# City of North Port Police Officers' Pension Fund Investment Performance Review Period Ending September 30, 2024 MARINER

**3rd Quarter 2024 Market Environment** 

# The Economy

- The US Federal Reserve (the Fed) shifted its policy stance during the quarter and cut the fed funds rate by 0.50% for the first time in four years to a range of 4.75%-5.00%. Capital markets celebrated the move after struggling to predict the pace and timing of future Fed actions earlier in the year. In its press release for the September meeting, the Fed continued to assert its stance on fighting inflation, while also inserting that the committee is strongly committed to "supporting maximum employment." Fed Chairman Jerome Powell signaled to the markets that the expectation is for the committee to shift to a more expansionary policy moving forward.
- The Fed's September "Dot Plot" showed revised expectations from a single 0.25% rate cut for the remainder of 2024 to a low-end estimate of a 4.25%-4.50% range. The dots also showed the target rate range decreasing below 4.00% in 2025.
- Growth in the US labor market continued in the third quarter, albeit at a slower pace than previous quarters with growth coming in at 527,000 new jobs. However, the strength of the labor market during the previous year was undermined by the large downward revision (818,000) on the trailing one-year statistic.

# **Equity (Domestic and International)**

- US equity results were sharply higher for the quarter, which also saw a significant broadening of returns across both the style and capitalization spectrum. The S&P 500 Index rose a solid 5.9% for the quarter and the small-cap Russell 2000 Index posted a higher gain of 9.3%. This quarter not only saw a significant rotation from large-cap to small-cap stocks but also from growth stocks to value stocks as value indexes outpaced their growth counterparts.
- Large-cap equity benchmarks continue to represent top-heavy concentration among a limited number of stocks. As of quarter end, the top 10 stocks in the S&P 500 Index made up nearly 35% of the index.
- International stocks continued delivering positive results during the third quarter and US Dollar (USD) denominated results were further helped by a weakening USD. USD performance of international stocks surged past local currency (LCL) returns in most regions for the quarter, albeit to varying degrees.

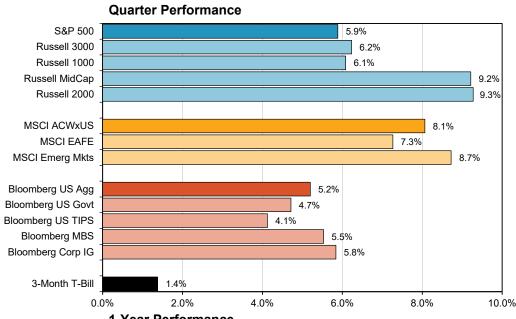
## **Fixed Income**

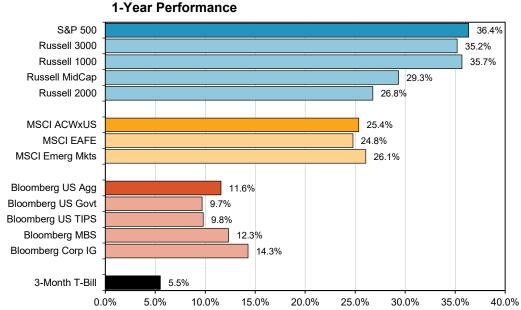
- Fixed-income markets traded higher during the quarter on the back of the Fed's policy shift as Treasury yields fell. The inverse relationship between prices and yields resulted in the Bloomberg US Aggregate Bond Index advancing 5.2%. The yield on the bellwether 10-year Treasury declined by 0.55% during the quarter.
- High-yield bonds slightly outperformed the Bloomberg US Aggregate Bond Index for the quarter, largely due to higher coupons and partly due to narrowing optionadjusted spreads (OAS) for the Bloomberg US High-Yield index.
- Global bonds outpaced the domestic benchmarks, with the Bloomberg Global Aggregate ex-US returning 8.5% for the quarter in USD terms. Global bond performance was boosted by a weakening USD during the quarter.

## **Market Themes**

- Divergent monetary policies across regions led to increased volatility during the quarter. Most developed markets across the world kept rates at elevated levels as central banks continued their tight monetary stances. However, the Japanese Central Bank chose to raise its policy rates at the end of July, shortly before the Fed cut its policy rate in September. This divergence led to an unwinding of the systematic Yen carry trade, where investors quickly took action to cover short yen positions by taking down positions in various higher growth investments, including US equities. This subsequently led to a sharp decline in equity markets around the world in early August.
- Ongoing military conflicts in Ukraine and the Middle East, coupled with global economic uncertainty, continue to act as headwinds for international market results but they received a boost from the weakening USD. New escalations to existing conflicts have resulted in anticipated and unanticipated consequences. Domestic Defense companies have tended to trade higher on the news of developing escalations abroad while similarly putting upward pressure on oil prices and downward pressure on energy stocks as a result.

- Performance in the domestic equity markets was broadly positive after markets received a boost from the Fed's first rate cut in four years. Small-cap stocks outperformed their large-cap counterparts, with the Russell 2000 returning 9.3% versus a gain of 5.9% for the S&P 500. The all-cap Russell 3000, which is heavily weighted in its large-cap names, lagged the Russell 2000 Index by 3.1%, returning 6.2% for the quarter.
- International developed market equities realized similar results with both the MSCI ACWI ex US and MSCI EAFE indexes gaining during the quarter. The MSCI ACWI ex US Index posted a strong 8.1% for the quarter, while the MSCI EAFE Index returned a slightly lower 7.3%, both in USD terms. International emerging market (EM) equities were the best performing foreign segment, gaining 8.7% in for the quarter and outpacing their developed market counterparts. Much of the solid USD performance for EM can be attributed to the Far East index countries, particularly China, Taiwan, and Singapore.
- Broad fixed-income indexes added to their year-to-date results during the quarter, thanks in large part to the Fed's 0.50% rate cut on September 18th. The Bloomberg US Aggregate Index returned a solid 5.2% for the quarter. Investment-grade corporate bonds topped other US fixed-income sectors for the quarter, finishing with a return of 5.8%. The TIPS market, which is not part of the Aggregate Index, was the worst-performing bond benchmark during the quarter with a return of 4.1%, lagging the rest of the domestic fixed-income indexes.
- Large-cap US equity indexes built on their already massive returns over the trailing one-year period. The S&P 500 Index has gained 36.4%, while the Russell 1000 Index returned 35.7%. The weakest performing capitalization range of domestic equities for the year has been the small-cap Russell 2000 Index, which still posted a double-digit return of 26.8% over the last 12 months.
- Domestic bond indexes also produced strong, positive results for the year. Investment-grade corporate bonds continued to lead, returning an impressive 14.3% for the trailing one-year. The government bond index lagged for the year, but still returned a solid 9.7%.
- International markets also showcased healthy performance for the trailing oneyear period. The MSCI EM Index was the best international performer, returning 26.1%, while the MSCI EAFE and MSCI ACWI ex US indexes posted returns of 24.8% and 25.4%, respectively.

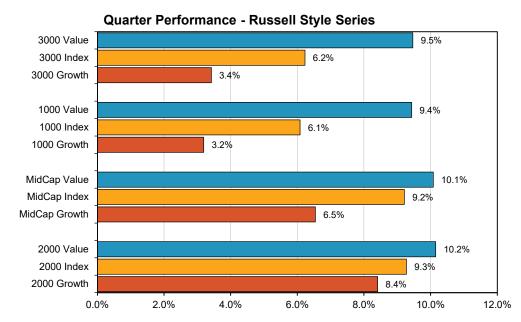


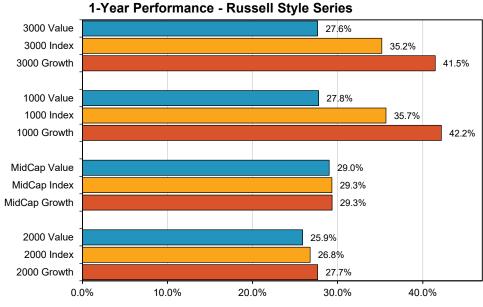


Source: Investment Metrics

- Domestic equity benchmarks posted strong absolute results across styles and market capitalization ranges. During the third quarter, value stocks outpaced their growth counterparts at each capitalization level for the first time since Q4 2022. The best-performing segment of the equity market was small-cap value, with the Russell 2000 Value Index advancing 10.2% for the quarter. Conversely, the large-cap growth Russell 1000 Growth Index produced the weakest relative equity performance, returning just 3.2%.
- The growth-oriented rally took a hiatus during the quarter with the broadest disparity visible in large-cap indexes. The Russell 1000 Value Index return of 9.4% surpassed the Russell 1000 Growth Index return by 6.2%. This quarter's results bucked the trend of large-cap growth stocks being the best-performing segment of the domestic equity market.

- This quarter's resurgence by the value indexes was not enough to bring them above growth indexes on a trailing one-year basis. The Russell 1000 Growth Index amassed a staggering 42.2%, leading the way among style and market capitalization classifications. Much of this strong performance has been attributable to the emergence of the "Magnificent 7" stocks (Alphabet, Amazon, Apple, Meta, Microsoft, Nvidia, and Tesla) which have dominated the large-cap core and growth indexes over the past several years. The 10 largest stocks in the Russell 1000 Index have contributed more than 50% of the index's total performance over the trailing 12-month period. The weakest performing index for the year was the Russell 2000 Value Index, which still posted an impressive 25.9%.
- The strength of growth sectors is evident in the chart with the broad-cap, large-cap, and small-cap benchmarks outpacing their value counterparts for the trailing one-year period. The gap between the Russell 1000 Growth Index and the Russell 1000 Value Index was in double-digits for the year, while the gaps for mid- and small-cap indexes were much narrower.

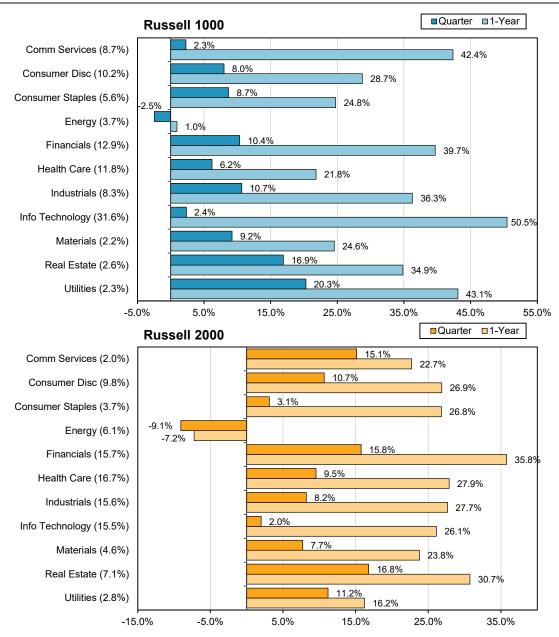




Source: Investment Metrics

As of September 30, 2024

- Economic sector performance was mostly positive during the third quarter, with 10 of the 11 economic sectors moving higher in both the large-cap and small-cap indexes. The quarter continued the previous trend in the domestic equities markets of broader participation in companies outside of the technology sector. Energy was the lone sector to slide during the quarter, posting a return of -2.5%.
- Third-quarter results for the large-cap benchmark added to already strong trailing one-year numbers, with all but one sector producing a return of greater than 20%. Similar to the quarter's results, the energy sector was the one to fall short, gaining just 1.0% over the trailing year. Of the 11 sectors, three (communication services, information technology, and utilities) were up by more than 40.0% for the past year. Financials, industrials, and real estate followed closely behind with gains of 39.7%, 36.3%, and 34.9%, respectively. Despite this strong sector performance, only five of the six leading sectors managed to outpace the Russell 1000 Index's return of 35.7%, which was lifted even higher by the strong results in the most heavily weighted sector, information technology.
- Small-cap stocks displayed similar strength, with 10 of the 11 small-cap economic sectors gaining value during the quarter. Real estate, financials, and communication services led the way with gains of more than 15% for the quarter. Similar to the large-cap benchmark, energy was the worst-performing sector for the quarter and produced the sole negative sector return, falling -9.1%.
- Small-cap stocks also had a strong performance for the trailing year. The same 10 small-cap sectors that advanced during the quarter moved higher over the trailing one-year period. Energy remains the weakest performing sector, with the most recent quarterly return dragging the sector's performance to -7.2% for the trailing year. Financials (up 35.8%), and seven other sectors earned more than 20%.



Source: Morningstar Direct

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.

	Top 10 W	eighted Stoc	ks	
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Apple Inc	6.4%	10.8%	36.8%	Information Technology
Microsoft Corp	6.1%	-3.6%	37.3%	Information Technology
NVIDIA Corp	5.4%	-1.7%	179.3%	Information Technology
Amazon.com Inc	3.3%	-3.6%	46.6%	Consumer Discretionary
Meta Platforms Inc Class A	2.4%	13.6%	91.3%	Communication Services
Alphabet Inc Class A	1.8%	-8.8%	27.1%	Communication Services
Berkshire Hathaway Inc Class B	1.6%	13.1%	31.4%	Financials
Alphabet Inc Class C	1.6%	-8.7%	27.1%	Communication Services
Broadcom Inc	1.5%	7.8%	110.9%	Information Technology
Tesla Inc	1.4%	32.2%	4.6%	Consumer Discretionary

Top 10 Weighted Stocks					
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector	
Vaxcyte Inc Ordinary Shares	0.5%	51.3%	124.1%	Health Care	
FTAI Aviation Ltd	0.5%	29.1%	281.0%	Industrials	
Insmed Inc	0.4%	9.0%	189.1%	Health Care	
Sprouts Farmers Market Inc	0.4%	32.0%	158.0%	Consumer Staples	
Fabrinet	0.3%	-3.4%	41.9%	Information Technology	
Applied Industrial Technologies Inc	0.3%	15.2%	45.4%	Industrials	
Mueller Industries Inc	0.3%	30.5%	100.0%	Industrials	
Fluor Corp	0.3%	9.6%	30.0%	Industrials	
Ensign Group Inc	0.3%	16.3%	55.1%	Health Care	
UFP Industries Inc	0.3%	17.5%	29.6%	Industrials	

Тор	10 Performir	ng Stocks (b	y Quarter)	
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Exact Sciences Corp	0.0%	61.2%	-0.1%	Healthcare
Inspire Medical Systems Inc	0.0%	57.7%	6.4%	Healthcare
AppLovin Corp Ordinary Shares - A	0.1%	56.9%	226.7%	Information Technology
Doximity Inc Class A	0.0%	55.8%	105.3%	Healthcare
Ubiquiti Inc	0.0%	52.7%	55.3%	Information Technology
Vornado Realty Trust	0.0%	49.9%	75.4%	Real Estate
GE Vernova Inc	0.1%	48.7%	N/A	Utilities
VF Corp	0.0%	48.5%	15.5%	Communication Services
Palantir Technologies Inc Ordinary - A	0.1%	46.9%	132.5%	Technology
SharkNinja Inc	0.0%	44.7%	139.9%	Communication Services

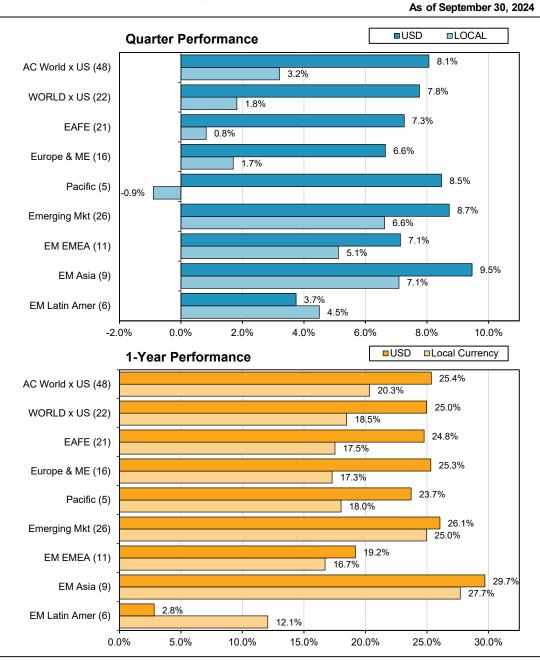
Top 10 Performing Stocks (by Quarter)					
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector	
Lumen Technologies Inc Ordinary	0.1%	545.5%	400.0%	Communication Services	
CommScope Holding Co Inc	0.0%	396.7%	81.8%	Information Technology	
Capricor Therapeutics Inc	0.0%	218.9%	344.7%	Health Care	
Summit Therapeutics Inc Ordinary	0.0%	180.8%	1071.1%	Health Care	
Q32 Bio Inc	0.0%	148.6%	N/A	Health Care	
Intuitive Machines Inc Ordinary - A	0.0%	143.9%	120.5%	Industrials	
IGM Biosciences Inc Ordinary	0.0%	140.8%	98.1%	Health Care	
Cassava Sciences Inc	0.0%	138.3%	76.9%	Health Care	
AST SpaceMobile Inc Ordinary - A	0.1%	125.2%	588.2%	Communication Services	
Biomea Fusion Inc	0.0%	124.4%	-26.6%	Health Care	

Bottom 10 Performing Stocks (by Quarter)					
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector	
New Fortress Energy Inc Class A	0.0%	-58.3%	-71.7%	Utilities	
Wolfspeed Inc	0.0%	-57.4%	-74.5%	Information Technology	
Trump Media & Technology Group Corp	0.0%	-50.9%	N/A	Communication Services	
Super Micro Computer Inc	0.0%	-49.2%	51.8%	Information Technology	
e.l.f. Beauty Inc	0.0%	-48.3%	-0.7%	Consumer Staples	
Celsius Holdings Inc	0.0%	-45.1%	-45.2%	Consumer Staples	
Moderna Inc	0.1%	-43.7%	-35.3%	Health Care	
DexCom Inc	0.1%	-40.9%	-28.1%	Health Care	
Advance Auto Parts Inc	0.0%	-38.2%	-29.1%	Communication Services	
Dollar General Corp	0.0%	-35.7%	-18.6%	Consumer Staples	

Bottom 10 Performing Stocks (by Quarter)					
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector	
Conduit Pharmaceuticals Inc	0.0%	-88.8%	-98.0%	Health Care	
HilleVax Inc	0.0%	-87.8%	-86.9%	Health Care	
iLearningEngines Inc	0.0%	-81.6%	N/A	Information Technology	
SolarMax Technology Inc	0.0%	-80.8%	N/A	Industrials	
Verrica Pharmaceuticals Inc	0.0%	-80.1%	-62.7%	Health Care	
Elevation Oncology Inc	0.0%	-77.8%	-9.5%	Health Care	
Actinium Pharmaceuticals Inc	0.0%	-74.6%	-68.2%	Health Care	
Renovaro Inc	0.0%	-72.4%	-89.2%	Health Care	
B. Riley Financial Inc	0.0%	-70.2%	-86.1%	Financials	
ALX Oncology Holdings Inc Ordinary	0.0%	-69.8%	-62.1%	Health Care	

Source: Morningstar Direct

- Results in USD terms among the headline international equity indexes were sharply higher during the quarter, echoing the performance of major domestic equity benchmarks. The weakening USD relative to many major currencies during the quarter was a tailwind for the USD performance of most regional benchmarks' returns. The developed-market MSCI EAFE Index returned a muted 0.8% in LCL terms but rose 7.3% in USD terms. The MSCI Emerging Markets Index was the best-performing broad index, climbing 8.7% in USD and 6.6% in LCL terms for the quarter.
- Latin America lagged other regions during the quarter in USD terms, posting a return of 3.7%. Weakening currencies in the region put pressure on performance, making it the only region with USD performance that lagged LCL currency performance. The MSCI Pacific benchmark was the only regional benchmark to deliver negative performance in LCL teams (-0.9%), but USD weakness led to an 8.5% positive return in USD terms. Regional LCL currency performance struggles were led by the unwinding of the carry trade in the Japanese equity markets in early August which carried over to neighboring Pacific countries and US markets.
- China, which is the most heavily weighted country in the emerging market index, continued its rebound during the quarter posting a 23.5% gain in USD terms. Recently announced government stimulus for the Chinese economy helped lift equity markets in the country during the quarter. The Chinese economy has yet to expand at its pre-pandemic rate of roughly 5.0% primarily due to troubles in its commercial property and banking sectors, which have created challenges for growth in the region.
- Much like domestic markets, trailing one-year results for international developed and emerging markets benchmarks were strongly positive. Higher USD versus LCL returns for most international benchmarks demonstrate the USD's relative weakness over the trailing one-year period.
- All broad and regional indexes were positive for the trailing 12 months in both USD and LCL terms. The EM Latin America index, where weakening local currencies dragged the region's double-digit LCL performance to a muted 2.8% in USD terms. MSCI Asia Index led the way with a return of 27.7% in LCL terms for the trailing year. The relative weakening of the USD during the period further boosted returns in the region to 29.7% in USD terms.



Source: MSCI Global Index Monitor (Returns are Net)

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	4.3%	11.5%	27.1%
Consumer Discretionary	11.0%	4.8%	14.4%
Consumer Staples	8.7%	10.6%	10.9%
Energy	3.6%	-5.8%	-2.1%
Financials	20.6%	10.4%	36.0%
Health Care	13.3%	4.6%	20.4%
Industrials	17.3%	9.4%	33.8%
Information Technology	8.7%	-2.4%	35.6%
Materials	6.8%	10.7%	24.0%
Real Estate	2.2%	17.3%	27.6%
Utilities	3.4%	14.9%	25.4%
Total	100.0%	7.3%	24.8%

MSCI - ACWIXUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.6%	13.6%	26.3%
Consumer Discretionary	11.3%	11.5%	20.4%
Consumer Staples	7.4%	10.5%	11.1%
Energy	5.0%	-1.7%	7.2%
Financials	22.5%	11.4%	33.2%
Health Care	9.4%	6.4%	20.4%
Industrials	13.8%	8.7%	30.5%
Information Technology	12.8%	-1.6%	38.3%
Materials	7.1%	9.4%	18.8%
Real Estate	1.9%	16.9%	23.5%
Utilities	3.2%	13.4%	27.7%
Total	100.0%	8.1%	25.4%

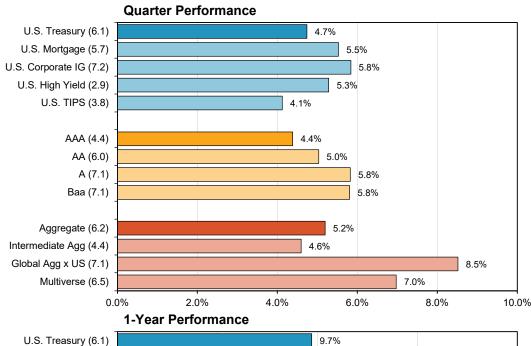
MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	9.4%	15.6%	26.2%
Consumer Discretionary	14.0%	25.0%	31.9%
Consumer Staples	5.2%	11.1%	9.6%
Energy	4.8%	-0.4%	17.4%
Financials	22.8%	10.4%	26.5%
Health Care	3.6%	22.9%	20.5%
Industrials	6.8%	7.0%	19.9%
Information Technology	22.2%	-2.6%	40.3%
Materials	6.6%	5.5%	5.5%
Real Estate	1.6%	14.8%	10.8%
Utilities	2.9%	9.3%	35.5%
Total	100.0%	8.7%	26.1%

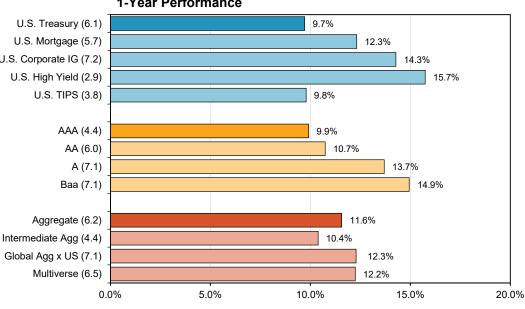
Country	MSCI-EAFE Weight	MSCI-ACWIxUS Weight	Quarter Return	1- Year Return
Japan	22.3%	14.0%	5.7%	21.6%
United Kingdom	14.7%	9.3%	7.9%	23.3%
France	11.4%	7.1%	7.7%	16.4%
Switzerland	9.9%	6.2%	8.5%	21.6%
Germany	9.0%	5.7%	10.7%	32.1%
Australia	7.8%	4.9%	11.5%	31.6%
Netherlands	4.8%	3.0%	-4.5%	38.7%
Denmark	3.4%	2.1%	-10.3%	24.5%
Sweden	3.4%	2.1%	8.4%	35.8%
Italy	2.7%	1.7%	8.6%	34.4%
Spain	2.8%	1.8%	13.7%	35.9%
Hong Kong	2.0%	1.3%	24.4%	14.8%
Singapore	1.5%	0.9%	17.6%	33.9%
Finland	1.0%	0.7%	8.1%	16.5%
Belgium	1.0%	0.6%	15.3%	25.9%
Israel	0.8%	0.5%	12.4%	32.4%
Norway	0.6%	0.4%	2.1%	4.5%
Ireland	0.3%	0.2%	13.9%	38.6%
Portugal	0.2%	0.1%	8.7%	11.3%
Austria	0.2%	0.1%	8.7%	28.3%
New Zealand	0.2%	0.1%	5.6%	20.1%
Total EAFE Countries	100.0%	62.7%	7.3%	24.8%
Canada	100.070	7.7%	12.0%	26.8%
Total Developed Countries		70.4%	7.8%	25.0%
China		8.2%		23.9%
India		5.8%	23.5% 7.3%	40.3%
Taiwan		5.2%	0.5%	52.7%
Korea		3.1%	-5.6%	9.3%
Brazil		1.4%	7.1%	2.6%
Saudi Arabia		1.1%	5.3%	11.2%
South Africa		0.9%	16.1%	36.7%
Mexico		0.6%	-3.4% 15.3%	-3.4% 5.2%
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Malaysia		0.4%	20.5%	35.6%
Thailand		0.4%	28.9%	17.0%
United Arab Emirates		0.3%	12.0%	6.4%
Poland		0.3%	-3.9%	45.7%
Turkey		0.2%	-12.6%	6.8%
Qatar		0.2%	10.6%	11.2%
Kuwait		0.2%	3.7%	8.9%
Philippines		0.2%	21.7%	22.7%
Greece		0.1%	10.4%	31.3%
Chile		0.1%	5.3%	5.8%
Peru		0.1%	7.9%	57.4%
Hungary		0.1%	6.3%	36.4%
Czech Republic		0.0%	5.1%	7.7%
Colombia		0.0%	-0.9%	25.4%
Egypt		0.0%	12.3%	-7.3%
Total Emerging Countries		29.6%	8.7%	26.1%
Total ACWIxUS Countries		100.0%	8.1%	25.4%

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.

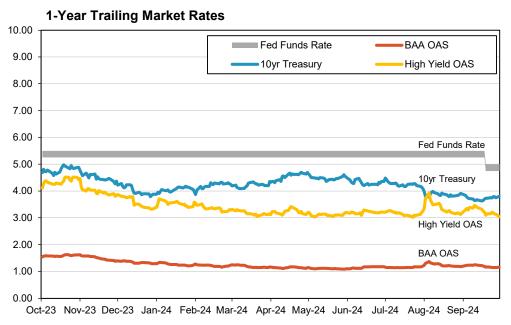
- Domestic fixed-income markets advanced during the third quarter. Although the Federal Reserve began to unwind its tight monetary policy stance that began in 2022 during the quarter, yields remained elevated. On September 18, the Fed reduced its target policy rate by 0.50%, a move that was celebrated in a performance boost by equity and bond markets alike.
- After a muted first half of 2024, which held the Bloomberg US Aggregate Bond Index slightly negative for the year, the index posted its best quarterly performance year-to-date, climbing 5.2% during the third quarter. Performance across the investment-grade index's segments was more favorable in the credit sectors, with the corporate investment-grade index rising 5.8%, outpacing the government and mortgage-backed-securities sectors. Lower quality issues also performed better, with A and BAA components of the index outpacing higher quality issues during the quarter.
- High Yield bonds underperformed investment grade issues as interest rates declined primarily due to the high-yield benchmark's lower duration. Despite their lower duration, below-investment grade issues continued to rise, posting a return of 5.3% for the quarter. The Bloomberg Global Aggregate ex-US Index outperformed all broad-market domestic indexes with a return of 8.5% for the quarter, aided by a weakening USD.
- Over the trailing one-year period, the Bloomberg US Aggregate Bond Index posted a solid 11.6% return. The benchmark's sub-components also posted positive performance over the trailing 12 months with the Bloomberg US Corporate Investment Grade Index rising a strong 14.3% and the US Mortgage Index returning 12.3%. US TIPS, which are excluded from the Bloomberg US Aggregate Bond Index, returned 9.8% for the trailing year.
   U.S. Treasury (6.1) U.S. Mortgage (5.7)
   U.S. Corporate IG (7.2)
   U.S. High Yield (2.9)
- Among credit qualities, lower-quality issues (both within investment grade and below investment grade) have outperformed higher-quality bonds due to higher yields and credit spread compression over the last year. Higher yields mean larger coupon payments as well as greater sensitivity to changes in credit spreads, which narrowed. High-yield bonds have enjoyed a healthy 15.7% gain for the trailing year.
- The Bloomberg Global Aggregate ex-US Index moderately outpaced its domestic counterpart, the Bloomberg US Aggregate Bond Index, by 0.7% during the trailing year.

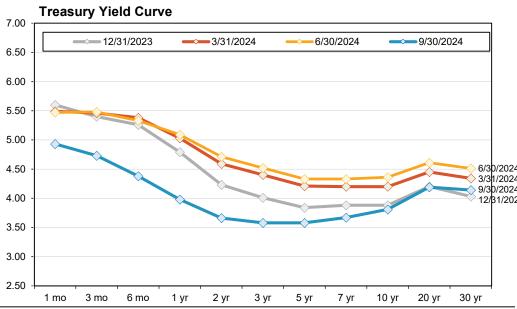




Source: Bloomberg

- The gray band across the graph illustrates the fed funds target rate range over the last 12 months. During the third quarter, the Federal Open Market Committee (FOMC) cut its policy rates by 0.50%, to a range of 4.75-5.00%. The last rate increase occurred at the FOMC's July 2023 meeting, and this was the first rate cut since March of 2020. With inflation declining and unemployment remaining largely stable, the Fed appears to be pivoting from a tight monetary policy stance. The most recent FOMC press release continued to emphasize economic data-dependent outcomes while placing renewed emphasis on the second part of the committee's dual mandate: full employment. The CME FedWatch tool, which forecasts rates based on fed fund futures pricing, showed a greater than 80% probability of a 0.25% rate decrease at the FOMC November meeting at the time of this writing. Fed officials and market participants continue to express concern that leaving rates at their current elevated levels for an extended period could tip the US economy into a recession. However, inflation remains above the FOMC's long-term 2.0% target level.
- The yield on the US 10-year Treasury (blue line of the top chart) fell roughly 0.55% during the quarter, attributable to Fed policy decisions and expectations of future rate actions. The bellwether benchmark rate opened the quarter at a yield of 4.36% and finished September at a yield of 3.81%. The 10-year Treasury benchmark's rate peaked in October 2023, cresting at a yield of just under 5.00% before pulling back during the remainder of the year.
- The red line in the top chart shows the option-adjusted spread (OAS) for BAA-rated corporate bonds. This measure quantifies the additional yield premium investors require to purchase and hold non-US Treasury issues with the lowest investment grade rating. During the quarter, the yield spread was relatively stable, beginning July at 1.18% and finishing September at 1.16%. High-yield OAS spreads (represented by the yellow line in the top chart) have also remained relatively unchanged, despite a sharp spike in early August spurred by an unwinding of the Yen carry trade. The high-yield OAS fell 0.18% over the quarter from 3.21% to 3.03%. The spread measure's relative stability over the trailing year results from steady economic growth, stable monetary policy, and falling inflation readings.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four quarters. For the first time since July 2022, the quarter-end yield on the 10-year Treasury was higher relative to the two-year Treasury. The yield curve has been inverted for each of the previous three quarter-end readings on the graph and for much of the last two years. This 2-10-year yield curve inversion is a common heuristic used to foretell a pending recession environment.





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

# CME FedWatch Tool - CME Group

Effective Federal Funds Rate - FEDERAL RESERVE BANK of NEW YORK (newyorkfed.org)

ICE BofA US High Yield Index Option-Adjusted Spread (BAMLH0A0HYM2) | FRED | St. Louis Fed (stlouisfed.org)

When will the Federal Reserve start cutting interest rates? | J.P. Morgan Asset Management (jpmorgan.com)

U.S. Department of the Treasury

China's Economy Limps Into 2024 – WSJ Support Site - Global Index Lens: Index Returns – MSCI

Federal Reserve issues FOMC statement

Yen drops to 38-year low, U.S. dollar slumps after weak data (cnbc.com)

U.S. job growth revised down by the most since 2009. Why this time is different (cnbc.com)

The Fed - Meeting calendars and information (federalreserve.gov)

The Federal Reserve's latest dot plot, explained - and what it says about interest rates | Bankrate

Top 25 Stocks in the S&P 500 By Index Weight for July 2024 (investopedia.com)

Fed's Jerome Powell Declares 'Time Has Come' for Interest-Rate Cuts - WSJ

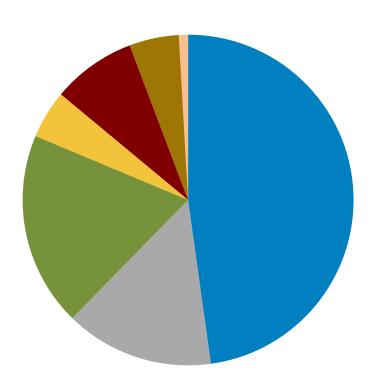
Why Chinese banks are now vanishing (economist.com)

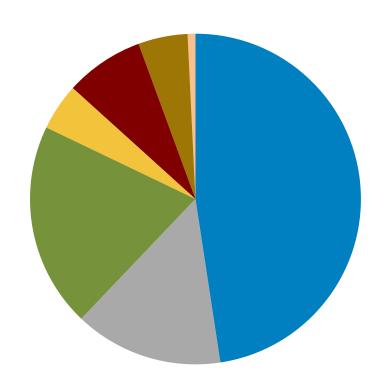
Fed rate cut: Here's what changed in the central bank's statement (cnbc.com)

10-Year Treasury Constant Maturity Minus 2-Year Treasury Constant Maturity (T10Y2Y) | FRED | St. Louis Fed (stlouisfed.org)

Asset Allocation By Segment as of June 30, 2024 : \$68,183,586

Asset Allocation By Segment as of September 30, 2024 : \$72,203,287

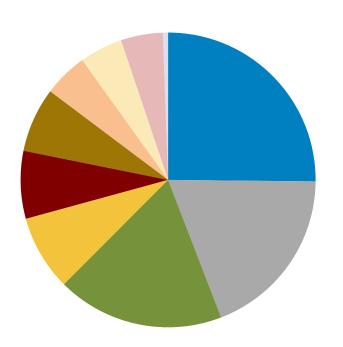


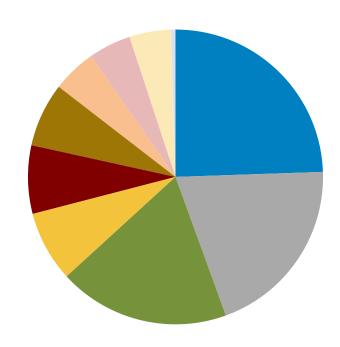


ocation					
Segments	Market Value	Allocation	Segments	Market Value	Allocation
■ Domestic Equity	32,595,622	47.8	■ Domestic Equity	34,367,747	47.6
International Equity	9,900,465	14.5	International Equity	10,480,847	14.5
■ Domestic Fixed Income	12,950,653	19.0	Domestic Fixed Income	14,447,385	20.0
Global Fixed Income	3,215,049	4.7	Global Fixed Income	3,310,464	4.6
■ Real Estate	5,601,483	8.2	Real Estate	5,559,469	7.7
■ Real Return	3,304,372	4.8	Real Return	3,483,736	4.8
Cash Equivalent	615,942	0.9	Cash Equivalent	553,639	0.8

Asset Allocation By Manager as of Jun-2024 : \$68,183,586

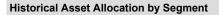
Asset Allocation By Manager as of Sep-2024 : \$72,203,287

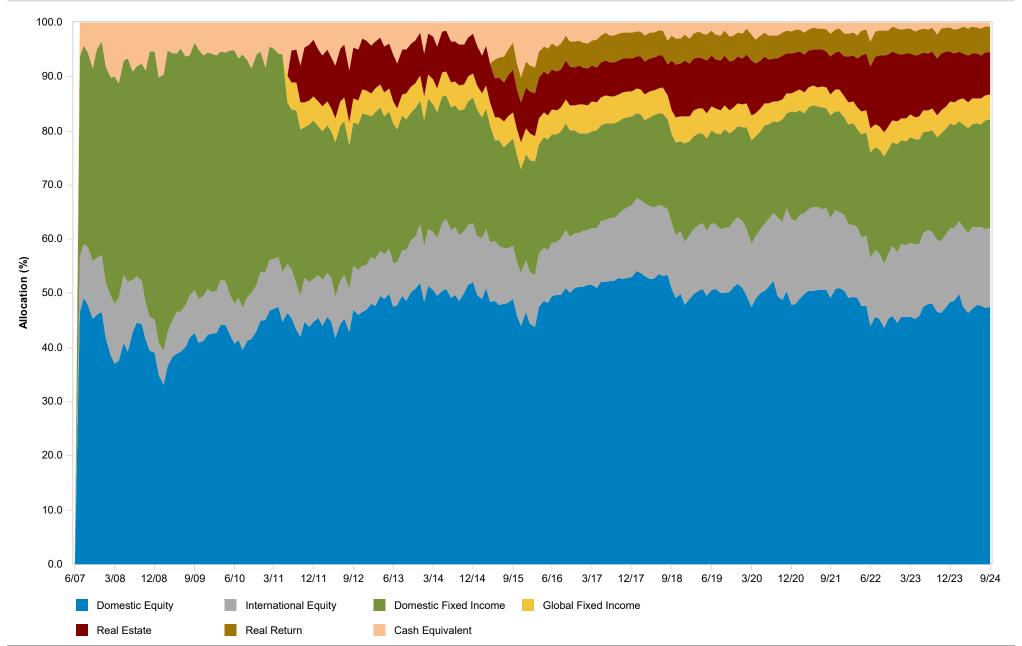


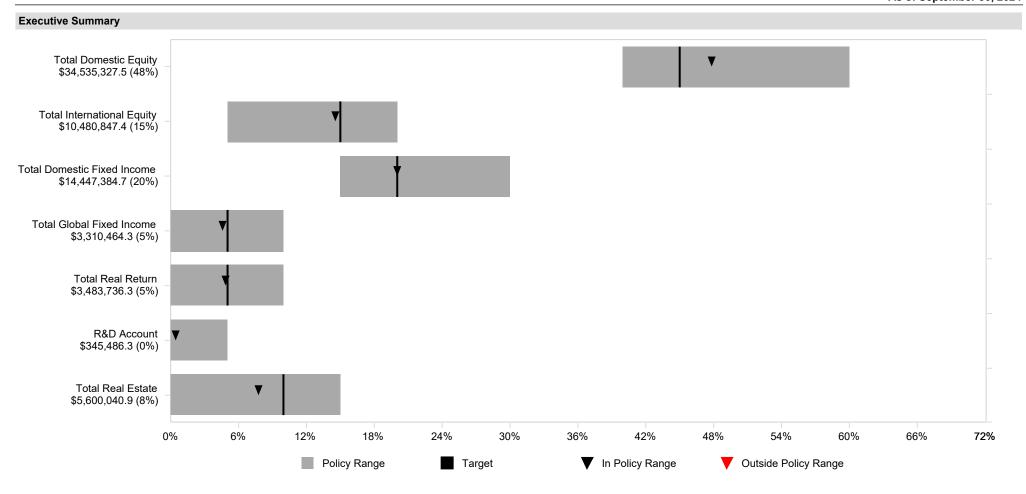


ocation			Allocation		
	Market Value	Allocation		Market Value	Allocation
■ Fidelity Lrg Cap Gro Idx (FSPGX)	17,152,341	25.2	■ Fidelity Lrg Cap Gro Idx (FSPGX)	17,655,118	24.5
■ Baird Intermediate Bond Inst (BIMIX)	12,950,653	19.0	Baird Intermediate Bond Inst (BIMIX)	14,447,385	20.0
■ Brandywine Large Cap Value	12,491,275	18.3	Brandywine Large Cap Value	13,535,388	18.7
ARA Core Property Fund	5,642,608	8.3	ARA Core Property Fund	5,600,041	7.8
■ DFA Intl Value (DFIVX)	5,065,837	7.4	■ DFA Intl Value (DFIVX)	5,409,280	7.5
■ EuroPacific Growth Fund R6 (RERGX)	4,834,628	7.1	EuroPacific Growth Fund R6 (RERGX)	5,071,568	7.0
■ BlackRock Multi-Asset Income (BKMIX)	3,304,372	4.8	BlackRock Multi-Asset Income (BKMIX)	3,483,736	4.8
PIMCO Global Bond (PGBIX)	3,215,049	4.7	Allspring Special Small Cap Value (ESPRX)	3,344,821	4.6
Allspring Special Small Cap Value (ESPRX)	3,133,965	4.6	PIMCO Global Bond (PGBIX)	3,310,464	4.6
R&D Account	392,858	0.6	R&D Account	345,486	0.5

Asset Allocation Attributes										
	Sep-2	023	Dec-2	2023	Mar-2	024	Jun-2	024	Sep-2	.024
	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%
Total Domestic Equity	28,312,272	46.97	31,449,261	48.79	32,328,594	47.68	32,777,581	48.07	34,535,328	47.83
Brandywine Large Cap Value	11,062,400	18.35	11,850,719	18.38	13,116,986	19.35	12,491,275	18.32	13,535,388	18.75
Fidelity Lrg Cap Gro Idx (FSPGX)	14,469,038	24.00	16,480,863	25.57	15,878,541	23.42	17,152,341	25.16	17,655,118	24.45
Allspring Special Small Cap Value (ESPRX)	2,780,833	4.61	3,117,680	4.84	3,333,066	4.92	3,133,965	4.60	3,344,821	4.63
Total International Equity	8,018,195	13.30	8,768,282	13.60	9,971,901	14.71	9,900,465	14.52	10,480,847	14.52
EuroPacific Growth Fund R6 (RERGX)	3,867,587	6.42	4,293,583	6.66	4,879,721	7.20	4,834,628	7.09	5,071,568	7.02
DFA Intl Value (DFIVX)	4,150,608	6.89	4,474,700	6.94	5,092,180	7.51	5,065,837	7.43	5,409,280	7.49
Total Domestic Fixed Income	11,385,456	18.89	12,377,397	19.20	12,930,754	19.07	12,950,653	18.99	14,447,385	20.01
Baird Intermediate Bond Inst (BIMIX)	11,385,456	18.89	12,377,397	19.20	12,930,754	19.07	12,950,653	18.99	14,447,385	20.01
Total Global Fixed Income	2,465,424	4.09	2,683,978	4.16	3,202,141	4.72	3,215,049	4.72	3,310,464	4.58
PIMCO Global Bond (PGBIX)	2,465,424	4.09	2,683,978	4.16	3,202,141	4.72	3,215,049	4.72	3,310,464	4.58
Total Real Return	2,662,216	4.42	2,918,078	4.53	3,286,072	4.85	3,304,372	4.85	3,483,736	4.82
BlackRock Multi-Asset Income (BKMIX)	2,662,216	4.42	2,918,078	4.53	3,286,072	4.85	3,304,372	4.85	3,483,736	4.82
ARA Core Property Fund	6,344,785	10.53	5,903,978	9.16	5,711,279	8.42	5,642,608	8.28	5,600,041	7.76
R&D Account	1,094,111	1.81	363,160	0.56	370,563	0.55	392,858	0.58	345,486	0.48
Total Fund	60,282,458	100.00	64,464,136	100.00	67,801,304	100.00	68,183,586	100.00	72,203,287	100.00







Asset Allocation Compliance					
	Asset Allocation \$	Current Allocation (%)	Minimum Allocation (%)	Target Allocation (%)	Maximum Allocation (%)
Total Fund	72,203,287	100.0	N/A	100.0	N/A
Total Domestic Equity	34,535,328	47.8	40.0	45.0	60.0
Total International Equity	10,480,847	14.5	5.0	15.0	20.0
Total Domestic Fixed Income	14,447,385	20.0	15.0	20.0	30.0
Total Global Fixed Income	3,310,464	4.6	0.0	5.0	10.0
Total Real Return	3,483,736	4.8	0.0	5.0	10.0
R&D Account	345,486	0.5	0.0	0.0	5.0
Total Real Estate	5,600,041	7.8	0.0	10.0	15.0

Financial Reconciliation Quarter to Date									
	Market Value 07/01/2024	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Market Value 09/30/2024
Total Domestic Equity	32,777,581	-44,157	-	-	-13,741	-	74,771	1,740,873	34,535,328
Brandywine Large Cap Value	12,491,275	-	-	-	-13,741	-	74,771	983,083	13,535,388
Fidelity Lrg Cap Gro Idx (FSPGX)	17,152,341	-36,797	-	-	-	-	-	539,574	17,655,118
Allspring Special Small Cap Value (ESPRX)	3,133,965	-7,359	-	-	-	-	-	218,216	3,344,821
Total International Equity	9,900,465	-24,531	-	-	-	-	-	604,913	10,480,847
EuroPacific Growth Fund R6 (RERGX)	4,834,628	-24,531	-	-	-	-	-	261,471	5,071,568
DFA Intl Value (DFIVX)	5,065,837	-	-	-	-	-	-	343,443	5,409,280
Total Domestic Fixed Income	12,950,653	950,937	-	-	-	-	89,755	456,039	14,447,385
Baird Intermediate Bond Inst (BIMIX)	12,950,653	950,937	-	-	-	-	89,755	456,039	14,447,385
Total Global Fixed Income	3,215,049	-8,177	-	-	-	-	11,195	92,397	3,310,464
PIMCO Global Bond (PGBIX)	3,215,049	-8,177	-	-	-	-	11,195	92,397	3,310,464
Total Real Return	3,304,372	-8,177	-	-	-	-	35,123	152,419	3,483,736
BlackRock Multi-Asset Income (BKMIX)	3,304,372	-8,177	-	-	-	-	35,123	152,419	3,483,736
ARA Core Property Fund	5,642,608	-41,125	-	-	-15,443	-	40,572	-26,572	5,600,041
R&D Account	392,858	-824,770	1,461,847	-660,164	-	-29,657	5,373	-	345,486
Total Fund	68,183,586	-	1,461,847	-660,164	-29,183	-29,657	256,789	3,020,069	72,203,287

Financial Reconciliation Fiscal Year to Date	•								
	Market Value 10/01/2023	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Market Value 09/30/2024
Total Domestic Equity	28,312,272	-2,723,836	-	-	-53,519	-	460,088	8,540,323	34,535,328
Brandywine Large Cap Value	11,062,400	-121,872	-	-	-53,519	-	293,233	2,355,146	13,535,388
Fidelity Lrg Cap Gro Idx (FSPGX)	14,469,038	-2,564,137	-	-	-	-	91,389	5,658,827	17,655,118
Allspring Special Small Cap Value (ESPRX)	2,780,833	-37,827	-	-	-	-	75,466	526,350	3,344,821
Total International Equity	8,018,195	573,909	-	-	-	-	337,954	1,550,790	10,480,847
EuroPacific Growth Fund R6 (RERGX)	3,867,587	223,909	-	-	-	-	264,705	715,367	5,071,568
DFA Intl Value (DFIVX)	4,150,608	350,000	-	-	-	-	73,249	835,423	5,409,280
Total Domestic Fixed Income	11,385,456	1,847,817	-	-	-	-	398,750	815,362	14,447,385
Baird Intermediate Bond Inst (BIMIX)	11,385,456	1,847,817	-	-	-	-	398,750	815,362	14,447,385
Total Global Fixed Income	2,465,424	537,970	-	-	-	-	73,302	233,769	3,310,464
PIMCO Global Bond (PGBIX)	2,465,424	537,970	-	-	-	-	73,302	233,769	3,310,464
Total Real Return	2,662,216	307,970	-	-	-	-	160,393	353,158	3,483,736
BlackRock Multi-Asset Income (BKMIX)	2,662,216	307,970	-	-	-	-	160,393	353,158	3,483,736
ARA Core Property Fund	6,344,785	-178,208	-	-	-63,033	-	171,212	-674,715	5,600,041
R&D Account	1,094,111	-365,621	3,050,287	-3,274,113	-	-175,741	16,562	-	345,486
Total Fund	60,282,458	-	3,050,287	-3,274,113	-116,551	-175,741	1,618,262	10,818,685	72,203,287

	QT	'R	FY1	D	1 Y	R	3 Y	R	5 Y	R	Incep	tion	Inception Date
Total Fund Composite (Net)	4.73		20.57		20.57		4.82		9.33		6.70		07/01/2006
Total Fund Policy Target	5.43		21.92		21.92		5.59		9.12		7.56		
Total Fund Composite (Gross)	4.77	(74)	20.78	(53)	20.78	(53)	5.03	(35)	9.56	(11)	7.20	(20)	07/01/2006
Total Fund Policy Target	5.43	(48)	21.92	(39)	21.92	(39)	5.59	(20)	9.12	(20)	7.56	(8)	
All Public Plans-Total Fund Median	5.38		20.98		20.98		4.54		8.25		6.66		
Total Equity	5.67		30.46		30.46		7.96		14.32		8.90		07/01/2006
Total Equity Policy Target	6.69		32.71		32.71		8.80		13.37		9.08		
Total Domestic Equity	5.54	(72)	32.72	(46)	32.72	(46)	9.99	(46)	16.14	(12)	9.58	(78)	07/01/2006
Total Domestic Equity Policy Target	6.23	(51)	35.19	(32)	35.19	(32)	10.29	(35)	15.26	(30)	10.54	(42)	
IM U.S. All Cap Core Equity (SA+CF) Median	6.23		31.98		31.98		9.80		14.61		10.38		
Brandywine Large Cap Value	8.47	(37)	24.10	(88)	24.10	(88)	7.97	(89)	12.99	(46)	12.48	(57)	04/01/2019
Russell 1000 Value Index	9.43	(19)	27.76	(60)	27.76	(60)	9.03	(78)	10.69	(85)	10.70	(85)	
IM U.S. Large Cap Value Equity (SA+CF) Median	7.72		28.85		28.85		10.70		12.89		12.74		
Fidelity Lrg Cap Gro Idx (FSPGX)	3.15	(52)	42.20	(37)	42.20	(37)	N/A		N/A		34.56	(25)	02/01/2023
Russell 1000 Growth Index	3.19	(50)	42.19	(37)	42.19	(37)	12.02	(6)	19.74	(11)	34.57	(25)	
Large Growth Median	3.19		40.32		40.32		8.30		16.50		31.64		
Allspring Special Small Cap Value (ESPRX)	6.96	(78)	21.71	(69)	21.71	(69)	6.05	(47)	9.51	(66)	9.64	(49)	02/01/2019
Russell 2000 Value Index	10.15	(13)	25.88	(22)	25.88	(22)	3.77	(88)	9.29	(70)	8.47	(74)	
Small Value Median	8.12		23.32		23.32		5.93		10.38		9.57		
otal International Equity	6.11	(73)	22.76	(69)	22.76	(69)	0.93	(94)	8.08	(40)	5.83	(12)	07/01/2006
Total International Equity Policy Target	8.06	(26)	25.35	(31)	25.35	(31)	4.14	(53)	7.59	(59)	4.53	(45)	
Foreign Large Blend Median	7.12		24.46		24.46		4.25		7.78		4.39		
EuroPacific Growth Fund R6 (RERGX)	5.41	(83)	24.71	(46)	24.71	(46)	0.06	(96)	7.52	` '	5.91	(20)	06/01/2015
MSCI AC World ex USA	8.17	(23)	25.96	(24)	25.96	(24)	4.67	(43)	8.10	(40)	5.78	(24)	
Foreign Large Blend Median	7.12		24.46		24.46		4.25		7.78		5.23		
DFA Intl Value (DFIVX)	6.78	(72)	20.98	(69)	20.98	(69)	N/A		N/A		16.72	(23)	04/01/2023
MSCI AC World ex USA Value (net)	9.26	(22)	24.04	(23)	24.04	(23)	7.49	(41)	7.79	(56)	17.65	(16)	
Foreign Large Value Median	7.89		22.12		22.12		7.04		7.97		14.95		

Returns are gross of fees for separate accounts and net of fees for mutual funds.
Returns for periods greater than one year are annualized.
Returns are expressed as percentages.
Fiscal year ends September 30th The NCREIF ODCE benchmark is an equal-weighted index of investment returns, reporting on both a historical and current basis, the results of 26 open-ended commingled funds pursuing a core investment strategy.

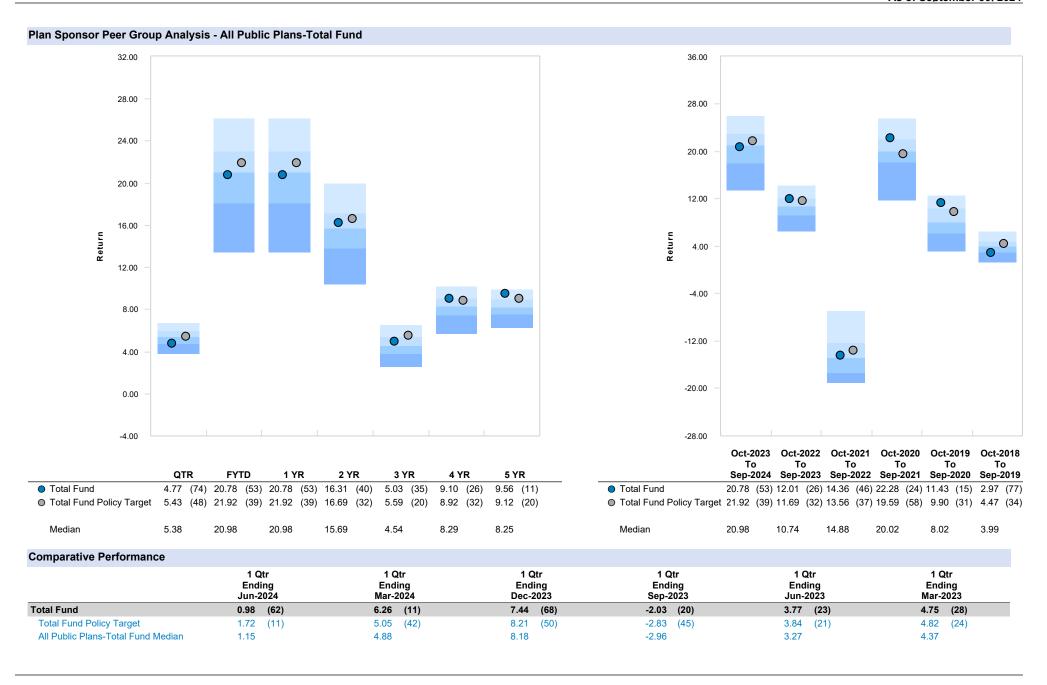
	QT	'R	FY	ΓD	1 Y	R	3 Y	′R	5 Y	R	Incep	otion	Inception Date
Total Fixed Income	4.24		11.42		11.42		1.00		1.69		3.40		07/01/2006
Total Fixed Policy Target	4.53		10.44		10.44		-0.28		0.84		3.20		
Total Domestic Fixed Income	4.13	(68)	9.89	(65)	9.89	(65)	0.29	(76)	1.16	(98)	3.25	(88)	07/01/2006
Total Fixed Policy Target	4.53	(27)	10.44	(38)	10.44	(38)	-0.28	(96)	0.84	(98)	3.20	(91)	
IM U.S. Intermediate Duration (SA+CF) Median	4.23		10.19		10.19		0.53		1.66		3.66		
Baird Intermediate Bond Inst (BIMIX)	4.13	(97)	9.89	(96)	9.89	(96)	0.29	(3)	N/A		0.54	(3)	04/01/2021
Bloomberg Intermediate US Govt/Credit Idx	4.17	(97)	9.45	(98)	9.45	(98)	0.17	(4)	1.26	(7)	0.43	(4)	
Intermediate Core Bond Median	5.13		11.69		11.69		-1.51		0.38		-0.74		
Total Global Fixed Income	3.22	(96)	11.07	(64)	11.07	(64)	1.96	(4)	1.06	(21)	1.82	(24)	07/01/2011
Total Global Fixed Income Policy Target	4.24	` '	10.63	(72)	10.63	(72)			0.77	. ,	1.03		
Global Bond Median	6.83	,	11.97	,	11.97	( )	-2.13	,	-0.72	,	0.82	,	
PIMCO Global Bond (PGBIX)	3.22	(96)	11.07	(64)	11.07	(64)	1.96	(4)	N/A		2.07	(6)	10/01/2020
Bloomberg Global Agg Index (Hedged)	4.24	(82)	10.63	(72)	10.63	(72)	-0.22	(27)	0.57	(30)	-0.31	(34)	
Global Bond Median	6.83		11.97		11.97		-2.13		-0.72		-1.95		
Total Real Return	5.68	(62)	18.12	(79)	18.12	(79)	3.11	(63)	4.70	(82)	4.54	(70)	06/01/2015
Total Real Return Policy Target	5.78	, ,	21.66	(51)	21.66	(51)		(47)	6.82	(40)	6.08		
Global Allocation Median	6.09	(55)	21.74	(= -)	21.74	()	3.71	(11)	6.41	(10)	5.09	(**)	
BlackRock Multi-Asset Income (BKMIX)	5.68	(62)	18.12	(79)	18.12	(79)	3.11	(63)	4.70	(82)	4.54	(70)	06/01/2015
Blackrock Multi-Asset Hybrid	5.78	(59)	21.66	(51)	21.66	(51)	3.92	(47)	6.82	(40)	6.08	(17)	
Global Allocation Median	6.09		21.74		21.74		3.71		6.41		5.09		
Total Real Estate	0.25		-8.01		-8.01		0.40		3.14		7.56		07/01/2011
Total Real Estate Policy Target	0.13		-7.75		-7.75		-0.27		3.16		7.78		
ARA Core Property Fund	0.25	(50)	-8.01	(61)	-8.01	(61)	0.40	(39)	3.14	(45)	7.56	(70)	07/01/2011
NCREIF Fund Index-Open End Diversified Core (EW)	0.13	(63)	-7.75	(59)	-7.75	(59)	-0.27	(53)	3.16	(44)	7.78	(66)	
IM U.S. Open End Private Real Estate (SA+CF) Median	0.25		-6.78		-6.78		0.17		3.03		7.97		

Returns are gross of fees for separate accounts and net of fees for mutual funds.
Returns for periods greater than one year are annualized.
Returns are expressed as percentages.
Fiscal year ends September 30th The NCREIF ODCE benchmark is an equal-weighted index of investment returns, reporting on both a historical and current basis, the results of 26 open-ended commingled funds pursuing a core investment strategy.

Comparative Performance Fiscal Year Returns																				
	Oct-2 To Sep-2	0	Oct-2 To Sep-2	o	Oct-2 To Sep-2	0	Oct-2 To Sep-2	0	Oct-2 To Sep-2	)	Oct-2 To Sep-2	0	Oct-2 To Sep-2	)	Oct-2 To Sep-2	0	Oct-2 To Sep-2	)	Oct-2 To Sep-2	0
Total Fund Composite (Net)	11.78		-14.54		22.02		11.18		2.70		9.25		12.86		7.47		-0.38		8.40	
Total Fund Policy Target	11.69		-13.56		19.59		9.90		4.47		8.89		12.29		10.96		0.15		10.64	
Total Fund Composite (Gross)	12.01	(26)	-14.36	(46)	22.28	(24)	11.43	(15)	2.97	(77)	9.55	(18)	13.21	(19)	8.13	(79)	0.31	(21)	9.23	(59)
Total Fund Policy Target	11.69	(32)	-13.56	(37)	19.59	(58)	9.90	(31)	4.47	(34)	8.89	(29)	12.29	(39)	10.96	(10)	0.15	(25)	10.64	(27)
All Public Plans-Total Fund Median	10.74		-14.88		20.02		8.02		3.99		7.82		11.83		9.42		-0.77		9.61	
Total Equity	22.54		-21.29		33.05		16.62		1.11		13.72		18.64		10.18		-1.15		11.99	
Total Equity Policy Target	20.58		-19.52		29.89		11.94		1.91		13.49		19.01		13.54		-3.09		14.39	
Total Domestic Equity	21.94	(22)	-17.79	(68)	35.75	(31)	16.98	(28)	1.10	(67)	16.87	(50)	18.20	(49)	10.28	(71)	2.85	(29)	12.47	(85)
Total Domestic Equity Policy Target	20.46	(39)	-17.63	(65)	31.88	(46)	15.00	(44)	2.92	(50)	17.58	(42)	18.71	(41)	14.96	(27)	-0.49	(50)	17.76	(42)
IM U.S. All Cap Core Equity (SA+CF) Median	19.63		-16.81		31.49		13.75		2.87		16.81		18.13		12.48		-0.51		17.15	
Lateef Equity	N/A		2.58	(62)	10.16	(99)														
Russell 1000 Growth Index	27.72	(40)	-22.59	(40)	27.32	(49)	37.53	(31)	3.71	(52)	26.30	(39)	21.94	(39)	13.76	(21)	3.17	(58)	19.15	(39)
IM U.S. Large Cap Growth Equity (SA+CF) Median	25.72		-24.90		27.23		33.81		3.80		24.83		21.06		11.84		3.88		18.13	
Brandywine Large Cap Value	15.74	(61)	-12.36	(73)	42.97	(26)	2.31	(28)	N/A											
Russell 1000 Value Index	14.44	(68)	-11.36	(66)	35.01	(59)	-5.03	(66)	4.00	(39)	9.45	(76)	15.12	(76)	16.19	(25)	-4.42	(64)	18.89	(43)
IM U.S. Large Cap Value Equity (SA+CF) Median	16.89		-9.54		37.01		-3.19		2.49		11.91		17.82		13.35		-3.32		18.40	
GAMCO Value Equity	N/A		6.10	(91)	14.36	(73)	11.83	(65)	3.20	(8)	15.27	(53)								
Russell 3000 Value Index	14.05	(66)	-11.79	(48)	36.64	(63)	-5.67	(69)	3.10	(43)	9.46	(75)	15.53	(65)	16.38	(33)	-4.22	(65)	17.66	(27)
IM U.S. All Cap Value Equity (SA+CF) Median	17.29		-12.45		39.87		-2.37		1.38		11.85		17.68		14.43		-2.77		15.39	
Vanguard R1000 Growth Fund (VRGWX)	N/A		-22.64	(25)	27.24	(42)	37.43	(34)	3.64	(31)	26.24	(37)	21.86	(33)	N/A		N/A		N/A	
Russell 1000 Growth Index	27.72	(27)	-22.59	(24)	27.32	(41)	37.53	(33)	3.71	(31)	26.30	(36)	21.94	(32)	13.76	(17)	3.17	(41)	19.15	(25)
Large Growth Median	24.72		-27.23		26.46		33.77		1.90		24.23		20.24		10.98		2.53		17.00	
Fidelity Lrg Cap Gro Idx (FSPGX)	N/A																			
Russell 1000 Growth Index	27.72	(27)	-22.59	(24)	27.32	(41)	37.53	(33)	3.71	(31)	26.30	(36)	21.94	(32)	13.76	(17)	3.17	(41)	19.15	(25)
Large Growth Median	24.72		-27.23		26.46		33.77		1.90		24.23		20.24		10.98		2.53		17.00	
Allspring Special Small Cap Value (ESPRX)	18.49	(21)	-17.29	(78)	53.88	(79)	-14.17	(40)	N/A											
Russell 2000 Value Index	7.84	(89)	-17.69	(82)	63.92	(42)	-14.88	(47)	-8.24	(44)	9.33	(41)	20.55	(24)	18.81	(14)	-1.60	(55)	4.13	(79)
Small Value Median	13.39		-15.42		61.98		-15.10		-8.69		8.28		18.31		14.84		-1.22		5.89	

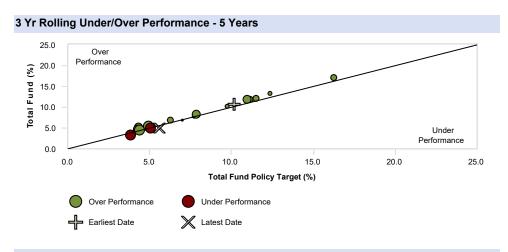
																	AS UI	Septe	ilibei 30	, ZUZ-
	Oct-2 To Sep-2	0	Oct-2 To Sep-2	0																
Total International Equity	24.73	(38)	-32.85	(98)	24.76	(47)	14.97	(5)	1.14	(14)	1.47	(51)	20.63	(20)	9.52	(19)	-17.39	(99)	10.50	(3)
Total International Equity Policy Target	20.39	(75)	-25.17	` '	23.92	(58)	3.00	(48)	-1.23	` '	1.76		19.61	(32)	9.26	(22)	-10.74	, ,	4.70	` '
Foreign Large Blend Median	23.65	(10)	-25.98	(20)	24.53	(00)	2.59	(40)	-2.02	(00)	1.48	(40)	18.56	(02)	6.35	(22)	-7.87	(04)	4.09	(00)
Wentworth, Hauser & Violich Int'l	N/A		-19.83	(99)	10.50	(8)														
MSCI EAFE Index	26.31	(29)	-24.75	(41)	26.29	(43)	0.93	(75)	-0.82	(40)	3.25	(39)	19.65	(60)	7.06	(63)	-8.27	(64)	4.70	(64)
IM International Large Cap Core Equity (SA+CF) Median	23.72		-25.33		25.35		4.80		-1.58		2.53		20.47		8.30		-6.98		5.67	
EuroPacific Growth Fund R6 (RERGX)	19.64	(80)	-32.85	(98)	24.76	(47)	14.97	(5)	1.14	(14)	1.47	(51)	20.63	(20)	8.52	(28)	N/A		N/A	
MSCI AC World ex USA	21.02	(69)	-24.79	(24)	24.45	(52)	3.45	(44)	-0.72	(28)	2.25	(31)	20.15	(26)	9.80	(16)	-11.78	(90)	5.22	(30)
Foreign Large Blend Median	23.65		-25.98		24.53		2.59		-2.02		1.48		18.56		6.35		-7.87		4.09	
DFA Intl Value (DFIVX)	N/A		N/A																	
MSCI AC World ex USA Value (net)	25.17	(73)	-20.02	(27)	31.38	(37)	-10.84	(80)	-4.51	(39)	0.42	(37)	21.55	(28)	6.96	(32)	-16.16	(87)	5.25	(41)
Foreign Large Value Median	28.11		-22.28		28.97		-5.88		-5.48		-0.19		19.26		5.44		-9.95		4.80	
Total Fixed Income	3.79		-10.90		2.04		3.40		5.95		0.22		2.75		3.29		0.29		2.93	
Total Fixed Policy Target	1.55		-11.60		-0.70		5.89		8.10		-1.04		-0.33		4.79		2.58		2.74	
Total Domestic Fixed Income	2.75	(39)	-10.65	(73)	-0.08	(72)	5.08	(87)	7.11	(82)	0.13	(22)	0.35	(78)	3.83	(58)	2.16	(77)	2.31	(79)
Total Fixed Policy Target	1.55	(87)	-11.60	(90)	-0.70	(94)	5.89	(72)	8.10	(45)	-1.04	(97)	-0.33	(99)	4.79	(19)	2.58	(56)	2.74	(58)
IM U.S. Intermediate Duration (SA+CF) Median	2.53		-10.04		0.29		6.45		8.04		-0.36		0.71		3.90		2.65		2.90	
Sawgrass Fixed Income	N/A		3.83	(58)	2.30	(70)	2.59	(66)												
Barclays Intermediate Agg	1.42	(90)	-11.49	(88)	-0.38	(88)	5.66	(78)	8.08	(47)	-0.93	(95)	0.25	(86)	3.57	(72)	2.95	(30)	2.74	(58)
IM U.S. Intermediate Duration (SA+CF) Median	2.53		-10.04		0.29		6.45		8.04		-0.36		0.71		3.90		2.65		2.90	
Garcia Hamilton Core Fixed Income	N/A		N/A		N/A		5.08	(87)	7.11	(82)	0.13	(22)	N/A		N/A		N/A		N/A	
Bloomberg Intermed Aggregate Index	1.42	(90)	-11.49	(88)	-0.38	(88)	5.66	(78)	8.08	(47)	-0.93	(95)	0.25	(86)	3.57	(72)	2.95	(30)	2.74	(58)
IM U.S. Intermediate Duration (SA+CF) Median	2.53		-10.04		0.29		6.45		8.04		-0.36		0.71		3.90		2.65		2.90	
Baird Intermediate Bond Inst (BIMIX)	2.75	(2)	-10.65	(3)	N/A		N/A													
Bloomberg Intermediate US Govt/Credit Idx	2.20	(6)	-10.14	(2)	-0.40	(58)	6.32	(71)	8.17	(89)	-0.96	(25)	0.23	(52)	3.52	(92)	2.68	(23)	2.20	(95)
Intermediate Core Bond Median	0.58		-14.96		-0.21		6.82		9.81		-1.39		0.26		5.02		2.19		3.98	
Sawgrass TIPS	N/A		0.35	(94)																
Barclays U.S. TIPS	1.25	(59)	-11.57	(74)	5.19	(63)	10.08	(44)	7.13	(42)	0.41	(76)	-0.73	(80)	6.58	(47)	-0.83	(59)	1.59	(51)
IM U.S. TIPS (SA+CF) Median	1.30		-11.51		5.25		10.07		7.09		0.49		-0.55		6.58		-0.80		1.59	

	Oct-2 To Sep-2	)	Oct-2 To Sep-2	0	Oct-2 To Sep-2	0	Oct-2 To Sep-2	0												
Total Global Fixed Income	3.78	(38)	-8.05	(7)	2.44	(22)	-2.89	(94)	1.16	(92)	-1.95	(46)	13.36	(1)	0.84	(95)	-7.64	(70)	6.33	(5)
Total Global Fixed Income Policy Target	2.10	(69)	-12.05	(13)	-2.03	(88)	6.77	(16)	8.13	(16)	-1.54	(32)	-2.69	(91)	9.71	(33)	-3.83	(30)	-0.07	(90)
Global Bond Median	3.12		-20.93		0.58		5.16		5.90		-2.12		1.28		8.46		-5.13		2.92	
Templeton Global Bond Adv (FBNRX)	N/A		N/A		N/A		-3.09	(94)	1.16	(92)	-1.95	(46)	13.36	(1)	0.84	(95)	-7.64	(70)	6.33	(5)
FTSE World Government Bond Index	1.04	(89)	-22.14	(62)	-3.33	(93)	6.77	(16)	8.13	(16)	-1.54	(32)	-2.69	(91)	9.71	(33)	-3.83	(30)	-0.07	(90)
Global Bond Median	3.12		-20.93		0.58		5.16		5.90		-2.12		1.28		8.46		-5.13		2.92	
PIMCO Global Bond (PGBIX)	3.78	(38)	-8.05	(7)	2.42	(22)	N/A													
Bloomberg Global Agg Index (Hedged)	2.10	(69)	-12.05	(13)	-0.56	(76)	4.14	(61)	10.65	(3)	0.83	(6)	-0.17	(69)	6.54	(69)	3.14	(1)	5.50	(15)
Global Bond Median	3.12		-20.93		0.58		5.16		5.90		-2.12		1.28		8.46		-5.13		2.92	
Total Real Return	8.37	(76)	-14.36	(35)	12.12	(92)	2.38	(52)	6.35	(14)	2.63	(61)	7.81	(79)	7.39	(63)	N/A		N/A	
Total Real Return Policy Target	11.02	(48)	-16.91	(43)	13.29	(87)	9.36	(11)	6.40	(13)	4.93	(27)	8.80	(67)	8.47	(48)	-0.98	(8)	8.10	(42)
Global Allocation Median	10.87		-17.97		17.97		2.56		2.68		3.46		10.27		8.33		-4.66		7.68	
BlackRock Multi-Asset Income (BKMIX)	8.37	(76)	-14.36	(35)	12.12	(92)	2.38	(52)	6.35	(14)	2.63	(61)	7.81	(79)	7.39	(63)	N/A		N/A	
Blackrock Multi-Asset Hybrid	11.02	(48)	-16.91	(43)	13.29	(87)	9.36	(11)	6.40	(13)	4.93	(27)	8.80	(67)	8.47	(48)	-0.98	(8)	8.10	(42)
Global Allocation Median	10.87		-17.97		17.97		2.56		2.68		3.46		10.27		8.33		-4.66		7.68	
Total Real Estate	-12.54	(54)	25.79	(17)	13.51	(72)	1.62	(49)	6.81	(49)	8.48	(63)	7.52	(55)	9.04	(89)	13.98	(57)	12.49	(67)
Total Real Estate Policy Target	-12.40	(48)	22.76	(39)	15.75	(50)	1.74	(43)	6.17	(69)	8.82	(58)	7.81	(51)	10.62	(65)	14.71	(54)	12.39	(69)
IM U.S. Open End Private Real Estate (SA+CF) Median	-12.47		20.19		15.73		1.58		6.80		8.98		7.83		11.14		15.19		12.90	
ARA Core Property Fund	-12.54	(54)	25.79	(17)	13.51	(72)	1.62	(49)	6.81	(49)	8.48	(63)	7.52	(55)	9.04	(89)	13.98	(57)	12.49	(67)
NCREIF Fund Index-Open End Diversified Core (EW)	-12.40	(48)	22.76	(39)	15.75	(50)	1.74	(43)	6.17	(69)	8.82	(58)	7.81	(51)	10.62	(65)	14.71	(54)	12.39	(69)
IM U.S. Open End Private Real Estate (SA+CF) Median	-12.47		20.19		15.73		1.58		6.80		8.98		7.83		11.14		15.19		12.90	



0 (0%)

0 (0%)



#### 3 Yr Rolling Percentile Ranking - 5 Years Return Percentile Rank 25.0 50.0 75.0 100.0 6/20 12/20 6/21 12/21 6/22 12/22 6/23 12/23 9/24 12/19 5-25 25-Median Median-75 75-95 **Total Period** Count Count Count Count

15 (75%)

7 (35%)

5 (25%)

13 (65%)

0 (0%)

0 (0%)

20

20

# Feer Group Scattergram - 3 Years 5.95 5.60 4.90 4.55 4.20 11.41 11.48 11.55 11.62 11.69 11.76 Risk (Standard Deviation %)

7.74		ı	
9.46 - 9.03 - 8.60 - 8.17 -			
3 8 60 -			
9.03			
© 9.46 -			
9.89			

	Return	Standard Deviation
<ul><li>Total Fund</li></ul>	5.03	11.40
<ul> <li>Total Fund Policy Target</li> </ul>	5.59	11.68
Median	4.54	11.64

	Return	Standard Deviation
<ul><li>Total Fund</li></ul>	9.56	12.04
<ul> <li>Total Fund Policy Target</li> </ul>	9.12	11.81
Median	8.25	12.01

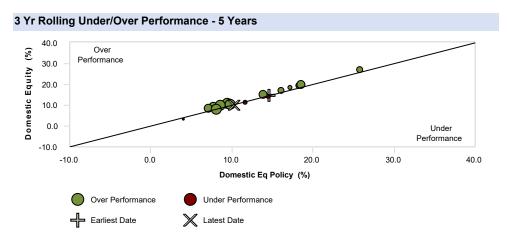
<b>Historical Statistics - 3</b>	Years							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Fund	1.43	96.06	98.26	-0.38	-0.40	0.19	0.97	7.60
Total Fund Policy Target	0.00	100.00	100.00	0.00	N/A	0.23	1.00	7.75

Total Fund

O Total Fund Policy Target

Historical Statistics - 5 Ye	ears							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Fund	1.46	102.87	101.59	0.32	0.30	0.63	1.01	7.70
Total Fund Policy Target	0.00	100.00	100.00	0.00	N/A	0.60	1.00	7.59





#### 3 Yr Rolling Percentile Ranking - 5 Years 0.0 Return Percentile Rank 25.0 50.0 75.0 100.0 6/20 12/20 6/21 12/23 9/24 12/19 12/21 6/22 12/22 6/23

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
<ul><li>Domestic Equity</li></ul>	20	6 (30%)	14 (70%)	0 (0%)	0 (0%)	
<ul> <li>Domestic Eq Policy</li> </ul>	20	0 (0%)	13 (65%)	7 (35%)	0 (0%)	

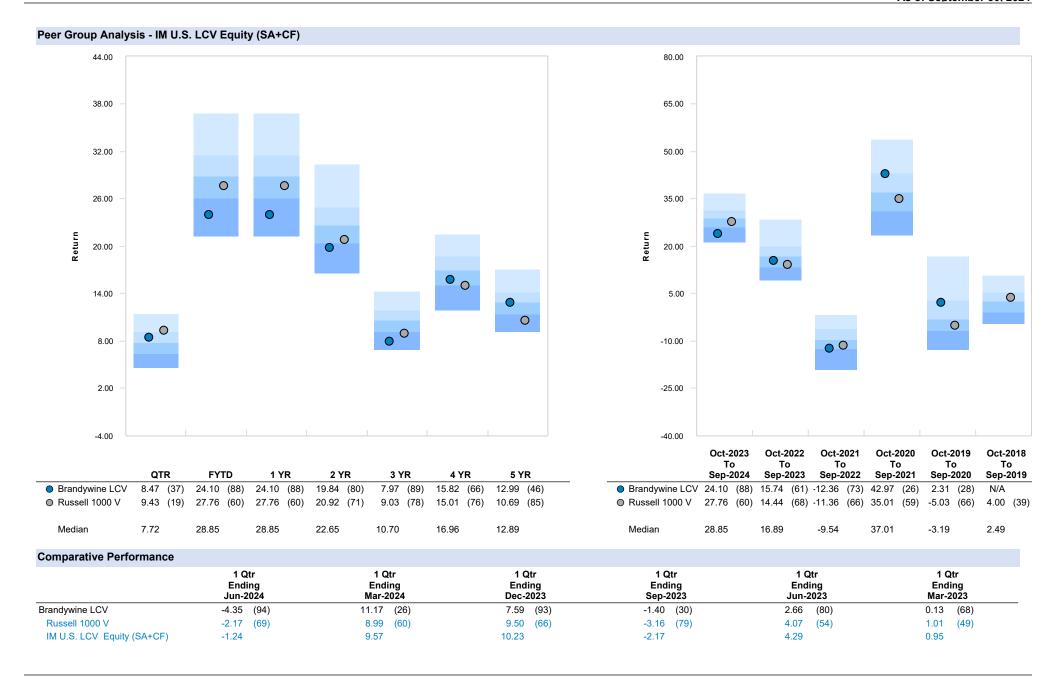
#### Peer Group Scattergram - 3 Years 10.40 $\bigcirc$ Return (%) 10.20 10.00 9.80 9.60 17.22 17.28 17.34 17.40 17.46 17.52 17.58 17.64 Risk (Standard Deviation %)

Pee	r Group Scat	tergram - 5	Years					
Return (%)	16.50 16.00 – 15.50 – 15.00 –					C	)	
Ľ	14.50 14.00 18.06	18.13	18.20	18.27	18.34	18.41	18.48	18.55
			F	Risk (Standard I	Deviation %)			

	Return	Standard Deviation
<ul> <li>Domestic Equity</li> </ul>	9.99	17.32
<ul> <li>Domestic Eq Policy</li> </ul>	10.29	17.55
Median	9.80	17.36

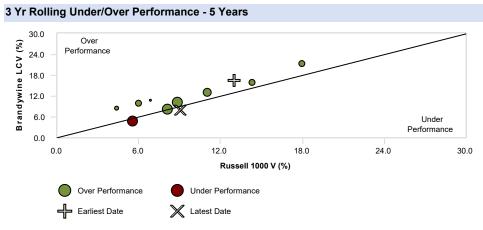
	Return	Standard Deviation
<ul><li>Domestic Equity</li></ul>	16.14	18.35
<ul> <li>Domestic Eq Policy</li> </ul>	15.26	18.44
Median	14.61	18.17

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Domestic Equity	2.20	96.21	95.67	-0.08	-0.15	0.44	0.98	11.07
Domestic Eq Policy	0.00	100.00	100.00	0.00	N/A	0.46	1.00	11.35
Historical Statistics	- 5 Years							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Domestic Equity	2.09	100.32	96.68	0.93	0.36	0.79	0.99	11.41
Domestic Eq Policy	0.00	100.00	100.00	0.00	N/A	0.74	1.00	11.67



3 (27%)

10 (50%)



#### 3 Yr Rolling Percentile Ranking - 5 Years 0.0 Return Percentile Rank 25.0 50.0 75.0 100.0 6/22 12/22 6/23 12/23 9/24 12/19 6/20 12/20 6/21 12/21 5-25 25-Median Median-75 75-95 **Total Period** Count Count Count Count

2 (18%)

0 (0%)



Pee	r Group Sca	ttergram - 5	Years					
Return (%)	14.04 13.26 – 12.48 – 11.70 –					•		
	10.92 10.14 18.20	18.27	18.34	18.41	18.48	18.55	18.62	18.69
			F	Risk (Standard I	Deviation %)			

5 (45%)

0 (0%)

1 (9%)

10 (50%)

	Return	Standard Deviation
<ul><li>Brandywine LCV</li></ul>	7.97	16.84
○ Russell 1000 V	9.03	16.41
Median	10.70	16.43

Uр

Down

	Return	Standard Deviation
<ul><li>Brandywine LCV</li></ul>	12.99	18.56
O Russell 1000 V	10.69	18.28
Median	12.89	18.45

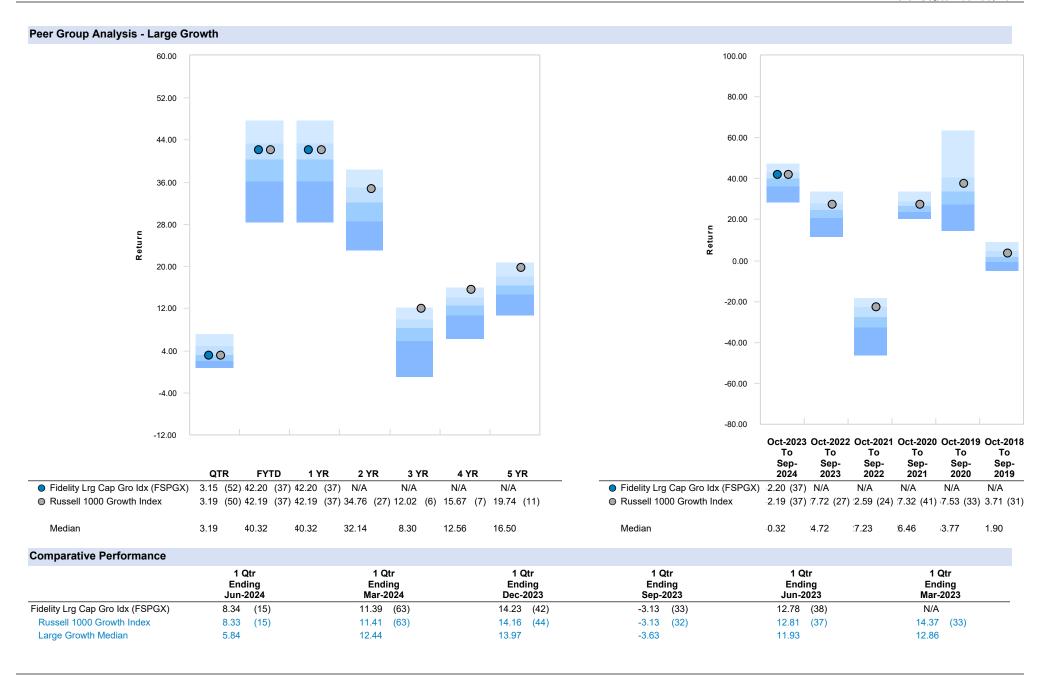
	Tracking Error	Market Capture	Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Brandywine LCV	4.55	97.16	100.26	-0.79	-0.20	0.34	0.99	10.43
Russell 1000 V	0.00	100.00	100.00	0.00	N/A	0.40	1.00	10.18
Historical Statistic	s - 5 Years							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Brandywine LCV	4.38	104.23	96.14	2.28	0.48	0.63	0.99	11.67
Russell 1000 V	0.00	100.00	100.00	0.00	N/A	0.52	1.00	12.03

Brandywine LCV

Russell 1000 V

11

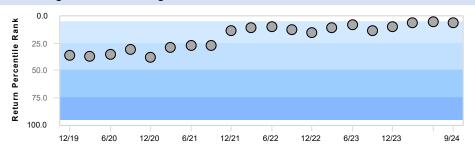
20



# 3 Yr Rolling Under/Over Performance - 5 Years

No data found.

# 3 Yr Rolling Percentile Ranking - 5 Years



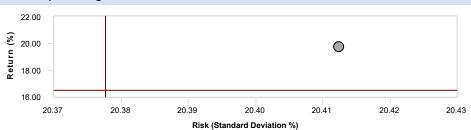
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
<ul><li>Fidelity Lrg Cap Gro Idx (FSPGX)</li></ul>	0	0	0	0	0	
<ul> <li>Russell 1000 Growth Index</li> </ul>	20	12 (60%)	8 (40%)	0 (0%)	0 (0%)	

# Peer Group Scattergram - 3 Years



	Return	Standard Deviation
<ul> <li>Fidelity Lrg Cap Gro Idx (FSPGX)</li> </ul>	N/A	N/A
<ul> <li>Russell 1000 Growth Index</li> </ul>	12.02	20.56
Median	8.30	20.58

# Peer Group Scattergram - 5 Years



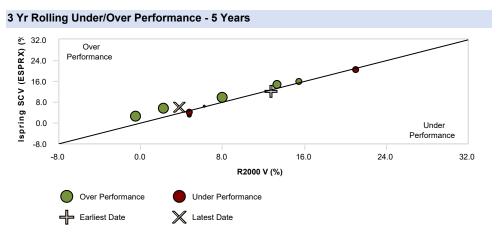
Return	Standard Deviation
N/A	N/A
19.74	20.41
16.50	20.38
	N/A 19.74

# **Historical Statistics - 3 Years**

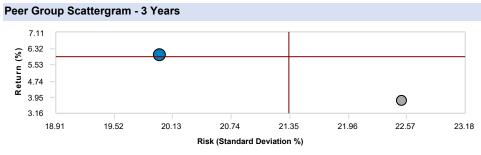
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Fidelity Lrg Cap Gro Idx (FSPGX)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Growth Index	0.00	100.00	100.00	0.00	N/A	0.49	1.00	13.36

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Fidelity Lrg Cap Gro Idx (FSPGX)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Growth Index	0.00	100.00	100.00	0.00	N/A	0.88	1.00	12.21





#### 3 Yr Rolling Percentile Ranking - 5 Years 0.0 Return Percentile Rank 25.0 00 50.0 0 75.0 100.0 12/20 12/23 9/24 12/19 6/20 6/21 12/21 6/22 12/22 6/23 5-25 25-Median Median-75 75-95 **Total Period** Count Count Count Count Allspring SCV (ESPRX) 11 0 (0%) 3 (27%) 5 (45%) 3 (27%) R2000 V 20 0 (0%) 8 (40%) 4 (20%) 8 (40%)



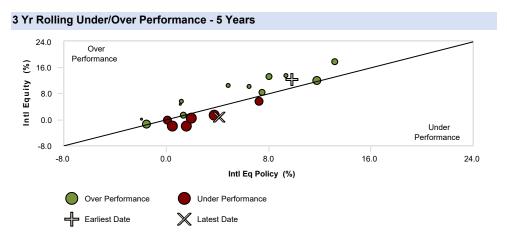
Peer	r Group Scat	tergram - 5	rears					
(%)	10.80 10.44 –							
Return	9.72						_	
	9.36 9.00 21.66	22.23	22.80	23.37	23.94	24.51	25.08	25.65
	Risk (Standard Deviation %)							

	Return	Standard Deviation
<ul> <li>Allspring SCV (ESPRX)</li> </ul>	6.05	19.99
R2000 V	3.77	22.52
Median	5.93	21.34

	Return	Deviation
<ul><li>Allspring SCV (ESPRX)</li></ul>	9.51	22.43
R2000 V	9.29	24.82
Median	10.38	24.35

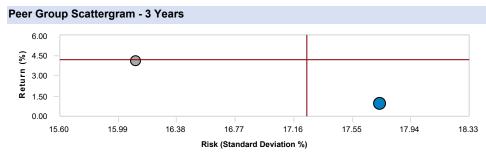
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Allspring SCV (ESPRX)	5.56	91.39	84.17	2.54	0.30	0.22	0.86	12.05
R2000 V	0.00	100.00	100.00	0.00	N/A	0.12	1.00	13.91
Historical Statistics - 5	Years							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Allspring SCV (ESPRX)	5.12	91.28	88.85	1.00	-0.07	0.42	0.89	14.97
R2000 V	0.00	100.00	100.00	0.00	N/A	0.39	1.00	16.44





#### 3 Yr Rolling Percentile Ranking - 5 Years Return Percentile Rank 25.0 50.0 75.0 100.0 12/19 6/20 12/20 6/21 12/22 6/23 12/23 9/24 12/21 6/22

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
<ul><li>Intl Equity</li></ul>	20	9 (45%)	3 (15%)	2 (10%)	6 (30%)	
<ul><li>Intl Eq Policy</li></ul>	20	0 (0%)	10 (50%)	10 (50%)	0 (0%)	

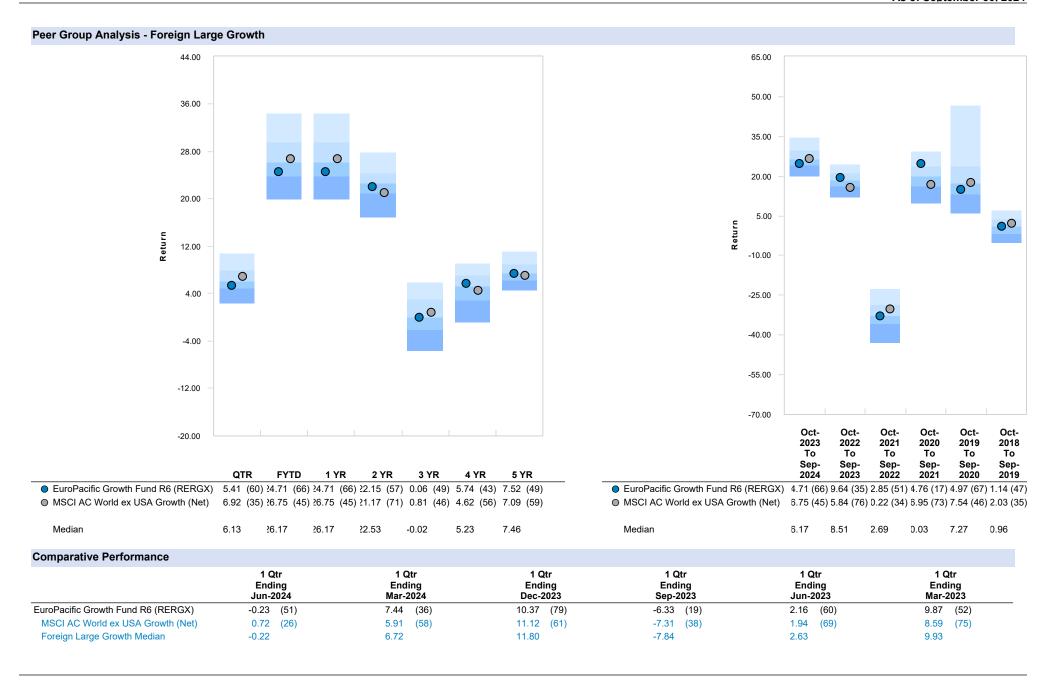


Pee	r Group Sca	ttergram - 5 1	ears				
	8.20						
(%)	8.00 -						
Return	7.80						
Ret	7.60 -	0					
	7.40 16.65	17.02	17.39	17.76	18.13	18.50	18.87
			Risk (S	tandard Deviation	%)		

	Return	Standard Deviation
<ul><li>Intl Equity</li></ul>	0.93	17.73
<ul><li>Intl Eq Policy</li></ul>	4.14	16.11
Median	4.25	17.25

	Return	Standard Deviation
<ul><li>Intl Equity</li></ul>	8.08	18.53
<ul><li>Intl Eq Policy</li></ul>	7.59	17.05
Median	7.78	17.95

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Intl Equity	4.58	106.75	122.62	-3.16	-0.62	-0.05	1.07	12.10
Intl Eq Policy	0.00	100.00	100.00	0.00	N/A	0.12	1.00	10.63
<b>Historical Statisti</b>	cs - 5 Years							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Intl Equity	4.56	110.09	110.95	0.24	0.16	0.39	1.06	12.09
Intl Eq Policy	0.00	100.00	100.00	0.00	N/A	0.38	1.00	11.34



# 3 Yr Rolling Under/Over Performance - 5 Years Over Performance Over Performance Over Performance Over Performance Over Performance Under Performance Over Performance Under Performance Under Performance Under Performance Under Performance

### 3 Yr Rolling Percentile Ranking - 5 Years 0.0 Return Percentile Rank 25.0 50.0 75.0 100.0 12/23 9/24 12/19 6/20 12/20 6/21 12/21 6/22 12/22 6/23

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
<ul><li>EuroPacific Growth Fund R6 (RERGX)</li></ul>	20	1 (5%)	7 (35%)	11 (55%)	1 (5%)	
<ul> <li>MSCI AC World ex USA Growth (Net)</li> </ul>	20	0 (0%)	4 (20%)	16 (80%)	0 (0%)	

### Peer Group Scattergram - 3 Years 1.20 0.90 Return (%) 0 0.60 0.30 0.00 -0.30 17.64 18.00 18.36 18.72 19.08 19.44 19.80 Risk (Standard Deviation %)

X Latest Date

Earliest Date

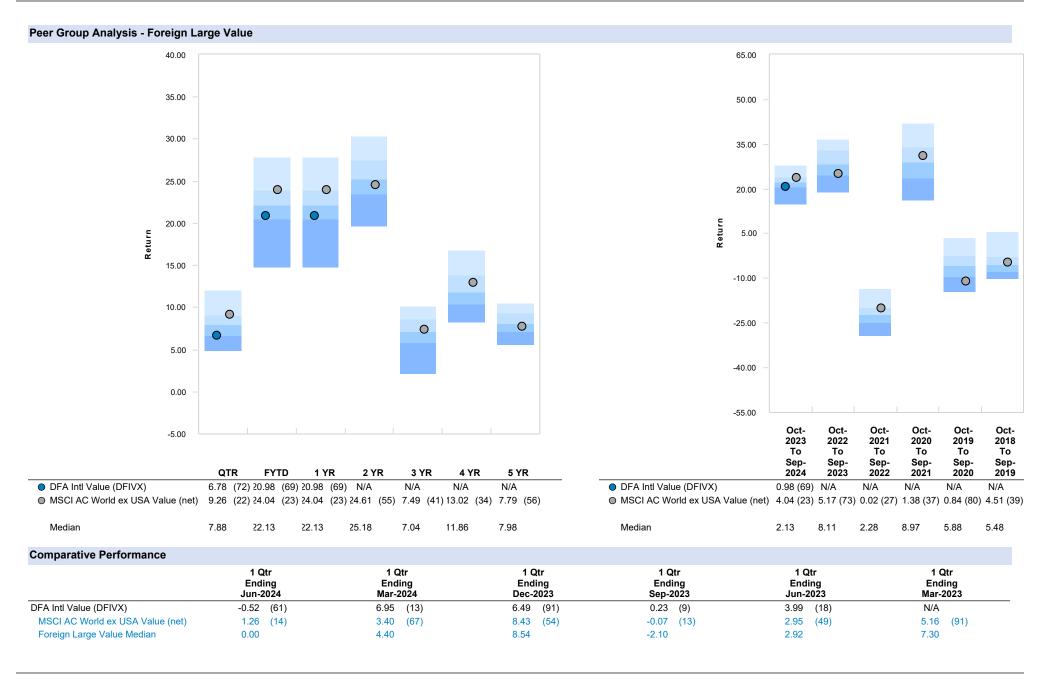
Peer Group Scat	tergram - 5 Y	ears				
7.60					)	
% 7.40 - E						
7.20 –	0					
7.00	17.34	17.68	18.02	18.36	18.70	19.04

	Return	Standard Deviation
<ul> <li>EuroPacific Growth Fund R6 (RERGX)</li> </ul>	0.06	17.65
<ul> <li>MSCI AC World ex USA Growth (Net)</li> </ul>	0.81	17.73
Median	-0.02	19.23

		Return	Standard Deviation
<ul><li>EuroPa</li></ul>	cific Growth Fund R6 (RERGX)	7.52	18.50
<ul><li>MSCI A</li></ul>	C World ex USA Growth (Net)	7.09	17.24
Median		7.46	18.71
MSCI A	,	7.09	17.24

Risk (Standard Deviation %)

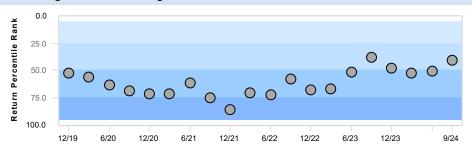
Historical Statistics - 3 Years								
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
EuroPacific Growth Fund R6 (RERGX)	3.67	97.72	100.66	-0.70	-0.21	-0.10	0.97	12.15
MSCI AC World ex USA Growth (Net)	0.00	100.00	100.00	0.00	N/A	-0.06	1.00	12.13
Historical Statistics - 5 Years								
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
EuroPacific Growth Fund R6 (RERGX)	4.41	104.49	103.19	0.27	0.14	0.36	1.04	12.11
MSCI AC World ex USA Growth (Net)	0.00	100.00	100.00	0.00	N/A	0.35	1.00	11.32



### 3 Yr Rolling Under/Over Performance - 5 Years

No data found.

### 3 Yr Rolling Percentile Ranking - 5 Years



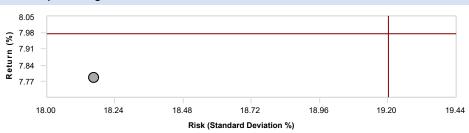
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
<ul><li>DFA Intl Value (DFIVX)</li></ul>	0	0	0	0	0	
<ul> <li>MSCI AC World ex USA Value (net)</li> </ul>	20	0 (0%)	3 (15%)	16 (80%)	1 (5%)	

### Peer Group Scattergram - 3 Years



	Return	Standard Deviation
<ul><li>DFA Intl Value (DFIVX)</li></ul>	N/A	N/A
<ul> <li>MSCI AC World ex USA Value (net)</li> </ul>	7.49	15.49
Median	7.04	17.16

### Peer Group Scattergram - 5 Years

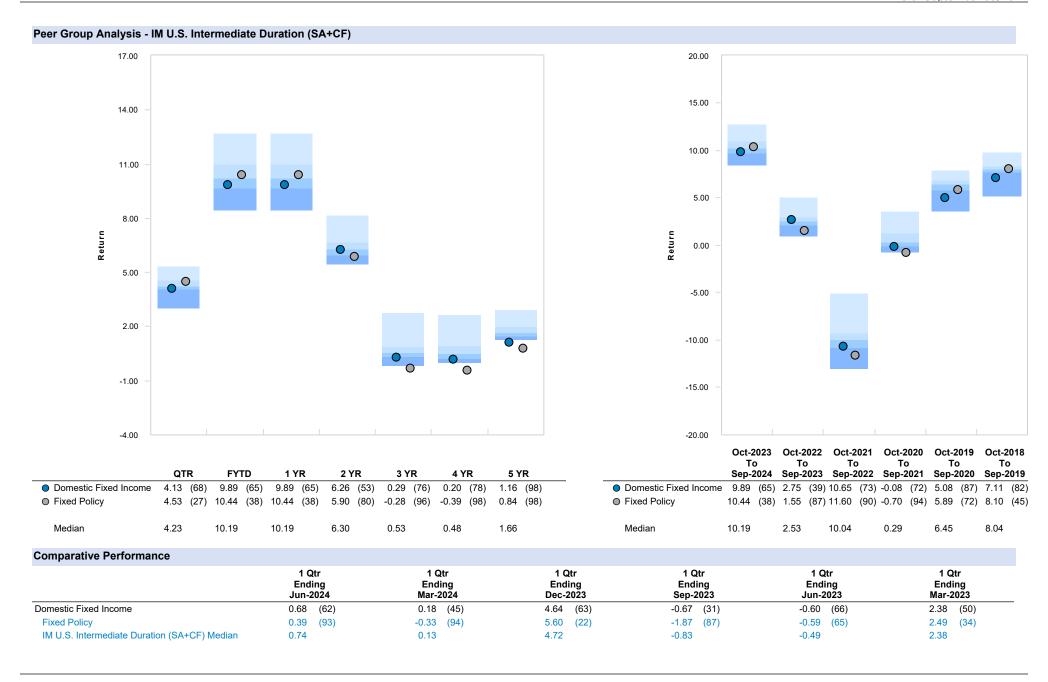


	Return	Standard Deviation
<ul><li>DFA Intl Value (DFIVX)</li></ul>	N/A	N/A
<ul> <li>MSCI AC World ex USA Value (net)</li> </ul>	7.79	18.17
Median	7.98	19.20

### **Historical Statistics - 3 Years**

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
DFA Intl Value (DFIVX)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MSCI AC World ex USA Value (net)	0.00	100.00	100.00	0.00	N/A	0.33	1.00	10.00

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
DFA Intl Value (DFIVX)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MSCI AC World ex USA Value (net)	0.00	100.00	100.00	0.00	N/A	0.38	1.00	12.33

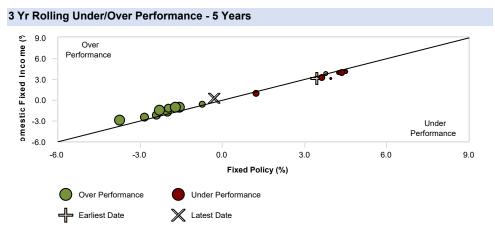


75-95

Count

16 (80%)

18 (90%)



### 3 Yr Rolling Percentile Ranking - 5 Years 0.0 Return Percentile Rank 0 25.0 50.0 75.0 100.0 12/19 6/20 12/20 6/21 12/21 6/22 12/22 6/23 12/23 9/24

5-25

Count

0 (0%)

1 (5%)

**Total Period** 

20

20

Domestic Fixed Income

Fixed Policy

25-Median

Count

0 (0%)

0 (0%)

Median-75

Count

4 (20%)

1 (5%)

Pee	r Gro	up	Scattergra	m - 3 Years	3					
Return (%)	0.90 0.60 0.30 0.00	-		•						
S.	-0.30 -0.60	-							0	
	-0.00		4.75	4.94	5.13	5.32	5.51	5.70	5.89	6.08
					Risk (S	tandard Deviat	ion %)			

Pee	r Gro	up Scatte	ergram - 5 Y	ears				
	1.80							
(%)	1.50							
Return	1.20							
Re	0.90							
	0.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00
		0.00	4.00		4.40 Standard Deviation		4.00	5.00
				i tion (c		, •,		

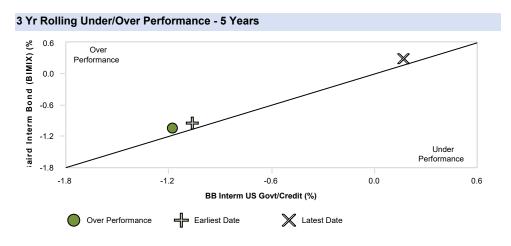
	Return	Standard Deviation
<ul> <li>Domestic Fixed Income</li> </ul>	0.29	4.92
<ul><li>Fixed Policy</li></ul>	-0.28	5.90
Median	0.53	5.00

	Return	Standard Deviation
<ul> <li>Domestic Fixed Income</li> </ul>	1.16	4.07
<ul><li>Fixed Policy</li></ul>	0.84	4.80
Median	1.66	4.23

Historical Statistics - 3 Years								
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Domestic Fixed Income	1.22	85.54	79.52	0.51	0.43	-0.65	0.83	3.38
Fixed Policy	0.00	100.00	100.00	0.00	N/A	-0.62	1.00	4.05
Historical Statistics - 5 Years								

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Domestic Fixed Income	1.25	87.24	80.34	0.45	0.23	-0.27	0.83	2.71
Fixed Policy	0.00	100.00	100.00	0.00	N/A	-0.29	1.00	3.23





### 3 Yr Rolling Percentile Ranking - 5 Years 0.0 000000 Return Percentile Rank 25.0 50.0 0 0 75.0 000 100.0 12/21 6/22 12/22 6/23 12/23 9/24 12/19 6/20 12/20 6/21 5-25 25-Median Median-75 75-95 **Total Period** Count Count Count Count Baird Interm Bond (BIMIX) 3 3 (100%) 0 (0%) 0 (0%) 0 (0%) BB Interm US Govt/Credit 20 10 (50%) 0 (0%) 3 (15%) 7 (35%)

## Peer Group Scattergram - 3 Years 0.60 0.00 -0.60 -1.20 -1.80 4.50 5.00 5.50 6.00 6.50 7.00 7.50 8.00 Risk (Standard Deviation %)

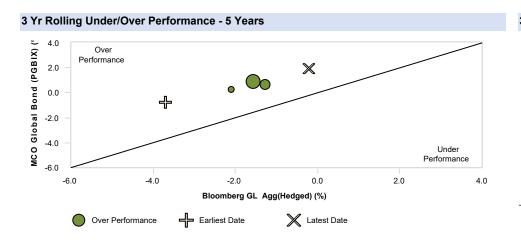
Pee	er Group Sc	attergram	- 5 Years						
Return (%)	1.50 1.20 - 0.90 - 0.60 - 0.30 -	C	)						
	3.44	3.87	4.30	4.73 Risk (Sta	5.16 ndard Deviatio	5.59 on %)	6.02	6.45	6.88

	Return	Standard Deviation
<ul> <li>Baird Interm Bond (BIMIX)</li> </ul>	0.29	4.92
<ul> <li>BB Interm US Govt/Credit</li> </ul>	0.17	4.90
Median	-1.51	7.52

	Return	Standard Deviation
<ul><li>Baird Interm Bond (BIMIX)</li></ul>	N/A	N/A
<ul> <li>BB Interm US Govt/Credit</li> </ul>	1.26	4.06
Median	0.38	6.31

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Baird Interm Bond (BIMIX)	0.37	100.46	98.70	0.12	0.33	-0.65	1.00	3.38
BB Interm US Govt/Credit	0.00	100.00	100.00	0.00	N/A	-0.67	1.00	3.36
Historical Statistics - 5 Ye	ears							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Baird Interm Bond (BIMIX)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BB Interm US Govt/Credit	0.00	100.00	100.00	0.00	N/A	-0.24	1.00	2.68





### 3 Yr Rolling Percentile Ranking - 5 Years 000 Return Percentile Rank 0 25.0 0 50.0 75.0 100.0 12/19 6/20 12/20 6/21 12/21 6/22 12/22 6/23 12/23 9/24 5-25 25-Median Median-75 75-95 **Total Period** Count Count Count Count

5 (100%)

10 (50%)

0 (0%)

10 (50%)

0 (0%)

0 (0%)

0 (0%)

0 (0%)

5

20

Peer	Gro	up Scattergr	am - 3 Years				
	4.00						
(%)	2.00	_					
Return	0.00	-		0			
S.	-2.00						
	-4.00			I	ı		
	:	2.00	4.00	6.00	8.00	10.00	12.00
				Risk (Standard	Deviation %)		

Peer Group Scattergram - 5 Years								
	1.00						1	
(%)	0.50	0						
Return	0.00							
Re	-0.50							
	-1.00							
	4.26	4.97	5.68	6.39	7.10	7.81	8.52	9.23
Risk (Standard Deviation %)								

	Return	Standard Deviation
<ul><li>PIMCO Global Bond (PGBIX)</li></ul>	1.96	4.55
<ul><li>Bloomberg GL Agg(Hedged)</li></ul>	-0.22	5.81
Median	-2.13	9.49

Uр

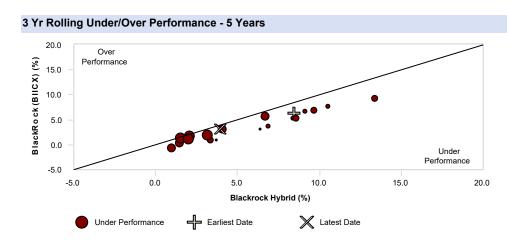
Return	Standard Deviation
N/A	N/A
0.57	4.88
-0.72	8.62
	N/A 0.57

	Tracking Error	Market Capture	Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
PIMCO Global Bond (PGBIX)	2.18	86.39	60.81	2.10	0.96	-0.32	0.74	2.52
Bloomberg GL Agg(Hedged)	0.00	100.00	100.00	0.00	N/A	-0.62	1.00	3.94
Historical Statistics - 5 Year	rs							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
PIMCO Global Bond (PGBIX)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bloomberg GL Agg(Hedged)	0.00	100.00	100.00	0.00	N/A	-0.34	1.00	3.27

Down

PIMCO Global Bond (PGBIX)





### 3 Yr Rolling Percentile Ranking - 5 Years 00000 Return Percentile Rank 50.0 75.0 100.0 12/19 6/22 12/23 9/24 6/20 12/20 6/21 12/21 12/22 6/23

	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
<ul> <li>BlackRock (BIICX)</li> </ul>	20	0 (0%)	3 (15%)	11 (55%)	6 (30%)
<ul> <li>Blackrock Hybrid</li> </ul>	20	8 (40%)	8 (40%)	3 (15%)	1 (5%)

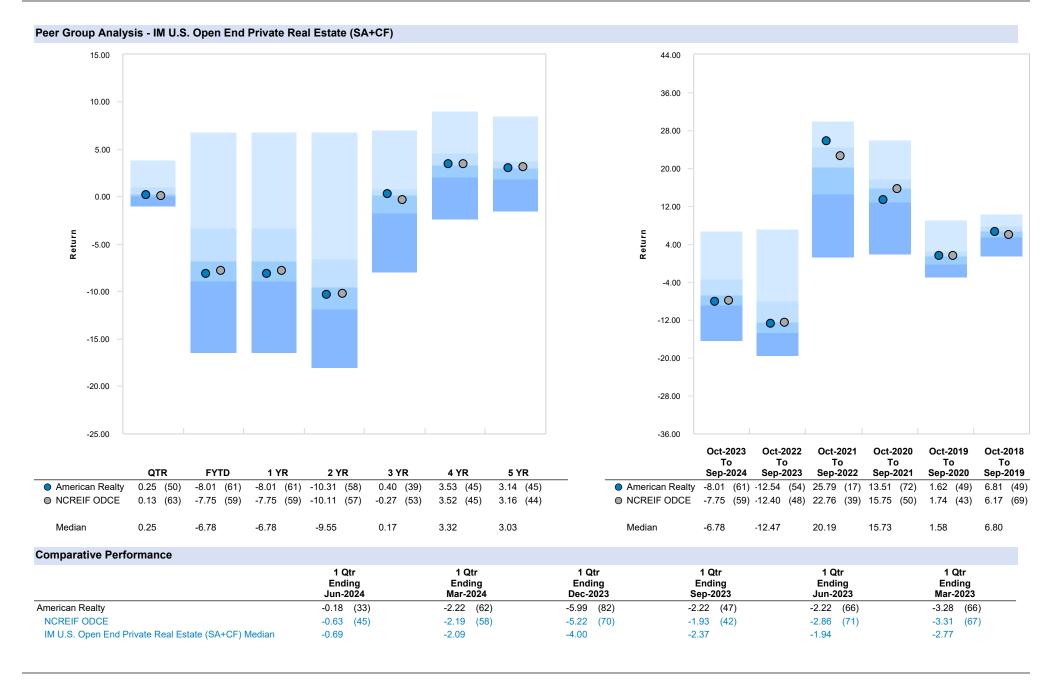


Pee	er Group Sca	ittergram -	5 Years					
(%)	7.92 7.20 –			(	)			
Return								
Œ	5.04							
	8.58	9.24	9.90	10.56	11.22	11.88	12.54	13.20
			1	Risk (Standard D	Deviation %)			

	Return	Standard Deviation
<ul><li>BlackRock (BIICX)</li></ul>	3.11	9.24
<ul> <li>Blackrock Hybrid</li> </ul>	3.92	11.47
Median	3.71	12.40

	Return	Standard Deviation
<ul><li>BlackRock (BIICX)</li></ul>	4.70	9.51
<ul> <li>Blackrock Hybrid</li> </ul>	6.82	10.87
Median	6.41	12.72

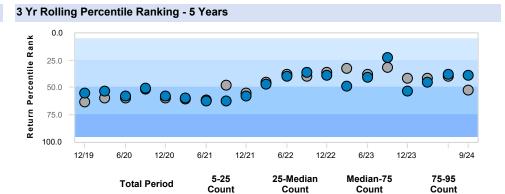
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
BlackRock (BIICX)	3.28	77.64	77.70	-0.04	-0.31	0.01	0.78	6.06
Blackrock Hybrid	0.00	100.00	100.00	0.00	N/A	0.09	1.00	7.77
Historical Statistics	s - 5 Years							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
BlackRock (BIICX)	3.38	77.38	81.55	-0.94	-0.63	0.29	0.83	6.67
Blackrock Hybrid	0.00	100.00	100.00	0.00	N/A	0.45	1.00	7.12



0 (0%)

0 (0%)

### 3 Yr Rolling Under/Over Performance - 5 Years 20.0 Over American Realty (%) Performance 15.0 10.0 5.0 Under Performance -5.0 0.0 5.0 10.0 15.0 20.0 -5.0 NCREIF ODCE (%) Over Performance Under Performance Earliest Date X Latest Date



1 (5%)

0 (0%)

Peer	Gro	up Sc	attergram -	- 3 Years						
	0.60									
(%)	0.30	-								
Return	0.00	-								
Ret	-0.30	-		0						
	-0.60									
			8.55	8.70	8.85	9.00	9.15	9.30	9.45	9.60
					Risk (Star	ndard Deviati	on %)			

er Group Sc	attergram	- 5 Years						
3.20								
§ 3.15 –		0						
3.10 – 3.05 –								
3.05								
3.00								
7.49	7.56	7.63	7.70	7.77	7.84	7.91	7.98	8.05
			Risk (Star	ndard Deviation	on %)			

9 (45%)

11 (55%)

10 (50%)

9 (45%)

	Return	Standard Deviation
<ul><li>American Realty</li></ul>	0.40	9.41
<ul> <li>NCREIF ODCE</li> </ul>	-0.27	8.64
Median	0.17	8.99

	Return	Standard Deviation
<ul><li>American Realty</li></ul>	3.14	7.89
<ul><li>NCREIF ODCE</li></ul>	3.16	7.61
Median	3.03	7.97

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
American Realty	1.08	112.65	102.41	0.72	0.68	-0.27	1.09	5.50
NCREIF ODCE	0.00	100.00	100.00	0.00	N/A	-0.37	1.00	5.14
<b>Historical Statistic</b>	s - 5 Years							
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
American Realty	1.15	101.24	102.08	-0.08	0.00	0.13	1.03	4.30
NCREIF ODCE	0.00	100.00	100.00	0.00	N/A	0.14	1.00	4.02

American Realty

NCREIF ODCE

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Comparative Performance Trailing Returns													
	QTR		R FYT		1 Y	1 YR		3 YR		5 YR		tion	Inception Date
Brandywine Dynamic Large Cap Value Composite	8.49	(36)	24.27	(88)	24.27	(88)	7.97	(89)	12.98	(47)	10.69	(10)	01/01/2007
Russell 1000 Value Index	9.43	(19)	27.76	(60)	27.76	(60)	9.03	(78)	10.69	(85)	7.42	(93)	
IM U.S. Large Cap Value Equity (SA+CF) Median	7.72		28.85		28.85		10.70		12.89		8.90		
Fidelity Large Cap Growth Idx	3.15	(52)	42.19	(37)	42.19	(37)	12.00	(7)	19.71	(11)	18.65	(11)	07/01/2016
Russell 1000 Growth Index	3.19	(50)	42.19	(37)	42.19	(37)	12.02	(6)	19.74	(11)	18.69	(11)	
Large Growth Median	3.19		40.32		40.32		8.30		16.50		16.36		
Allspring Special Small Cap Value R6	6.97	(78)	21.71	(69)	21.71	(69)	6.05	(47)	9.51	(66)	8.82	(21)	11/01/2014
Russell 2000 Value Index	10.15	(13)	25.88	(22)	25.88	(22)	3.77	(88)	9.29	(70)	7.56	(56)	
Small Value Median	8.12		23.32		23.32		5.93		10.38		7.77		
American Funds Europacific Growth R6	5.41	(83)	24.71	(46)	24.71	(46)	0.06	(96)	7.52	(61)	7.54	(21)	06/01/2009
MSCI AC World ex USA	8.17	(23)	25.96	(24)	25.96	(24)	4.67	(43)	8.10	(40)	7.02	(41)	
Foreign Large Blend Median	7.12		24.46		24.46		4.25		7.78		6.86		
DFA International Value I	6.78	(72)	20.98	(69)	20.98	(69)	9.80	(10)	10.10	(14)	6.45	(22)	03/01/1994
MSCI EAFE IMI Value	9.26	(22)	24.08	(22)	24.08	(22)	8.82	(23)	8.74	(35)	N/A		
Foreign Large Value Median	7.89		22.12		22.12		7.04		7.97		5.47		
Baird Intermediate Bond Inst	4.14	(97)	9.90	(96)	9.90	(96)	0.30	(3)	1.53	(3)	4.11	(22)	10/01/2000
Bloomberg Intermediate US Govt/Credit Idx	4.17	(97)	9.45	(98)	9.45	(98)	0.17	(4)	1.26	(7)	3.71	(59)	
Intermediate Core Bond Median	5.13		11.69		11.69		-1.51		0.38		3.82		
PIMCO Global Bond Opps (USD-Hdg) Instl	3.22	(96)	11.07	(64)	11.07	(64)	1.96	(4)	2.72	(5)	5.07	(4)	03/01/1998
Bloomberg Global Agg Index (Hedged)	4.24	(82)	10.63	(72)	10.63	(72)	-0.22	(27)	0.57	(30)	4.15	(27)	
Global Bond Median	6.83		11.97		11.97		-2.13		-0.72		3.66		
BlackRock Multi-Asset Income Portfolio K	5.68	(62)	18.12	(79)	18.12	(79)	3.11	(62)	4.71	(82)	4.91	(79)	03/01/2017
Blackrock Multi-Asset Hybrid	5.78	(59)	21.66	(51)	21.66	(51)	3.92	(47)	6.82	(40)	6.81	(23)	
Global Allocation Median	6.09		21.74		21.74		3.71		6.41		5.93		
Core Real Estate Investments Pooled Fund Report	0.25	(51)	-8.01	(61)	-8.01	(61)	0.40	(39)	3.14	(44)	6.45	(65)	01/01/2004
NCREIF Fund Index-Open End Diversified Core (EW)	0.13	(63)	-7.75	(59)	-7.75	(59)	-0.27	(53)	3.16	(44)	6.74	(60)	
IM U.S. Open End Private Real Estate (SA+CF) Median	0.25		-6.78		-6.78		0.17		3.03		6.96		

Total Fund Policy			
Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)
Jan-1979		Jul-2021	
Russell 3000 Index	50.00	Russell 3000 Index	45.00
MSCI EAFE Index	10.00	MSCI AC World ex USA (Net)	15.00
Blmbg. U.S. Gov't/Credit	40.00	Bloomberg Intermed Aggregate Index	20.00
		Bloomberg Global Agg Index (Hedged)	5.00
Jan-2007		NCREIF Fund Index-Open End Diversified Core (EW)	10.00
Russell 3000 Index	50.00	Blackrock Multi-Asset Hybrid	5.00
MSCI EAFE Index	10.00	·	
Bloomberg Intermed Aggregate Index	35.00		
Blmbg. U.S. TIPS 1-10 Year	5.00		
Jul-2009			
Russell 3000 Index	50.00		
MSCI EAFE Index	10.00		
Bloomberg Intermed Aggregate Index	35.00		
Bloomberg U.S. TIPS Index	5.00		
bloomberg o.e. The mack	3.00		
Oct-2010			
Russell 3000 Index	45.00		
MSCI EAFE Index	15.00		
Bloomberg Intermed Aggregate Index	35.00		
Bloomberg U.S. TIPS Index	5.00		
Oct-2011			
Russell 3000 Index	45.00		
MSCI EAFE Index	15.00		
Bloomberg Intermed Aggregate Index	25.00		
Bloomberg U.S. TIPS Index	5.00		
NCREIF Fund Index-Open End Diversified Core (EW)	10.00		
Mar-2015			
Russell 3000 Index	45.00		
MSCI AC World ex USA (Net)	15.00		
Bloomberg Intermed Aggregate Index	20.00		
FTSE World Government Bond Index	5.00		
NCREIF Fund Index-Open End Diversified Core (EW)	10.00		
Blackrock Multi-Asset Hybrid	5.00		

Total Equity Policy		
Allocation Mandate	Weight (%)	
Jul-2006		
Russell 3000 Index	83.00	
MSCI EAFE Index	17.00	
Oct-2010		
Russell 3000 Index	75.00	
MSCI EAFE Index	25.00	
Mar-2015		
Russell 3000 Index	75.00	
MSCI AC World ex USA (Net)	25.00	
Total Fixed Income Policy		
Allocation Mandate	Weight (%)	
Jan-1973		
Blmbg. U.S. Gov't/Credit	100.00	
Jan-2007		
Bloomberg Intermed Aggregate Index	100.00	

Total Fixed Income Policy		
Allocation Mandate	Weight (%)	
Jan-1973		
Blmbg. U.S. Gov't/Credit	100.00	
Jan-2007		
Bloomberg Intermed Aggregate Index	100.00	
Mar-2015		
Bloomberg Intermed Aggregate Index	80.00	
FTSE World Government Bond Index	20.00	
Jul-2021		
Bloomberg Intermed Aggregate Index	80.00	
Bloomberg Global Agg Index (Hedged)	20.00	
Total Real Policy		
Allocation Mandate	Weight (%)	

Weight (%)	
50.00	
50.00	
	50.00

50.00

50.00

Total Domestic Equity Policy		
Allocation Mandate	Weight (%)	
Jan-1979		
Russell 3000 Index	100.00	

Total International Equity Policy		
Allocation Mandate	Weight (%)	
Jan-1979		
MSCI EAFE Index	100.00	
Mar-2015		
MSCI AC World ex USA (Net)	100.00	

Weight (%)	
100.00	
100.00	
	100.00

Total Real Estate Policy	
Allocation Mandate	Weight (%)
Jan-1978	400.00
NCREIF Fund Index-Open End Diversified Core (EW)	100.00

Jan-1976 MSCI World (net)

Blmbg. U.S. Aggregate Index

	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Median Peer Annual Fee (%)	Fee Schedule
Brandywine Large Cap Value	0.45	13,535,388	60,909	, ,	0.45 % of Assets
Fidelity Lrg Cap Gro Idx (FSPGX)	0.04	17,655,118	6,179	0.96	0.04 % of Assets
Allspring Special Small Cap Value (ESPRX)	0.89	3,344,821	29,769	1.13	0.89 % of Assets
Total Domestic Equity	0.28	34,535,328	96,857		
EuroPacific Growth Fund R6 (RERGX)	0.46	5,071,568	23,329	1.03	0.46 % of Assets
DFA Intl Value (DFIVX)	0.30	5,409,280	16,228	0.98	0.30 % of Assets
Total International Equity	0.38	10,480,847	39,557	0.92	
Baird Intermediate Bond Inst (BIMIX)	0.30	14,447,385	43,342	0.58	0.30 % of Assets
Total Domestic Fixed Income	0.30	14,447,385	43,342		
PIMCO Global Bond (PGBIX)	0.62	3,310,464	20,525	0.91	0.62 % of Assets
Total Global Fixed Income	0.62	3,310,464	20,525	0.91	
BlackRock Multi-Asset Income (BKMIX)	0.53	3,483,736	18,464	1.15	0.53 % of Assets
Total Real Return	0.53	3,483,736	18,464	1.15	
ARA Core Property Fund	1.10	5,600,041	61,600		1.10 % of Assets
Total Real Estate	1.10	5,600,041	61,600		
R&D Account		345,486	-		
Total Fund	0.39	72,203,287	280,346		

\*Manager fees associated with money market or cash accounts are not tracked.

Fee information on this page is an illustrative estimate of management fees based on current reported portfolio values. Fee estimates do not reflect actual calculation methodologies or applicable carried interest.

Total Fund Compliance:													Yes	No	N/A
1. The total plan return equaled or exceeded the 7% actuarial earnings assumption over the trailing three year p	eriod.													✓	
2. The total plan return equaled or exceeded the 7% actuarial earnings assumption over the trailing five year per	iod.												✓		
3. The total plan return equaled or exceeded the total plan benchmark over the trailing three year period.											$\checkmark$				
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 year period.													✓		
6. The total plan return ranked within the top 40th percentile of its peer group over the trailing five year period.													✓		
Equity Compliance:													Yes	No	N/A
1. The total domestic equity returns equaled or exceeded the benchmark over the trailing three year period.														✓	
2. The total domestic equity returns equaled or exceeded the benchmark over the trailing five year period.													$\checkmark$		
3. The total domestic equity returns ranked within the top 40th percentile of its peer group over the trailing three	year pe	riod.												$\checkmark$	
4. The total domestic equity returns ranked within the top 40th percentile of its peer group over the trailing five ye	ear perio	od.											✓		
5. The total equity allocation was less than 70% of the total plan assets at market.													✓		
6. The total equity allocation was less than 60% of the total plan assets at cost.													✓		
7. The total foreign securities was less than 25% of the total plan assets at market.													✓		
Fixed Income Compliance:													Yes	No	N/A
1. The total domestic fixed income returns equaled or exceeded the benchmark over the trailing three year perio	d.												✓		
2. The total domestic fixed income returns equaled or exceeded the benchmark over the trailing five year period.	•												$\checkmark$		
3. The total domestic fixed income returns ranked within the top 40th percentile of its peer group over the trailing	three y	ear pe	riod.											$\checkmark$	
4. The total domestic fixed income returns ranked within the top 40th percentile of its peer group over the trailing	five yea	ar perio	od.											$\checkmark$	
5. The domestic fixed income securities were rated investment grade or higher.													$\checkmark$		
6. The total fixed income portfolio has a weighted average credit quality of AA or better.													$\checkmark$		
Manager Compliance:		Fidelity		Bra	ndywi		Eu	roPac	ific		Baird		Allsprii		g
	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Manager outperformed the index over the trailing three year period.			✓		$\checkmark$			✓		✓			✓		
2. Manager outperformed the index over the trailing five year period.			✓	✓			✓					✓	✓		
3. Manager ranked within the top 40th percentile over trailing three year period.			✓		✓			$\checkmark$		✓				$\checkmark$	
4. Manager ranked within the top 40th percentile over trailing five year period.			✓		$\checkmark$			$\checkmark$				✓		$\checkmark$	
5. Less than four consecutive quarters of under-performance relative to the benchmark.			✓	✓			✓			✓			$\checkmark$		
6. Down market capture ratio less than 100% over three and five year periods.			✓		$\checkmark$			✓				✓	$\checkmark$		
7. Manager reports compliance with PFIA.			✓	✓					✓			✓			✓
Manager Compliance:	BlackRock Yes No N/A				PIMCO GL Yes No N/A		American Yes No N/A		an N/A			N/A			
Manager outperformed the index over the trailing three year period.		√		√		•	√					✓			
Manager outperformed the index over the trailing five year period.		✓				✓		✓				✓			
3. Manager ranked within the top 40th percentile over trailing three year period.		✓		✓			✓					<b>✓</b>			
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.		✓		✓			✓			✓					
l ' '	Ι,					,	1	,							
6. Down market capture ratio less than 100% over three and five year periods.	✓					✓		✓				✓			

**Active Return** 

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

Alpha

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

Beta

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

Consistency

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

Distributed to Paid In (DPI)

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

**Down Market Capture** 

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

Downside Risk

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

**Excess Return** 

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

**Excess Risk** 

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

Information Ratio

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

Public Market Equivalent (PME)

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

R-Squared

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

Return

- Compounded rate of return for the period.

**Sharpe Ratio** 

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

**Standard Deviation** 

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

Total Value to Paid In (TVPI)

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

**Tracking Error** 

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

**Treynor Ratio** 

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

**Up Market Capture** 

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

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Methodology for this Award: For the 2022 Greenwich Quality Award for Overall U.S. Investment Consulting – Midsize Consultants – Between February and November 2022, Coalition Greenwich conducted interviews with 727 individuals from 590 of the largest tax-exempt funds in the United States. These U.S.-based institutional investors are corporate and union funds, public funds, and endowment and foundation funds, with either pension or investment pool assets greater than \$150 million. Study participants were asked to provide quantitative and qualitative evaluations of their asset management and investment consulting providers, including qualitative assessments of those firms soliciting their business and detailed information on important market trends.

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