

Callan



May 30, 2025

Illinois Municipal Retirement Fund

First Quarter 2025
Performance Review

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IMRF Performance Highlights

As of March 31, 2025

- IMRF's market value as of March 31, 2025 was \$55.2 billion, an increase from the 4Q24 ending value of \$54.9 billion.
- The Total Fund returned 0.97% for the quarter versus the benchmark return of 0.38%. The Fund's quarterly return ranked in the 28th percentile of peers. Over the last year, the Fund returned 5.64% relative to the benchmark return of 7.79% and ranked at the 47th percentile of peers.
- The IMRF U.S. Equity portfolio returned -3.76% for the quarter but fared better than the benchmark return of -4.06%. Over the last year, the U.S. Equity portfolio gained 4.44% relative to the benchmark return of 7.68%.
- The IMRF International Equity portfolio gained 5.51% for the quarter and outperformed the benchmark return of 5.23%. Over the last year, the International Equity Portfolio returned 6.31% and led the benchmark return of 6.09%.
- The IMRF Fixed Income portfolio finished slightly ahead of the benchmark for the quarter, returning 2.49% versus 2.44%. Over the last year, the Fixed Income portfolio returned 5.47% and exceeded the benchmark return of 5.37%.
- The IMRF Private Real Assets portfolio recorded a 0.11% return for the quarter and fell short of the 0.92% benchmark return. Over the last year, the Private Real Assets performed in line with the benchmark, returning 1.42% versus 1.43%.
- All asset classes are within the rebalancing range as stated in the Investment Policy.

*Numbers are for fourth quarter unless otherwise noted. Returns presented are net of fees, peer group rankings are on a gross of fee basis.

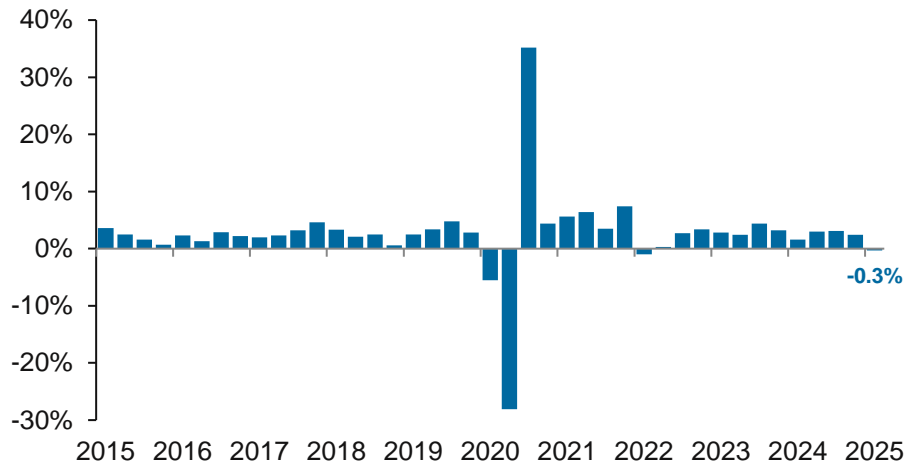
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Economic & Market Overview

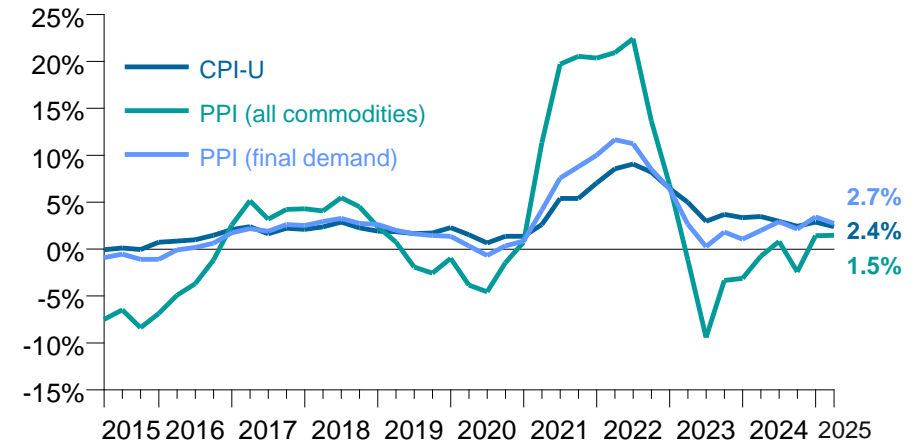
U.S. Economy—Summary

For periods ended 3/31/25

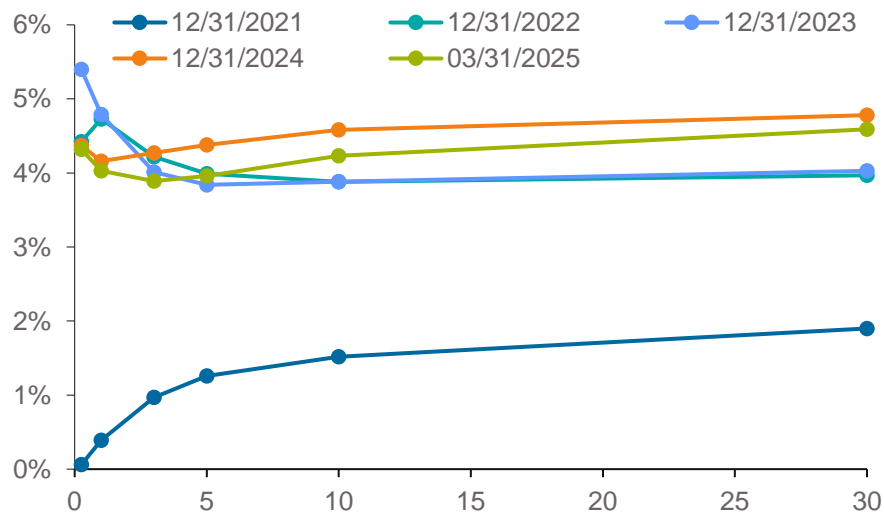
Quarterly Real GDP Growth



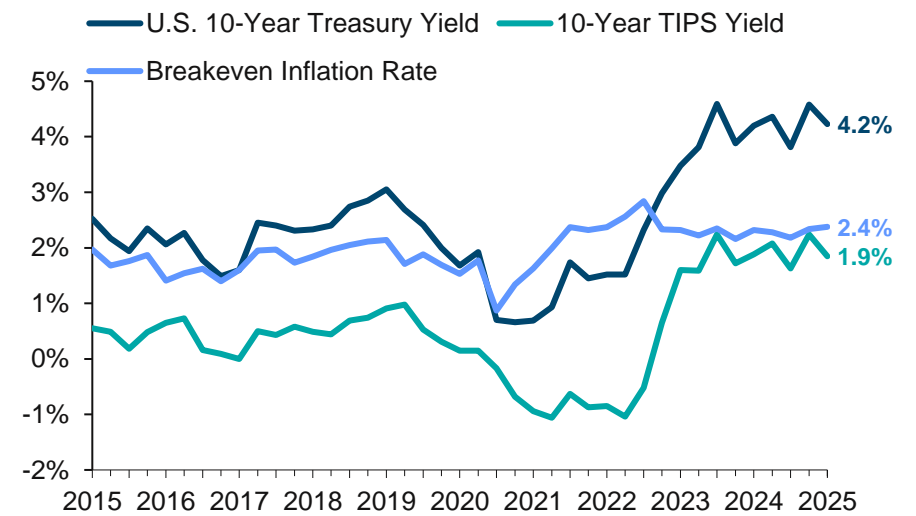
Inflation Year-Over-Year



U.S. Treasury Yield Curves



Historical 10-Year Yields



Sources: Bureau of Labor Statistics, Callan, Federal Reserve

U.S. Equity Markets Down Sharply in 1Q25

Non-U.S. markets are up for 1Q, showing diversification

S&P 500 fell 4.3% in 1Q25

- U.S. small cap fell further by 9.5% as markets were spooked by tariff policy uncertainty: timing, size, countries, sectors.

Stronger 1Q for core fixed income

- The Bloomberg Aggregate rose 2.8%. Long duration saw an even greater increase in a nascent flight to quality.
- Interest rates remain volatile as the markets assess how the Fed will continue with easing.
- CPI-U came in at 2.4% (year-over-year) through March, down 50 bps from 4Q, although the core figure rose 3.8%. Energy pulled down the total headline number.

Solid economic growth in 2024

- The job market expanded and real incomes grew. 4Q GDP came in at 2.4%, and 2.8% for the year, but fell 0.3% in 1Q25.

Returns for Periods ended 3/31/25

	Quarter	1 Year	3 Years	5 Years	10 Years	25 Years
U.S. Equity						
Russell 3000	-4.72	7.22	8.22	18.18	11.80	7.44
S&P 500	-4.27	8.25	9.06	18.59	12.50	7.41
Russell 2000	-9.48	-4.01	0.52	13.27	6.30	6.83
Global ex-U.S. Equity						
MSCI World ex USA	6.20	5.30	5.70	12.16	5.50	4.01
MSCI Emerging Markets	2.93	8.09	1.44	7.94	3.71	--
MSCI ACWI ex USA Small Cap	0.64	1.87	0.99	11.84	5.32	6.09
Fixed Income						
Bloomberg Aggregate	2.78	4.88	0.52	-0.40	1.46	3.96
90-day T-Bill	1.02	4.97	4.23	2.56	1.87	1.90
Bloomberg Long Gov/Credit	3.57	1.72	-4.51	-3.74	1.01	5.28
Bloomberg Global Agg ex-US	2.53	1.46	-3.47	-2.35	-0.18	2.62
Real Estate						
NCREIF Property Index	1.28	2.72	-2.11	3.25	5.42	7.54
FTSE Nareit Equity	0.91	9.94	-0.61	11.34	5.33	9.78
Alternatives						
Cambridge Private Equity*	2.68	7.93	2.75	14.27	13.40	12.39
Cambridge Senior Debt*	3.35	10.18	7.08	7.89	7.31	4.59
HFRI Fund Weighted	-0.49	4.57	4.56	9.53	4.97	5.23
Bloomberg Commodity	8.88	12.28	-0.77	14.51	2.77	2.17
Gold Spot Price	19.28	40.74	17.26	14.56	10.29	10.14
Inflation: CPI-U	1.33	2.39	3.61	4.38	3.08	2.53

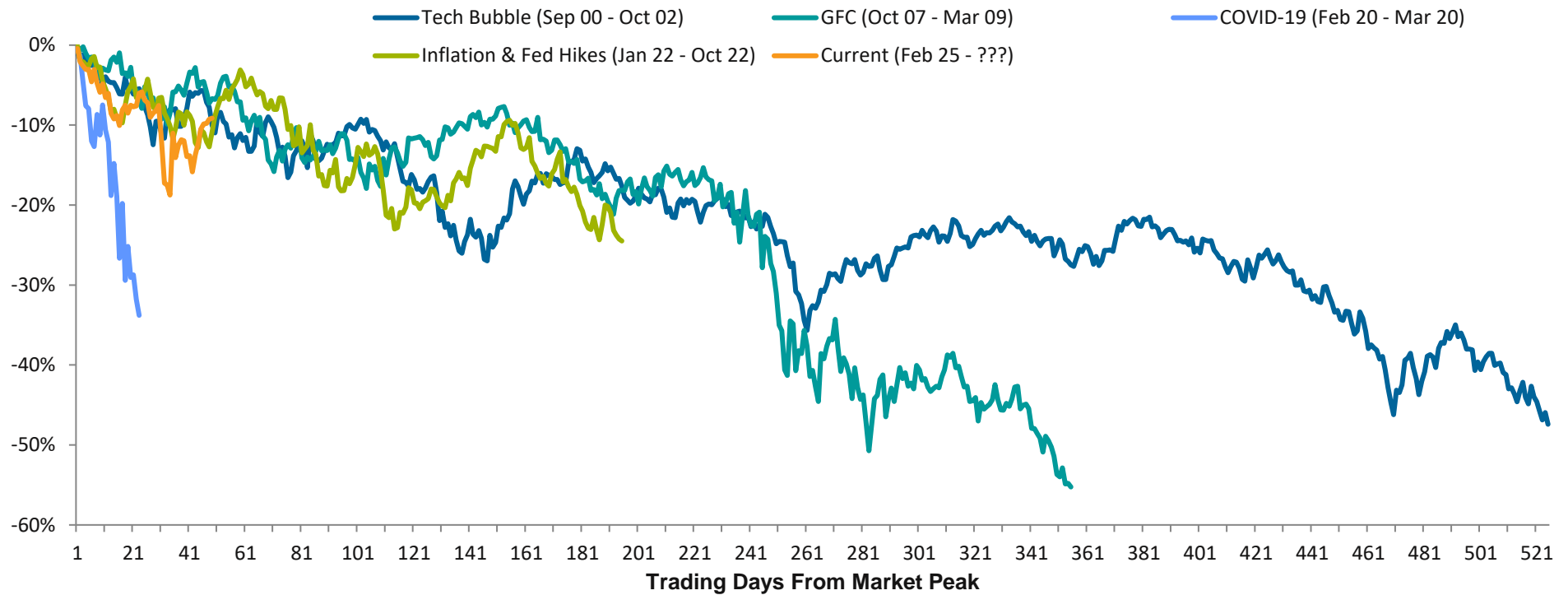
*Cambridge Private Equity and Cambridge Senior Debt data as of 9/30/24. Returns greater than one year are annualized.

Sources: Bloomberg, Callan, Cambridge, FTSE Russell, HFRI, MSCI, NCREIF, S&P Dow Jones Indices

Current Market Correction in Context

S&P 500 Cumulative Returns

Market Peak-to-Trough for Recent Corrections vs. 2/20/25 Through 4/30/25



The current market correction has been swift relative to other corrections over the last 25 years.

- Only the COVID-19 crash was faster and more severe.

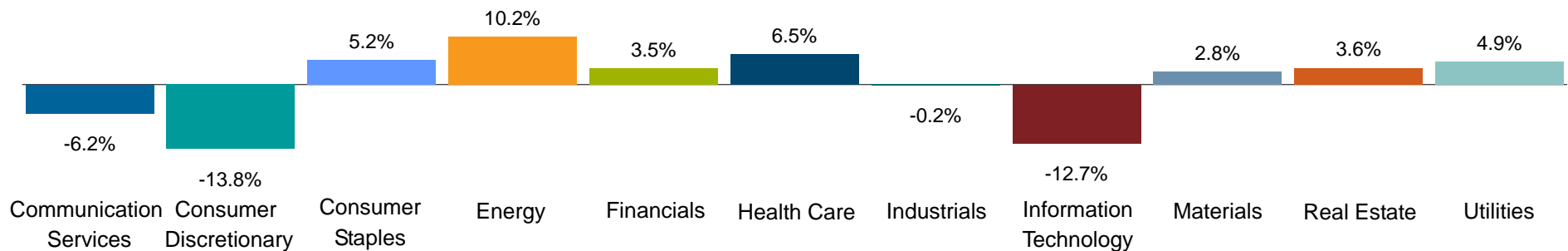
Sources: Callan, S&P Dow Jones Indices

U.S. Equity Performance: 1Q25

Choppy start to the new year

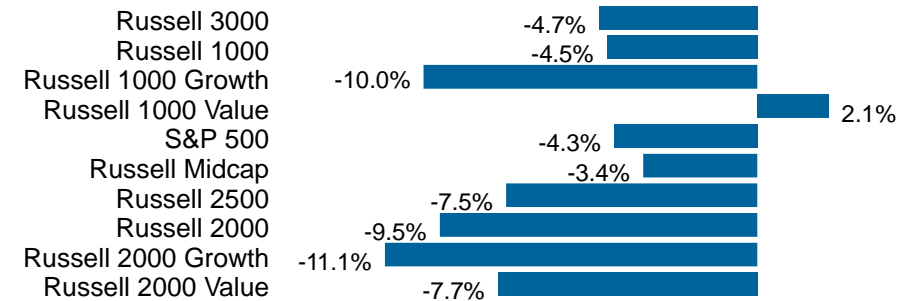
- The U.S. equity market gave back some of its 2024 gains in 1Q25. The S&P 500 Index fell by 4.3%, partially driven by escalating trade tensions and the potential negative impact from the emergence of China-based AI company DeepSeek as a rival to U.S.-based AI leaders.
- Mega-cap growth stocks, particularly the Magnificent 7, lagged the broad index. Market leadership broadened out during the quarter.
- From a sector perspective, Consumer Discretionary and Technology were the two worst-performing sectors, while Energy and Health Care performed the best.
- During 1Q, mid cap stocks performed the best followed by large cap stocks. Small cap stocks continue to underperform as elevated interest rates and fear of tariffs weighed on smaller, more leveraged business models.
- Value outperformed growth across the market cap spectrum, reversing the long-term trend of growth outperformance.

Industry Sector Quarterly Performance (S&P 500) as of 3/31/25

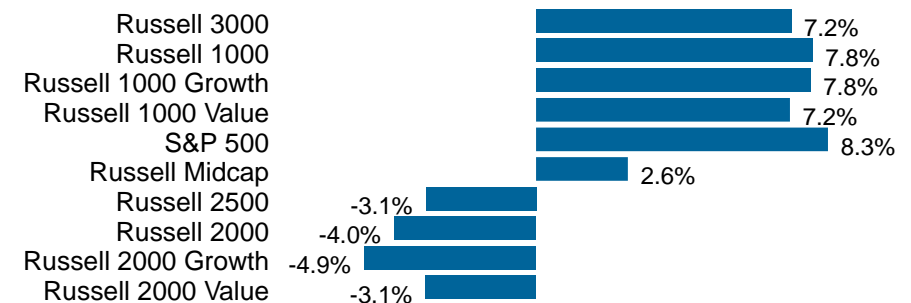


Sources: FTSE Russell, S&P Dow Jones Indices

U.S. Equity: Quarter Ended 3/31/25



U.S. Equity: One Year Ended 3/31/25



U.S. Equity Overview

Market leadership has changed as volatility spiked

Magnificent 7 Stocks Have Underperformed the Rest of the S&P 500 (as of April 9, 2025)

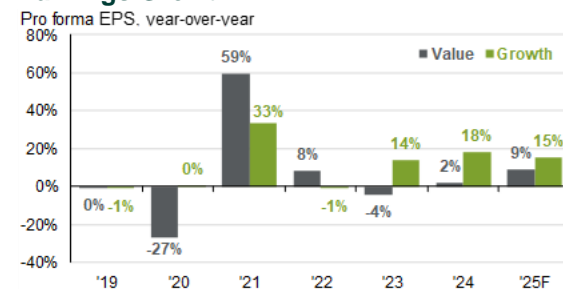


Relative Forward P/E Ratio of Value vs. Growth Stocks

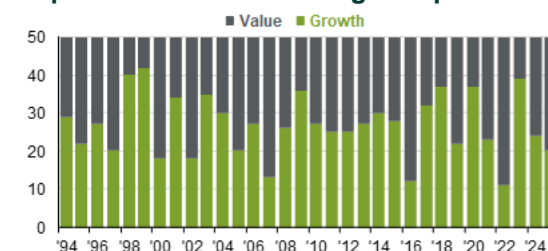
Value vs. Growth Relative Valuations



Earnings Growth



Top 50 S&P 500 Performing Companies



- Magnificent 7 stock dominance has waned. The S&P 500 ex-Mag 7 posted a slightly positive price return in 1Q25. The Magnificent 7 cohort was down over 14% over the same period.
- Given the macroeconomic uncertainty, volatility has spiked to levels last seen in the early months of the global pandemic.
- Investors were focused on tariff impacts as some of the better-performing sectors (e.g. Financials, Health Care, and Utilities) are more insulated.
- Factors that performed well during the quarter include return on equity, dividend yield, and low beta.
- Despite the recent value outperformance, value stocks remains cheap versus growth stocks based on forward P/E ratios.

Sources: Factset, J.P. Morgan, Westfield Capital

Global/Global ex-U.S. Equity Performance: 1Q25

Non-U.S. markets in sharp reversal

Broad market

- Following a challenging 4Q24, global equity markets rebounded, with broad indices posting their best one-quarter period compared to the S&P 500 in a decade.

Emerging markets

- Emerging markets ended the quarter in positive territory, although trailing their developed market peers.
- India, which accounted for nearly 20% of the index, had another negative quarter.
- China, which struggled in 4Q, saw strong gains and ended with the highest trailing 12-month return in five years.

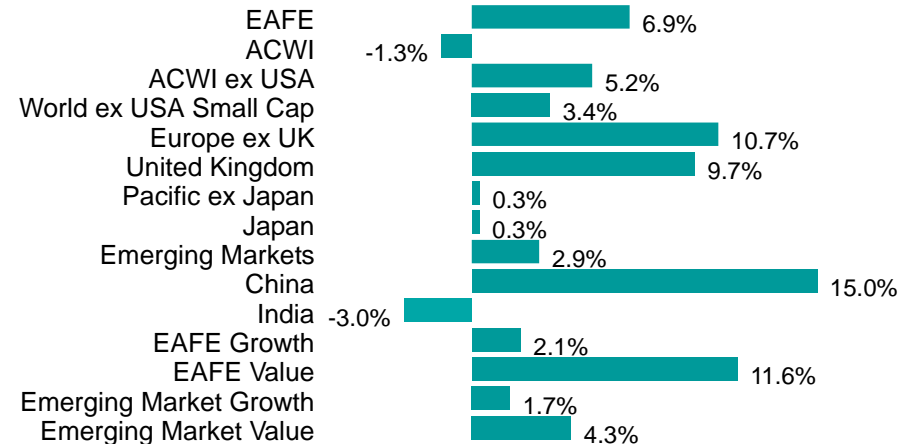
Growth vs. value

- Value was the decisive winner in both emerging and developed markets. This had multiple causes, including European stimulus, higher expected interest rates, and persistent inflation driving investors to defensive, dividend-paying stocks.

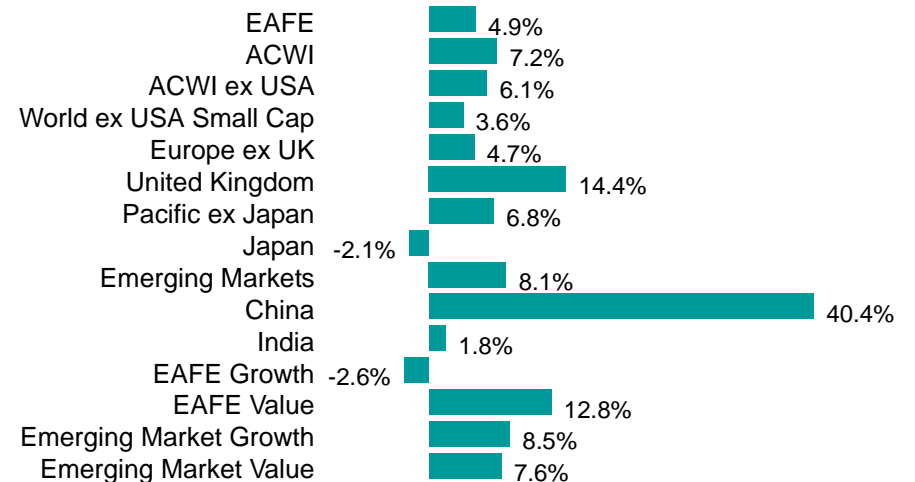
U.S. dollar

- The U.S. dollar experienced a significant decline, dropping 4% relative to a broad basket of developed currencies, which provided additional support to developed ex-U.S. markets but was less supportive in emerging markets.

Global Equity Returns: Quarter Ended 3/31/25



Global Equity Returns: One Year Ended 3/31/25



Source: MSCI

U.S. Fixed Income Performance: 1Q25

Rates and spreads held steady ahead of escalating policy uncertainties from the White House

Macro environment

- U.S. interest rates and corporate credit spreads held steady for most of the quarter until policy signals from the Trump administration—including deficit reduction and tariff rumors—prompted investors to reprice risk assets.
- In March, the Fed kept rates unchanged despite rising volatility from softer economic data and White House uncertainty, while other major central banks shifted to a more accommodative stance.

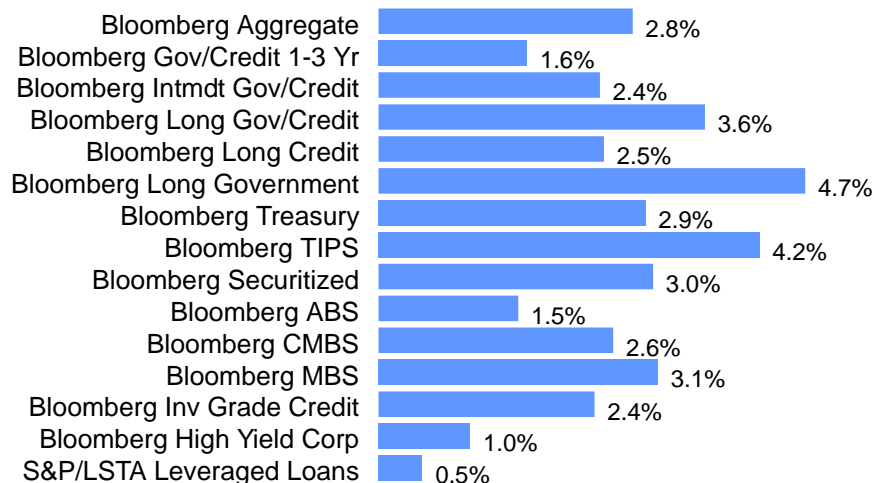
Performance and drivers

- The Bloomberg US Aggregate Bond Index rose 2.8% as falling rates drove gains, making it the top contributor to the quarter's positive returns. Although investors demanded higher premiums for credit risk, these concerns did not offset overall gains.
- Nonetheless, credit spreads across public markets generally widened in March.

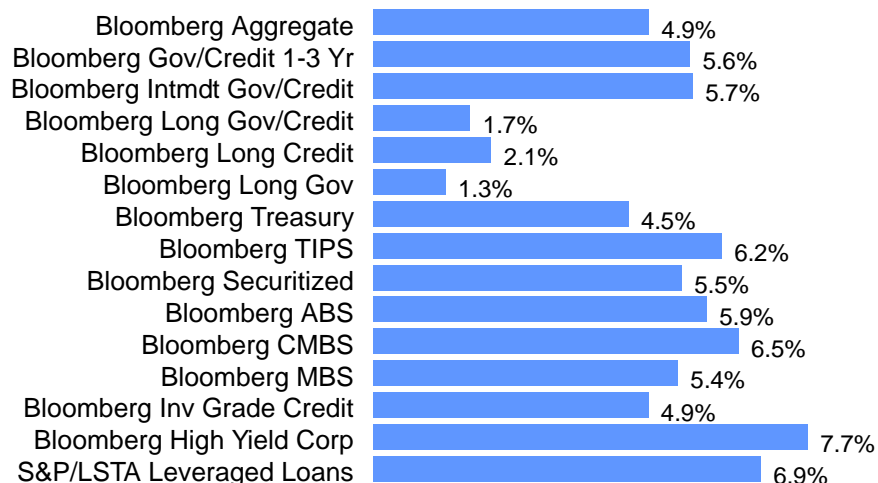
Valuations

- Corporate credit spreads across both investment grade and leveraged finance were “priced to perfection” before the new administration induced uncertainties that caused spreads to widen.
- New issuance across IG and HY were also on pace to match 2024 YTD supply, but issuers delayed offerings as demand softened.

U.S. Fixed Income Returns: Quarter Ended 3/31/25



U.S. Fixed Income Returns: One Year Ended 3/31/25



Sources: Bloomberg, Callan, J.P. Morgan, S&P Dow Jones Indices, U.S. Treasury

U.S. Private Real Estate Performance: 1Q25

Sector appreciation turns positive, outside of Office and Hotel

Valuations reflect higher interest rates

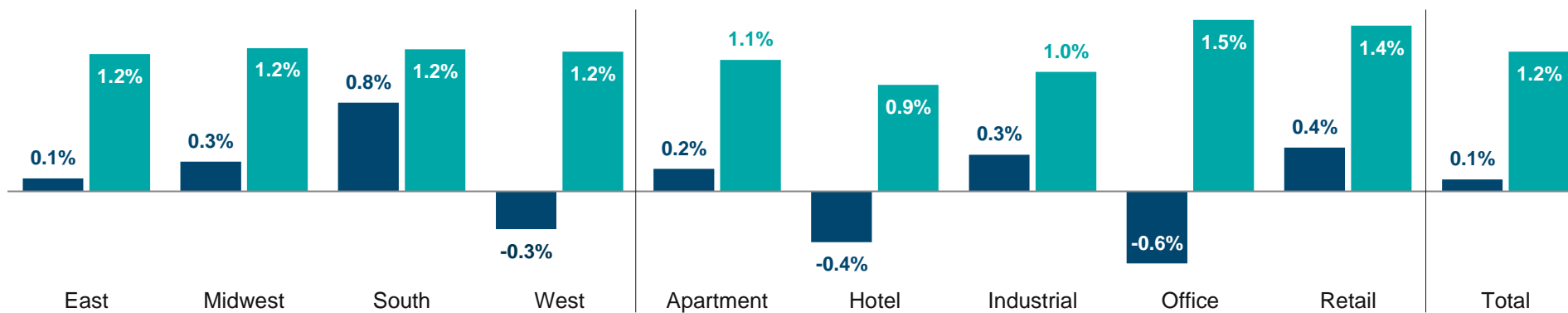
- Valuations appear to have bottomed and now reflect higher borrowing costs.
- Income returns were positive across sectors and regions.
- Property sectors were mixed; Office and Hotel experienced negative appreciation, and the remaining sectors had positive appreciation.
- West region underperformance was driven by repricing of competitively priced industrial in Southern California.
- Return dispersion by manager within the ODCE Index was due to the composition of underlying portfolios.

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
NCREIF ODCE	0.9%	1.2%	-5.1%	2.0%	4.7%
Income	0.8%	3.3%	2.9%	2.9%	3.2%
Appreciation	0.1%	-2.1%	-7.8%	-0.9%	1.5%
NCREIF Property Index	1.3%	2.7%	-2.1%	3.2%	5.4%
Income	1.2%	4.8%	4.4%	4.3%	4.5%
Appreciation	0.1%	-2.0%	-6.3%	-1.0%	0.9%

Returns are geometrically linked

NCREIF Property Index Quarterly Returns by Region and Property Type

■ Appreciation ■ Income



Source: NCREIF; ODCE return is net

Callan Periodic Table of Investment Returns

Annual returns for key indices ranked in order of performance (2016 - 1Q2025)

2016	2017	2018	2019	2020	2021	2022	2023	2024	1 Qtr. 2025
Small Cap	Emerging Markets	Real Estate Funds	Large Cap	Small Cap	Large Cap	Real Estate Funds	Large Cap	Large Cap	Dev ex-U.S. Equity
21.31%	37.28%	7.36%	31.49%	19.96%	28.71%	6.55%	26.29%	25.02%	6.20%
High Yield	Dev ex-U.S. Equity	Cash Equivalent	Small Cap	Large Cap	Real Estate Funds	Cash Equivalent	Dev ex-U.S. Equity	Small Cap	Emerging Markets
17.13%	24.21%	1.87%	25.52%	18.40%	21.02%	1.46%	17.94%	11.54%	2.93%
Large Cap	Large Cap	U.S. Fixed	Dev ex-U.S. Equity	Emerging Markets	Small Cap	Hedge Funds	Small Cap	Hedge Funds	U.S. Fixed
11.96%	21.83%	0.01%	22.49%	18.31%	14.82%	-4.14%	16.93%	9.75%	2.78%
Emerging Markets	Small Cap	High Yield	Emerging Markets	Hedge Funds	Dev ex-U.S. Equity	High Yield	High Yield	High Yield	Global ex-U.S. Fixed
11.19%	14.65%	-2.08%	18.44%	11.83%	12.62%	-11.19%	13.44%	8.19%	2.53%
Real Estate Funds	Global ex-U.S. Fixed	Global ex-U.S. Fixed	High Yield	Global ex-U.S. Fixed	Hedge Funds	U.S. Fixed	Emerging Markets	Emerging Markets	Cash Equivalent
7.79%	10.51%	-2.15%	14.32%	10.11%	10.16%	-13.01%	9.83%	7.50%	1.02%
Hedge Funds	Hedge Funds	Large Cap	Hedge Funds	Dev ex-U.S. Equity	High Yield	Dev ex-U.S. Equity	Hedge Funds	Cash Equivalent	High Yield
5.44%	8.59%	-4.38%	10.45%	7.59%	5.28%	-14.29%	8.12%	5.25%	1.00%
Dev ex-U.S. Equity	High Yield	Hedge Funds	U.S. Fixed	U.S. Fixed	Cash Equivalent	Large Cap	Global ex-U.S. Fixed	Dev ex-U.S. Equity	Real Estate Funds
2.75%	7.50%	-4.75%	8.72%	7.51%	0.05%	-18.11%	5.72%	4.70%	0.85%
U.S. Fixed	Real Estate Funds	Small Cap	Global ex-U.S. Fixed	High Yield	U.S. Fixed	Global ex-U.S. Fixed	U.S. Fixed	U.S. Fixed	Hedge Funds
2.65%	6.66%	-11.01%	5.09%	7.11%	-1.54%	-18.70%	5.53%	1.25%	-0.42%
Global ex-U.S. Fixed	U.S. Fixed	Dev ex-U.S. Equity	Real Estate Funds	Cash Equivalent	Emerging Markets	Emerging Markets	Cash Equivalent	Real Estate Funds	Large Cap
1.49%	3.54%	-14.09%	4.39%	0.67%	-2.54%	-20.09%	5.01%	-2.27%	-4.27%
Cash Equivalent	Cash Equivalent	Emerging Markets	Cash Equivalent	Real Estate Funds	Global ex-U.S. Fixed	Small Cap	Real Estate Funds	Global ex-U.S. Fixed	Small Cap
0.33%	0.86%	-14.57%	2.28%	0.34%	-7.05%	-20.44%	-12.73%	-4.22%	-9.48%

● Bloomberg Corp High Yield
 ● Bloomberg Global Aggregate ex US
 ● Bloomberg US Aggregate
 ● HFRI Fund Weighted
 ● ICE BofAML US 3-Month Treasury Bill
 ● MSCI Emerging Markets
 ● MSCI World ex USA
 ● NFI-ODCE (value-weighted net)
 ● Russell 2000
 ● S&P 500

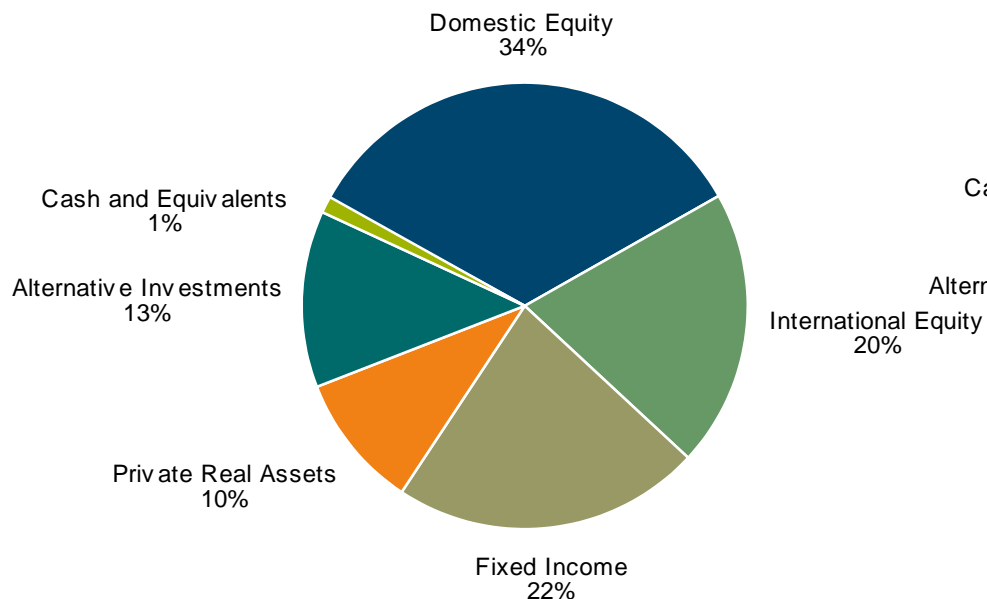
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Total Fund

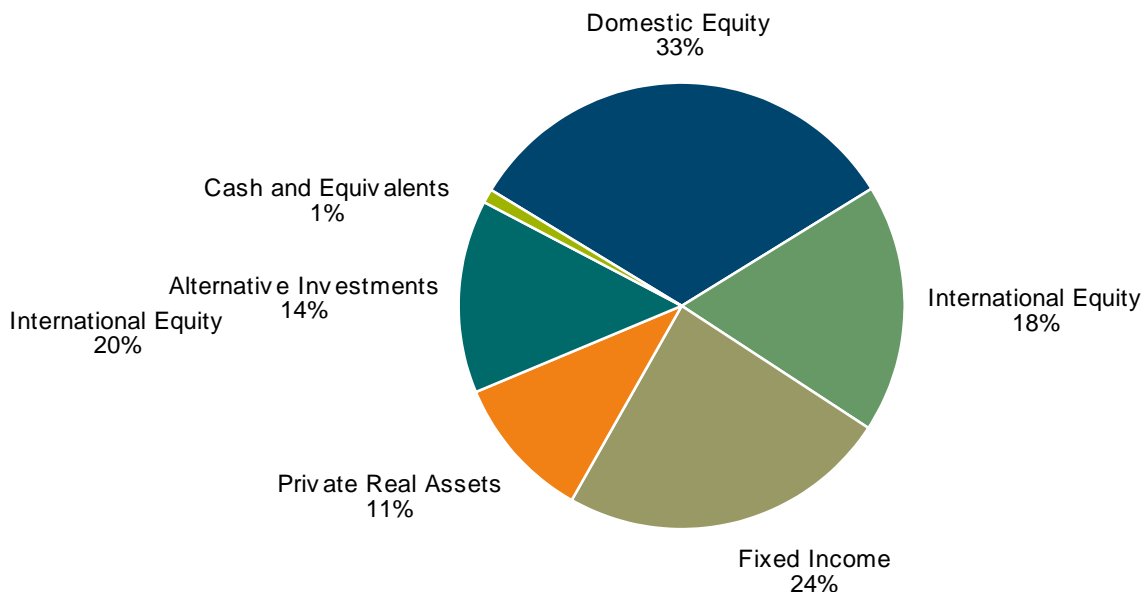
Target Asset Allocation

March 31, 2025

Actual Asset Allocation



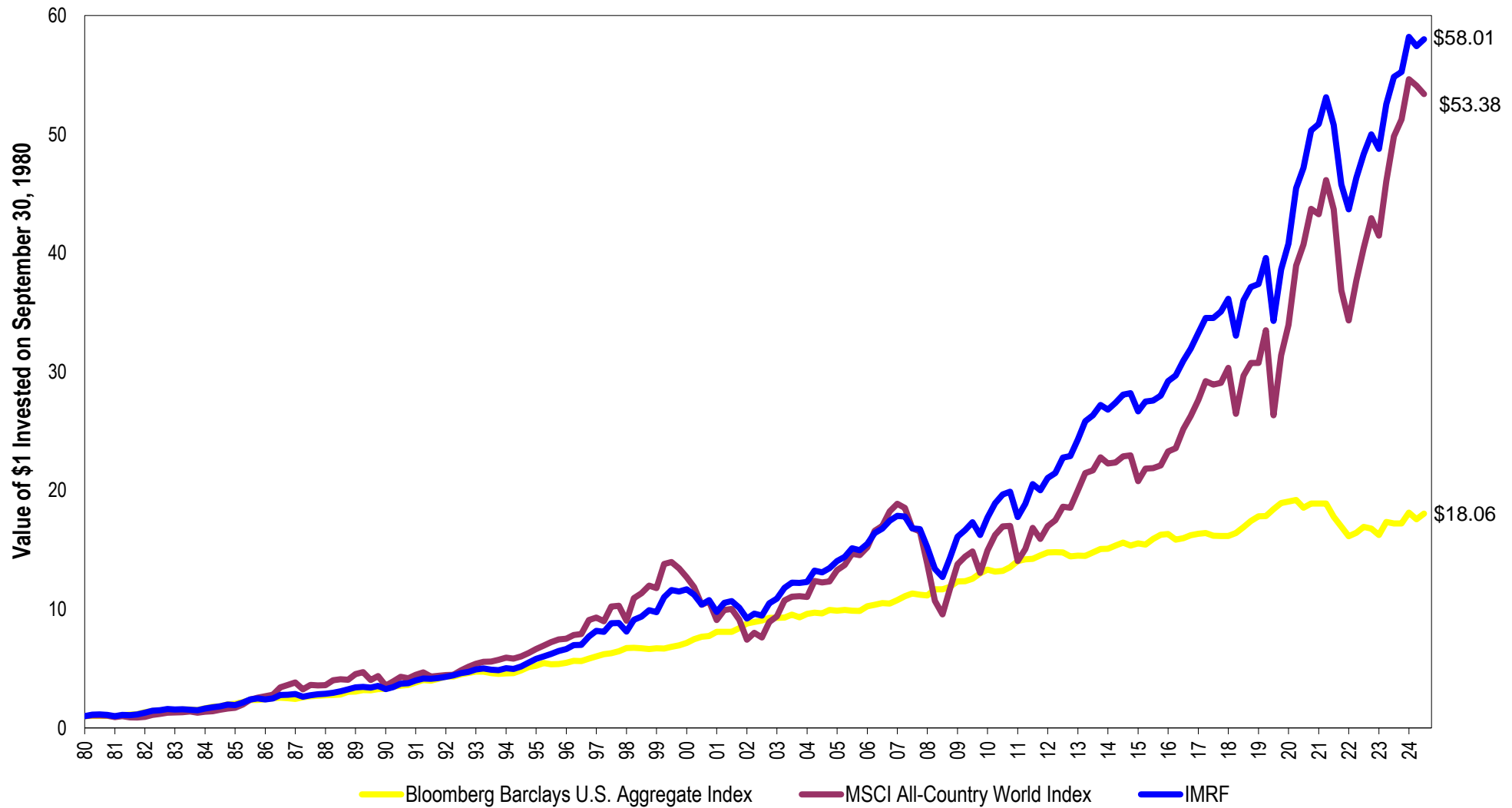
Target Asset Allocation



Asset Class	\$Millions Actual	Weight Actual	Target	Percent Difference	\$Millions Difference
Domestic Equity	18,652	33.8%	32.5%	1.3%	718
International Equity	11,068	20.1%	18.0%	2.1%	1,135
Fixed Income	12,337	22.4%	24.0%	(1.6%)	(907)
Private Real Assets	5,409	9.8%	10.5%	(0.7%)	(385)
Alternative Investments	7,079	12.8%	14.0%	(1.2%)	(647)
Cash and Equivalents	638	1.2%	1.0%	0.2%	86
Total	55,183	100.0%	100.0%		

Total Fund Growth of a Dollar

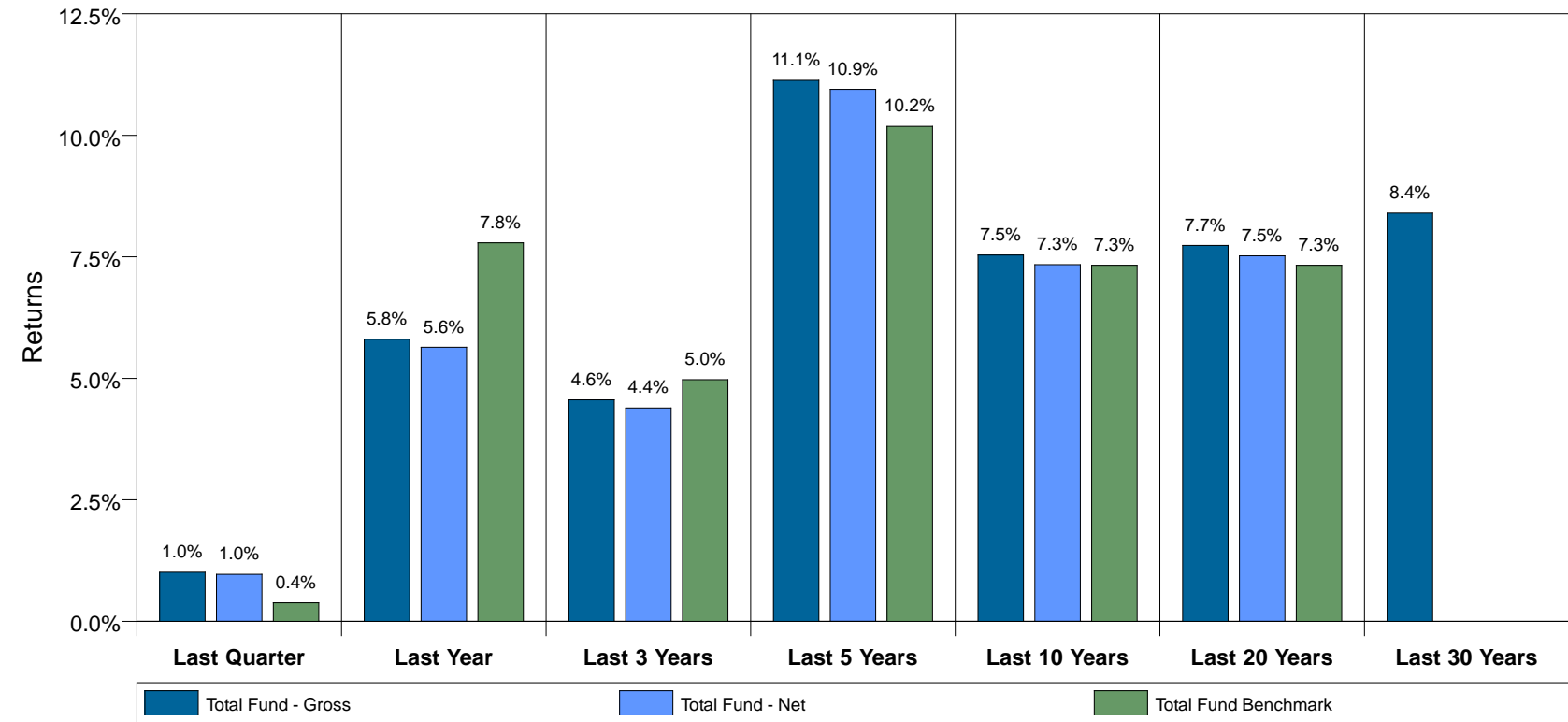
Growth of a Dollar - As of March 31, 2025



Total Fund Return

March 31, 2025

Returns for Periods Ended March 31, 2025

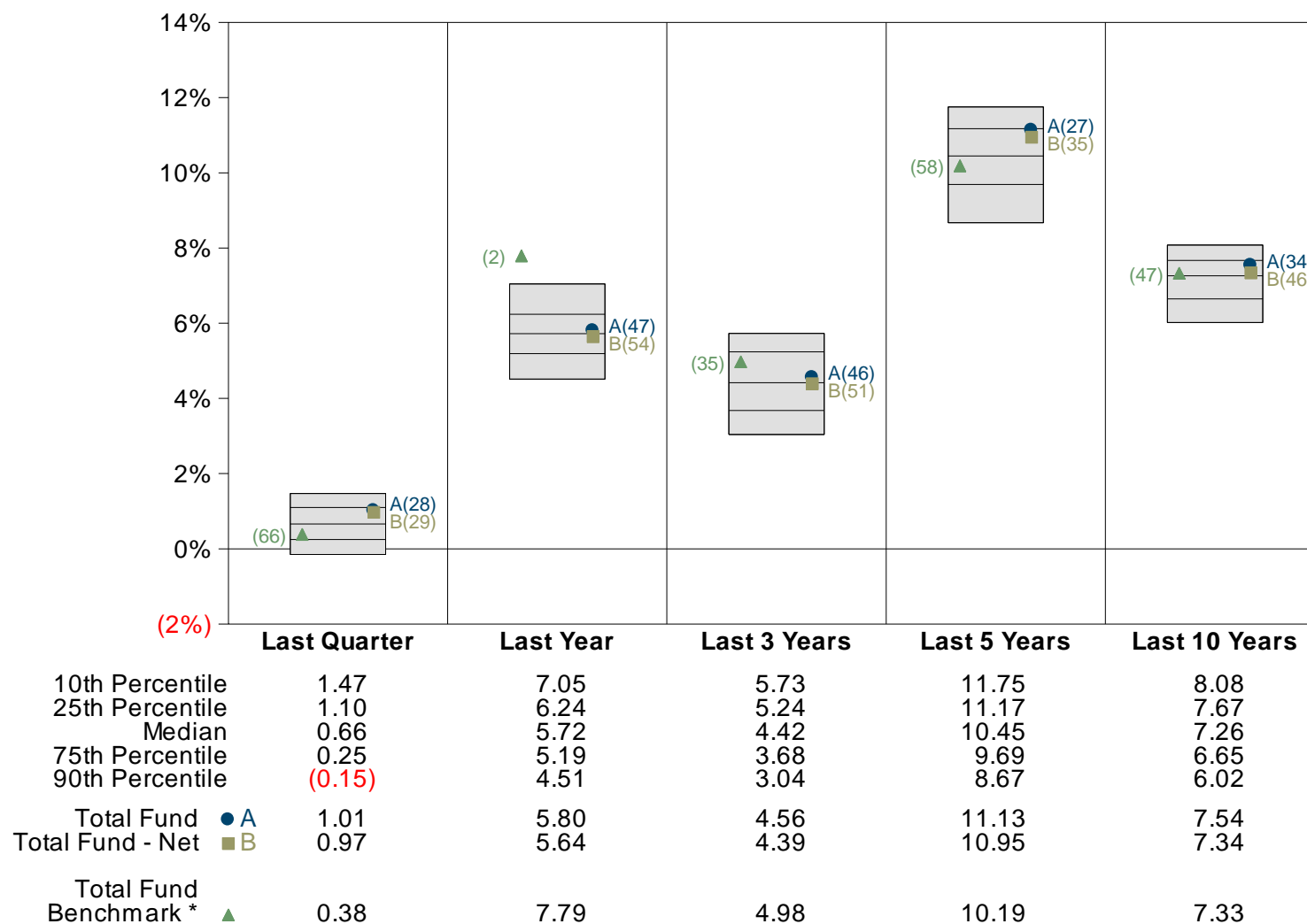


Benchmark detail is included in the Appendix.

Total Fund Return and Rank

March 31, 2025

Performance vs Callan Public Fund Spons - Large (>1B) (Gross)

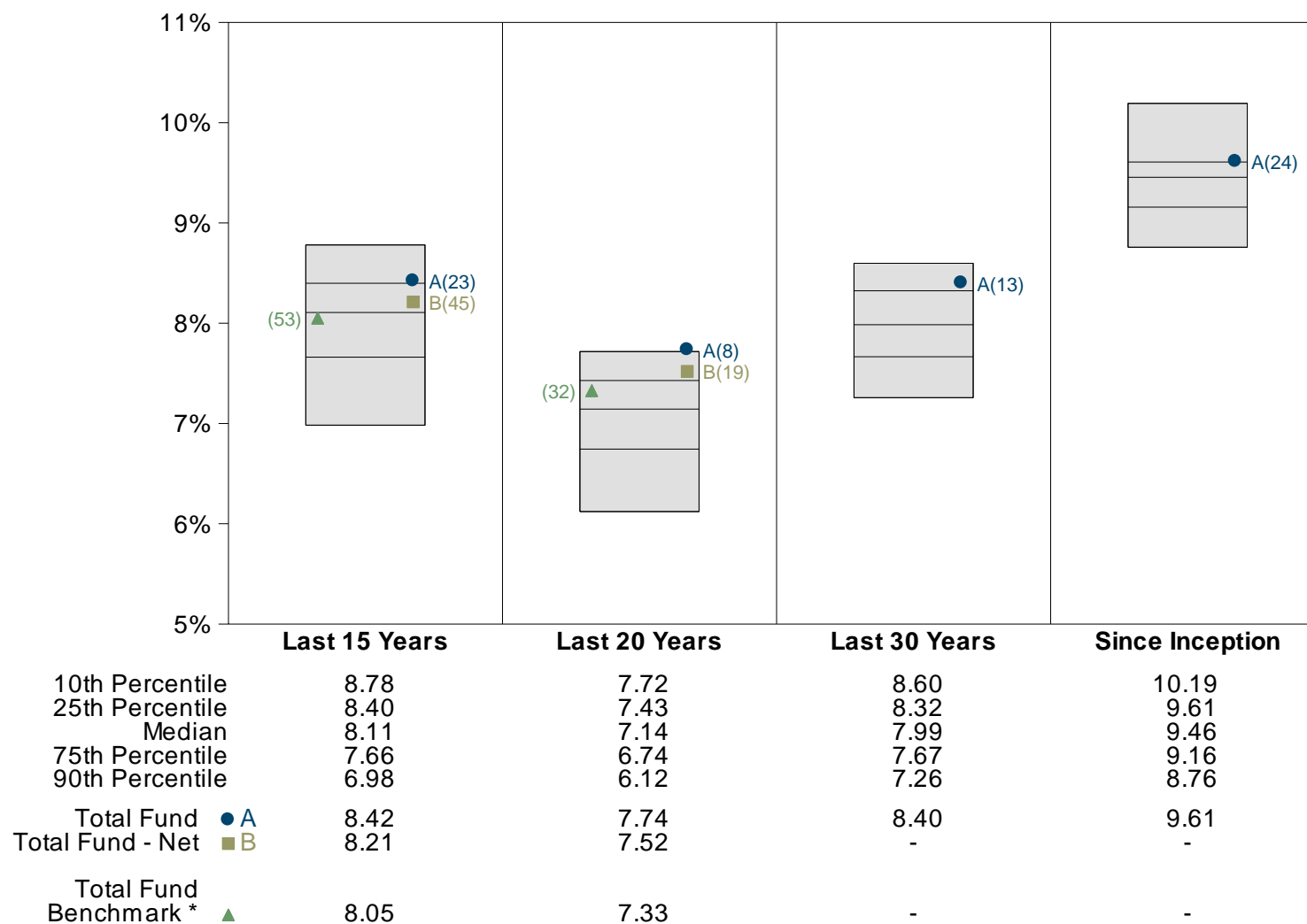


* Benchmark detail is included in the Appendix.

Total Fund Return and Rank

March 31, 2025

Performance vs Callan Public Fund Spons - Large (>1B) (Gross)



* Benchmark detail is included in the Appendix.

Total Fund Absolute Return Attribution – Last Quarter

March 31, 2025

Relative Attribution Effects for Quarter ended March 31, 2025

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return			
Domestic Equity	36%	33%	(3.76%)	(4.06%)	0.12%	(0.11%)	0.01%			
International Equity	20%	18%	5.51%	5.23%	0.05%	0.08%	0.13%			
Fixed Income	22%	24%	2.49%	2.44%	0.01%	(0.06%)	(0.05%)			
Private Real Assets	10%	10%	0.11%	0.92%	(0.08%)	(0.01%)	(0.09%)			
Alternative Investments	12%	13%	5.59%	0.75%	0.58%	(0.00%)	0.58%			
Cash and Equivalents	0%	1%	0.99%	1.02%	(0.00%)	(0.00%)	(0.00%)			
Total			0.97%	=	0.38%	+	0.69%	+	(0.10%)	0.59%

- + Total Fund outperformed the Policy Target by 59 basis points over the past 3 months.
- + Manager Performance: 69 bps
 - + Domestic Equity, International Equity, Fixed Income, and Alternative Investments outperformed
 - Private Real Assets underperformed.
- Allocation Impacts: -10 bps
 - + Overweight International Equity
 - Overweight Domestic Equity
 - Underweight Fixed Income and Private Real Assets

Returns are net of fees.

Total Fund Absolute Return Attribution – Last Year

March 31, 2025

Relative Attribution Effects for One Year ended March 31, 2025

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	36%	34%	4.44%	7.68%	(1.19%)	(0.06%)	(1.25%)
International Equity	20%	18%	6.31%	6.09%	0.04%	(0.04%)	(0.00%)
Fixed Income	22%	24%	5.47%	5.37%	0.02%	0.05%	0.07%
Private Real Assets	9%	10%	1.42%	1.43%	(0.01%)	0.06%	0.05%
Alternative Investments	12%	12%	10.98%	20.65%	(1.01%)	(0.02%)	(1.03%)
Cash and Equivalents	1%	1%	4.85%	4.97%	(0.00%)	0.02%	0.01%
Total			5.64%	= 7.79%	+ (2.14%)	+ (0.01%)	(2.15%)

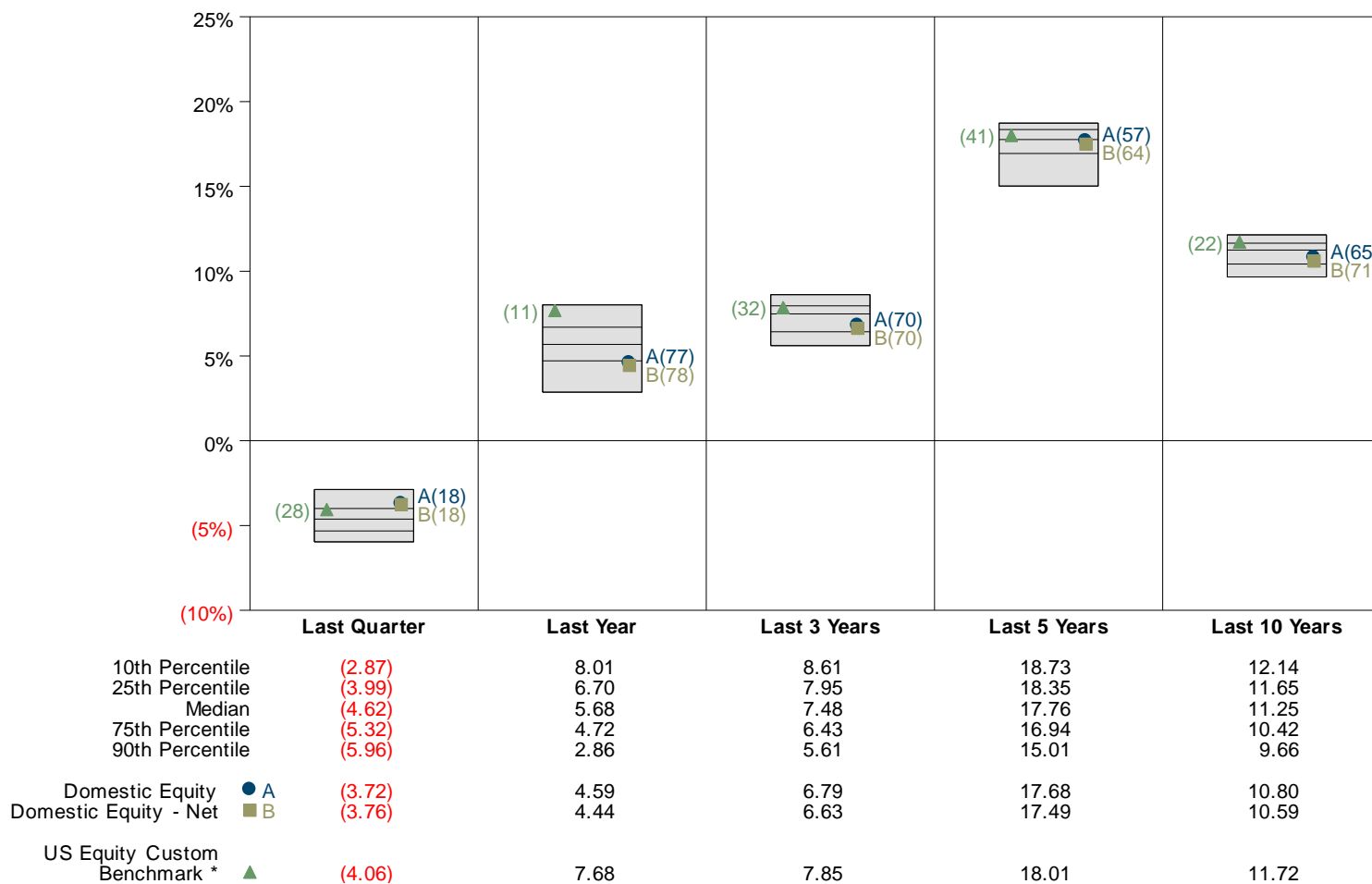
- Total Fund underperformed the Policy Target by 215 basis points over the past 12 months.
- Manager Performance: - 214 bps
 - + Fixed Income and International Equity outperformed.
 - Domestic Equity, Private Real Assets, and Alternative Investments underperformed.
- Allocation Impacts: -1 bp
 - + Underweight Fixed Income, Private Real Assets, and Cash
 - Overweight Domestic Equity and International Equity
 - Underweight Alternative Investments

Returns are net of fees.

Domestic Equity – Returns and Rankings

March 31, 2025

Performance vs Public Fund - Domestic Equity (Gross)

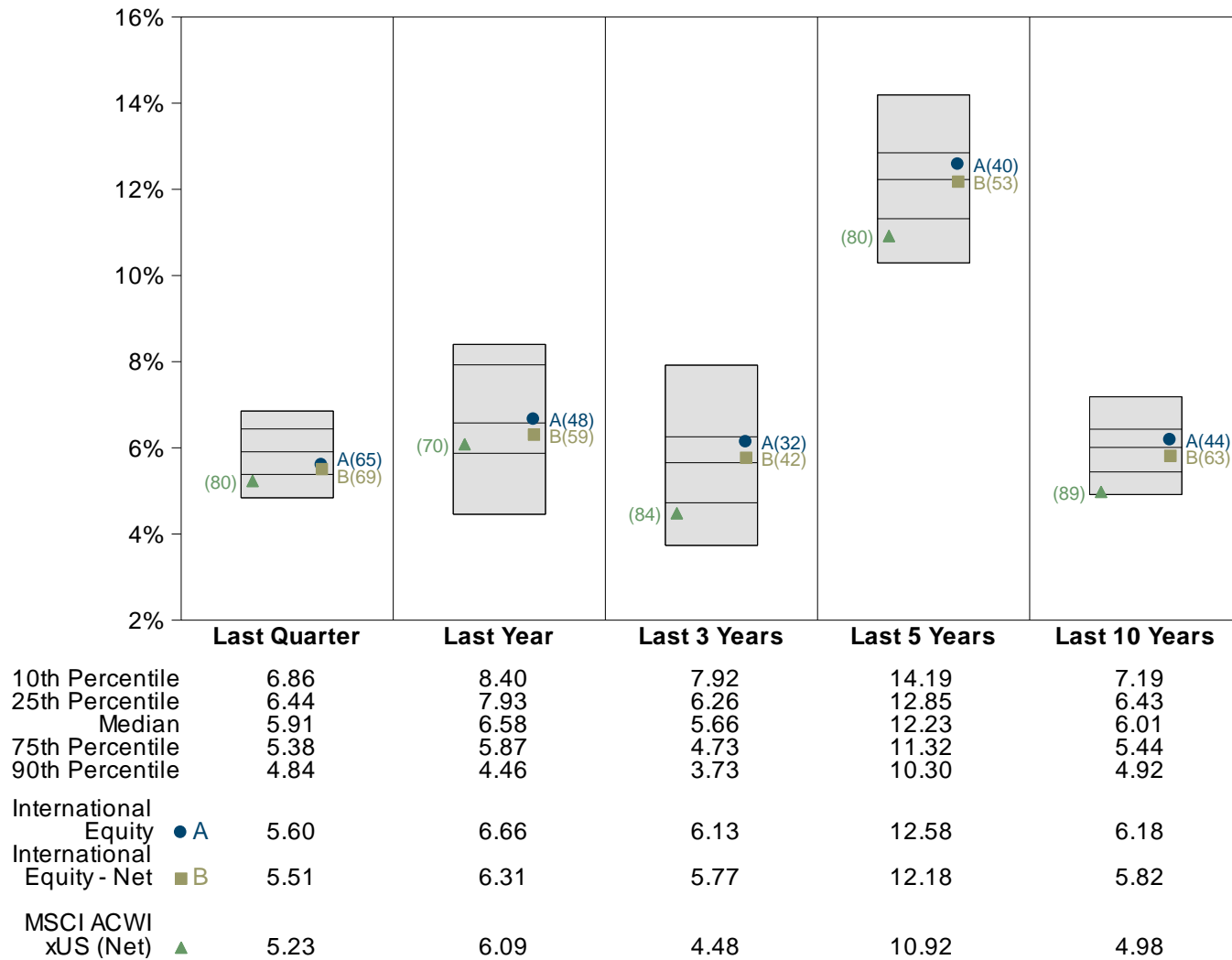


*The Blended Benchmark is currently Russell 3000 Index. Returns prior to January 1, 2015 reflect those of the Dow Jones U.S. Total Stock Market Index.

International Equity – Returns and Rankings

March 31, 2025

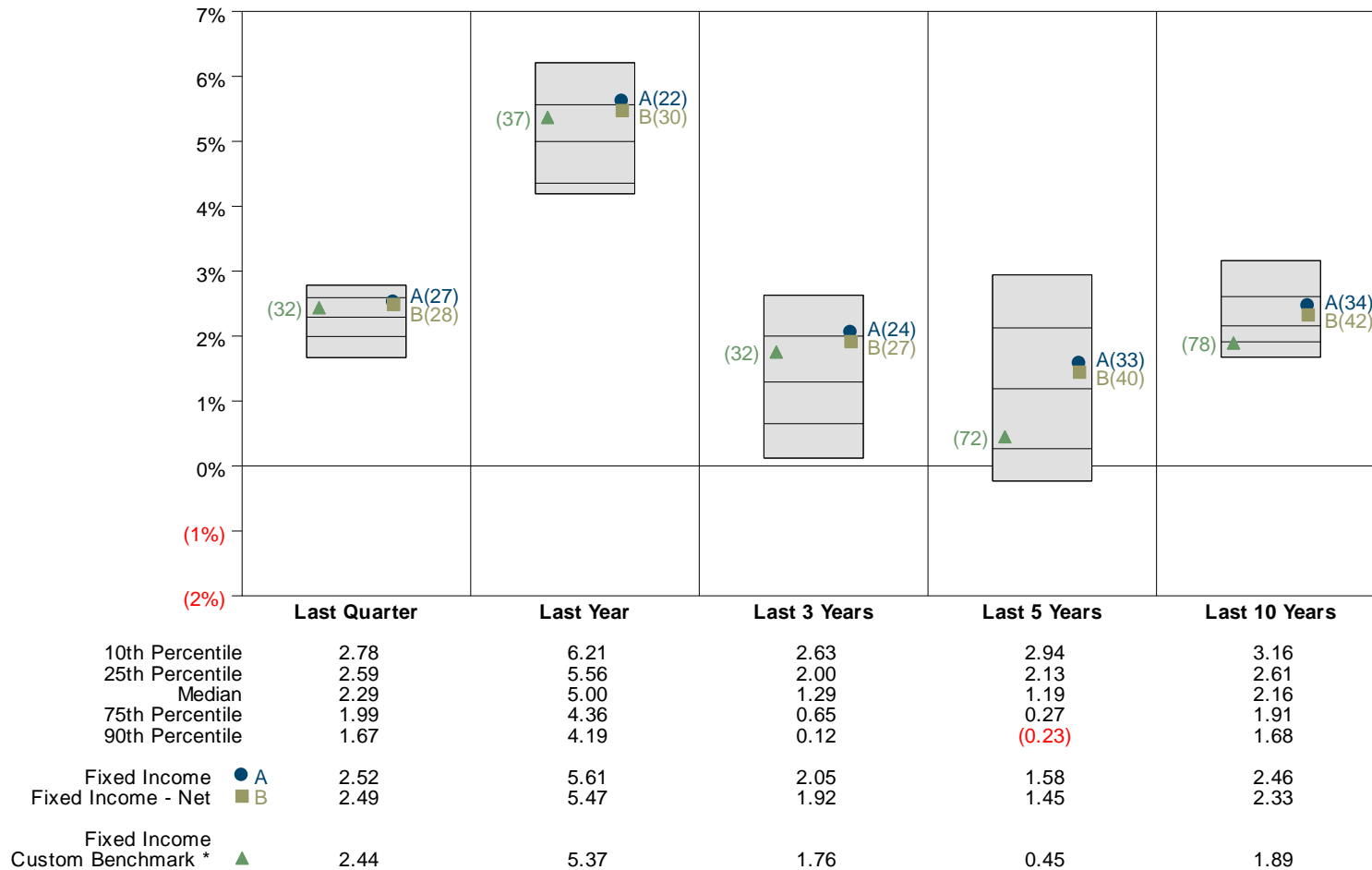
Performance vs Public Fund - International Equity (Gross)



Fixed Income – Returns and Rankings

March 31, 2025

Performance vs Public Fund - Domestic Fixed (Gross)

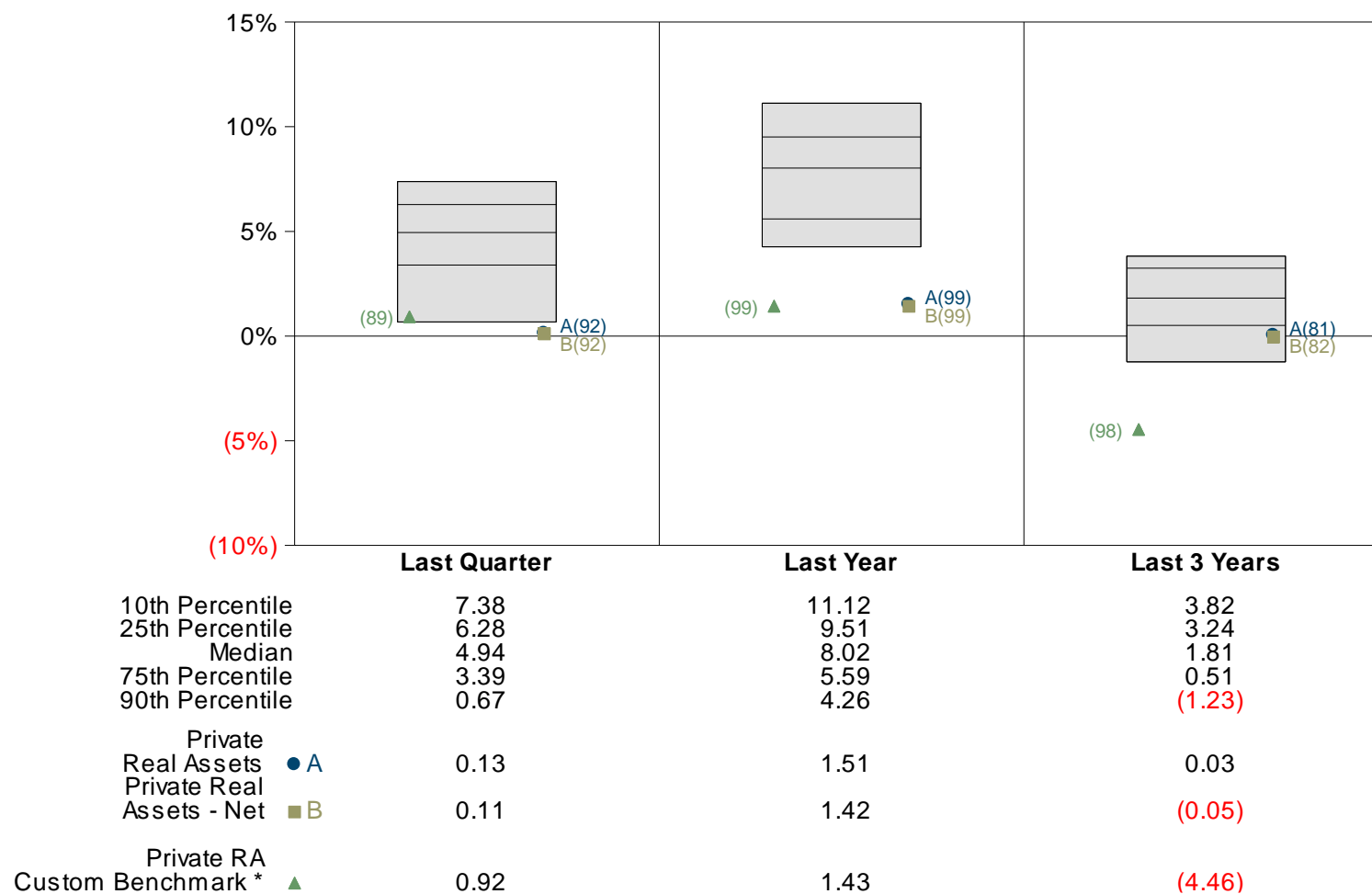


Benchmark detail is included in the Appendix.

Private Real Assets – Returns and Rankings

March 31, 2025

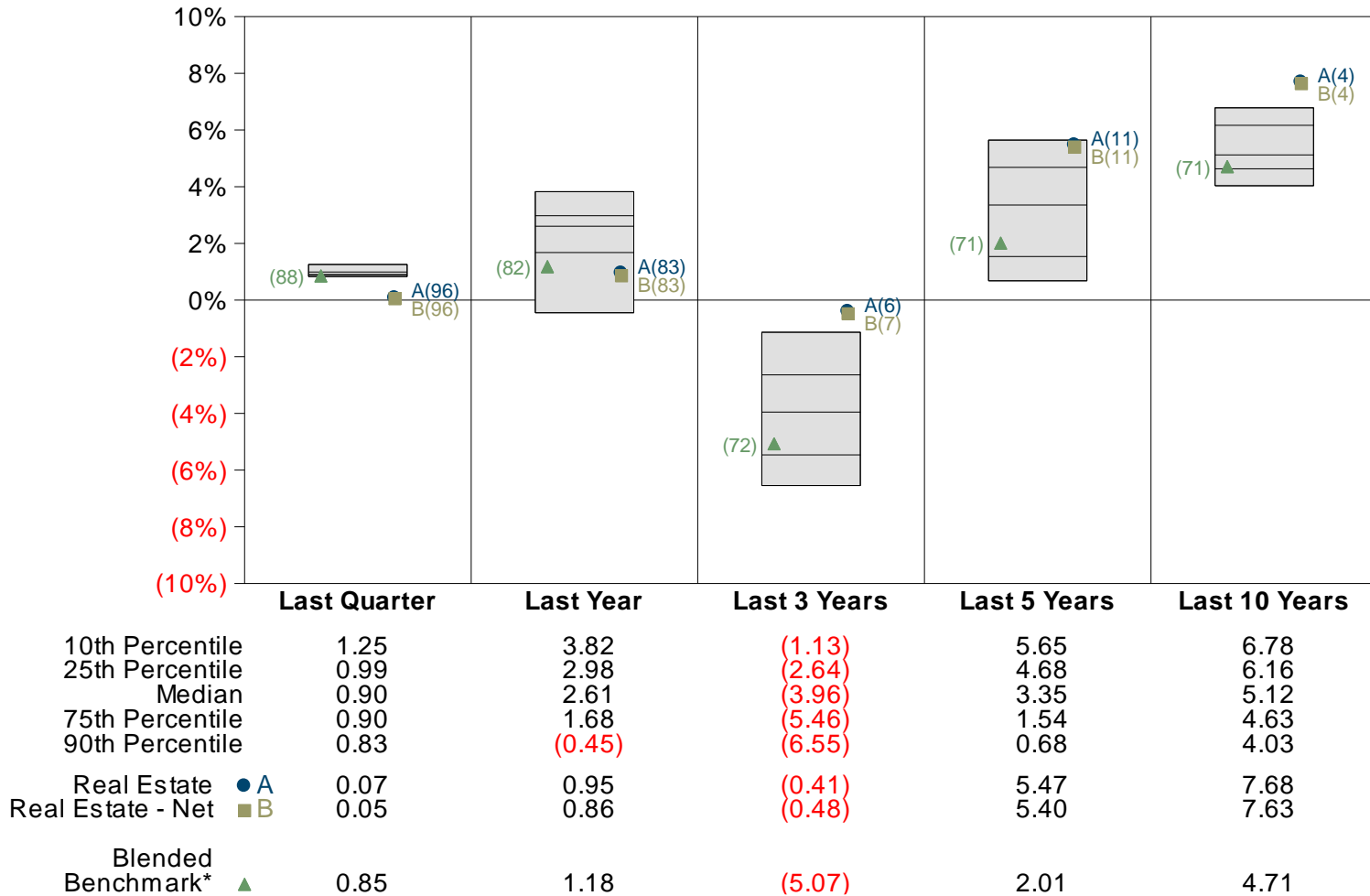
Performance vs Callan Real Assets Database (Gross)



Private Real Estate – Returns and Rankings

March 31, 2025

Performance vs Public Fund - Real Estate (Gross)



Asset Class Returns

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	15 Years	30 Years	Since Inception	Inception Date
Total Fund	1.01%	5.80%	4.56%	11.13%	7.54%	8.42%	8.40%	9.61%	1/1/1982
Total Fund - Net	0.97%	5.64%	4.39%	10.95%	7.34%	8.21%	--		
Total Fund Benchmark	0.38%	7.79%	4.98%	10.19%	7.33%	8.05%	--	--	
Domestic Equity	(3.72%)	4.59%	6.79%	17.68%	10.80%	12.22%	10.49%	11.60%	1/1/1982
Domestic Equity - Net	(3.76%)	4.44%	6.63%	17.49%	10.59%	11.99%	--		
U.S. Equity Custom Benchmark	(4.06%)	7.68%	7.85%	18.01%	11.72%	12.72%	10.31%	--	
Domestic Equity IMRF Custom Benchmark	(3.55%)	6.29%	6.53%	16.95%	10.50%	--	--	--	
International Equity	5.60%	6.66%	6.13%	12.58%	6.18%	6.48%	7.33%	7.65%	9/1/1986
International Equity - Net	5.51%	6.31%	5.77%	12.18%	5.82%	6.13%	--		
MSCI ACWI ex U.S.A.	5.23%	6.09%	4.48%	10.92%	4.98%	4.92%	--	--	
International Equity IMRF Custom Benchmark	4.85%	5.86%	3.98%	10.63%	4.85%	--	--	--	
Fixed Income	2.52%	5.61%	2.05%	1.58%	2.46%	3.50%	5.09%	7.35%	1/1/1982
Fixed Income - Net	2.49%	5.47%	1.92%	1.45%	2.33%	3.35%	--		
Fixed Income Custom Benchmark	2.44%	5.37%	1.76%	0.45%	1.89%	2.73%	4.63%	6.84%	
Fixed Income IMRF Custom Benchmark	2.40%	5.44%	1.72%	0.90%	2.06%	--	--	--	
Private Real Assets	0.13%	1.51%	0.03%	--	--	--	--	0.53%	3/1/2022
Private Real Assets - Net	0.11%	1.42%	(0.05%)	--	--	--	--		
Private RA Custom Benchmark	0.92%	1.43%	(4.46%)	--	--	--	--	(2.26%)	
Real Estate	0.07%	0.95%	(0.41%)	5.47%	7.68%	9.23%	7.55%	5.57%	5/1/1985
Real Estate - Net	0.05%	0.86%	(0.48%)	5.40%	7.63%	9.20%	--		
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%	4.71%	7.57%	6.44%	6.94%	
Agriculture	(3.91%)	(7.32%)	(6.37%)	(3.08%)	(0.32%)	4.82%	--	5.17%	10/1/1997
NCREIF Farmland Index	0.06%	(1.70%)	3.50%	4.83%	5.69%	8.82%	10.33%	10.39%	
Timberland	(0.56%)	3.96%	13.94%	7.02%	4.00%	4.18%	6.00%	7.35%	10/1/1992
NCREIF Timberland Index	0.80%	5.60%	8.89%	7.93%	5.34%	5.62%	7.11%	8.45%	
Unlisted Infrastructure	4.53%	19.18%	13.76%	15.24%	--	--	--	13.33%	4/1/2018
Unlisted Infrastructure Custom Benchmark	2.28%	6.43%	7.74%	8.44%	--	--	--	8.60%	
Alternative Investments	5.59%	10.98%	4.58%	14.30%	12.17%	11.05%	12.49%	11.27%	2/1/1986
Alternative Investments - Net	5.59%	10.98%	4.58%	14.29%	12.06%	10.87%	--		
Alternative Investments Custom Benchmark	0.75%	20.65%	9.05%	9.80%	9.40%	9.32%	11.44%	12.26%	
Private Equity	6.21%	11.06%	4.64%	16.14%	14.51%	13.57%	15.15%	13.42%	2/1/1986
Private Equity Custom Benchmark	0.64%	22.30%	9.55%	10.14%	9.57%	9.43%	--	--	
Cash and Equivalents	1.13%	5.22%	4.72%	3.86%	2.85%	1.96%	3.07%	3.82%	7/1/1986
3 Month T-Bill	1.02%	4.97%	4.23%	2.56%	1.87%	1.27%	2.46%	3.27%	

Benchmark detail is included in the Appendix. Private Equity, Agriculture, Timberland, Unlisted Infrastructure returns shown are gross of fees.

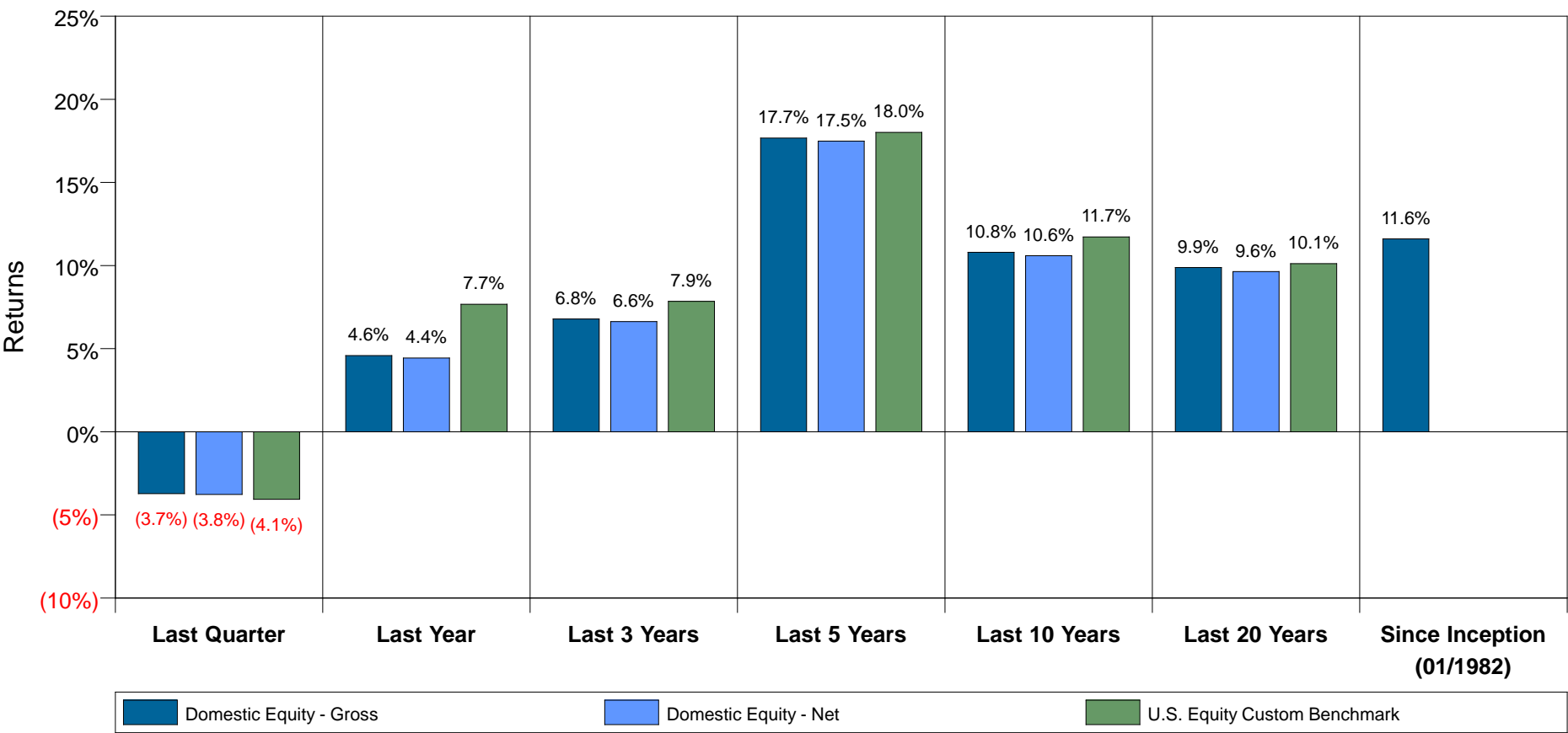
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Domestic Equity

Domestic Equity Returns

March 31, 2025

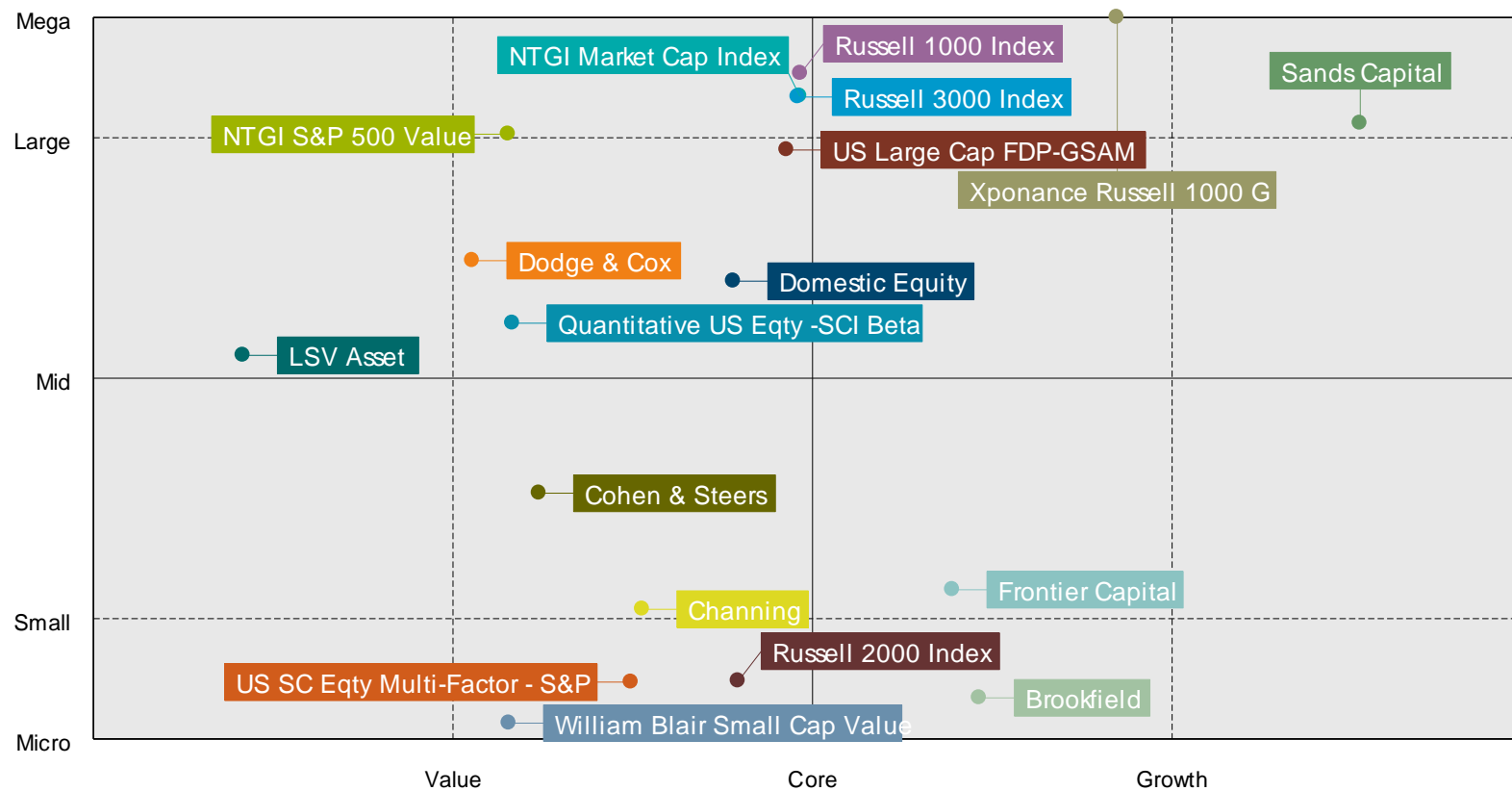
Returns for Periods Ended March 31, 2025



Benchmark detail is included in the Appendix.

Domestic Equity Style Map

Style Map
Holdings for One Quarter Ended March 31, 2025



Domestic Equity Performance

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Domestic Equity	(3.72%)	4.59%	6.79%	17.68%	10.80%	11.60%	1/1/1982
Domestic Equity - Net	(3.76%)	4.44%	6.63%	17.49%	10.59%		
U.S. Equity Custom Benchmark	(4.06%)	7.68%	7.85%	18.01%	11.72%	--	
Russell 3000 Index	(4.72%)	7.22%	8.22%	18.18%	11.80%	11.65%	
U.S. Equity IMRF Custom Benchmark	(3.55%)	6.29%	6.53%	16.95%	10.50%	--	
Large Cap Equity	(4.69%)	5.41%	8.19%	18.17%	11.78%	11.45%	1/1/1982
Large Cap Equity - Net	(4.71%)	5.32%	8.09%	18.07%	11.67%		
Russell 1000 Index	(4.49%)	7.82%	8.65%	18.47%	12.18%	11.83%	
Large Cap Growth	(9.96%)	3.09%	8.35%	18.31%	14.09%	12.33%	1/1/1982
Large Cap Growth - Net	(9.98%)	2.98%	8.24%	18.20%	13.97%		
LCG Blended Benchmark	(9.97%)	7.76%	10.10%	20.09%	15.12%	--	
Russell 1000 Growth Index	(9.97%)	7.76%	10.10%	20.09%	15.12%	11.84%	
Xponance Russell 1000 G	(9.96%)	7.85%	10.13%	20.10%	--	14.87%	10/1/2018
Xponance Russell 1000 G - Net	(9.97%)	7.82%	10.11%	20.08%	--	14.85%	10/1/2018
Russell 1000 Growth Index	(9.97%)	7.76%	10.10%	20.09%		14.86%	
Sands Capital	(9.95%)	(2.72%)	3.67%	11.61%	11.31%	11.60%	11/1/2003
Sands Capital - Net	(9.99%)	(2.93%)	3.44%	11.37%	11.07%		
LCG Blended Benchmark	(9.97%)	7.76%	10.10%	20.09%	15.12%	11.65%	
Russell 1000 Growth Index	(9.97%)	7.76%	10.10%	20.09%	15.12%	11.68%	

Domestic Equity Performance

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Large Cap Value	1.76%	6.63%	9.02%	19.02%	10.19%	10.48%	10/1/1982
Large Cap Value - Net	1.72%	6.46%	8.86%	18.84%	10.02%		
LCV Blended Benchmark	2.14%	7.18%	6.64%	16.15%	8.79%	--	
Russell 1000 Value Index	2.14%	7.18%	6.64%	16.15%	8.79%	11.52%	
Dodge & Cox	3.95%	10.18%	9.15%	20.96%	11.66%	10.45%	9/1/2003
Dodge & Cox - Net	3.90%	9.95%	8.91%	20.70%	11.42%		
LCV Blended Benchmark	2.14%	7.18%	6.64%	16.15%	8.79%	8.65%	
Russell 1000 Value Index	2.14%	7.18%	6.64%	16.15%	8.79%	8.78%	
LSV Asset	0.30%	4.19%	8.44%	18.61%	9.39%	10.75%	2/1/2003
LSV Asset - Net	0.23%	3.93%	8.17%	18.32%	9.12%		
LCV Blended Benchmark	2.14%	7.18%	6.64%	16.15%	8.79%	9.34%	
Russell 1000 Value Index	2.14%	7.18%	6.64%	16.15%	8.79%	9.34%	
NTGI S&P 500 Value	0.23%	4.24%	9.32%	17.22%	10.17%	7.09%	8/1/1999
NTGI S&P 500 Value - Net	0.23%	4.23%	9.32%	17.22%	10.16%		
S&P 500 Value	0.28%	4.21%	9.32%	17.21%	10.11%	7.06%	
Large Cap Passive Core	(4.86%)	7.08%	8.13%	18.09%	11.77%	11.39%	1/1/1985
Large Cap Passive Core - Net	(4.87%)	7.08%	8.13%	18.09%	11.76%		
DJ:US Total Mkt Ix	(4.87%)	7.09%	8.11%	18.08%	11.72%	--	
NTGI Market Cap Index	(4.86%)	7.08%	8.13%	18.09%	11.77%	11.19%	2/1/1985
NTGI Market Cap Index - Net	(4.87%)	7.08%	8.13%	18.09%	11.76%		
Dow Jones US Total Stock Market Index	(4.87%)	7.09%	8.11%	18.08%	11.72%	--	

Domestic Equity Performance

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Factor Diversity Strategies	(4.58%)	6.29%	8.69%	--	--	12.40%	8/1/2020
U.S. Large Cap FDP-GSAM	(4.58%)	6.29%	8.69%	--	--	12.40%	8/1/2020
U.S. Large Cap FDP-GSAM - Net	(4.59%)	6.26%	8.66%	--	--	12.36%	
Solactive GBS U.S. 1000 Index	(4.63%)	7.67%	8.58%			12.53%	
GSAM Active Beta U.S. Large Cap FDC Index	(4.60%)	6.30%	8.69%			12.39%	
Quantitative Factor Strategies	1.19%	5.47%	7.17%	16.16%	--	10.07%	9/1/2019
Quantitative US Equity -SCI Beta	1.19%	5.47%	7.17%	16.16%	--	10.07%	9/1/2019
Quantitative US Equity - SCI Beta - Net	1.18%	5.43%	7.12%	16.03%	--	9.94%	
SciBeta US Hi-Fctr-Inst Div Multi-Beta Multi-Strat Idx	1.51%	5.70%	6.45%	15.29%		9.30%	

Domestic Equity Performance

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Small Cap	(10.79%)	(8.68%)	1.63%	17.61%	7.54%	11.47%	7/1/1988
Small Cap - Net	(10.94%)	(9.09%)	1.06%	16.90%	6.92%		
Russell:2000 Index	(9.48%)	(4.01%)	0.52%	13.27%	6.30%	8.84%	
Small Cap Multi Factor Strategies	(8.18%)	(2.52%)	--	--	--	2.82%	8/1/2023
US Small Cap Equity Multi-Factor - S&P	(8.18%)	(2.52%)	--	--	--	2.82%	8/1/2023
US Small Cap Equity Multi-Factor - S&P - Net	(8.18%)	(2.52%)	--	--	--	2.82%	
S&P600 QVML Top 90%	(8.20%)	(2.50%)				2.88%	
S&P:600 Small Cap	(8.93%)	(3.38%)				1.61%	
Small Cap Growth	(14.02%)	(13.32%)	0.95%	16.91%	8.44%	12.32%	7/1/1988
Small Cap Growth - Net	(14.35%)	(13.97%)	(0.03%)	15.74%	7.58%		
Russell:2000 Growth	(11.12%)	(4.86%)	0.78%	10.78%	6.14%	7.66%	
Frontier Capital	(14.02%)	(13.32%)	0.95%	17.59%	9.28%	12.65%	8/1/1988
Frontier Capital - Net	(14.35%)	(13.97%)	(0.03%)	16.41%	8.35%		
Russell:2000 Growth	(11.12%)	(4.86%)	0.78%	10.78%	6.14%	7.73%	
Small Cap Value	(9.73%)	(8.71%)	1.43%	17.74%	7.28%	11.05%	9/1/1989
Small Cap Value - Net	(9.84%)	(9.17%)	0.93%	17.18%	6.75%		
Russell:2000 Value	(7.74%)	(3.12%)	0.05%	15.31%	6.07%	9.33%	
Channing	(11.80%)	(10.05%)	0.17%	16.18%	6.44%	8.94%	7/1/2011
Channing - Net	(11.92%)	(10.49%)	(0.33%)	15.62%	5.92%	8.37%	
Russell:2000 Value	(7.74%)	(3.12%)	0.05%	15.31%	6.07%	7.70%	
William Blair Small Cap Value	(7.98%)	(7.51%)	0.07%	14.93%	7.51%	10.26%	5/1/1999
William Blair Small Cap Value - Net	(8.07%)	(7.99%)	(0.44%)	14.36%	6.97%		
Russell:2000 Value	(7.74%)	(3.12%)	0.05%	15.31%	6.07%	8.31%	

Domestic Equity Performance

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Public Real Assets	5.48%	16.05%	5.12%	11.61%	--	7.38%	8/1/2017
Public Real Assets - Net	5.40%	15.71%	4.80%	11.24%	--	7.00%	
Public Real Assets Benchmark	5.62%	14.88%	3.31%	10.15%		5.52%	
Brookfield	5.90%	18.65%	6.83%	14.17%	--	7.15%	8/1/2017
Brookfield - Net	5.79%	18.18%	6.40%	13.66%	--	6.66%	
Dow Jones Global Infra Composite Index	7.25%	18.58%	4.92%	11.66%		5.55%	
Cohen & Steers	5.31%	15.00%	4.49%	10.75%	--	7.68%	8/1/2017
Cohen & Steers - Net	5.24%	14.72%	4.22%	10.43%	--	7.33%	
FTSE Global Core Infra 50/50 Index (Net)	4.81%	13.05%	2.48%	9.37%		5.48%	

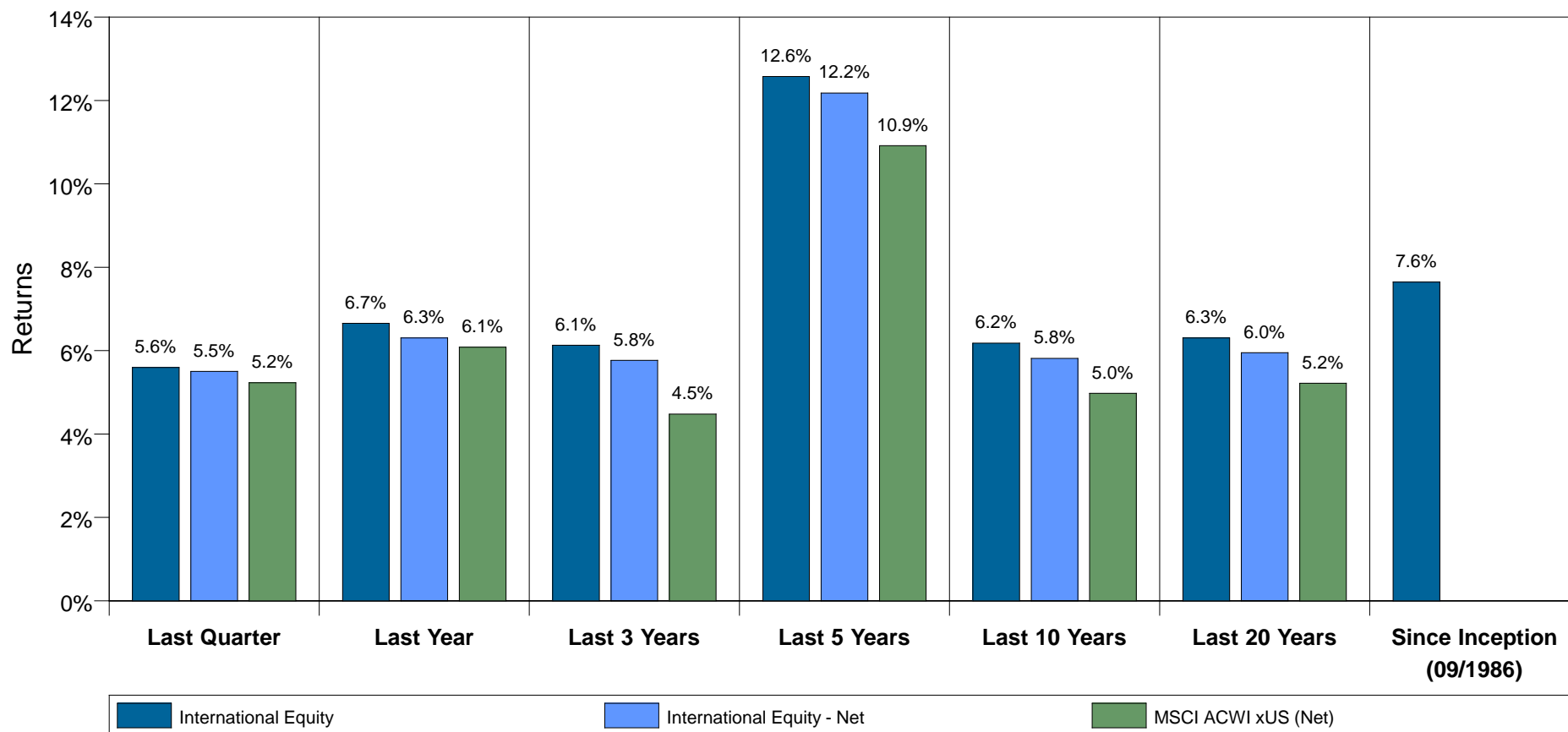
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International Equity

International Equity Returns

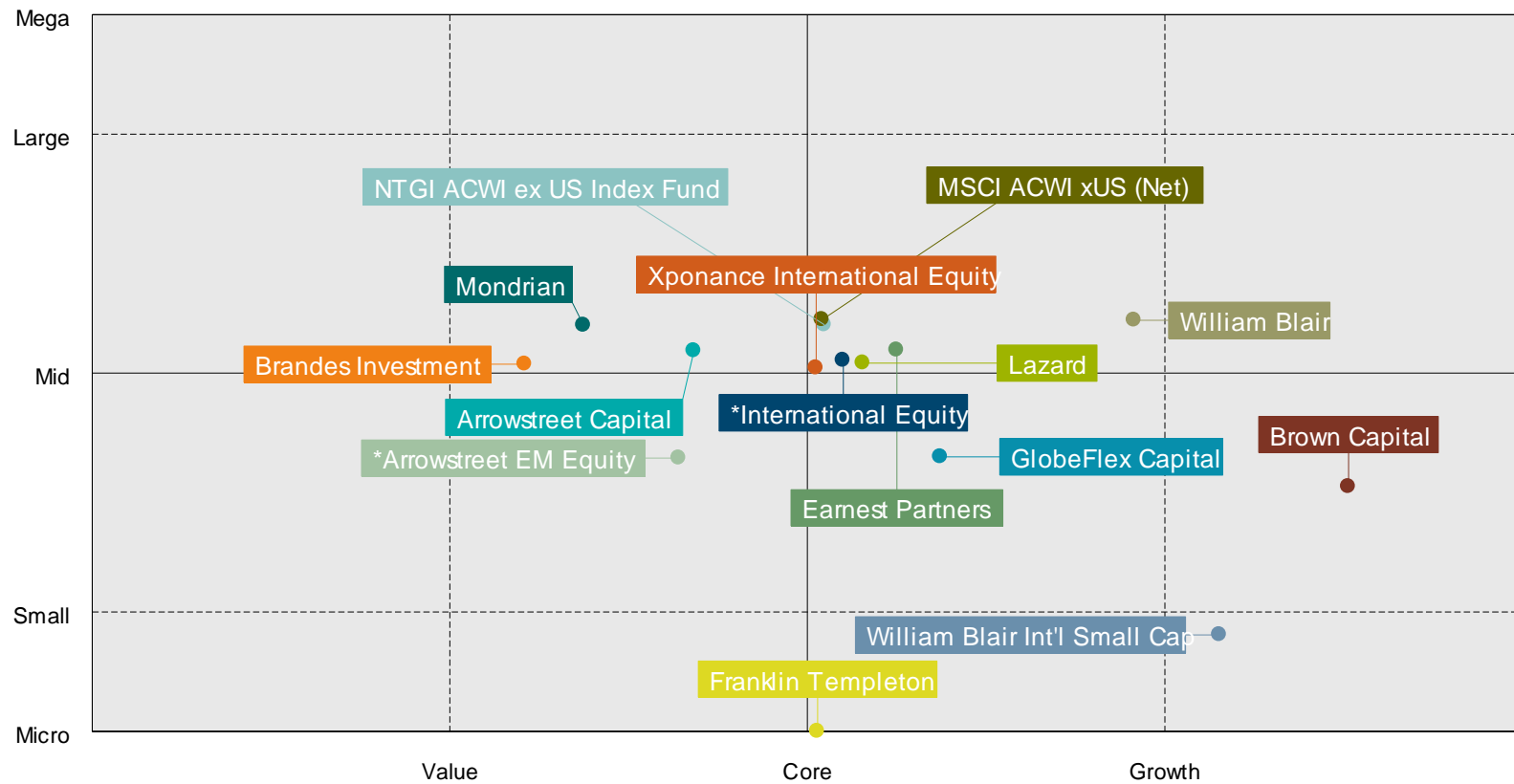
March 31, 2025

Returns for Periods Ended March 31, 2025



International Equity Portfolio Weights

Style Map
Holdings for One Quarter Ended March 31, 2025



International Equity Performance

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
International Equity	5.60%	6.66%	6.13%	12.58%	6.18%	7.65%	9/1/1986
International Equity - Net	5.51%	6.31%	5.77%	12.18%	5.82%		
MSCI ACWI xUS (Net)	5.23%	6.09%	4.48%	10.92%	4.98%	--	
International Equity IMRF Custom Benchmark	4.85%	5.86%	3.98%	10.63%	4.85%	--	
International Large Cap Equity	5.98%	7.07%	6.92%	13.63%	6.61%	7.78%	9/1/1986
International Large Cap Equity - Net	5.89%	6.73%	6.61%	13.30%	6.30%		
MSCI ACWI xUS (Net)	5.23%	6.09%	4.48%	10.92%	4.98%	--	
International Large Cap Growth	2.43%	0.95%	3.34%	12.64%	6.33%	8.11%	9/1/2002
International Large Cap Growth - Net	2.36%	0.34%	2.87%	12.19%	5.97%		
MSCI ACWI xUS Growth (Net)	1.96%	1.15%	1.75%	8.11%	5.06%	6.83%	
EARNEST Partners Intl	6.05%	6.90%	7.29%	17.19%	7.25%	9.05%	10/1/2004
EARNEST Partners Intl - Net	6.00%	5.85%	6.65%	16.67%	6.92%		
MSCI ACWI xUS (Net)	5.23%	6.09%	4.48%	10.92%	4.98%	5.84%	
MSCI ACWI xUS Growth (Net)	1.96%	1.15%	1.75%	8.11%	5.06%	6.07%	
William Blair	(0.24%)	(3.28%)	0.61%	9.68%	5.70%	8.72%	10/1/2002
William Blair - Net	(0.32%)	(3.60%)	0.27%	9.29%	5.32%		
MSCI ACWI xUS (Net)	5.23%	6.09%	4.48%	10.92%	4.98%	7.46%	
MSCI ACWI xUS Growth (Net)	1.96%	1.15%	1.75%	8.11%	5.06%	7.30%	

International Equity Performance

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
International Large Cap Value	9.78%	12.38%	10.90%	15.53%	6.45%	8.62%	10/1/1995
International Large Cap Value - Net	9.50%	11.85%	10.45%	15.10%	6.06%		
MSCI ACWI xUS Value (Net)	8.58%	11.35%	7.23%	13.62%	4.71%	--	
Brandes Investment	10.57%	12.40%	14.41%	18.72%	7.42%	9.10%	1/1/1996
Brandes Investment - Net	10.11%	11.76%	13.90%	18.30%	7.11%		
MSCI ACWI xUS (Net)	5.23%	6.09%	4.48%	10.92%	4.98%	--	
MSCI ACWI xUS Value (Net)	8.58%	11.35%	7.23%	13.62%	4.71%	--	
Lazard	6.63%	4.66%	5.16%	11.44%	5.15%	6.17%	4/1/2012
Lazard - Net	6.56%	4.40%	4.90%	11.18%	4.82%	5.76%	
MSCI ACWI xUS (Net)	5.23%	6.09%	4.48%	10.92%	4.98%	5.31%	
MSCI ACWI xUS Value (Net)	8.58%	11.35%	7.23%	13.62%	4.71%	4.92%	
Mondrian	9.55%	14.02%	8.63%	13.29%	5.81%	6.28%	4/1/2012
Mondrian - Net	9.45%	13.57%	8.20%	12.86%	5.35%	5.81%	
MSCI ACWI xUS (Net)	5.23%	6.09%	4.48%	10.92%	4.98%	5.31%	
MSCI ACWI xUS Value (Net)	8.58%	11.35%	7.23%	13.62%	4.71%	4.92%	
International Large Cap Active Core	6.22%	8.04%	8.29%	15.16%	8.06%	6.43%	2/1/2008
International Large Cap Active Core - Net	6.13%	7.66%	7.89%	14.65%	7.55%		
MSCI ACWI xUS (Net)	5.23%	6.09%	4.48%	10.92%	4.98%	3.42%	
Arrowstreet Capital	10.31%	11.78%	12.05%	20.43%	10.57%	8.02%	3/1/2008
Arrowstreet Capital - Net	10.19%	11.28%	11.55%	19.89%	10.07%	7.52%	
MSCI ACWI xUS (Net)	5.23%	6.09%	4.48%	10.92%	4.98%	3.27%	
Brown Capital	(1.59%)	(4.28%)	2.79%	7.64%	5.14%	7.09%	10/1/2004
Brown Capital - Net	(1.65%)	(4.52%)	2.54%	7.09%	4.48%		
MSCI ACWI xUS (Net)	5.23%	6.09%	4.48%	10.92%	4.98%	5.84%	

International Equity Performance

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
GlobeFlex Capital	5.34%	11.30%	7.22%	15.45%	7.32%	5.94%	3/1/2006
Globeflex Capital - Net	5.27%	10.98%	6.89%	15.06%	6.93%	5.52%	
MSCI ACWI xUS (Net)	5.23%	6.09%	4.48%	10.92%	4.98%	4.29%	
Xponance International Equity	7.55%	5.01%	5.26%	--	--	4.42%	2/1/2021
Xponance International Equity - Net	7.40%	4.38%	4.60%	--	--	3.80%	
MSCI EAFE (Net)	6.86%	4.88%	6.05%			5.75%	
Intl Large Cap Passive Core	5.63%	6.72%	5.11%	11.15%	5.32%	4.32%	2/1/2000
Intl Large Cap Passive Core - Net	5.63%	6.72%	5.10%	11.15%	5.32%		
Intl Large Cap Passive Core Benchmark	5.23%	6.09%	4.48%	10.70%	4.89%	3.92%	
NTGI ACWI ex US Index Fund	5.63%	6.72%	5.11%	--	--	3.17%	10/1/2021
NTGI ACWI ex US Index Fund - Net	5.63%	6.72%	5.10%	--	--	3.16%	
MSCI ACWI xUS (Net)	5.23%	6.09%	4.48%			2.71%	
International All Cap Developed	10.67%	8.22%	5.81%	12.12%	--	7.05%	2/1/2019
International All Cap Developed - Net	10.54%	7.69%	5.28%	11.57%	--	6.54%	
MSCI EAFE + Canada (Net)	6.20%	5.30%	5.70%	12.16%		7.45%	
Ativo International	10.67%	8.22%	5.80%	12.12%	--	7.05%	2/1/2019
Ativo International - Net	10.54%	7.69%	5.28%	11.57%	--	6.54%	
MSCI EAFE + Canada (Net)	6.20%	5.30%	5.70%	12.16%		7.45%	

International Equity Performance

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
International Small Cap	0.05%	1.18%	0.01%	9.49%	4.91%	4.57%	12/1/2005
International Small Cap - Net	(0.13%)	0.44%	(0.73%)	8.68%	4.13%		
Intl Small Cap Custom Benchmark	0.64%	1.87%	0.99%	11.84%	5.32%	5.23%	
Franklin Templeton	(1.24%)	(2.15%)	0.87%	10.13%	4.28%	5.02%	8/1/2011
Franklin Templeton - Net	(1.41%)	(2.84%)	0.16%	9.35%	3.53%	4.27%	
MSCI ACWI xUS Small (Net)	0.64%	1.87%	0.99%	11.84%	5.32%	4.84%	
William Blair Intl SC	0.89%	3.41%	(0.52%)	9.09%	5.37%	7.34%	9/1/2010
William Blair Intl SC - Net	0.71%	2.65%	(1.28%)	8.27%	4.57%	6.52%	
MSCI ACWI xUS Small (Net)	0.64%	1.87%	0.99%	11.84%	5.32%	6.23%	
Intl Small Cap Custom Benchmark	0.64%	1.87%	0.99%	11.84%	5.32%	6.41%	
Emerging Market Equity	3.23%	4.82%	2.96%	7.25%	4.18%	7.91%	2/1/1992
Emerging Market Equity - Net	3.23%	4.82%	2.52%	6.73%	3.61%		
MSCI Emerging Markets (Net)	2.93%	8.09%	1.44%	7.94%	3.71%	--	
Arrowstreet EME	3.23%	5.13%	--	--	--	12.48%	3/1/2023
Arrowstreet EME - Net	3.23%	5.13%	--	--	--	12.48%	
MSCI EM IMI (Net)	1.70%	6.60%				9.24%	

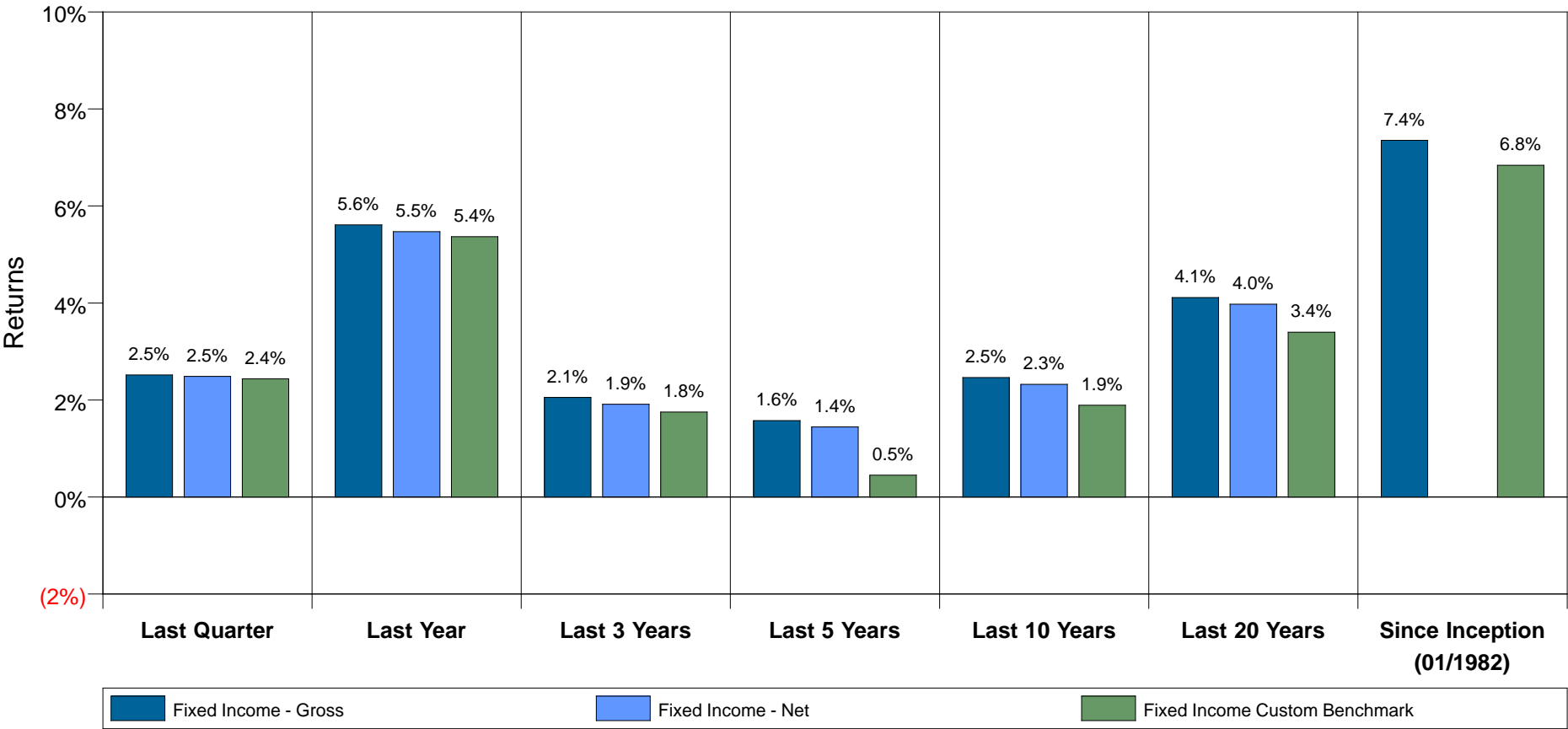
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Fixed Income

Fixed Income Returns

March 31, 2025

Returns for Periods Ended March 31, 2025



Benchmark detail is included in the Appendix.

Fixed Income Performance

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Fixed Income	2.52%	5.61%	2.05%	1.58%	2.46%	7.35%	1/1/1982
Fixed Income - Net	2.49%	5.47%	1.92%	1.45%	2.33%	--	
Fixed Income Custom Benchmark	2.44%	5.37%	1.76%	0.45%	1.89%	6.84%	
Fixed Income IMRF Custom Benchmark	2.40%	5.44%	1.72%	0.90%	2.06%	--	
Active Fixed Core	2.99%	5.22%	0.96%	0.43%	1.90%	3.74%	4/1/2001
Active Fixed Core - Net	2.96%	5.10%	0.84%	0.32%	1.78%		
Blmbg U.S. Aggregate Index	2.78%	4.88%	0.52%	(0.40%)	1.46%	3.62%	
Attucks Fixed Income	2.75%	4.96%	0.83%	--	--	(0.94%)	2/1/2021
Attucks Fixed Income - Net	2.75%	4.70%	0.52%	--	--	(1.23%)	
Blmbg U.S. Aggregate Index	2.78%	4.88%	0.52%			(1.29%)	
Brandes FI Core	2.94%	5.32%	1.63%	0.27%	--	1.80%	3/1/2016
Brandes FI Core - Net	2.93%	5.29%	1.60%	0.24%	--	1.78%	
Blmbg U.S. Aggregate Index	2.78%	4.88%	0.52%	(0.40%)		1.50%	
Earnest Partners	2.85%	5.34%	1.09%	0.41%	1.91%	3.58%	5/1/2005
Earnest Partners - Net	2.81%	5.20%	0.95%	0.27%	1.76%	3.40%	
Blmbg U.S. Aggregate Index	2.78%	4.88%	0.52%	(0.40%)	1.46%	3.12%	
Xponance Yield Advantage Agg	2.72%	5.59%	1.22%	1.04%	2.07%	3.51%	6/1/2005
Xponance Yield Advantage Agg - Net	2.69%	5.45%	1.08%	0.90%	1.93%	3.34%	
Blmbg U.S. Aggregate Index	2.78%	4.88%	0.52%	(0.40%)	1.46%	3.08%	
Garcia Hamilton	3.57%	4.89%	0.34%	(0.10%)	--	1.80%	6/1/2015
Garcia Hamilton - Net	3.55%	4.81%	0.26%	(0.18%)	--	1.71%	
Blmbg U.S. Aggregate Index	2.78%	4.88%	0.52%	(0.40%)		1.55%	
Ramirez Asset Management	2.86%	5.04%	1.03%	--	--	0.54%	5/1/2020
Ramirez Asset Management - Net	2.83%	4.90%	0.89%	--	--	0.41%	
Blmbg U.S. Aggregate Index	2.78%	4.88%	0.52%			(0.76%)	

Fixed Income Performance

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Passive Fixed Core	2.80%	4.99%	0.59%	(0.34%)	1.52%	5.07%	1/1/1990
Passive Fixed Core - Net	2.80%	4.98%	0.58%	(0.35%)	1.52%		
Blmbg U.S. Aggregate Index	2.78%	4.88%	0.52%	(0.40%)	1.46%	5.04%	
BlackRock US Debt Index	2.78%	4.99%	0.58%	(0.31%)	1.55%	2.02%	10/1/2013
BlackRock US Debt Index - Net	2.78%	4.99%	0.58%	(0.32%)	1.55%	2.01%	
Blmbg U.S. Aggregate Index	2.78%	4.88%	0.52%	(0.40%)	1.46%	1.91%	
NTGI Blmbg Agg.	2.82%	4.97%	0.59%	(0.38%)	1.50%	5.10%	2/1/1990
NTGI Blmbg Agg. - Net	2.82%	4.96%	0.58%	(0.39%)	1.49%		
Blmbg U.S. Aggregate Index	2.78%	4.88%	0.52%	(0.40%)	1.46%	5.09%	
Core Plus Fixed Income	2.79%	5.01%	1.07%	0.94%	2.19%	7.16%	1/1/1982
Core Plus Fixed Income - Net	2.75%	4.85%	0.92%	0.78%	2.02%		
Blmbg U.S. Aggregate Index	2.78%	4.88%	0.52%	(0.40%)	1.46%	6.73%	
LM Capital Group FI	2.70%	5.54%	1.39%	1.10%	2.30%	3.96%	5/1/2005
LM Capital Group FI - Net	2.66%	5.38%	1.23%	0.94%	2.13%	3.79%	
Blmbg U.S. Aggregate Index	2.78%	4.88%	0.52%	(0.40%)	1.46%	3.12%	
Loop Capital Management	2.10%	5.01%	1.51%	0.86%	2.37%	3.99%	5/1/2005
Loop Capital Management - Net	2.06%	4.87%	1.37%	0.73%	2.24%	3.85%	
Blmbg U.S. Aggregate Index	2.78%	4.88%	0.52%	(0.40%)	1.46%	3.12%	
Longfellow Core Plus	2.82%	5.60%	1.26%	--	--	0.72%	5/1/2020
Longfellow Core Plus - Net	2.78%	5.44%	1.11%	--	--	0.57%	
Blmbg U.S. Aggregate Index	2.78%	4.88%	0.52%			(0.76%)	

Fixed Income Performance

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Bank Loans	0.63%	7.41%	6.29%	8.80%	5.03%	4.92%	8/1/2014
Bank Loans - Net	0.59%	7.38%	6.37%	8.86%	4.82%	4.69%	
Barings Custom Benchmark	0.79%	7.52%	7.38%	9.13%	5.19%	5.01%	
Barings Global Loan Fund	0.63%	7.68%	6.65%	9.20%	5.23%	5.11%	8/1/2014
Barings Global Loan Fund - Net	0.59%	7.38%	6.37%	8.86%	4.82%	4.69%	
Barings Custom Benchmark	0.79%	7.52%	7.38%	9.13%	5.19%	5.01%	
High Yield	1.72%	7.69%	5.80%	7.95%	5.96%	8.96%	4/1/1986
High Yield - Net	1.65%	7.37%	5.48%	7.62%	5.61%		
ICE:HY Corp Cash Pay	0.97%	7.51%	4.82%	7.18%	4.91%	7.73%	
MacKay Shields	1.72%	7.69%	5.79%	7.96%	6.05%	8.07%	11/1/2000
MacKay Shields - Net	1.65%	7.37%	5.48%	7.63%	5.71%		
ICE:HY Corp Cash Pay	0.97%	7.51%	4.82%	7.18%	4.91%	6.83%	

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Private Real Assets

Private Real Assets

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Private Real Assets	0.13%	1.51%	0.03%	--	--	0.53%	3/1/2022
Private Real Assets - Net	0.11%	1.42%	(0.04%)	--	--	0.46%	
Private RA Custom Benchmark	0.92%	1.43%	(4.46%)	--	--	(2.26%)	
Real Estate	0.07%	0.95%	(0.41%)	5.47%	7.68%	5.57%	5/1/1985
Real Estate - Net	0.05%	0.86%	(0.48%)	5.40%	7.63%		
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%	4.71%	6.94%	
Real Estate Core Cmp	0.62%	2.29%	(0.21%)	6.29%	8.07%	7.23%	4/1/1999
TA Assoc. Buckhead	(0.66%)	6.20%	3.72%	12.53%	12.56%	11.46%	1/1/2010
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%	4.71%	6.43%	
Barings Euro Core Property	5.39%	1.73%	(11.84%)	(4.25%)	--	3.17%	3/1/2017
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%		3.46%	
Blackstone Property Euro	4.12%	1.00%	1.56%	5.02%	--	4.86%	12/1/2017
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%		3.15%	
INVESCO Core Real Estate	(0.08%)	(6.12%)	(4.38%)	0.36%	4.38%	6.05%	4/1/2011
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%	4.71%	6.92%	
INVESCO European real estate	5.47%	2.05%	(1.92%)	(0.57%)	--	(1.33%)	4/1/2018
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%	4.71%	2.92%	
AEW Core Property Trust	0.63%	(1.19%)	(1.29%)	3.24%	5.15%	6.03%	10/1/2013
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%	4.71%	5.62%	
CBRE Core Partners	0.38%	2.10%	(0.19%)	6.54%	7.68%	8.24%	12/1/2013
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%	4.71%	5.52%	
JPM Strategic Property Fund	1.48%	(0.77%)	(5.68%)	--	--	1.30%	1/1/2021
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)			2.47%	

Benchmark detail is included in the Appendix. Returns are time-weighted and are reported net of fee for all real estate managers.

Private Real Assets

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
RE Non-Core Cmp	(0.39%)	(0.24%)	(0.72%)	4.44%	7.18%	9.27%	1/1/2010
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%	4.71%	7.51%	
Artemis MWBE Spruce	(0.01%)	3.55%	(0.74%)	4.11%	--	3.78%	6/1/2016
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%	4.71%	3.79%	
Franklin T. EMREFF	0.00%	(92.80%)	(73.87%)	(57.15%)	(31.87%)	(23.23%)	9/1/2011
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%	4.71%	6.64%	
Barings Real Estate Debt	(0.12%)	--	--	--	--	(0.12%)	10/1/2024
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%	4.71%	1.82%	
Security Capital	0.27%	12.20%	(1.20%)	7.35%	5.87%	7.81%	1/1/2010
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%	4.71%	7.51%	
Dune II	8.87%	2.18%	2.30%	2.07%	5.78%	10.86%	1/1/2010
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%	4.71%	7.51%	
Non-Core Real Estate Funds	(1.44%)	(1.76%)	0.07%	5.57%	8.53%	9.05%	10/1/2011
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%	4.71%	6.59%	
Non-Core Intl Real Estate	4.68%	(0.63%)	(4.70%)	(0.90%)	(0.89%)	(1.81%)	8/1/2014
Real Estate Custom Benchmark	0.85%	1.18%	(5.07%)	2.01%	4.71%	5.20%	

Benchmark detail is included in the Appendix. Returns are time-weighted and are reported net of fee for all real estate managers.

Private Real Assets

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Agriculture	(3.91%)	(7.32%)	(6.37%)	(3.08%)	(0.32%)	5.17%	10/1/1997
Agriculture - Net	(3.91%)	(7.32%)	(6.37%)	(3.08%)	(0.32%)		
NCREIF Farmland Index	0.06%	(1.70%)	3.50%	4.83%	5.69%	10.39%	
Premiere Partners IV	(3.91%)	(7.32%)	(6.37%)	(3.08%)	(0.32%)	(0.34%)	3/1/2015
Premiere Partners IV - Net	(3.91%)	(7.32%)	(6.37%)	(3.08%)	(0.32%)		
NCREIF Farmland Index	0.06%	(1.70%)	3.50%	4.83%	5.69%	5.72%	
Timberland	(0.56%)	3.96%	13.94%	7.02%	4.00%	7.35%	10/1/1992
Timberland - Net	(0.77%)	3.12%	13.00%	6.17%	3.22%		
NCREIF Timberland Index	0.80%	5.60%	8.89%	7.93%	5.34%	8.45%	
Forest Investment	(0.56%)	3.96%	13.94%	7.02%	4.00%	7.48%	10/1/1992
Forest Investment - Net	(0.77%)	3.12%	13.00%	6.17%	3.22%		
NCREIF Timberland Index	0.80%	5.60%	8.89%	7.93%	5.34%	8.45%	
Unlisted Infrastructure	4.53%	19.18%	13.76%	15.24%	--	13.33%	4/1/2018
Unlisted Infrastructure - Net	4.53%	19.12%	13.74%	15.23%	--	13.32%	
Unlisted Infrastructure Custom Benchmark	2.28%	6.43%	7.74%	8.44%	--	8.60%	
Unlisted Infrastructure Funds	4.53%	19.18%	13.76%	15.24%	--	13.33%	4/1/2018
Unlisted Infrastructure Funds - Net	4.53%	19.12%	13.74%	15.23%	--	13.32%	
Unlisted Infrastructure Custom Benchmark	2.28%	6.43%	7.74%	8.44%	--	8.60%	

Benchmark detail is included in the Appendix.

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Alternative Investments

Alternative Investments

March 31, 2025

	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Alternative Investments	5.59%	10.98%	4.58%	14.30%	12.17%	11.27%	2/1/1986
Alternative Investments - Net	5.59%	10.98%	4.58%	14.29%	12.06%		
Alternative Investments Custom Benchmark	0.75%	20.65%	9.05%	9.80%	9.40%	12.26%	
Private Equity	6.21%	11.06%	4.64%	16.14%	14.51%	13.42%	2/1/1986
Private Equity - Net	6.21%	11.06%	4.64%	16.14%	14.42%		
Private Equity Custom Benchmark	0.64%	22.30%	9.55%	10.14%	9.57%	--	
Abbott S/A Comp - Net	1.96%	4.88%	1.69%	15.65%	14.02%	13.06%	1/1/2010
Pantheon S/A Comp - Net	2.10%	7.61%	2.44%	14.41%	13.26%	13.00%	1/1/2010
Private Equity Fund - Domestic - Net	6.83%	10.84%	3.56%	15.99%	15.42%	12.93%	6/1/2012
Private Equity Fund - International - Net	7.67%	15.26%	13.58%	18.07%	--	2.65%	7/1/2015
Oakbrook Opportunities Fund - Net	4.82%	15.61%	6.43%	13.13%	--	8.70%	6/1/2019
Private Credit - Net	1.30%	11.83%	2.30%	2.19%	--	2.53%	10/1/2019
Private Credit Fund - Domestic - Net	1.13%	11.11%	2.55%	2.34%	--	2.67%	10/1/2019
Private Credit Fund - International - Net	3.67%	24.10%	--	--	--	(11.20%)	1/1/2024

Benchmark detail is included in the Appendix. Private Equity and Blended Benchmark (Private Equity) returns are 1 quarter lagged.

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Manager Watch List

Investment Manager Watch List

March 31, 2025

Investment Manager	Asset Class	Effective Date
William Blair	International Small Cap Growth Equity	5/30/2025

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Appendix

Asset Distribution Across Investment Managers

	March 31, 2025		December 31, 2024	
	Market Value	Weight	Market Value	Weight
Domestic Equity	\$18,651,971,920	33.80%	\$20,058,228,064	36.52%
Large Cap	\$12,038,561,208	21.82%	\$13,255,288,379	24.13%
Large Cap Growth	\$4,003,318,335	7.25%	\$4,446,012,221	8.09%
Sands Capital	\$1,820,943,061	3.30%	\$2,022,123,975	3.68%
Xponance Russell 1000 G	\$2,182,375,274	3.95%	\$2,423,888,246	4.41%
Large Cap Value	\$3,615,795,286	6.55%	\$3,764,883,075	6.85%
Dodge & Cox	\$1,594,253,391	2.89%	\$1,540,152,796	2.80%
LSV Asset	\$993,586,172	1.80%	\$997,409,231	1.82%
NTGI S&P 500 Value	\$1,027,955,723	1.86%	\$1,227,321,048	2.23%
Large Cap Passive Core	\$989,200,967	1.79%	\$1,449,381,287	2.64%
NTGI Market Cap Index	\$989,200,967	1.79%	\$1,449,381,287	2.64%
Factor Diversity Strategies	\$3,430,246,621	6.22%	\$3,595,011,796	6.55%
US Large Cap FDP-GSAM	\$3,430,246,621	6.22%	\$3,595,011,796	6.55%
Quantitative Factor Strategies	\$2,856,684,013	5.18%	\$2,822,991,049	5.14%
Quantitative US Equity -SCI Beta	\$2,856,684,013	5.18%	\$2,822,991,049	5.14%
Small Cap	\$2,036,355,045	3.69%	\$2,348,942,728	4.28%
Small Cap Multi Factor Strategies	\$606,887,752	1.10%	\$660,953,232	1.20%
US Small Cap Equity Multi-Factor - S&P	\$606,887,752	1.10%	\$660,953,232	1.20%
Small Cap Growth	\$680,099,326	1.23%	\$791,063,079	1.44%
Frontier Capital	\$680,099,326	1.23%	\$791,063,079	1.44%
Small Cap Value	\$749,367,968	1.36%	\$896,926,417	1.63%
Channing	\$340,412,348	0.62%	\$385,970,171	0.70%
William Blair Small Cap Value	\$408,955,620	0.74%	\$510,956,246	0.93%
Public Real Assets	\$1,720,371,654	3.12%	\$1,631,005,909	2.97%
Brookfield	\$504,467,114	0.91%	\$476,356,740	0.87%
Cohen & Steers	\$1,215,904,541	2.20%	\$1,154,649,169	2.10%

Asset Distribution Across Investment Managers

	March 31, 2025		December 31, 2024	
	Market Value	Weight	Market Value	Weight
International Equity	\$11,068,189,175	20.06%	\$10,639,304,228	19.37%
International Large Cap Equity	\$9,932,168,410	18.00%	\$9,371,714,758	17.06%
International Large Cap Growth	\$1,779,710,757	3.23%	\$1,737,507,866	3.16%
Earnest Partner	\$783,075,690	1.42%	\$738,429,503	1.34%
William Blair	\$996,635,067	1.81%	\$999,078,363	1.82%
International Large Cap Value	\$1,861,741,245	3.37%	\$1,695,919,520	3.09%
Brandes Investment	\$892,899,738	1.62%	\$807,531,760	1.47%
Mondrian	\$808,027,361	1.46%	\$737,566,590	1.34%
Lazard	\$160,814,145	0.29%	\$150,821,170	0.27%
International Large Cap Core	\$6,290,716,409	11.40%	\$5,938,287,371	10.81%
International Large Cap Active Core	\$3,305,840,602	5.99%	\$3,112,541,583	5.67%
Arrowstreet Capital	\$1,505,573,240	2.73%	\$1,364,884,477	2.49%
Brown Capital	\$609,002,345	1.10%	\$618,835,547	1.13%
GlobeFlex Capital	\$1,076,003,643	1.95%	\$1,021,646,457	1.86%
Xponance International Equity	\$114,921,115	0.21%	\$106,848,875	0.19%
Progress International Equity	\$340,258	0.00%	\$326,226	0.00%
International Large Cap Passive Core	\$2,984,875,807	5.41%	\$2,825,745,789	5.14%
NTGI ACWI ex US Index Fund	\$2,984,875,807	5.41%	\$2,825,745,789	5.14%
International All Cap Developed	\$29,668,853	0.05%	\$177,423,507	0.32%
Ativo International	\$29,668,853	0.05%	\$177,423,507	0.32%
International Small Cap	\$598,261,905	1.08%	\$597,959,754	1.09%
Franklin Templeton	\$232,304,600	0.42%	\$235,219,597	0.43%
William Blair International Small Cap	\$365,957,305	0.66%	\$362,740,156	0.66%
Emerging Market Equity	\$508,090,007	0.92%	\$492,206,209	0.90%
Arrowstreet Emerging Market Equity	\$508,090,007	0.92%	\$492,206,209	0.90%

Asset Distribution Across Investment Managers

	March 31, 2025		December 31, 2024	
	Market Value	Weight	Market Value	Weight
Fixed Income	\$12,336,797,707	22.36%	\$12,061,443,492	21.96%
Domestic Fixed Active Core	\$3,996,286,746	7.24%	\$3,781,141,134	6.88%
Attucks Fixed Income	\$96,047,737	0.17%	\$93,481,877	0.17%
Brandes FI Core	\$447,979,063	0.81%	\$336,483,265	0.61%
Earnest Partners	\$925,376,731	1.68%	\$899,737,145	1.64%
Garcia Hamilton	\$980,304,127	1.78%	\$946,535,912	1.72%
Ramirez Asset Management	\$534,199,534	0.97%	\$519,342,780	0.95%
Xponance Yield Advantage Agg	\$1,012,379,554	1.83%	\$985,560,156	1.79%
Domestic Fixed Passive Core	\$3,321,360,453	6.02%	\$2,889,940,006	5.26%
NTGI Bloomberg Aggregate	\$1,560,049,560	2.83%	\$1,176,318,632	2.14%
Blackrock US Debt Income	\$1,761,310,892	3.19%	\$1,713,621,374	3.12%
Domestic Fixed Core Plus	\$2,570,315,623	4.66%	\$2,945,193,740	5.36%
LM Capital Group FI	\$867,166,327	1.57%	\$844,328,470	1.54%
Loop Capital Management	\$853,723,404	1.55%	\$585,468,887	1.07%
Western Asset	\$1,082,149	0.00%	\$937,803,682	1.71%
Longfellow Core Plus	\$848,296,807	1.54%	\$577,592,702	1.05%
Global Transition Account	\$46,936	0.00%	-	-
Bank Loans	\$1,271,680,774	2.30%	\$1,287,975,668	2.35%
Barings Global Loan Fund	\$1,271,680,774	2.30%	\$1,287,975,668	2.35%
Emerging Markets Debt	\$265,343	0.00%	\$209,821	0.00%
Standish-Mellon EMD	\$265,343	0.00%	\$209,821	0.00%
High Yield	\$1,176,888,768	2.13%	\$1,156,983,122	2.11%
MacKay Shields	\$1,176,888,768	2.13%	\$1,156,983,122	2.11%

Asset Distribution Across Investment Managers

	March 31, 2025		December 31, 2024	
	Market Value	Weight	Market Value	Weight
Private Real Assets	\$5,409,403,188	9.80%	\$5,297,801,756	9.65%
Real Estate	\$4,856,780,458	8.80%	\$4,756,797,359	8.66%
Real Estate Core	\$2,099,704,523	3.80%	\$2,114,218,588	3.85%
TA Assoc. Buckhead	\$919,017,818	1.67%	\$944,423,483	1.72%
Barings Euro Core Property	\$99,428,373	0.18%	\$94,346,868	0.17%
Blackstone Property Euro	\$168,288,487	0.30%	\$161,632,183	0.29%
INVESCO Core Real Estate	\$193,934,536	0.35%	\$195,418,314	0.36%
INVESCO European real estate	\$54,166,261	0.10%	\$51,931,295	0.09%
AEW Core Property Trust	\$236,978,178	0.43%	\$236,978,178	0.43%
CBRE Core Partners	\$279,558,782	0.51%	\$279,868,696	0.51%
JPM Strategic Property Fund	\$148,332,087	0.27%	\$149,619,571	0.27%
Real Estate Non-Core	\$2,757,075,935	5.00%	\$2,642,578,772	4.81%
Artemis MWBE Spruce	\$494,657,368	0.90%	\$432,424,848	0.79%
Franklin T. EMREFF	\$9,216	0.00%	\$76,752	0.00%
Barings Real Estate Debt	\$31,361,843	0.06%	\$3,091,345	0.01%
Security Capital	\$95,549,774	0.17%	\$104,562,237	0.19%
Dune II	\$5,885,944	0.01%	\$5,406,471	0.01%
Non-Core Domestic Real Estate Funds	\$1,799,492,517	3.26%	\$1,787,064,311	3.25%
Non-Core International Real Estate Funds	\$330,076,780	0.60%	\$309,908,762	0.56%
Almanac ARS V	\$42,493	0.00%	\$44,046	0.00%
Agriculture	\$200,076,741	0.36%	\$202,373,169	0.37%
Premiere Partners IV	\$200,076,741	0.36%	\$202,373,169	0.37%
Timberland	\$70,333,595	0.13%	\$70,933,595	0.13%
Forest Investment	\$70,333,595	0.13%	\$70,933,595	0.13%
Infrastructure	\$282,212,394	0.51%	\$267,697,633	0.49%
Unlisted Infrastructure Funds	\$282,212,394	0.51%	\$267,697,633	0.49%

Asset Distribution Across Investment Managers

	March 31, 2025		December 31, 2024	
	Market Value	Weight	Market Value	Weight
Alternative Investments	\$7,078,769,235	12.83%	\$6,641,066,258	12.09%
Absolute Return	\$13,894	0.00%	\$13,557	0.00%
Aurora Investment	\$13,894	0.00%	\$13,557	0.00%
Private Equity	\$6,295,238,883	11.41%	\$5,898,306,924	10.74%
Abbott S/A Comp	\$463,332,468	0.84%	\$466,949,424	0.85%
Pantheon S/A Comp	\$415,297,141	0.75%	\$422,346,461	0.77%
Private Equity Fund - Domestic	\$4,217,796,054	7.64%	\$3,871,116,033	7.05%
Private Equity Fund - International	\$876,888,312	1.59%	\$816,054,143	1.49%
Oakbrook Opportunities Fund	\$321,924,908	0.58%	\$321,840,862	0.59%
Private Credit	\$783,516,458	1.42%	\$742,745,777	1.35%
Private Credit Fund - Domestic	\$730,008,615	1.32%	\$696,170,127	1.27%
Private Credit Fund - International	\$53,507,843	0.10%	\$46,575,650	0.08%
Cash and Equivalents	\$637,740,175	1.16%	\$225,357,029	0.41%
Cash	\$637,740,175	1.16%	\$225,357,029	0.41%
Total Fund	\$55,182,871,400	100.00%	\$54,923,200,827	100.00%

IMRF Benchmark Definitions for Composites

Benchmark Name	From Date	To Date	Benchmark Definition
IMRF Total Fund Benchmark	1/1/2024	12/31/2024	34.5% Blended Benchmark (U.S. Equity), 18.0% MSCI AC World ex USA (Net), 24.5% Custom Benchmark (Fixed Income), 10.5% Custom Benchmark (Private Real Assets), 11.5% Custom Benchmark (Alternative Investments), 1.0% 90 Day U.S. Treasury Bill
	1/1/2024	12/31/2024	34.5% Blended Benchmark (U.S. Equity), 18.0% MSCI AC World ex USA (Net), 24.5% Custom Benchmark (Fixed Income), 10.5% Custom Benchmark (Private Real Assets), 11.5% Custom Benchmark (Alternative Investments), 1.0% 90 Day U.S. Treasury Bill
	3/1/2022	12/31/2023	35.5% Domestic Equity Custom Benchmark, 25.5% Fixed Income Custom Benchmark, 18% MSCI AC World ex USA (Net), 10.5% Private Real Assets Custom Benchmark, 9.5% Alternatives Custom Benchmark, 1% 90 Day US Treasury Bill.
	1/1/2021	2/28/2022	39% Russell 3000 Index, 25% Blmbg U.S. Aggregate, 15% MSCI AC World ex USA (Net), 10% NCREIF Fund Index-ODCE (VW) (Net), 10% Alternatives Custom Benchmark, 1% 90 Day US Treasury Bill.
	3/1/2018	12/31/2020	37% Russell 3000 Index, 28% Blmbg. U.S. Aggregate, 18% MSCI AC World ex USA (Net), 9% NCREIF Fund Index-ODCE (VW) (Net), 7% Alternatives Custom Benchmark, 1% 90 Day US Treasury Bill.
Domestic Equity Custom Benchmark	3/1/2022	Present	93% Russell 3000 Index, 7% FTSE Global Core Infrastructure 50/50 Index (Net)
	1/1/2015	2/28/2022	100% Russell 3000 Index
	1/1/1982	12/31/2014	100% Dow Jones US Total Stock Market Index
U.S. Equity IMRF Custom Benchmark	Blend of the U.S. Equity Style benchmarks returns, dollar weighted by the actual allocation at pervious month end.		
International Equity IMRF Custom Benchmark	Blend of the International Equity Style benchmarks returns, dollar weighted by the actual allocation at previous month end.		
Fixed Income IMRF Custom Benchmark	Blend of the Fixed Income Style benchmarks returns, dollar weighted by the actual allocation at previous month end.		

IMRF Benchmark Definitions for Composites

Benchmark Name	From Date	To Date	Benchmark Definition
Fixed Income Custom Benchmark	1/1/2024	Present	82% Bloomberg U.S. Aggregate, 10% Custom Barings Global Loan Benchmark, 8% ICE BofA ML U.S. High Yield Cash Pay Index
	3/1/2022	12/31/2023	78% Bloomberg U.S. Aggregate, 14% Custom Barings Global Loan Benchmark, 8% ICE BofA ML U.S. High Yield Cash Pay Index
	1/1/1976	2/28/2022	100% Bloomberg U.S. Aggregate Index
Private Real Assets Custom Benchmark	3/1/2022	Present	95% NCREIF Fund Index-ODCE Value-Weighted (Net), 5% Consumer Price Index +4%
Real Estate Blended Benchmark	1/1/2013	Present	100% NCREIF Fund Index-ODCE Value-Weighted (Net)
	1/1/2007	12/31/2012	100% NPI + 1%
	1/1/2005	12/31/2016	100% Consumer Price Index + 5%
Unlisted Infrastructure Blended Benchmark	3/1/2022	Present	100% Consumer Price Index +4%
	4/1/2018	2/28/2022	100% Alternatives Custom Index
Alternative Investments Custom Index	1/1/2025	Present	80% MSCI World Index (Net) 1 Qtr Lag +3%, 20% S&P LSTA Lev. Loan 100 Index +2%
	1/1/2024	12/31/2024	87% MSCI World Index (Net) 1 Qtr Lag +3%, 13% S&P LSTA Lev. Loan 100 Index +2%
	3/1/2022	3/31/2023	95% MSCI World Index (Net) 1 Qtr Lag +3%, 5% S&P LSTA Lev. Loan 100 Index +2%
	7/1/2010	2/28/2022	100% Annualized rate of 9.0%
	1/1/2004	6/30/2010	100% Annualized rate of 12.0%
	1/1/2003	12/31/2003	100% Annualized rate of 13.0%
Private Equity Blended Benchmark	3/1/2022	Present	100% MSCI World Index (Net) 1 Qtr Lagged +3%
	2/1/1996	2/28/2022	100% Alternatives Custom Index

IMRF Benchmark Definitions for Managers

Benchmark Name	From Date	To Date	Benchmark Definition
Barings Custom Benchmark			Credit Suisse U.S. Leveraged Loan Index and the Credit Suisse Western European Leveraged Loan Index, weighted by the portfolio's market value to each sector.
Standish Custom Benchmark			50% JPM GBI-EM Index, 25% JPM EMBI Global Index and 25% JPM Corporate EMBI Diversified Index.

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