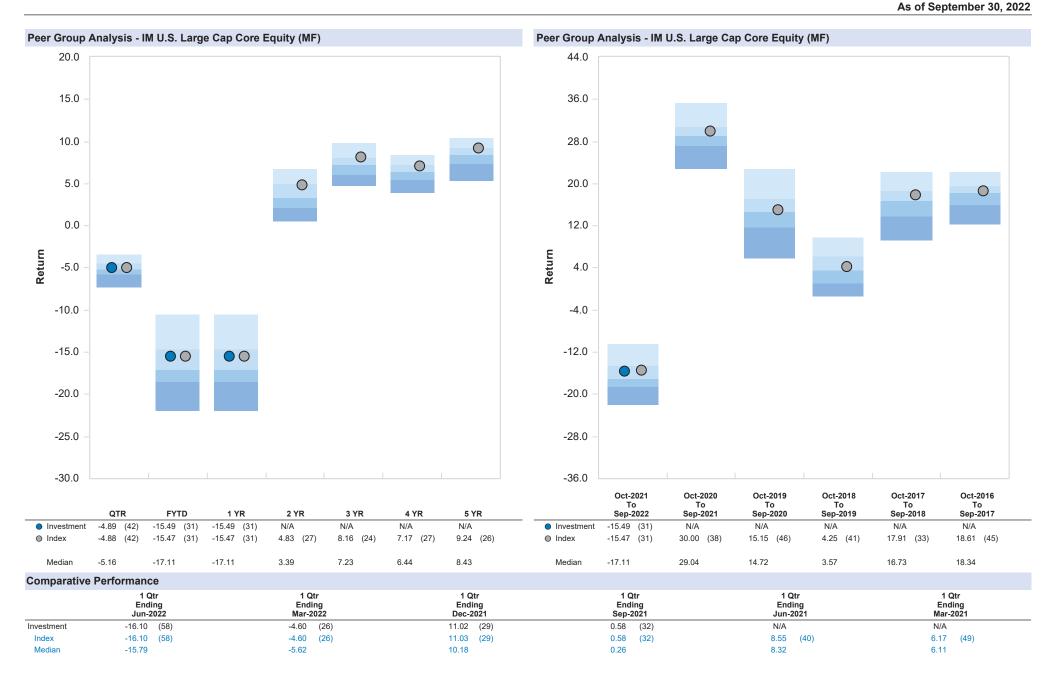
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	0	0	0	0	0
Index	20	14 (70%)	6 (30%)	0 (0%)	0 (0%)



Investment

\_\_ Index

0 20

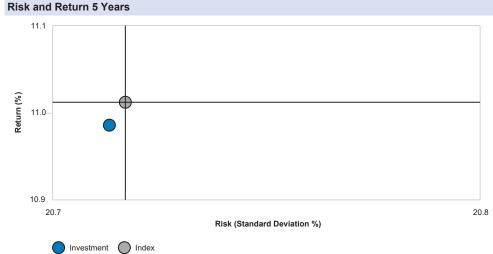


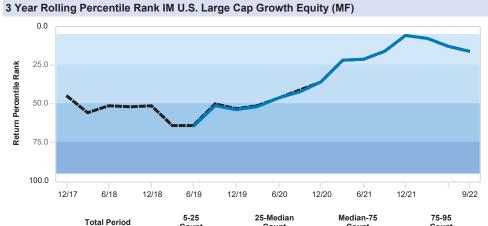


Historical Statistics 3 Years										
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters			
Investment	9.51	23.60	0.48	99.98	8	100.05	4			
Index	9.54	23.60	0.48	100.00	8	100.00	4			

Historical Statistics 5 Years										
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters			
Investment	10.99	20.71	0.55	99.96	15	100.04	5			
Index	11.01	20.72	0.55	100.00	15	100.00	5			







Count

3 (21%)

5 (25%)

Count

4 (29%)

8 (40%)

Count

0 (0%)

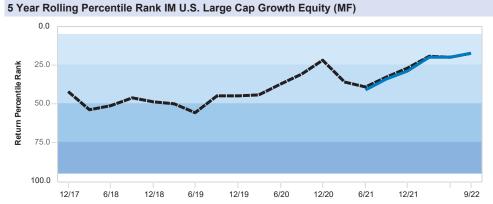
Count

7 (50%)

7 (35%)

14

20



	Total Period 5-25 Count		25-Median Count	Median-75 Count	75-95 Count
Investment	6	3 (50%)	3 (50%)	0 (0%)	0 (0%)
Index	20	4 (20%)	13 (65%)	3 (15%)	0 (0%)



Investment

\_\_ Index

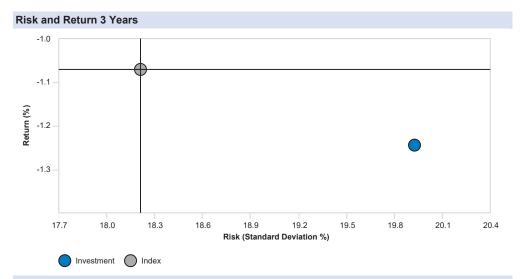


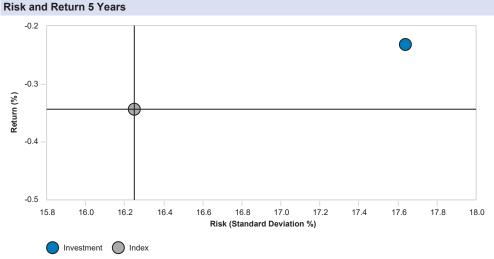


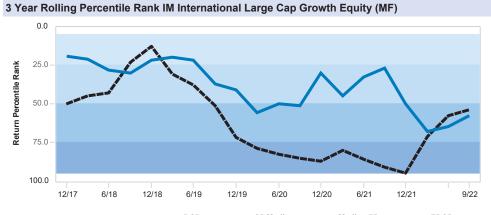
As of September 30, 2022

<b>Historical Stati</b>	stics 3 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	-1.24	19.93	0.01	108.92	5	108.54	7
Index	-1.07	18 21	0.00	100.00	7	100.00	5

Historical Statistics 5 Years									
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		
Investment	-0.23	17.64	0.01	105.99	9	104.66	11		
Index	-0.34	16.25	-0.01	100.00	11	100.00	9		





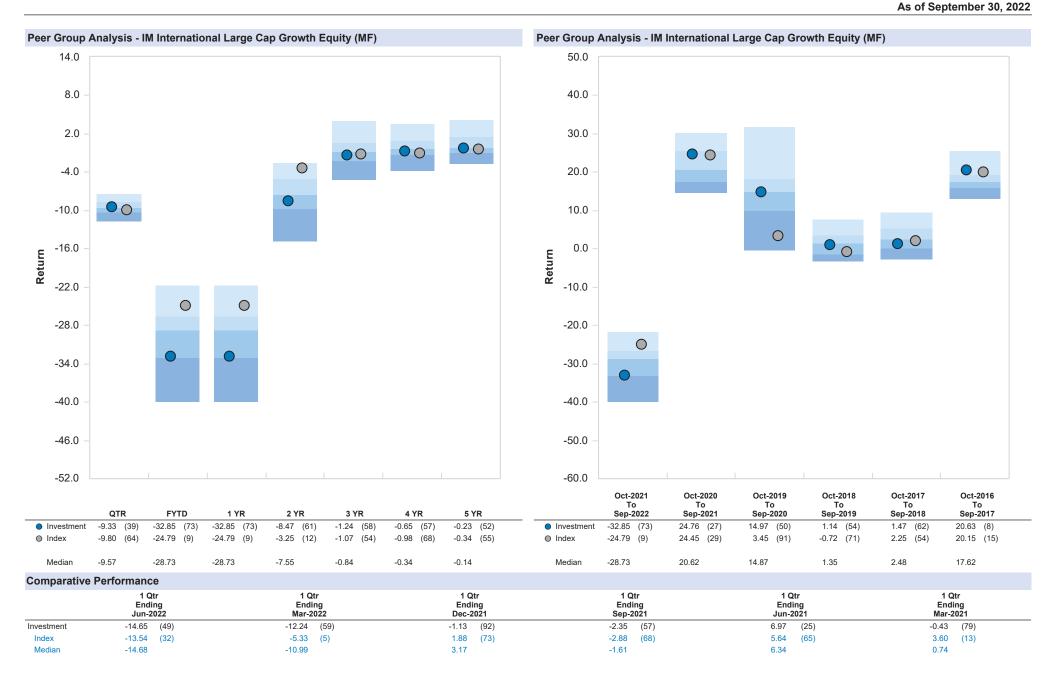




	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count		Total Period	5-25 Count
Investment	20	5 (25%)	10 (50%)	5 (25%)	0 (0%)	Investment	14	3 (21%)
Index	20	2 (10%)	5 (25%)	5 (25%)	8 (40%)	Index	20	0 (0%)





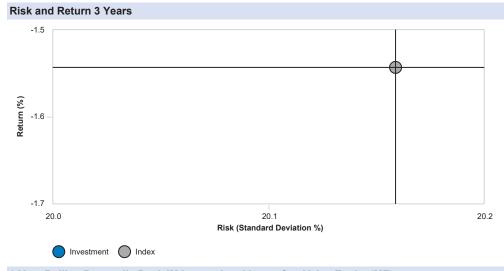


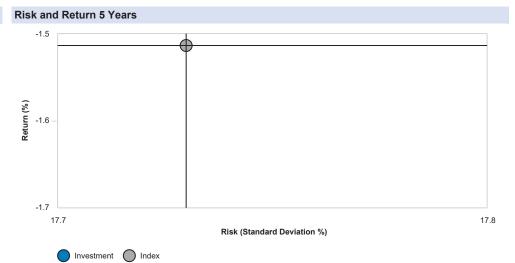


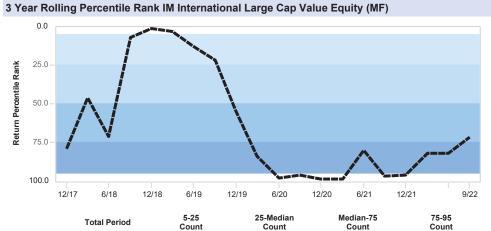
As of September 30, 2022

<b>Historical Stati</b>	stics 3 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Index	-1.54	20.16	0.00	100.00	8	100.00	4

<b>Historical Statis</b>	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Index	-1.51	17.73	-0.06	100.00	12	100.00	8







5 (25%)

Count

1 (5%)

Count

3 (15%)

11 (55%)



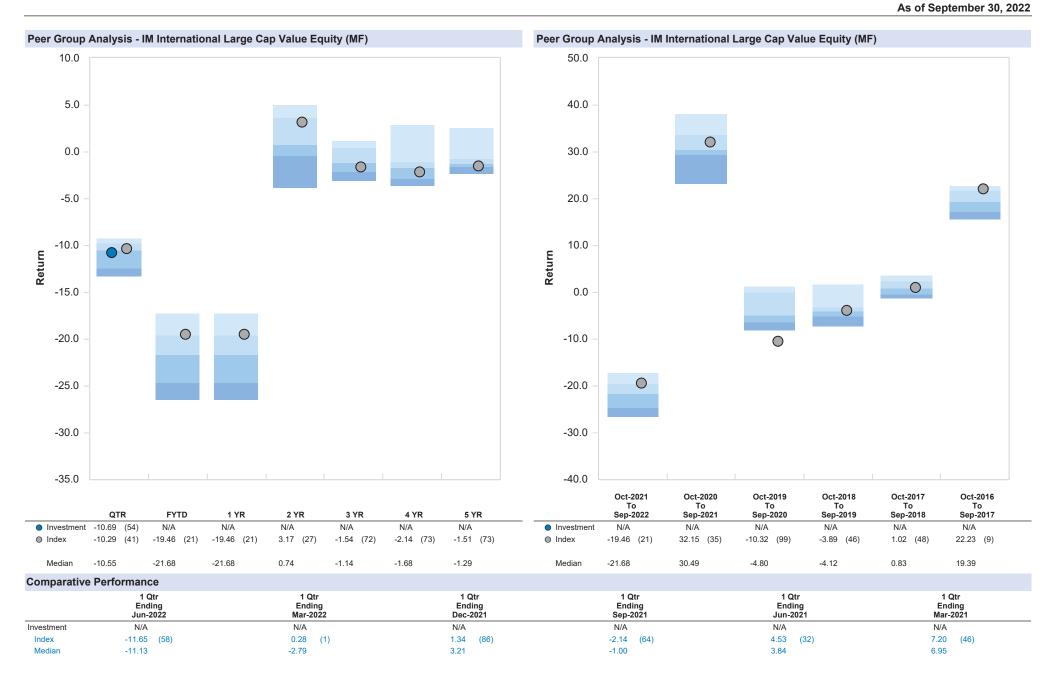
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
Investment	0	0	0	0	0	
Index	20	0 (0%)	3 (15%)	9 (45%)	8 (40%)	



Investment

\_\_ Index

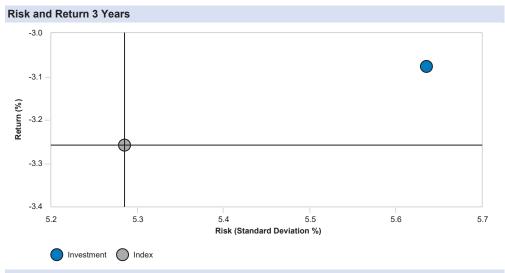
0 20

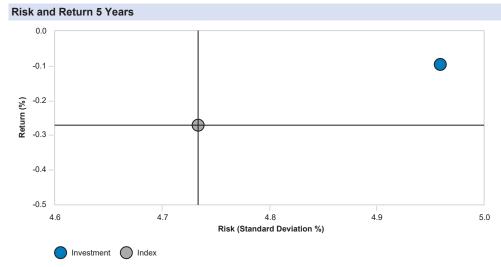


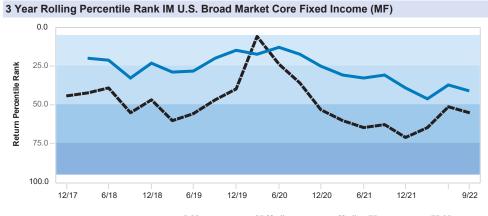


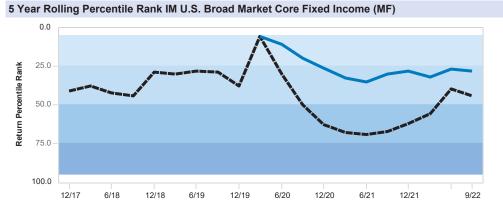
<b>Historical Stati</b>	stics 3 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	-3.08	5.64	-0.62	113.98	7	106.32	5
Index	-3.26	5.29	-0.70	100.00	8	100.00	4

<b>Historical Statis</b>	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	-0.09	4.96	-0.23	107.65	13	104.37	7
Index	-0.27	4.73	-0.28	100.00	14	100.00	6





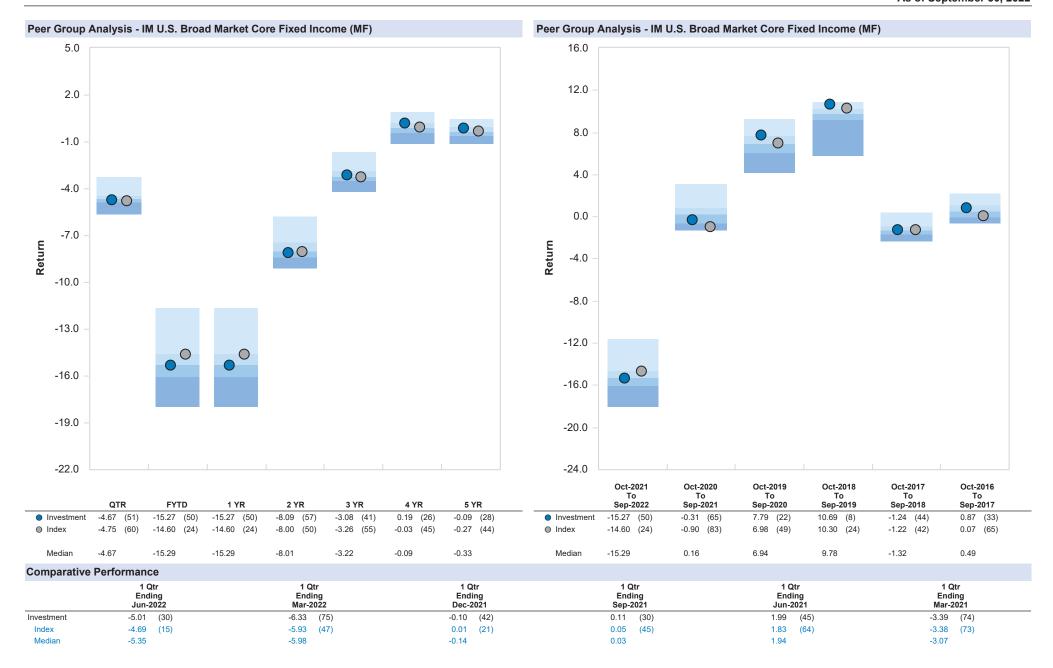




	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
Investment	19	9 (47%)	10 (53%)	0 (0%)	0 (0%)	
Index	20	2 (10%)	7 (35%)	11 (55%)	0 (0%)	

	Total Period	5-25 Count	Count	Median-75 Count	75-95 Count	
Investment	11	3 (27%)	8 (73%)	0 (0%)	0 (0%)	
Index	20	1 (5%)	13 (65%)	6 (30%)	0 (0%)	

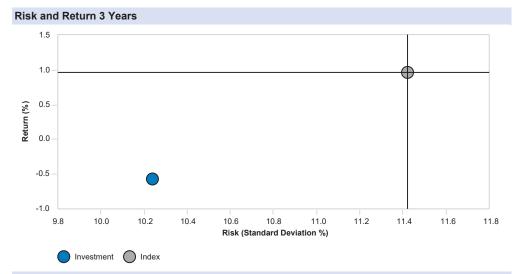


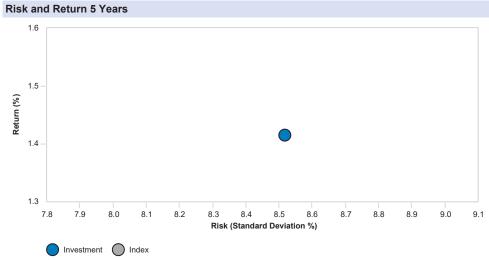


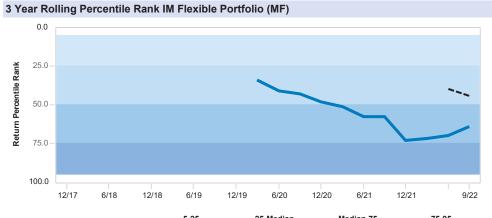


<b>Historical Stati</b>	stics 3 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	-0.57	10.24	-0.06	74.76	7	83.05	5
Index	0.97	11 42	0.09	100.00	8	100.00	4

<b>Historical Stati</b>	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	1.42	8.52	0.07	N/A	13	N/A	7
Index	N/A	N/A	N/A	N/A	N/A	N/A	N/A





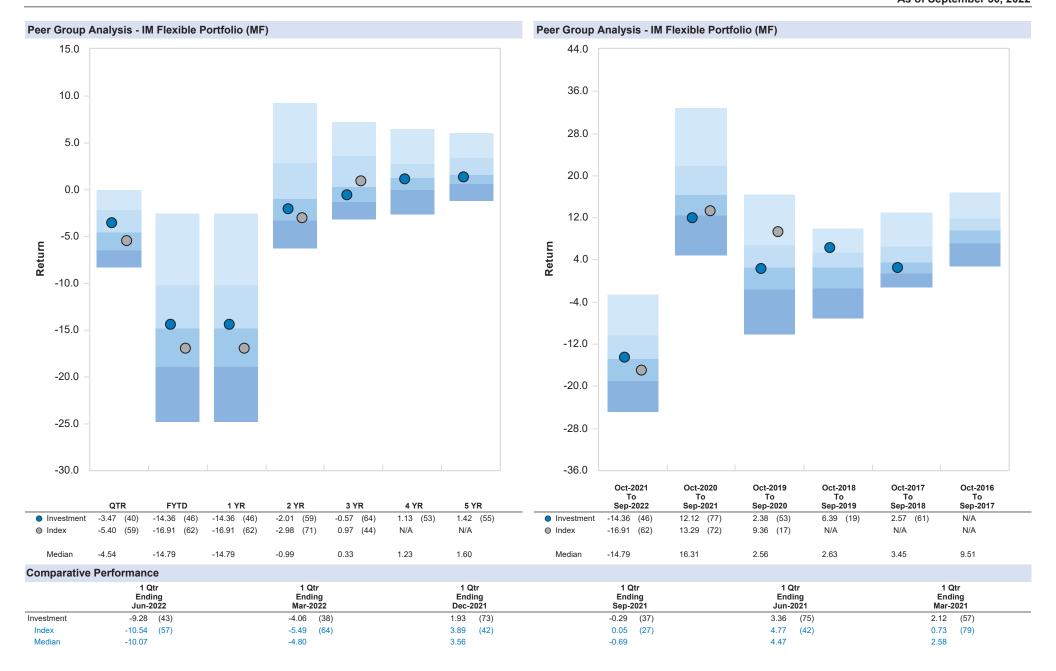


5 Ye	ar Ro	lling Pe	ercentile	Rank IM	Flexible	Portfolio	(MF)				
	0.0										
tile Rank	25.0 -										
Return Perœntile Rank	50.0 -										
Ret	75.0 -										
	100.0	12/17	6/18	12/18	6/19	12/19	6/20	12/20	6/21	12/21	9/22

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
Investment	11	0 (0%)	4 (36%)	7 (64%)	0 (0%)	
Index	2	0 (0%)	2 (100%)	0 (0%)	0 (0%)	

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
Investment	3	0 (0%)	0 (0%)	3 (100%)	0 (0%)	
Index	0	0	0	0	0	







Comparative Performance Trailing Returns												
	1 \	/R	3 \	′R	5 YR		7 YR		10 YR		15	YR
Dana Large Cap Value	-10.41	(56)	5.39	(70)	5.78	(73)	7.82	(85)	8.88	(87)	6.04	(84)
Russell 1000 Value Index	-11.36	(65)	4.36	(83)	5.29	(78)	8.15	(78)	9.17	(81)	5.70	(90)
Difference	0.95		1.03		0.49		-0.33		-0.29		0.34	
IM U.S. Large Cap Value Equity (SA+CF) Median	-9.69		6.57		6.82		9.29		10.10		7.16	
Vanguard Gro Idx;Adm (VIGAX)	-25.86	(38)	9.49	(16)	10.97	(18)	12.56	(17)	12.69	(19)	9.55	(13)
CRSP U.S. Large Cap Growth TR Index	-25.84	(38)	9.54	(16)	11.01	(17)	12.60	(16)	12.65	(20)	9.24	(22)
Difference	-0.02		-0.05		-0.04		-0.04		0.04		0.31	
IM U.S. Large Cap Growth Equity (MF) Median	-27.73		7.08		9.29		10.99		11.66		8.43	
Fidelity 500 Index Fund (FXAIX)	-15.49	(5)	8.15	(7)	9.23	(4)	11.39	(3)	11.69	(2)	N/A	
S&P 500 Index	-15.47	(1)	8.16	(3)	9.24	(2)	11.40	(1)	11.70	(1)	8.03	(1)
Difference	-0.02		-0.01		-0.01		-0.01		-0.01		N/A	
IM S&P 500 Index (MF) Median	-15.73		7.84		8.91		11.03		11.24		7.58	
American Funds EuPc;R6 (RERGX)	-32.85	(73)	-1.24	(58)	-0.23	(52)	3.75	(36)	4.52	(29)	N/A	
MSCI EAFE Growth Index	-30.06	(60)	-1.18	(56)	1.03	(33)	4.31	(30)	5.08	(20)	2.00	(29)
Difference	-2.79		-0.06		-1.26		-0.56		-0.56		N/A	
IM International Large Cap Growth Equity (MF) Median	-28.73		-0.84		-0.14		3.19		3.89		1.28	
Dodge & Cox Intnl Stck;I (DODFX)	-17.71	(5)	0.25	(7)	-1.48	(19)	3.13	(8)	4.17	(5)	1.47	(14)
MSCI AC World ex USA Value	-19.46	(10)	-1.54	(36)	-1.51	(19)	2.87	(11)	2.47	(41)	0.28	(31)
Difference	1.75		1.79		0.03		0.26		1.70		1.19	
IM International Large Cap Value Equity (MF) Median	-22.63		-1.95		-2.39		1.30		2.28		-0.33	
Baird Aggregate Bd;Inst (BAGIX)	-15.26	(49)	-3.07	(39)	-0.09	(28)	0.87	(27)	1.36	(13)	3.09	(20)
Blmbg. U.S. Aggregate Index	-14.60	(24)	-3.26	(55)	-0.27	(44)	0.54	(55)	0.89	(51)	2.74	(48)
Difference	-0.66	( )	0.19	,	0.18	( )	0.33	,	0.47	, ,	0.35	,
IM U.S. Broad Market Core Fixed Income (MF) Median	-15.29		-3.22		-0.33		0.58		0.90		2.71	
BlackRock:Mlt-A Inc;I (BIICX)*	-14.39	(46)	-0.58	(64)	1.39	(57)	3.13	(68)	3.59	(62)	N/A	
50% MSCI World/50% BC Agg	-16.91	(62)	0.97	(44)	2.82	(33)	4.45	(38)	4.68	(33)	4.01	(47)
Difference	2.52	• /	-1.55	• •	-1.43	• •	-1.32	• •	-1.09	• •	N/A	• •
IM Flexible Portfolio (MF) Median	-14.79		0.33		1.60		3.75		3.99		3.88	



Comparative Performance Fiscal Year Returns																				
	Oct-2		Oct-2		Oct-		Oct-			2017	Oct-		Oct-2		Oct-2		Oct-			2012
	To Sep-2	-	Tep-	-	T Sep-	-	T Sep-	-	-	o 2018	T Sep-	-	Tep-	-	To Sep-2	-	Tep-		-	o 2013
Dana Large Cap Value	-10.41		33.27	(68)	-1.96		3.63	(42)	9.18		16.46		9.79	(82)	-3.45		19.97	(30)	19.43	
Russell 1000 Value Index	-11.36	(65)	35.01	(58)	-5.03	(65)	4.00	(39)	9.45	(76)	15.12	(77)	16.19	(25)	-4.42	(63)	18.89	(42)	22.30	(58)
Difference	0.95		-1.74		3.07		-0.37		-0.27		1.34		-6.40		0.97		1.08		-2.87	
IM U.S. Large Cap Value Equity (SA+CF) Median	-9.69		37.00		-3.30		2.49		11.73		17.80		13.30		-3.40		18.36		23.43	
Vanguard Gro Idx;Adm (VIGAX)	-25.86	(38)	28.07	(21)	38.24	(28)	4.52	(25)	22.67	(71)	19.81	(58)	13.51	(17)	1.93	(60)	19.31	(24)	18.64	(62)
CRSP U.S. Large Cap Growth TR Index	-25.84	(38)	28.13	(20)	38.32	(27)	4.55	(25)	22.70	(71)	19.86	(57)	13.56	(16)	2.00	(59)	19.38	(23)	17.81	(68)
Difference	-0.02		-0.06		-0.08		-0.03		-0.03		-0.05		-0.05		-0.07		-0.07		0.83	
IM U.S. Large Cap Growth Equity (MF) Median	-27.73		25.85		34.07		2.15		24.80		20.19		10.85		2.64		17.09		19.55	
Fidelity 500 Index Fund (FXAIX)	-15.49	(5)	29.99	(5)	15.14	(10)	4.24	(12)	17.90	(2)	18.59	(3)	15.43	(4)	-0.61	(2)	19.72	(1)	19.32	(2)
S&P 500 Index	-15.47	(1)	30.00	(2)	15.15	(8)	4.25	(10)	17.91	(2)	18.61	(2)	15.43	(4)	-0.61	(2)	19.73	(1)	19.34	(1)
Difference	-0.02		-0.01		-0.01		-0.01		-0.01		-0.02		0.00		0.00		-0.01		-0.02	
IM S&P 500 Index (MF) Median	-15.73		29.60		14.80		3.94		17.51		18.17		14.99		-1.04		19.21		18.80	
American Funds EuPc;R6 (RERGX)	-32.85	(73)	24.76	(27)	14.97	(50)	1.14	(54)	1.47	(62)	20.63	(8)	8.52	(32)	-4.93	(37)	6.98	(10)	18.28	(62)
MSCI EAFE Growth Index	-30.06	(60)	21.25	(45)	13.81	(55)	2.64	(33)	6.27	` '		(74)	9.90	(18)	-4.30	(33)	3.22	(60)	23.67	(8)
Difference	-2.79	()	3.51	(10)	1.16	()	-1.50	()	-4.80	()	4.52	(* -)	-1.38	(10)	-0.63	()	3.76	()	-5.39	(-)
IM International Large Cap Growth Equity (MF) Median	-28.73		20.62		14.87		1.35		2.48		17.62		7.50		-5.60		4.36		19.50	
Dodge & Cox Intnl Stck;I (DODFX)	-17.71	(5)	35.19	(16)	-9.43	(96)	-2.75	(12)	-5.26	(100)	26.58	(1)	5.62	(43)	-16.19	(89)	13.19	(1)	27.76	(4)
MSCI AC World ex USA Value	-19.46	(10)	32.15	(27)	-10.32	(98)	-3.89	(18)	1.02	(27)	22.23	(5)	7.62	(9)	-15.72	(89)	5.79	(32)	17.40	(88)
Difference	1.75		3.04		0.89		1.14		-6.28		4.35		-2.00		-0.47		7.40		10.36	
IM International Large Cap Value Equity (MF) Median	-22.63		29.29		-5.76		-5.45		-0.02		18.21		4.33		-9.62		4.67		21.68	
Baird Aggregate Bd;Inst (BAGIX)	-15.26	(49)	-0.31	(65)	7.80	(21)	10.69	(8)	-1.24	(44)	0.87	(34)	5.78	(30)	2.99	(7)	5.17	(19)	-0.55	(16)
Blmbg. U.S. Aggregate Index	-14.60	(24)	-0.90	(83)	6.98	(49)	10.30	(24)	-1.22	` '	0.07	(65)	5.19	(53)	2.94	(9)	3.96	(61)	-1.68	(54)
Difference	-0.66	()	0.59	()	0.82	(10)	0.39	( /	-0.02	(/	0.80	()	0.59	()	0.05	(-)	1.21	()	1.13	()
IM U.S. Broad Market Core Fixed Income (MF) Median	-15.29		0.16		6.94		9.78		-1.32		0.49		5.23		1.95		4.24		-1.60	
BlackRock:Mlt-A Inc;I (BIICX)*	-14.39	(46)	12.06	(78)	2.43	(52)	6.24	(20)	2.62	(60)	7.82	(68)	7.39	(65)	-1.76	(24)	8.50	(47)	7.65	(57)
50% MSCI World/50% BC Agg	-16.91	(62)	13.29	(72)	9.36	(17)	6.40	(19)		, ,	8.80	(57)	8.47	(53)	-0.98	(20)	8.10	(52)	8.84	(49)
Difference	2.52	(02)	-1.23	()	-6.93	( )	-0.16	(10)	-2.31	(00)	-0.98	(0.)	-1.08	(00)	-0.78	(20)	0.40	(02)	-1.19	(10)
IM Flexible Portfolio (MF) Median	-14.79		16.31		2.56		2.63		3.45		9.51		8.68		-4.37		8.19		8.68	



Total Fund Policy		<b>Total Equity Policy</b>	
Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)
Jan-1996		Jan-1996	
S&P 500 Index	40.00	S&P 500 Index	100.00
Blmbg. U.S. Gov't/Credit	60.00		
		Jan-2010	
Oct-2001		S&P 500 Index	75.00
Blmbg. U.S. Gov't/Credit	50.00	MSCI EAFE Index	25.00
S&P 500 Index	50.00	Dec-2011	
Jan-2006		Russell 3000 Index	75.00
S&P 500 Index	60.00	MSCI EAFE Index	25.00
Blmbg. U.S. Gov't/Credit	40.00	WOOT EAT E INDEX	25.00
Diffisg. 0.0. Gov Poredit	40.00	Feb-2014	
Jan-2010		Russell 3000 Index	75.00
MSCI EAFE Index	15.00	MSCI AC World ex USA	25.00
Blmbg. U.S. Aggregate Index	40.00		
Russell 3000 Index	45.00		
Feb-2014			
MSCI AC World ex USA	15.00		
Blmbg. U.S. Aggregate Index	40.00	Total Domestic Equity Policy	
Russell 3000 Index	45.00	Allocation Mandate	Weight (%)
		Apr-2011	
Jul-2019		S&P 500 Index	100.00
Russell 3000 Index	45.00		
MSCI AC World ex USA	15.00	Dec-2011	
Blmbg. U.S. Aggregate Index	35.00	Russell 3000 Index	100.00
Total Global Tactical Asset Policy	5.00		

Total International Equity Policy									
Allocation Mandate	Weight (%)								
Apr-2011									
MSCI EAFE Index	100.00								
Feb-2014									
MSCI AC World ex USA	100.00								



Total Fixed Income Policy		Total Global Tactical Asset Policy	Total Global Tactical Asset Policy						
Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)						
Jan-1973		Jun-2019							
Blmbg. U.S. Gov't/Credit	100.00	MSCI World (net)	50.00						
		Blmbg. U.S. Aggregate Index	50.00						
Jan-2010									
Blmbg. U.S. Aggregate Index	100.00								



## **Disclosures**

# Disclosures as they pertain to breakout of balanced account:

- Previous to 4/30/2011, ICC's account was balanced with segment level returns that did not include their respective cash returns, upon breakout, each strategy will now include their respective cash returns.
- Due to the balanced account total equity was run as one strategy, upon breakout, each equity strategy will be run separately, with their respective cash balances, but due to the balanced nature, each equity strategy inception date will be 5/1/2011. Total equity's historical performance and inception date will be able to be brought forward.

The fixed strategy historical returns will be able to be brought forward along with its inception date.



Λ.	cti	ve	D	oti	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.



AndCo compiled this report for the sole use of the client for which it was prepared. AndCo is responsible for evaluating the performance results of the Total Fund along with the investment advisors by comparing their performance with indices and other related peer universe data that is deemed appropriate. AndCo uses the results from this evaluation to make observations and recommendations to the client.

AndCo uses time-weighted calculations which are founded on standards recommended by the CFA Institute. The calculations and values shown are based on information that is received from custodians. AndCo analyzes transactions as indicated on the custodian statements and reviews the custodial market values of the portfolio. As a result, this provides AndCo with a reasonable basis that the investment information presented is free from material misstatement. This methodology of evaluating and measuring performance provides AndCo with a practical foundation for our observations and recommendations. Nothing came to our attention that would cause AndCo to believe that the information presented is significantly misstated.

This performance report is based on data obtained by the client's custodian(s), investment fund administrator, or other sources believed to be reliable. While these sources are believed to be reliable, the data providers are responsible for the accuracy and completeness of their statements. Clients are encouraged to compare the records of their custodian(s) to ensure this report fairly and accurately reflects their various asset positions.

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

Additional information included in this document may contain data provided by from index databases, public economic sources and the managers themselves.

This document may contain data provided by Bloomberg Barclays. Bloomberg Barclays Index data provided by way of Barclays Live.

This document may contain data provided by Standard and Poor's. Nothing contained within any document, advertisement or presentation from S&P Indices constitutes an offer of services in jurisdictions where S&P Indices does not have the necessary licenses. All information provided by S&P Indices is impersonal and is not tailored to the needs of any person, entity or group of persons. Any returns or performance provided within any document is provided for illustrative purposes only and does not demonstrate actual performance. Past performance is not a guarantee of future investment results.

This document may contain data provided by MSCI, Inc. Copyright MSCI, 2017. Unpublished. All Rights Reserved. This information may only be used for your internal use, may not be reproduced or redisseminated in any form and may not be used to create any financial instruments or products or any indices. This information is provided on an "as is" basis and the user of this information assumes the entire risk of any use it may make or permit to be made of this information. Neither MSCI, any of its affiliates or any other person involved in or related to compiling, computing or creating this information makes any express or implied warranties or representations with respect to such information or the results to be obtained by the use thereof, and MSCI, its affiliates and each such other person hereby expressly disclaim all warranties (including, without limitation, all warranties of originality, accuracy, completeness, timeliness, non-infringement, merchantability and fitness for a particular purpose) with respect to this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any other person involved in or related to compiling, computing or creating this information have any liability for any direct, indirect, special, incidental, punitive, consequential or any other damages (including, without limitation, lost profits) even if notified of, or if it might otherwise have anticipated, the possibility of such damages.

This document may contain data provided by Russell Investment Group. Russell Investment Group is the source owner of the data contained or reflected in this material and all trademarks and copyrights related thereto. The material may contain confidential information and unauthorized use, disclosure, copying, dissemination or redistribution is strictly prohibited. This is a user presentation of the data. Russell Investment Group is not responsible for the formatting or configuration of this material or for any inaccuracy in presentation thereof.

This document may contain data provided by Morningstar. All rights reserved. Use of this content requires expert knowledge. It is to be used by specialist institutions only. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied, adapted or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information, except where such damages or losses cannot be limited or excluded by law in your jurisdiction. Past financial performance is not quarantee of future results.



**Clients first.** 



CHICAGO | CLEVELAND | DALLAS | DETROIT | ORLANDO | PITTSBURGH | RENO