IPERS®

Investment Board Meeting Agenda

Friday, March 28, 2025
9:00 a.m. – 11:15 a.m.
Virtual Meeting
Conference Telephone #: 312-626-6799 / Meeting ID: 890 3831 3824

9:00 a.m. **Call to Order**

9:05 a.m. **Approval of Previous Board Meeting Minutes – December 6, 2024**

9:10 a.m. **CEO Report**
Greg Samorajski, IPERS

9:20 a.m. **Legislative Session Update**
Shawna Lode, IPERS

9:30 a.m. **Calendar Year 2024 Investment Performance Review**
Thomas Toth and Ali Kazemi, Wilshire

10:00 a.m. **Closed Session for CIO Performance Evaluation and CEO Compensation**

10:30 a.m. **Break**

10:40 a.m. **IPERS Investment Staff Reports**
- Beta Report – Sriram Lakshminarayanan
- Alpha Report – Investment Team
- Private Market Program – Investment Team
- Risk Report – Sriram Lakshminarayanan
- CIO Updates – Sriram Lakshminarayanan

11:05 a.m. **Public Comments**

11:10 a.m. **Other Business**
- Confirm Next Meeting Dates – Thursday, June 19, 2025
- Next BAC Meeting – Monday, March 31, 2025

11:15 a.m. **Adjourn**

INVESTMENT BOARD AND BENEFITS ADVISORY COMMITTEE MINUTES
IPERS Headquarters
7401 Register Drive, Des Moines, Iowa
December 6, 2024

The following people attended the IPERS Investment Board Meeting held on Friday, December 6, 2024.

Members of the Board—Present

Bill Bemis, Chair
Kris Rowley, Vice Chair
Justin Kirchhoff
Tami Loge
Treasurer Roby Smith
Matt Watters
Representative Martin Graber
Senator Molly Donahue

Members of the Board—Absent

Representative Amy Nielsen
Senator Mark Lofgren

Administration and Staff

Greg Samorajski, Chief Executive Officer
Sriram Lakshminarayanan, CIO
John Fujiwara, Head of Strategy
Sheldon Lien, Senior Investment Officer
Pat Reinhardt, Senior Investment Officer
Keith Scholten, Senior Investment Officer
Marcus Dong, Senior Investment Officer
Kate Fishman, Investment Officer
Ankit Saw, Investment Officer
Melinda McElroy, Executive Assistant
Elizabeth Hennessey, General Counsel
Shawna Lode, Chief Strategy Officer
Rick Hindman, Deputy Executive Director
Amanda Schwarz, CFAO
Andrew Ewing, Attorney

Consultant—*Wilshire*

Ali Kazemi

Actuary—*Cavanaugh Macdonald*

Patrice Beckman
Brent Banister
Bryan Hoge

Call to Order

Chairperson Bill Bemis called the IPERS Investment Board meeting to order at 10:30 a.m.

Approval of Minutes from the Previous Meetings

Tami Loge moved to approve the September 25, 2024, and September 26, 2024, Investment Board meeting minutes. Treasurer Smith seconded. The motion carried by unanimous voice vote.

2024 Actuarial Valuation Report

Cavanaugh Macdonald presented the 2024 actuarial valuation report results. IPERS' funded status increased from 89.70% to 90.75% and the unfunded actuarial liability decreased from $4.71 billion to $4.38 billion. The 2024 valuation report sets the required contribution rates for FY2026. Contribution rates for Regular and Protection Occupation members remain unchanged. Contribution rates for Sheriffs and Deputy Sheriffs increased by 7.16% because of benefit enhancements established in HF2661.

CEO's Report

Greg Samorajski introduced Amanda Schwarz, IPERS' newly hired Chief Financial and Administrative Officer. He next recognized David Martin, IPERS' Chief Benefits Officer (CBO), who is retiring this month. In the weeks ahead, IPERS will redefine the CBO role and conduct a national search. The Benefits Advisory Committee will consult on the hiring. Greg also discussed IPERS' intent to issue an RFP to outsource the various aspects of disability benefits management, including evaluating claims, ensuring compliance with relevant laws and regulations, and managing ongoing cases effectively.

Administrative Rules

Elizabeth Hennessey reviewed the proposed changes to Iowa Administrative Code 495—Chapter 2 "Investment Board." The proposed changes are in response to Governor Reynolds' Executive Order 10 that, in part, directs agencies to rescind rules that are duplicative of statue. Kris Rowley moved to approve the proposed changes as presented. Justin Kirchhoff seconded. The motion carried by unanimous voice vote.

CY2025 Private Markets Commitments

Pat Reinhardt and Marcus Dong reviewed the private markets program commitment plan for calendar year 2025, noting commitments would not exceed: $1 billion to private real assets, $650 million to private credit and $700 million to private equity.

Absolute Return Search Manager Hiring Recommendations

John Fujiwara reported the RFP to identify absolute return investment products that could be used in a portable alpha strategy was issued on January 10, 2024. IPERS received 93 responses to the RFP. The evaluation committee recommended the Investment Board approve the hiring of the following five investment firms/strategies, subject to final due diligence and successful contract negotiations:

Firm Name	Strategy Name
AQR Capital Management	AQR Helix Strategy
Brevan Howard	Brevan Howard Alpha Strategies Master Fund Limited
Bracebridge Capital	Bracebridge Absolute Return Composite
Blackstone	Blackstone Strategic Opportunity Fund
Davidson Kempner Capital Management	Navigator Fund

Justin Kirchhoff moved to approve the proposed hiring recommendations. Matt Watters seconded. The motion carried by roll call vote.

Ayes: Bill Bemis, Kris Rowley, Justin Kirchhoff, Tami Loge, Treasurer Roby Smith and Matt Watters
Nays: None
Absent: None

MOTION PASSED

IPERS Investment Staff Reports

Beta Report

Sriram Lakshminarayanan reviewed the Fund's asset allocation and reported all asset classes were within their established policy ranges. The estimated market value of the IPERS Trust Fund is $44.62 billion.

Alpha Report

No concerns were noted on the alpha report.

Private Markets Program Risk Report
Pat Reinhardt noted minor performance concerns for real assets manager Heitman CREDIT.

Risk Report
Sriram Lakshminarayanan reviewed IPERS' standard risk reports.

FY2024 Investment Management Expenses
Keith Scholten reported IPERS' FY2024 preliminary investment management expenses were $58.4 million, 0.219% of the IPERS Trust Fund's average market value. Investment management expenses increased 34.4% from FY2023.

CIO Updates

Sriram Lakshminarayanan discussed the investment landscape following the presidential election. IPERS will continue to look for active investment strategies to add value to the portfolio and will likely issue another RFP for absolute return strategies in January 2025. IPERS' FY2026 budget request included removing the current cap that limits incentive compensation payments to investment staff at $25,000 per year/employee. He concluded his updates by mentioning Wilshire's Client Conference is April 8-9, 2025, Board members are encouraged to attend educational conferences as their schedules permit.

Public Comments

None

Confirm Next Meeting Date and Adjournment

The Investment Board's next meeting is Friday, March 28, 2025. With no further business to come before the Board, Tami Loge moved to adjourn. Matt Watters seconded. The motion carried by unanimous voice vote. The meeting adjourned at 2:00 p.m.

Wilshire

Iowa Public Employees' Retirement System

Calendar Year 2024 Annual Investment Summary

December 2024

Quarterly Market Review

December 31, 2024

Market Commentary

U.S. Equity

The U.S. stock market was up 2.6% for the fourth quarter and is up 23.8% for the year-to-date. Sector performance was, in fact, mostly negative for the quarter, with seven sectors producing a loss. However, the three largest sectors by market capitalization were all up – information technology (+5.9%), financials (+7.8%) and consumer discretionary (+12.3%). Small-cap underperformed large-cap by 180 basis points while growth stocks generally outperformed value by a large margin.

The Federal Reserve began raising rates in early 2022 in response to 7% annual inflation, which continued to accelerate to 9%. Rates were increased by 525 basis points during a 17-month period before pausing for roughly one year. The U.S. central bank began decreasing rates during 2024 – by a total of 100 basis points in three meetings. While it is probably too early to judge whether they achieved a "soft landing," early data is positive. The unemployment rate is low – although jobs growth has been unsteady – and the economy continues to expand. However, inflation ticked higher during the fourth quarter and the Fed took notice. Current expectations for rate cuts in 2025 are modest (-0.50%) and down meaningfully from September.

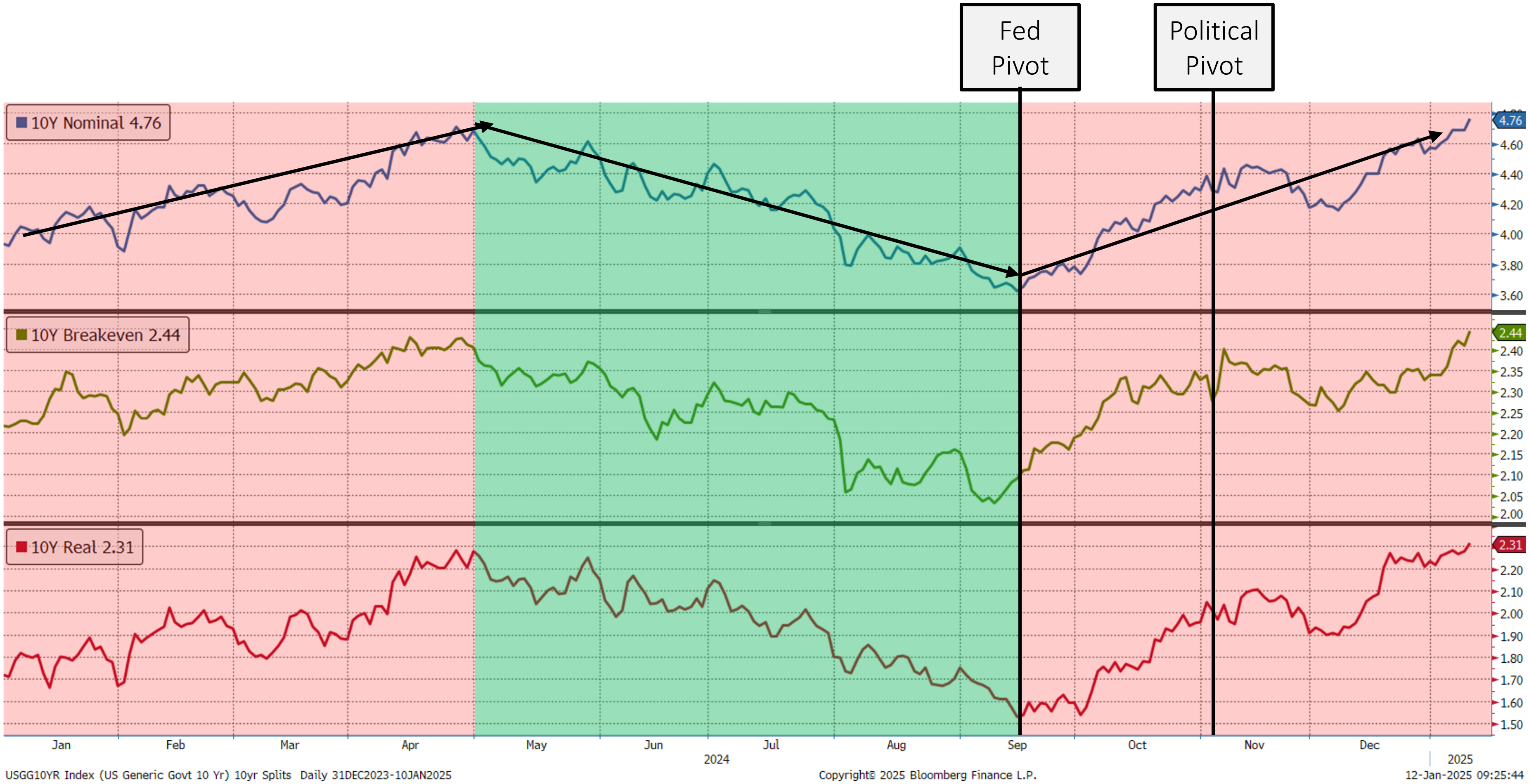
Non-U.S. Equity

Economic growth in England continues to slow with business confidence waning. Prospects in Germany, Europe's largest economy, are equally dim due to persistently high energy prices and growing competition with China. Currency changes played a major role in U.S. dollar returns this quarter as the dollar rose meaningfully versus the euro, pound and yen. China's economy may be turning a corner after several stimulative macroeconomic policies were announced in September. Early indicators show strength in the services sector along with growth in retail sales.

Fixed Income

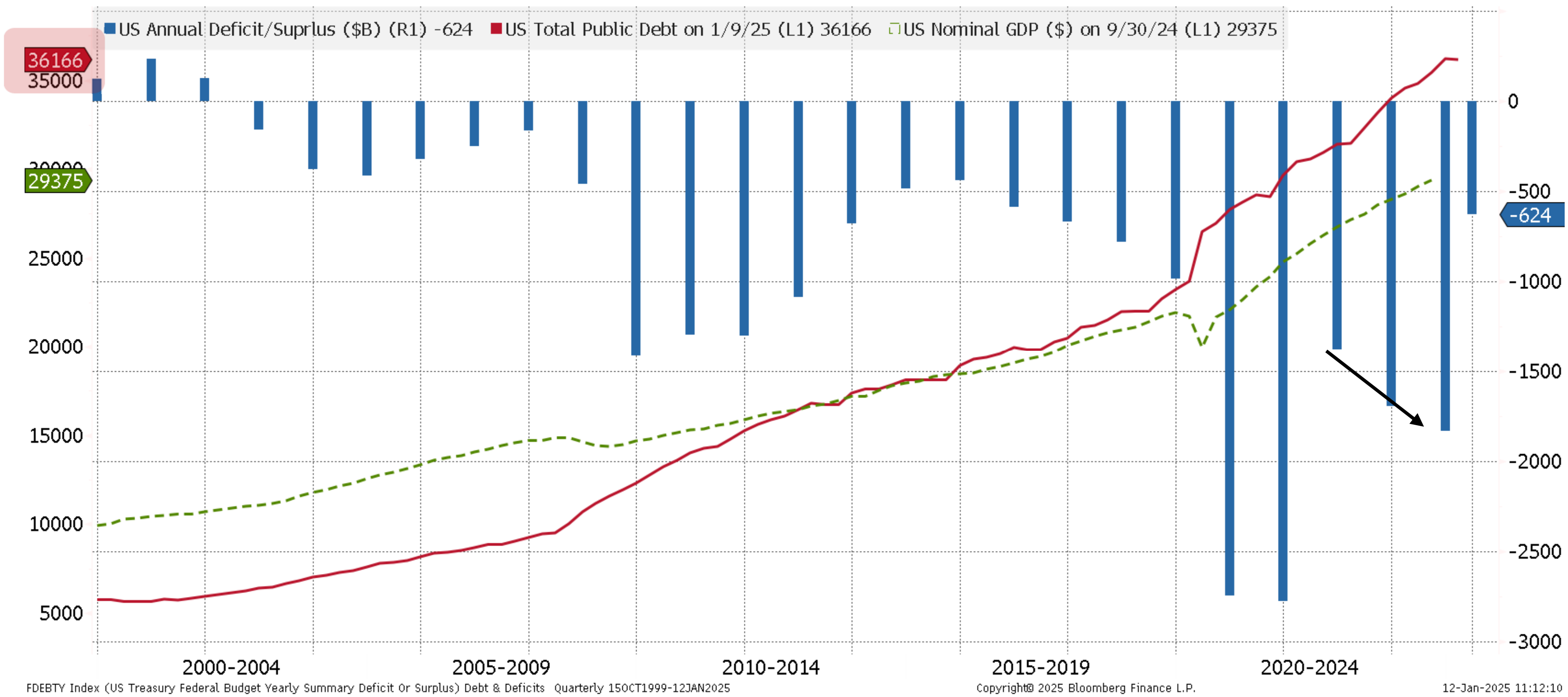
The U.S. Treasury yield curve was up across most of the maturity spectrum. The 10-year Treasury yield ended the quarter at 4.57%, up 79 basis points from September. The FOMC met twice during the quarter and decreased their overnight rate by a total of -0.50%. Expectations for rate cuts next year have come down as some officials are concerned that the new administration's preference for tariffs could push prices higher. In fact, Fed Chair Jerome Powell recently stated that, "when the path is uncertain, you go a little slower."

2024 Rate Environment Segmented



Data Source: Bloomberg

Debt / Deficit Picture



Data Source: Bloomberg

Summary Changes

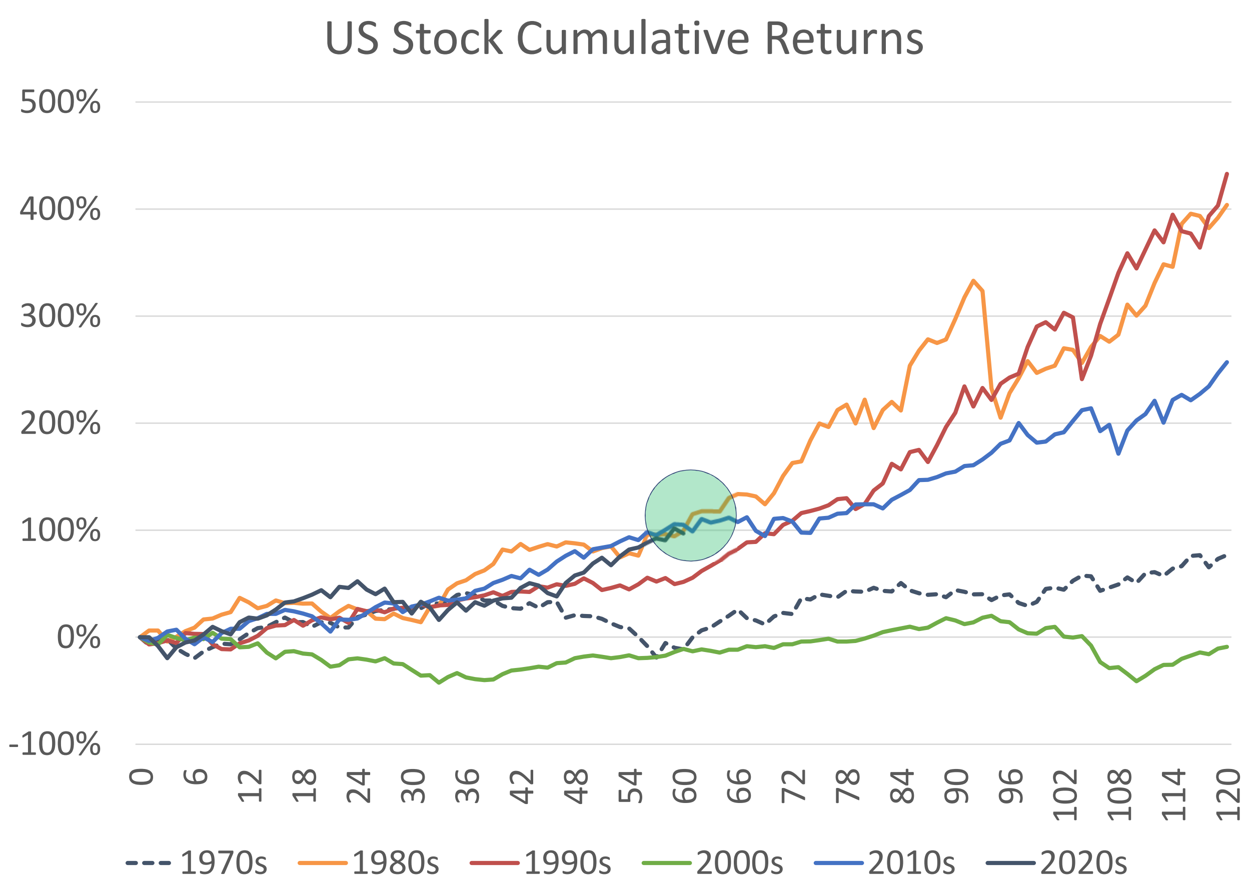
- Yield curve up across most of the maturity spectrum, except the very short term
  - Curve movements resulted in higher forecasts for fixed income asset classes
  - Slight decrease in spreads for investment grade and high yield bonds
- Yields on most real asset securities are up from last quarter; inflation assumption up at 2.35%
- Equity assumptions are up slightly; private equity up to the same degree due to higher leverage costs
- Equity risk premium worsened due to the larger increase in fixed income forecasts

	Total Return (%)			Risk (%)
Asset Class Assumption	Sep 2024	Change	Dec 2024	
Inflation	2.25	0.10	2.35	1.75
Cash Equivalents	3.40	0.20	3.60	0.75
Treasuries	4.05	0.65	4.70	5.00
Core Bonds	4.60	0.60	5.20	4.75
LT Core Bonds	4.65	0.65	5.30	9.90
High Yield Bonds	5.95	0.40	6.35	10.00
Private Credit	7.45	0.30	7.75	12.75
Global RE Securities	5.25	0.45	5.70	16.55
Private Real Estate	6.10	0.30	6.40	13.95
U.S. Stocks	4.25	0.10	4.35	17.00
Dev. ex-U.S. Stocks	5.25	0.10	5.35	18.00
Emerging Market Stocks	5.50	0.10	5.60	26.00
Private Equity	6.15	0.10	6.25	29.65
Global 60/40 (ACWI/U.S. Core)	4.95	0.25	5.20	10.75

	Relative Return (%)		
Implied Risk Premia	Sep 2024	Change	Dec 2024
Cash - Inflation	1.15	0.10	1.25
Treasury - Cash	0.65	0.45	1.10
Core - Treasury	0.55	-0.05	0.50
Long-Term Core - Core	0.05	0.05	0.10
High Yield - Core	1.35	-0.20	1.15
Global RESI - Core	0.65	-0.15	0.50
U.S. Stocks - Core	-0.35	-0.50	-0.85
Private Equity - U.S. Stocks	1.90	0.00	1.90
Implied Real Return (ACA - CPI)			
U.S. Stocks	2.00	0.00	2.00
U.S. Bonds	2.35	0.50	2.85
Cash Equivalents	1.15	0.10	1.25

"Nobody told me there'd be days like these"[1] (Stock Returns by Decade)

"Everybody's flying and never touch the sky"[1]

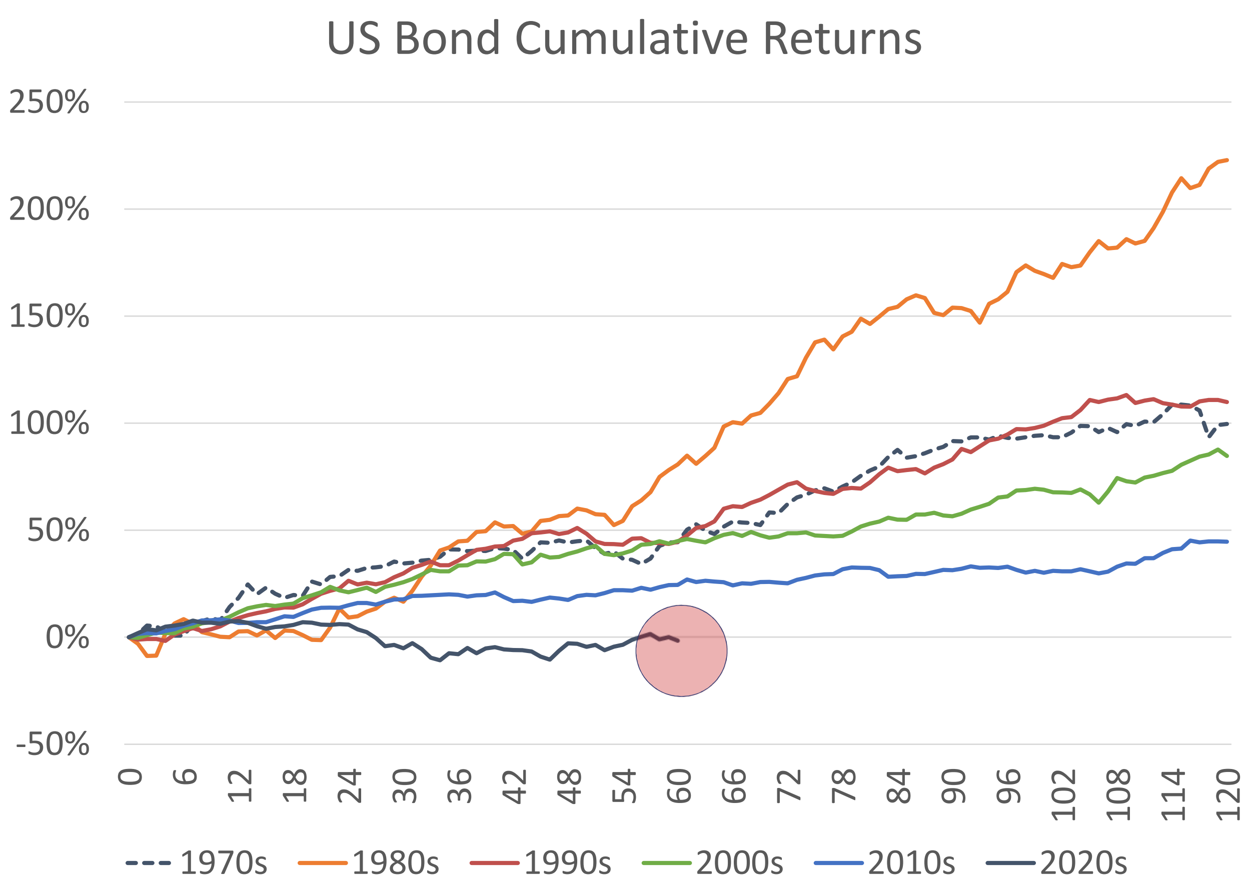


Data Source: Wilshire Compass, Bloomberg

[1] John Lennon, "Nobody Told Me," *Milk and Honey*, 1984

“Nobody told me there’d be days like these”[1] (Bond Returns by Decade)

“Well, everybody’s crying and no one makes a sound”[1]

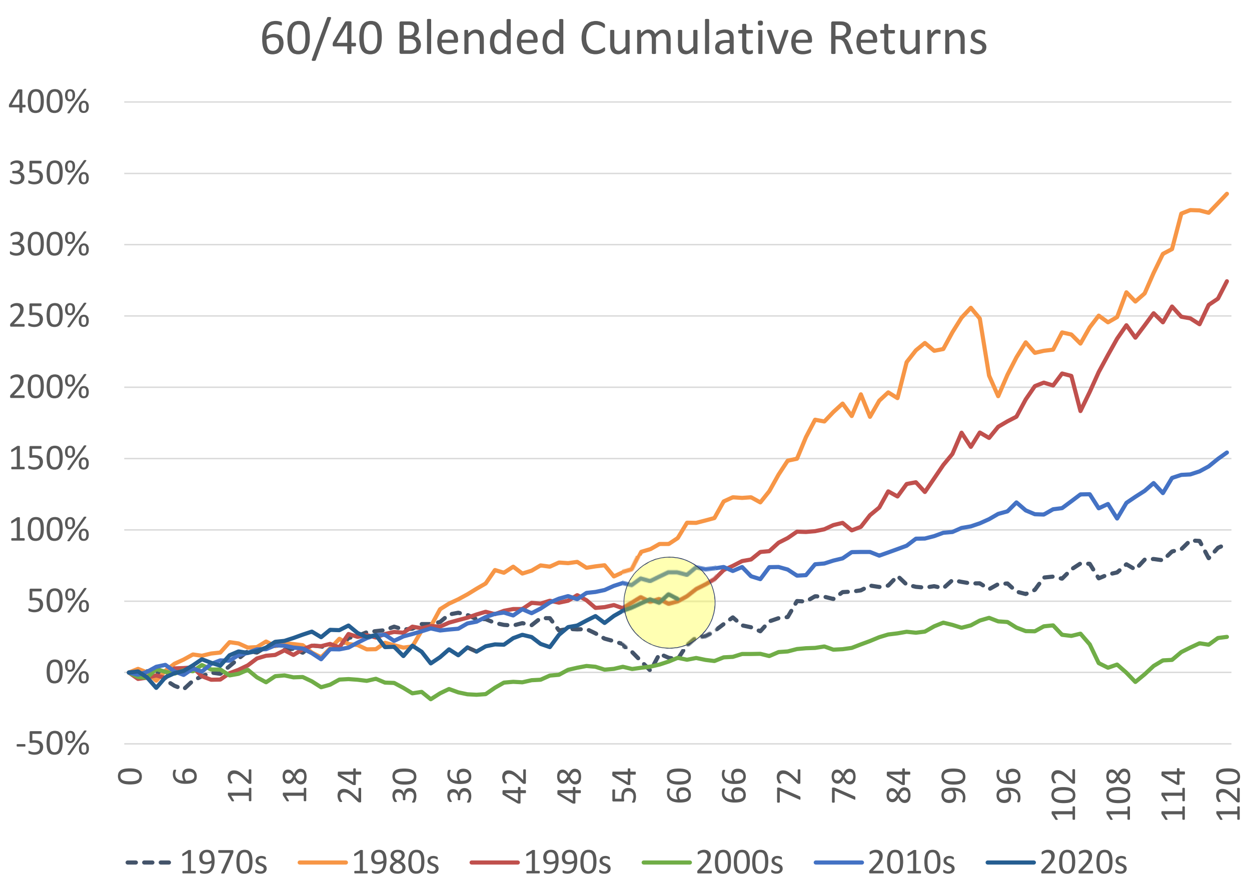


Data Source: Wilshire Compass, Bloomberg

[1] John Lennon, “Nobody Told Me,” *Milk and Honey*, 1984

"Nobody told me there'd be days like these"[1] (60/40 Returns by Decade)

"Always something happening and nothing going on"[1]

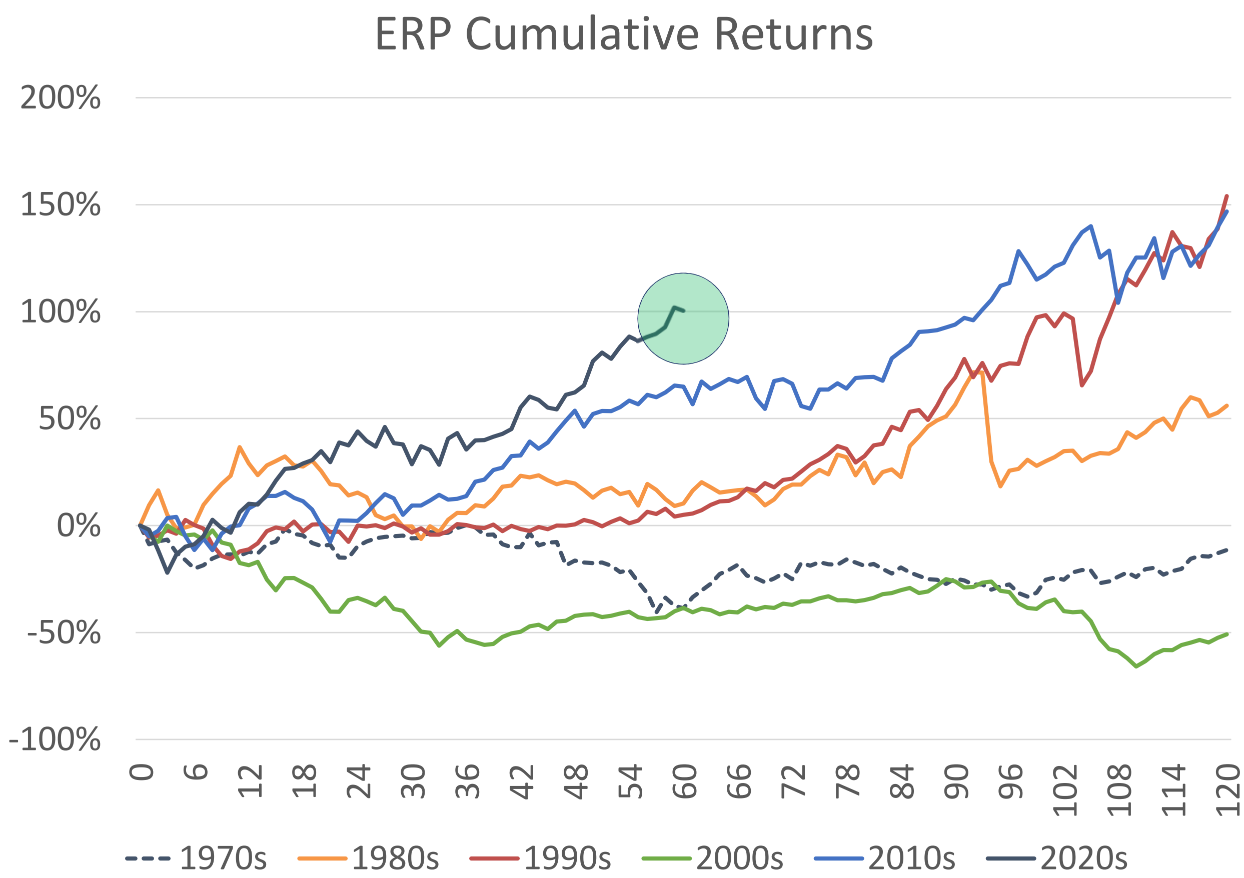


Data Source: Wilshire Compass, Bloomberg

[1] John Lennon, "Nobody Told Me," *Milk and Honey*, 1984

"Nobody told me there'd be days like these"[1] (Stock > Bond Returns by Decade)

"Strange days indeed… Most peculiar, mama"[1]

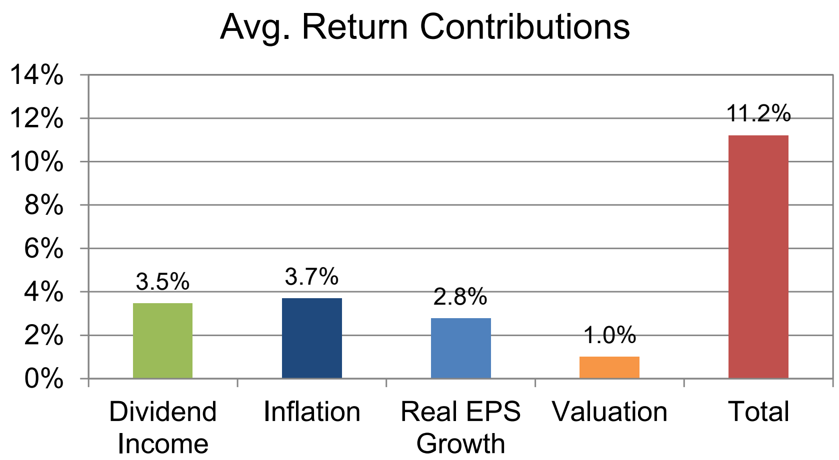


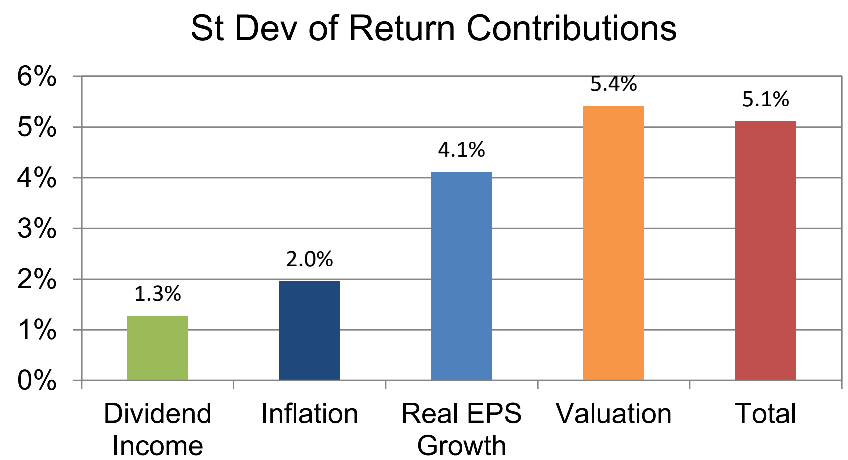
Data Source: Wilshire Compass, Bloomberg

[1] John Lennon, "Nobody Told Me," *Milk and Honey*, 1984

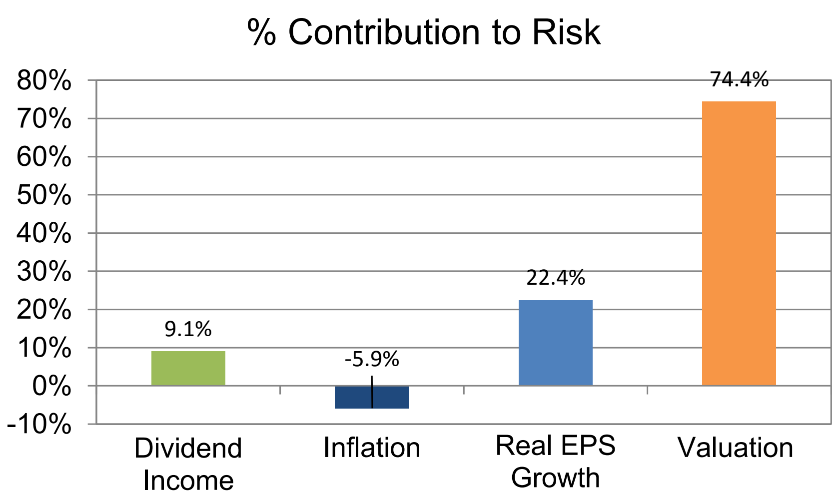
Contributions to Avg. Return, Risk Levels & Contributions to Risk

Historical data from 1951 through 2024



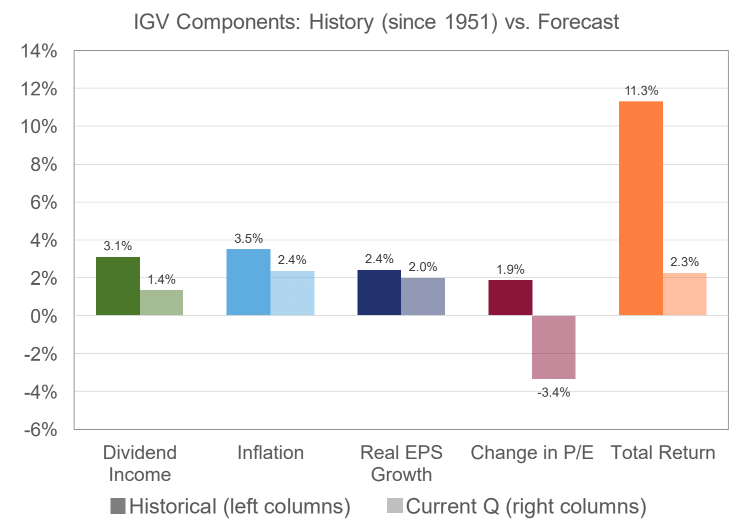


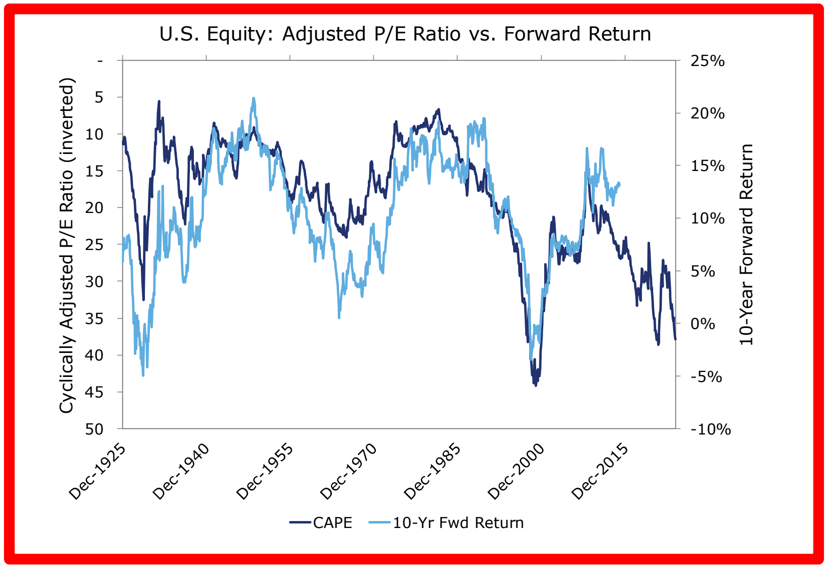
Data Source: S&P

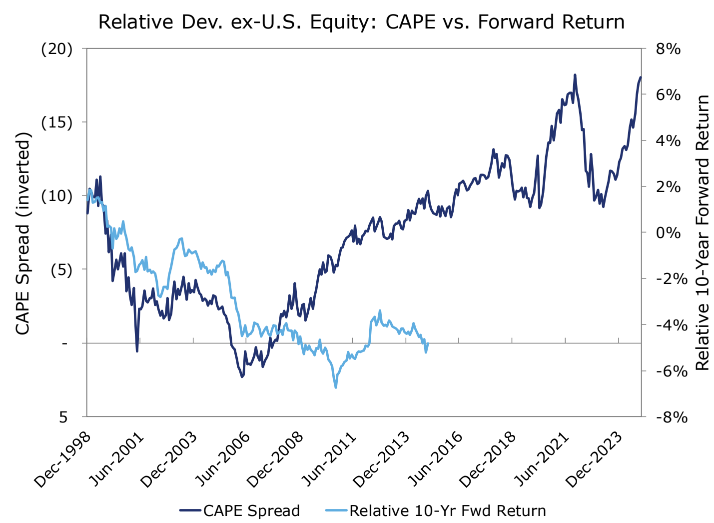


Equity Markets

Equity: Public & Private		Sep 2024	Change	Dec 2024
Equity	DDM	6.40	0.15	6.55
	IGV	2.20	0.10	2.30
	CAPE	2.35	(1.25)	1.10
	U.S. Equity Forecast	4.25	0.10	4.35
	Dev-ex-US Equity Forecast	5.25	0.10	5.35
	EM Equity Forecast	5.50	0.10	5.60
Private	Cost of Debt (Public)	5.35	0.50	5.85
	Cost of Debt (Private)	7.35	0.20	7.55
	Private Market Basket Forecast	6.15	0.10	6.25







Asset Class Performance

Asset Class Returns - Best to Worst

2019	2020	2021	2022	2023	2024 YTD	Annualized 5-Year as of 12/24
U.S. Equity 31.0%	U.S. Equity 20.8%	REITs 46.2%	Commodities 16.1%	U.S. Equity 26.1%	U.S. Equity 23.8%	U.S. Equity 14.1%
REITs 25.8%	Emrg Mrkts 18.7%	Commodities 27.1%	T-Bills 1.3%	Developed 18.9%	REITs 9.1%	Commodities 6.8%
Developed 22.7%	U.S. TIPS 11.0%	U.S. Equity 26.7%	High Yield -11.2%	REITs 16.1%	High Yield 8.2%	Developed 5.2%
Emrg Mrkts 18.9%	Developed 8.3%	Developed 11.8%	U.S. TIPS -11.8%	High Yield 13.4%	Emrg Mrkts 8.1%	REITs 4.5%
High Yield 14.3%	Core Bond 7.5%	U.S. TIPS 6.0%	Core Bond -13.0%	Emrg Mrkts 10.3%	Commodities 5.4%	High Yield 4.2%
Core Bond 8.7%	High Yield 7.1%	High Yield 5.3%	Developed -14.0%	Core Bond 5.5%	T-Bills 5.3%	T-Bills 2.5%
U.S. TIPS 8.4%	T-Bills 0.7%	T-Bills 0.0%	U.S. Equity -19.0%	T-Bills 5.1%	Developed 4.3%	Emrg Mrkts 2.1%
Commodities 7.7%	Commodities -3.1%	Core Bond -1.5%	Emrg Mrkts -19.7%	U.S. TIPS 3.9%	U.S. TIPS 1.8%	U.S. TIPS 1.9%
T-Bills 2.3%	REITs -7.9%	Emrg Mrkts -2.2%	REITs -26.8%	Commodities -1.3%	Core Bond 1.3%	Core Bond -0.3%

Data Sources: Bloomberg

Note: Developed asset class is developed equity markets ex-U.S., ex-Canada

Wilshire

December 2024 Asset Class Assumptions

	Equity						Fixed Income							Real Assets					
														Real Estate					
	U.S. Stock	Dev ex-U.S. Stock	Emg Stock	Global ex-U.S. Stock	Global Stock	Private Equity	Cash	Core Bond	LT Core Bond	TIPS	High Yield	Private Credit	Dev ex-U.S. Bond (Hdg)	U.S. RES	Global RES	Private RE	Cmdty	Real Assets	U.S. CPI
Compound Return (%)	4.35	5.35	5.60	5.70	4.90	6.25	3.60	5.20	5.35	4.70	6.35	7.75	3.00	5.70	5.85	6.40	4.85	6.85	2.35
Arithmetic Return (%)	5.70	6.85	8.60	7.35	6.25	10.00	3.60	5.30	5.80	4.85	6.80	8.50	3.10	7.10	7.10	7.30	6.05	7.60	2.35
Risk (%)	17.00	18.00	26.00	19.05	17.00	29.65	0.75	4.75	9.90	6.00	10.00	12.75	4.00	17.50	16.55	13.95	16.00	12.60	1.75
Yield (%)	1.25	3.00	2.50	2.85	1.80	0.00	3.60	5.65	5.70	5.05	9.80	4.85	4.25	3.95	3.95	2.85	3.60	3.70	0.00
Growth Factor Exposure	8.00	8.00	8.00	8.00	8.00	14.00	0.00	-0.95	-2.55	-3.00	4.00	5.10	-1.00	6.00	6.00	3.70	0.00	0.70	0.00
Inflation Factor Exposure	-3.00	-1.00	3.00	0.15	-1.95	-4.25	0.00	-2.60	-6.95	2.50	-1.00	-1.50	-3.00	1.00	1.65	1.00	12.00	4.60	1.00
Correlations																			
U.S. Stock	1.00																		
Dev ex-U.S. Stock (USD)	0.81	1.00																	
Emerging Mkt Stock	0.74	0.74	1.00																
Global ex-U.S. Stock	0.84	0.96	0.89	1.00															
Global Stock	0.98	0.90	0.83	0.93	1.00														
Private Equity	0.72	0.63	0.61	0.66	0.73	1.00													
Cash Equivalents	-0.05	-0.09	-0.05	-0.08	-0.06	0.00	1.00												
Core Bond	0.27	0.13	0.00	0.08	0.21	0.30	0.18	1.00											
LT Core Bond	0.30	0.15	0.00	0.10	0.24	0.31	0.11	0.95	1.00										
TIPS	-0.05	0.00	0.15	0.06	-0.01	-0.03	0.20	0.60	0.47	1.00									
High Yield Bond	0.54	0.39	0.49	0.46	0.53	0.31	-0.10	0.24	0.32	0.05	1.00								
Private Credit	0.68	0.55	0.58	0.60	0.68	0.44	0.00	0.23	0.30	0.00	0.76	1.00							
Dev ex-U.S. Bond (Hdg)	0.16	0.25	-0.01	0.16	0.17	0.26	0.10	0.68	0.66	0.39	0.26	0.22	1.00						
U.S. RE Securities	0.57	0.47	0.44	0.49	0.56	0.49	-0.05	0.17	0.22	0.10	0.56	0.62	0.05	1.00					
Global RE Securities	0.62	0.55	0.52	0.58	0.63	0.54	-0.05	0.17	0.21	0.11	0.61	0.67	0.04	0.99	1.00				
Private Real Estate	0.55	0.45	0.45	0.48	0.55	0.50	-0.05	0.18	0.24	0.09	0.58	0.63	0.05	0.79	0.79	1.00			
Commodities	0.25	0.34	0.39	0.38	0.31	0.28	0.00	-0.03	-0.04	0.25	0.29	0.29	-0.10	0.25	0.28	0.25	1.00		
Real Assets	0.62	0.63	0.65	0.68	0.67	0.57	-0.03	0.24	0.25	0.32	0.64	0.69	0.06	0.79	0.83	0.77	0.63	1.00	
Inflation (CPI)	-0.10	-0.15	-0.13	-0.15	-0.12	-0.10	0.10	-0.12	-0.12	0.15	-0.08	0.00	-0.08	0.05	0.04	0.05	0.44	0.21	1.00

Total Fund

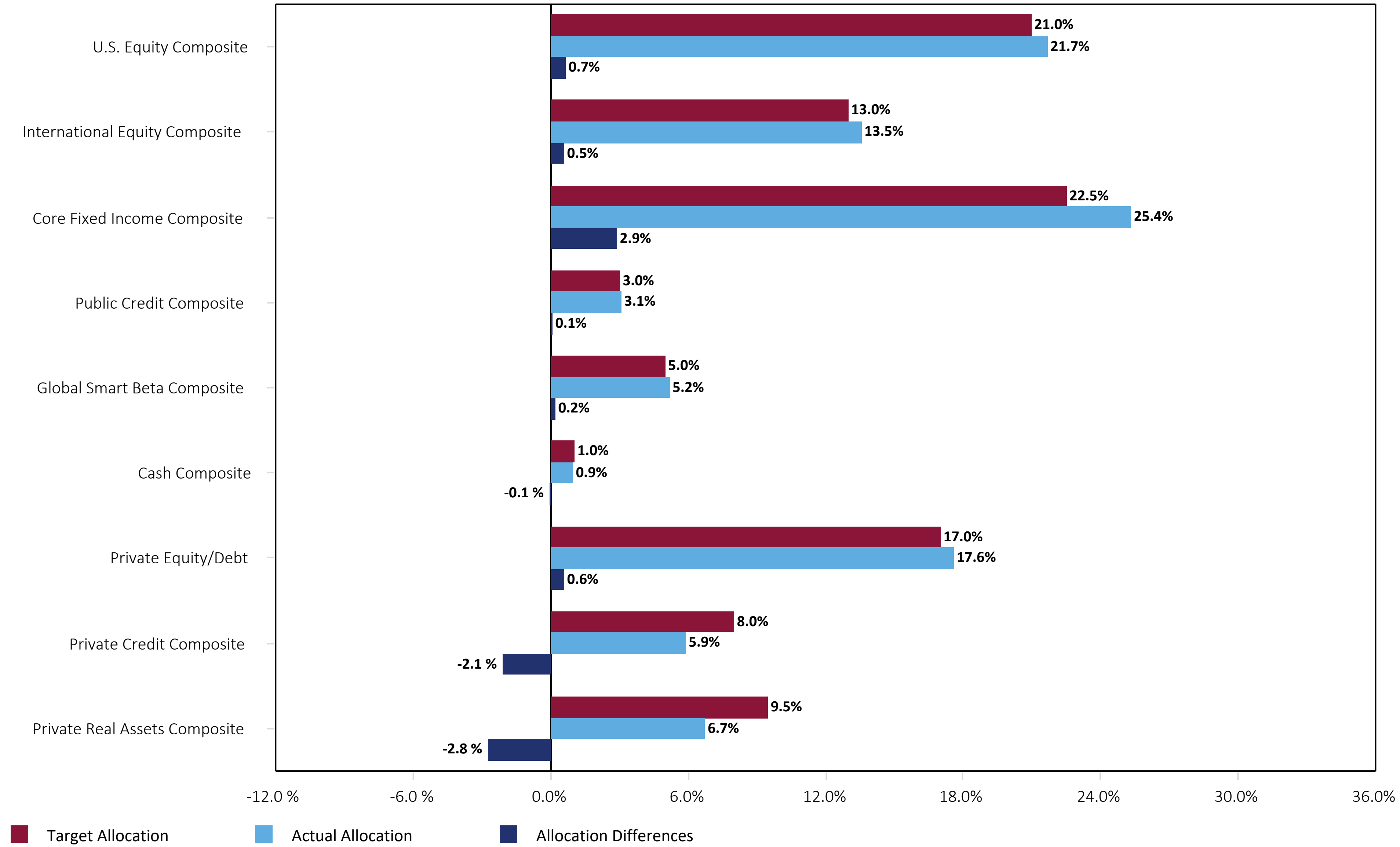
Executive Summary (as of 12/31/2024)

- Total Fund returned 8.4% during CY 2024, outperforming the Total Fund Policy Benchmark[1] ("policy") return of 8.2% over the same period.
- Manager alpha across public markets was strong for the year with positive double-digit returns and relative against their benchmarks. U.S. Equity, International Equity, and Public Credit led their policies, while Core Fixed Income slightly trailed their respective index.
- 10-year annualized returns were 7.7% for Total Fund, slightly outpacing the policy return.
- IPERS ranks very favorably versus peers across most time horizons. Total Fund return has ranked in the top quartile against all public plans with greater than $1 billion in assets over 5-, and 10-years.
- IPERS' 5-year risk-adjusted returns remain top-quartile relative to all public plans greater than $1 billion in Total Fund assets—outpacing almost 80% of peers.

Asset Allocation Compliance

Total Fund

Periods Ended As of December 31, 2024

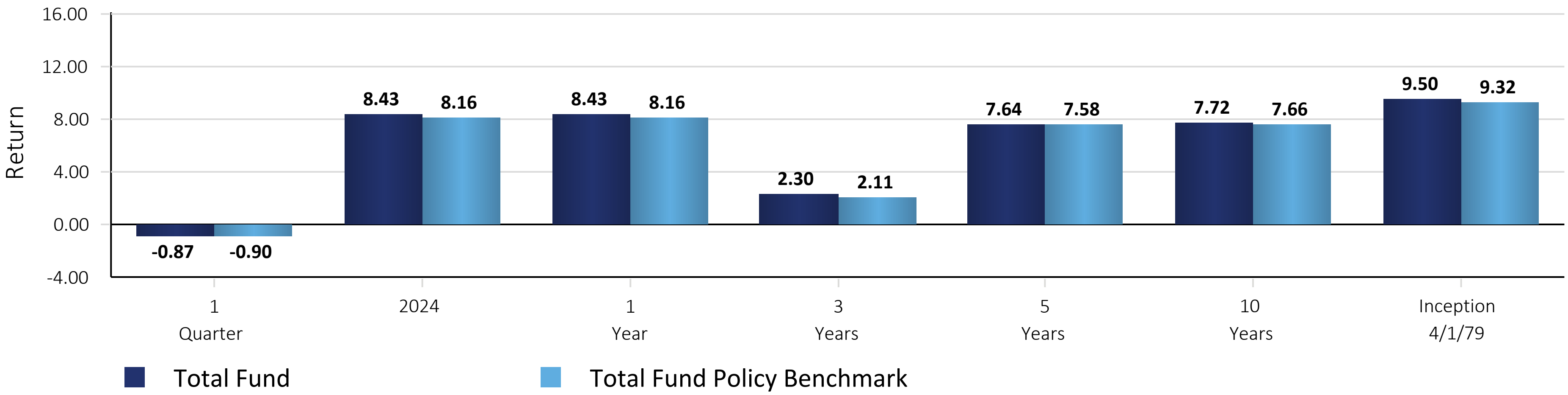


Total Fund Summary

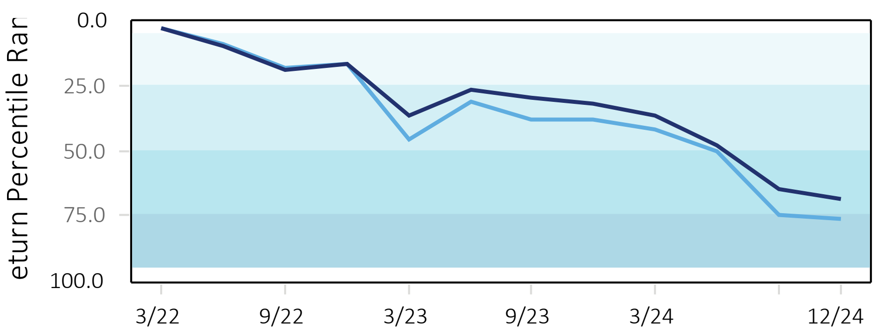
Total Fund

Periods Ended December 31, 2024

Comparative Performance

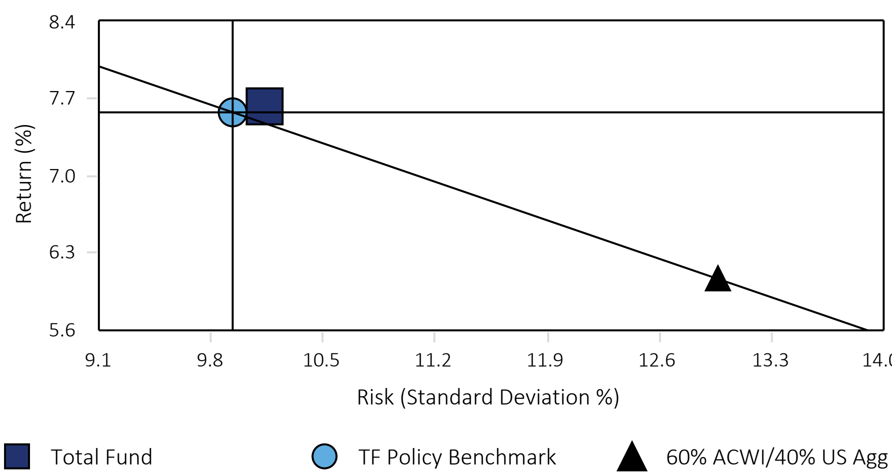


Rolling Percentile Rank: All Public Plans >$1B-Total Fund



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Total Fund	12	4 (33%)	6 (50%)	2 (17%)	0 (0%)
Benchmark	12	4 (33%)	6 (50%)	1 (8%)	1 (8%)

Risk and Return (5-year)



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Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2024

	Performance (%) Net of Fees										Market Value $	%
	1 Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	Since Inception	Inception Date		
Total Fund	**-0.87**	**3.56**	**8.43**	**2.30**	**7.64**	**7.72**	**7.46**	**8.61**	**9.50**	**4/1/1979**	**44,571,749,445**	**100.00**
Total Fund Policy Benchmark	-0.90	3.58	8.16	2.11	7.58	7.66	7.58	8.37	9.32			
Public Markets Reference Index	-2.43	3.75	9.48	1.94	5.74	6.20	6.28	7.11				
CPI + 3%	0.84	1.95	5.97	7.35	7.32	6.09	5.64	5.59	6.45			
All Public Plans > $1B-Total Fund Median	-0.85	3.78	8.87	2.76	6.89	6.91	6.56	7.78				
Actuarial Rate	1.71	3.44	7.00	7.00	7.00	7.08	7.29	7.35	7.06			
Public Markets Composite	**-2.01**	**4.02**	**10.13**	**2.51**	**6.10**				**6.90**	**10/1/2016**	**30,810,174,911**	**69.12**
Public Markets Reference Index	-2.43	3.75	9.48	1.94	5.74				6.78			
U.S. Equity Composite	**2.47**	**8.85**	**24.53**	**8.58**	**14.20**	**12.71**	**9.87**	**10.76**	**11.60**	**4/1/1975**	**9,304,619,496**	**20.88**
U.S. Equity Composite Benchmark	2.63	9.03	23.81	8.13	14.12	12.74	10.33	10.85				
International Equity Composite	**-7.14**	**-0.17**	**6.57**	**1.44**	**4.67**	**5.15**	**5.14**	**5.68**	**5.39**	**10/1/1989**	**5,777,312,889**	**12.96**
International Equity Policy Index	-7.60	-0.15	5.53	0.82	4.10	4.99	5.29	5.36	5.27			
Core Fixed Income Composite	**-3.13**	**2.01**	**1.20**	**-2.72**	**-0.30**	**1.73**	**3.41**	**4.97**	**6.21**	**7/1/1985**	**11,567,873,617**	**25.95**
Core Fixed Income Policy Index	-3.06	1.98	1.25	-2.33	-0.17	1.62	3.25	4.77	5.84			
Public Credit Composite	**-0.64**	**4.99**	**7.96**	**1.99**	**3.19**	**4.51**	**5.66**		**5.79**	**4/1/1998**	**1,377,784,412**	**3.09**
Public Credit Policy Index	-0.59	4.92	7.37	1.69	2.93	4.40	5.62		5.68			
Global Smart Beta Composite	**-3.96**	**4.98**	**10.34**	**3.89**	**7.76**				**7.92**	**8/1/2017**	**2,181,427,248**	**4.89**
Global Smart Beta Policy Index	-3.85	5.16	10.69	4.12	7.97				8.06			
MSCI AC World Index (Net)	-0.99	5.56	17.49	5.44	10.06				9.83			

Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2024

	Performance (%) Net of Fees										Market Value $	%
	1 Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	Since Inception	Inception Date		
LARS	**6.74**	**-0.65**	**12.92**	**9.44**	**5.45**				**7.64**	**1/1/2017**	**239,408,760**	**0.54**
90 Day U.S. Treasury Bill	1.17	2.55	5.25	3.89	2.46				2.16			
Cash Composite	**3.32**	**1.67**	**8.74**	**6.53**	**4.52**	**4.08**	**3.04**		**3.50**	**7/1/1995**	**601,157,250**	**1.35**
90 Day U.S. Treasury Bill	1.17	2.55	5.25	3.89	2.46	1.76	1.63		2.39			
Private Markets Composite	**1.79**	**2.39**	**4.66**	**2.13**	**12.61**				**13.47**	**10/1/2016**	**13,761,574,534**	**30.88**
Private Equity/Debt	**2.00**	**2.54**	**6.54**	**1.50**	**15.70**	**15.58**	**15.85**	**14.60**	**12.86**	**10/1/1985**	**7,909,391,080**	**17.75**
Private Equity Policy Index	2.00	2.54	6.54	1.50	15.70	15.58	13.42	13.70	14.43			
Private Credit Composite	**2.43**	**4.18**	**8.54**	**7.23**	**7.32**				**7.54**	**10/1/2016**	**2,790,434,232**	**6.26**
Private Credit Policy Index	2.43	4.18	8.54	7.23	7.32				7.54			
Private Real Assets Composite	**0.64**	**0.40**	**-3.08**	**0.23**	**5.98**				**6.82**	**10/1/2016**	**3,061,749,222**	**6.87**
Private Real Assets Policy Index	0.64	0.40	-3.08	0.23	5.98				6.82			

Plan Sponsor Peer Group Analysis

Total Fund vs All Public Plans > $1B-Total Fund

Periods Ended December 31, 2024

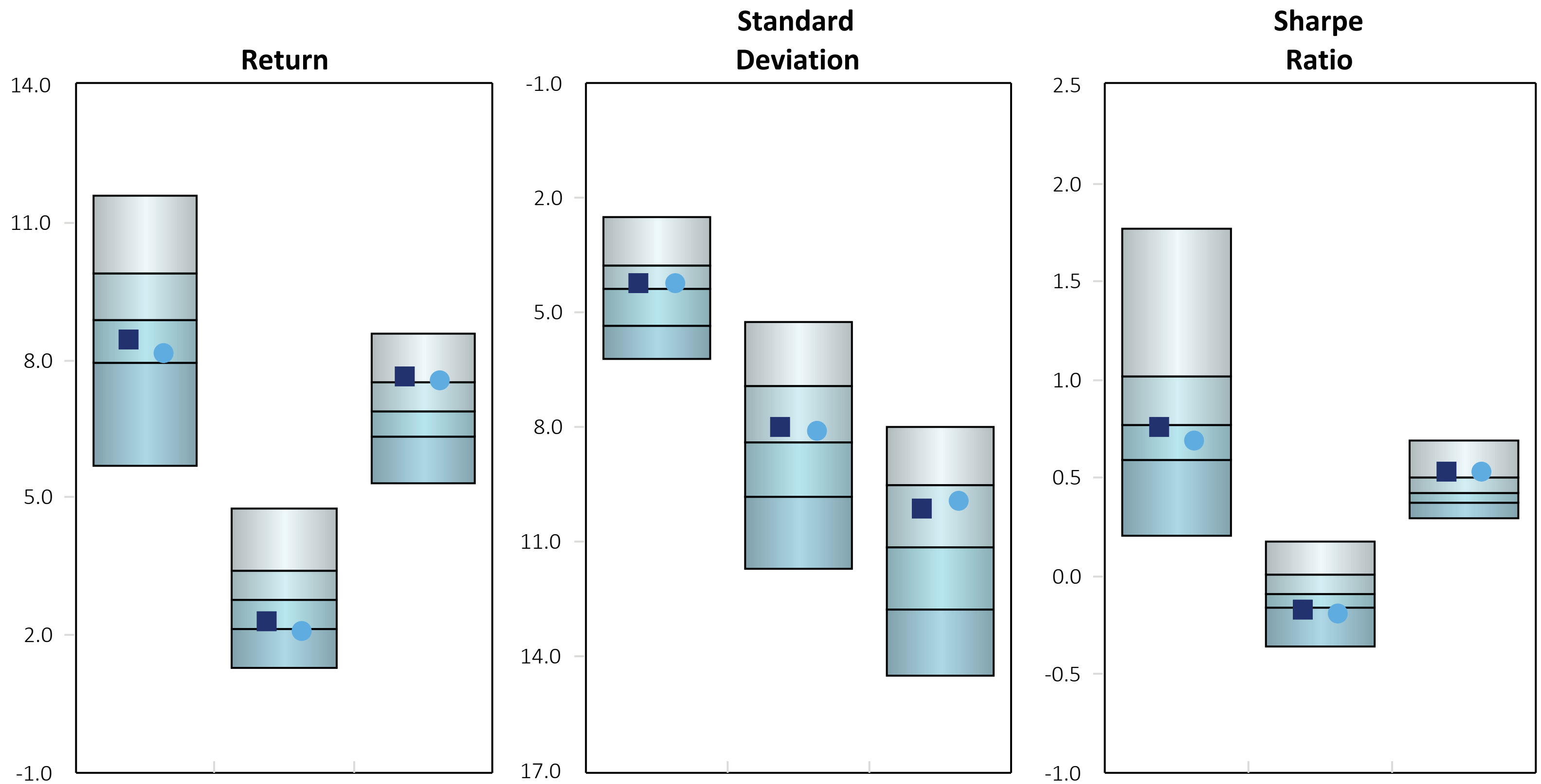
	QTD	YTD	1 Year	3 Years	5 Years	10 Years
■ Total Fund	-0.87 (53)	8.43 (65)	8.43 (65)	2.30 (69)	7.64 (21)	7.72 (14)
● Total Fund Policy Benchmark	-0.90 (57)	8.16 (70)	8.16 (70)	2.11 (76)	7.58 (22)	7.66 (17)
5th Percentile	0.56	11.59	11.59	4.76	8.56	8.15
1st Quartile	-0.37	9.88	9.88	3.40	7.53	7.37
Median	-0.85	8.87	8.87	2.76	6.89	6.91
3rd Quartile	-1.29	7.94	7.94	2.12	6.35	6.40
95th Percentile	-1.98	5.70	5.70	1.30	5.30	5.84
Population	108	107	107	103	100	94

Parentheses contain percentile rankings.
Calculation based on quarterly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

Total Fund vs All Public Plans > $1B-Total Fund

Periods Ended December 31, 2024



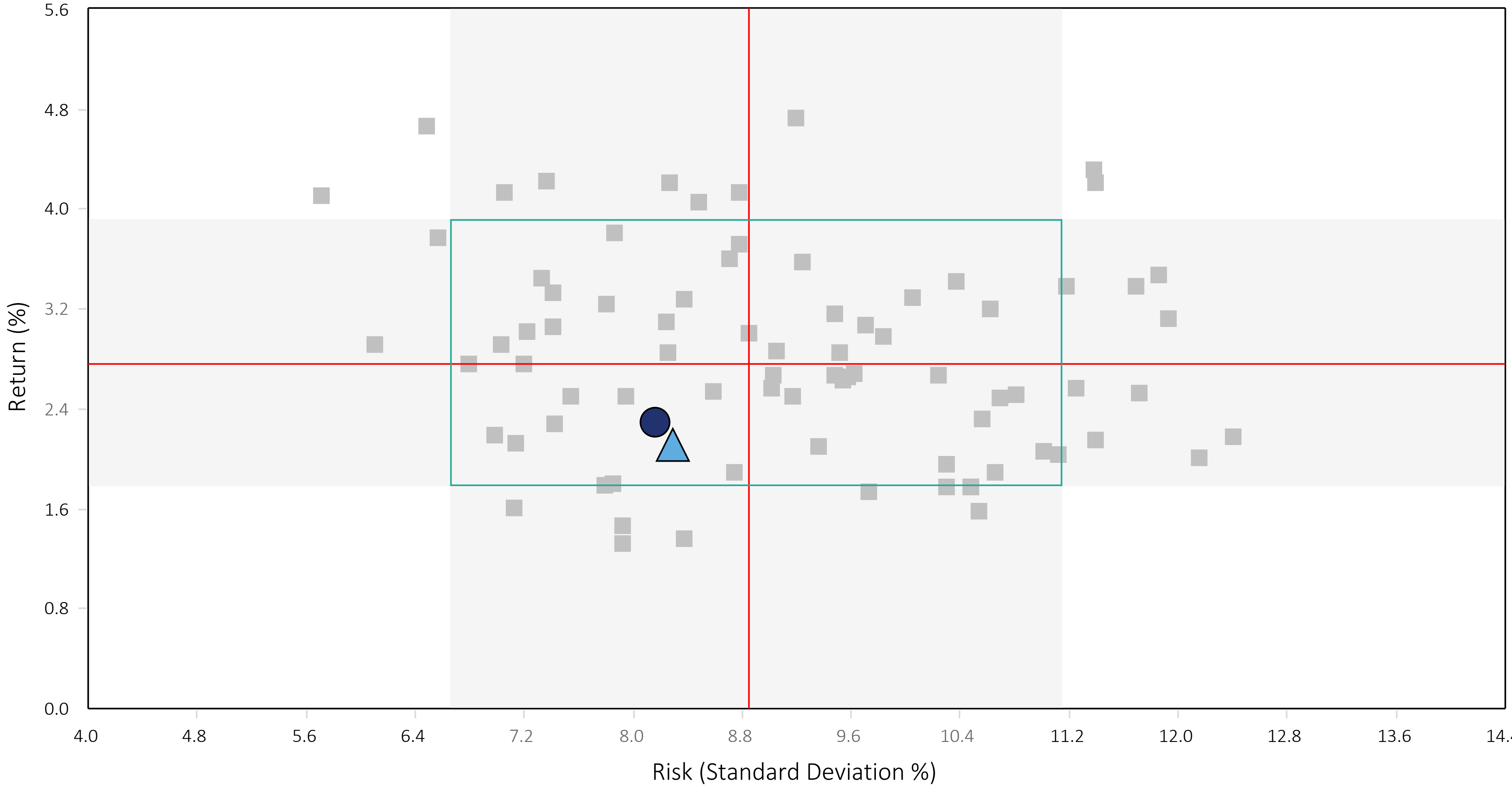
	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ Total Fund	8.43 (65)	2.30 (69)	7.64 (21)	4.22 (45)	8.02 (44)	10.13 (32)	0.76 (53)	-0.17 (77)	0.53 (21)
● Total Fund Policy Benchmark	8.16 (70)	2.11 (76)	7.58 (22)	4.26 (47)	8.12 (47)	9.93 (29)	0.69 (70)	-0.19 (82)	0.54 (20)
5th Percentile	11.59	4.76	8.56	2.50	5.25	7.99	1.77	0.18	0.69
1st Quartile	9.88	3.40	7.53	3.77	6.92	9.51	1.02	0.01	0.50
Median	8.87	2.76	6.89	4.39	8.40	11.18	0.77	-0.09	0.42
3rd Quartile	7.94	2.12	6.35	5.34	9.84	12.78	0.59	-0.16	0.38
95th Percentile	5.70	1.30	5.30	6.24	11.70	14.50	0.21	-0.36	0.30

Parentheses contain percentile rankings.
Calculation based on quarterly periodicity.

Plan Sponsor Scattergram

Total Fund vs All Public Plans > $1B-Total Fund

Periods Ended January 1, 2022 To December 31, 2024



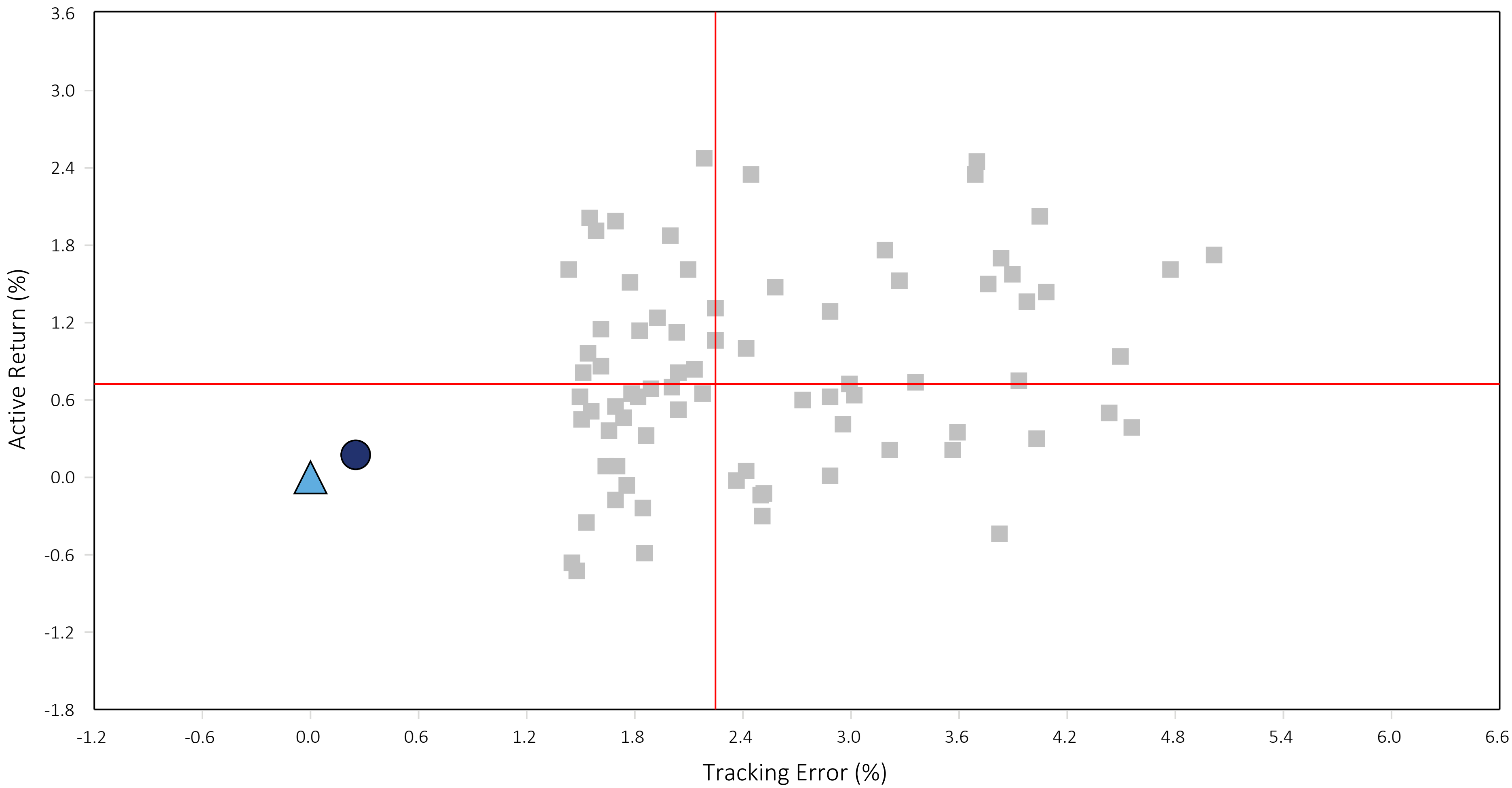
	Return	Standard Deviation
Total Fund	2.30	8.16
Total Fund Policy Benchmark	2.11	8.29
Median	2.76	8.85

Calculation based on monthly periodicity.

Plan Sponsor Scattergram

Total Fund vs All Public Plans > $1B-Total Fund

Periods Ended January 1, 2022 To December 31, 2024



	Active Return	Tracking Error
Total Fund	0.17	0.25
Total Fund Policy Benchmark	0.00	0.00
Median	0.72	2.25

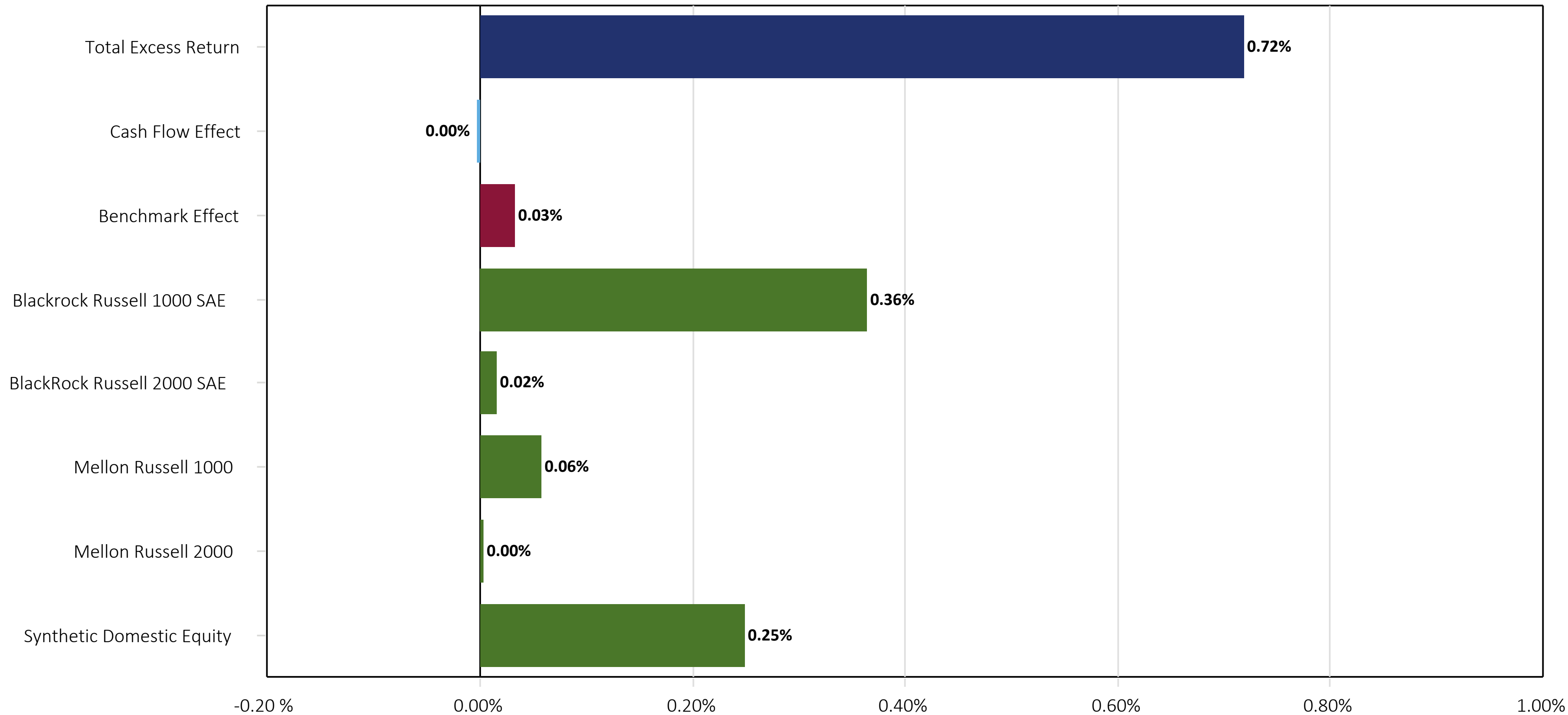
Calculation based on monthly periodicity.

Asset Class Attribution

U.S. Equity Composite

Periods Ended 1 Year Ending December 31, 2024

1 Year

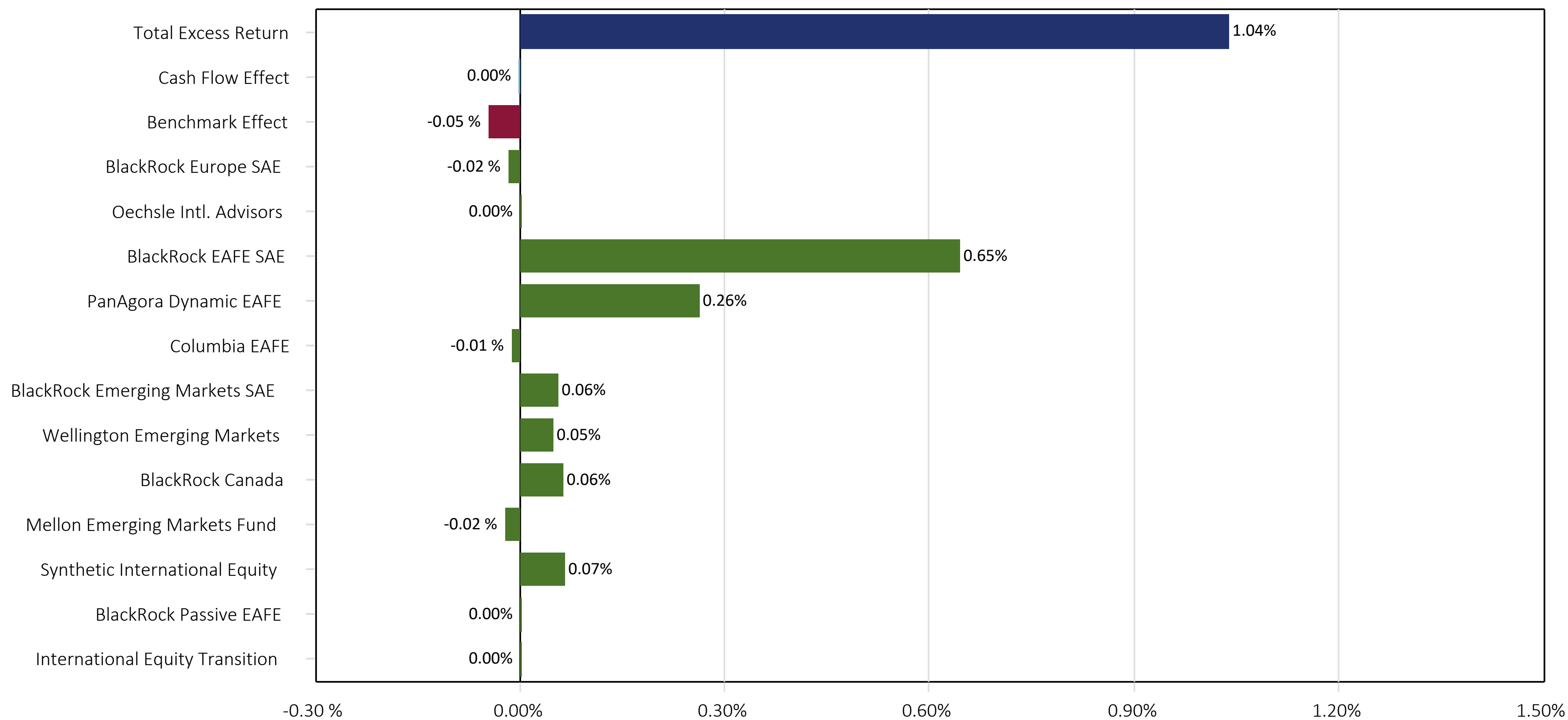


Asset Class Attribution

International Equity Composite

Periods Ended 1 Year Ending December 31, 2024

1 Year

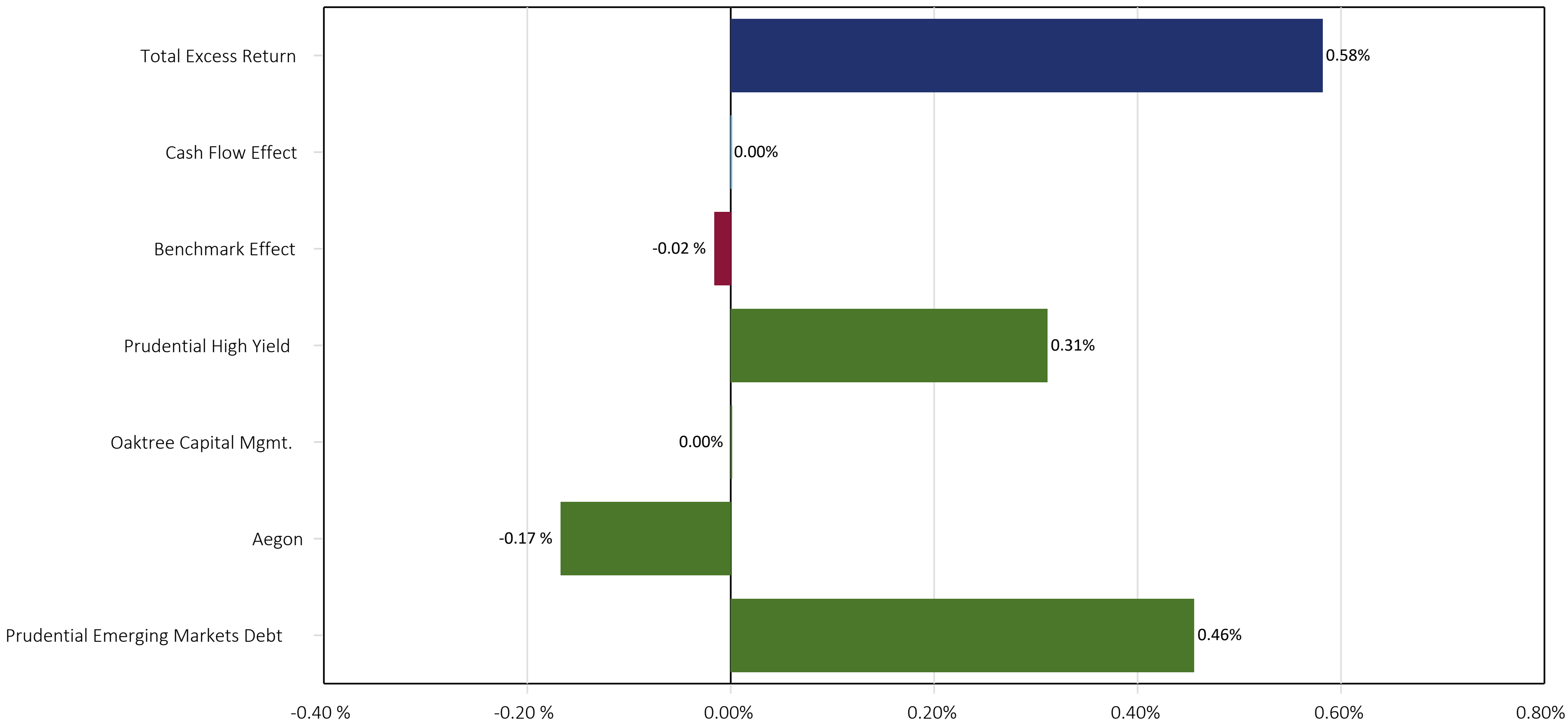


Asset Class Attribution

Public Credit Composite

Periods Ended 1 Year Ending December 31, 2024

1 Year

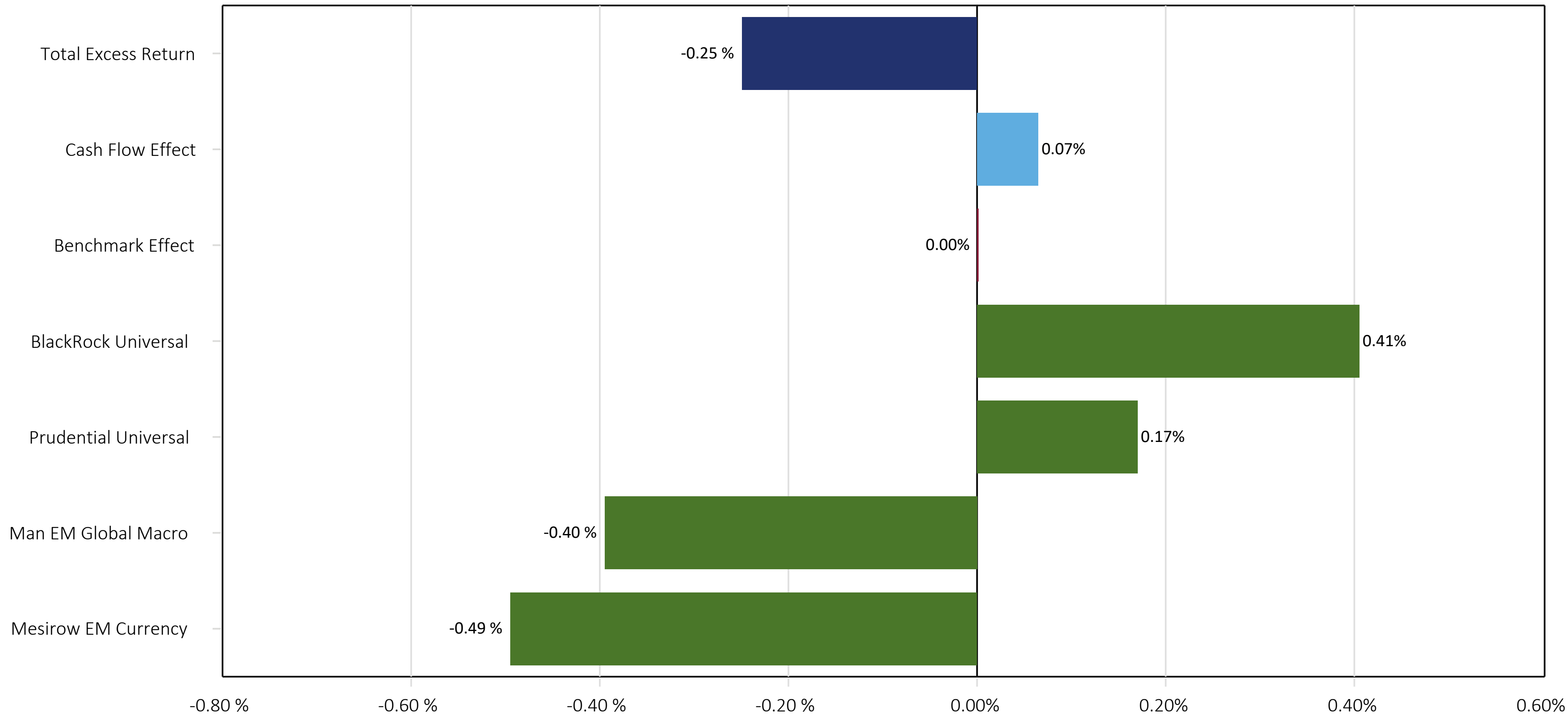


Asset Class Attribution

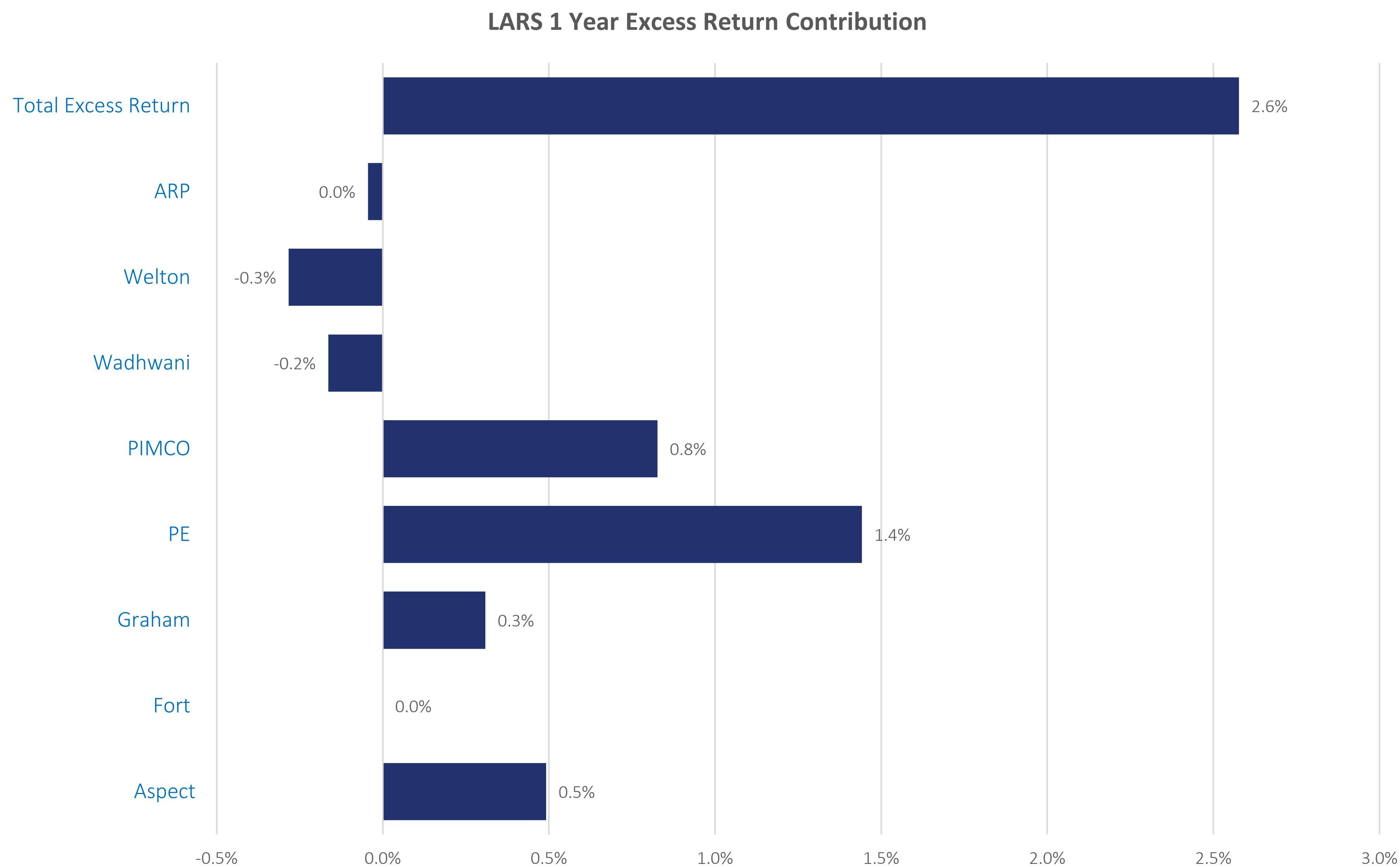
Relative Value Composite

Periods Ended 1 Year Ending December 31, 2024

1 Year



LARS Program Attribution



Public Markets Composite

Asset Allocation & Performance

U.S. Equity Composite

Periods Ended December 31, 2024

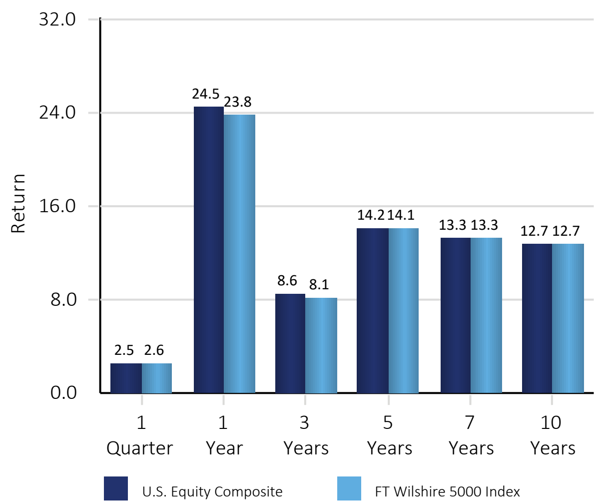
	Performance (%) Net of Fees									Market Value $	%
	1 Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	Since Inception	Inception Date		
U.S. Equity Composite	**2.47**	**8.85**	**24.53**	**8.58**	**14.20**	**12.71**	**9.87**	**11.60**	**4/1/1975**	**9,304,619,496**	**100.00**
U.S. Equity Composite Benchmark	2.63	9.03	23.81	8.13	14.12	12.74	10.33				
Active Equity Composite	**1.83**	**7.58**	**24.15**	**6.80**	**12.77**	**11.80**	**8.85**	**7.28**	**1/1/1999**	**2,393,341,416**	**25.72**
Blackrock Russell 1000 SAE	**2.05**	**7.51**	**25.40**					**16.03**	**5/1/2022**	**2,158,786,782**	**23.20**
Russell 1000 Index	2.75	9.00	24.51					15.67			
BlackRock Russell 2000 SAE	**-0.11**	**8.28**	**11.71**	**1.82**	**8.05**			**8.93**	**5/1/2019**	**234,554,634**	**2.52**
Russell 2000 Index	0.33	9.64	11.54	1.24	7.40			7.60			
Passive Equity Composite	**2.68**	**9.27**	**24.49**	**7.55**	**13.71**	**12.54**	**10.49**	**8.83**	**1/1/1999**	**6,911,278,080**	**74.28**
Mellon Russell 1000	**2.76**	**9.04**	**24.59**					**15.75**	**5/1/2022**	**6,645,255,494**	**71.42**
Russell 1000 Index	2.75	9.00	24.51					15.67			
Mellon Russell 2000	**0.36**	**9.69**	**11.66**					**8.77**	**5/1/2022**	**185,718,073**	**2.00**
Russell 2000 Index	0.33	9.64	11.54					8.58			
Synthetic Domestic Equity	**1.10**	**30.40**	**66.87**	**38.26**	**48.16**			**36.49**	**4/1/2017**	**80,304,513**	**0.86**
Northern Trust Domestic Equity Transition											**0.00**
All Public Plans > $1B-US Equity Segment Median	1.52	8.02	20.67	6.31	12.11	11.14	9.44				
Russell 3000 Index	2.63	9.03	23.81	8.01	13.86	12.55	10.22	12.14	1/1/1979		
Wilshire 4500 Completion Index	4.02	12.59	16.93	3.60	11.23	10.37	9.81	10.71	1/1/1984		
FT Wilshire 5000 Index	2.63	8.96	23.76	8.11	14.10	12.73	10.33	11.13	1/1/1971		

Performance Summary

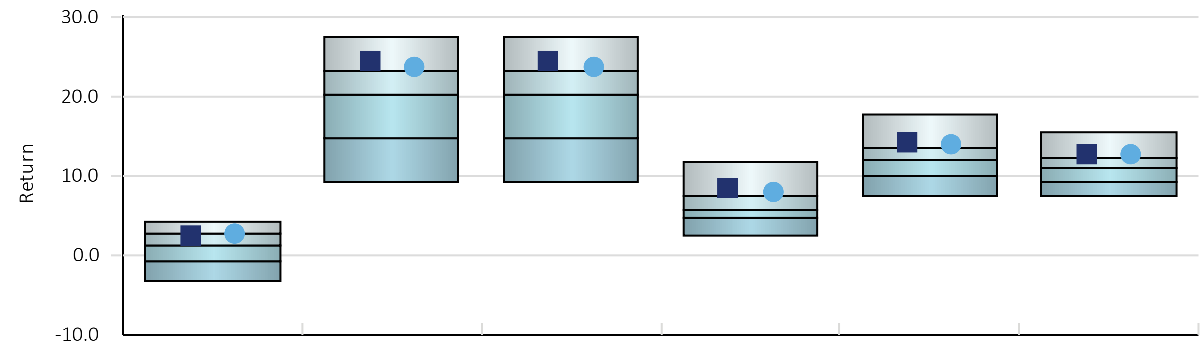
U.S. Equity Composite

Periods Ended December 31, 2024

Comparative Performance

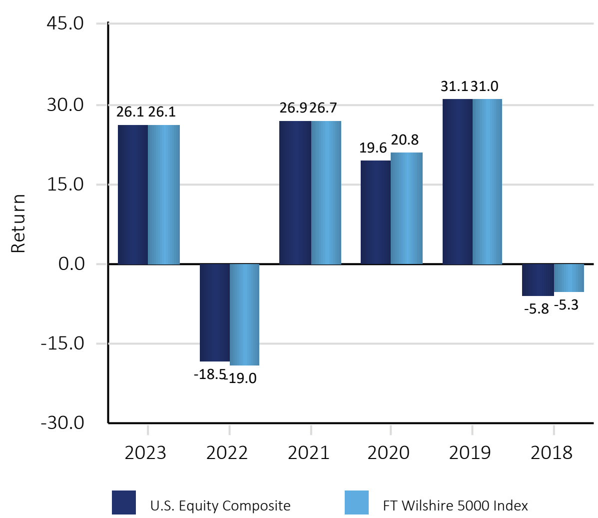


Peer Group Analysis: IM U.S. All Cap Core Equity (SA+CF)

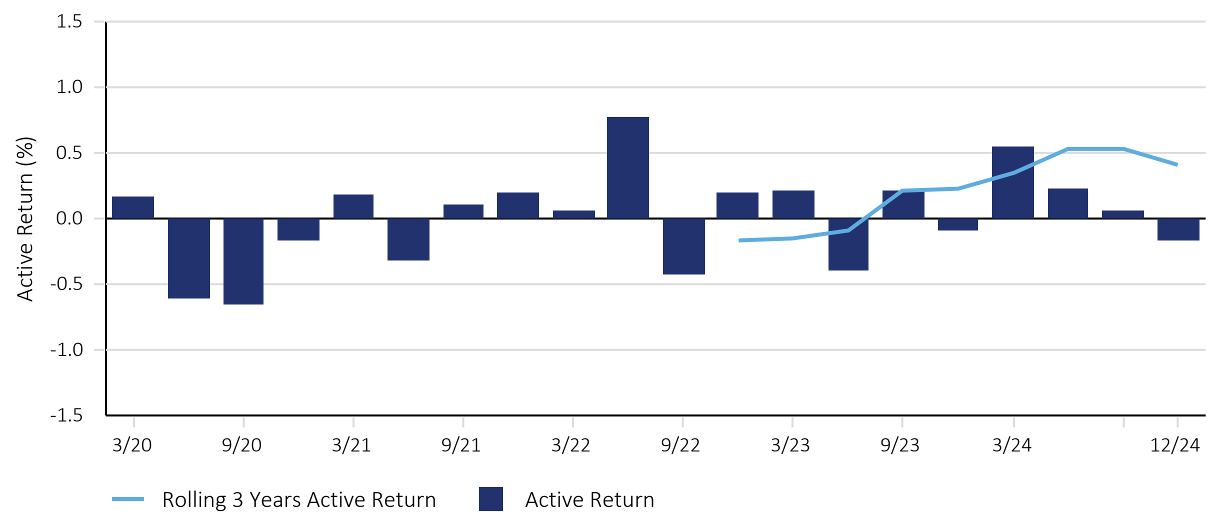


	Quarter	2024	1 Year	3 Years	5 Years	10 Years
Fund	2.47 (32)	24.53 (15)	24.53 (15)	8.58 (17)	14.20 (20)	12.71 (20)
Benchmark	2.63 (27)	23.76 (22)	23.76 (22)	8.11 (19)	14.10 (21)	12.73 (20)
Median	1.23	20.20	20.20	5.85	11.93	11.01

Comparative Performance



Rolling 3 Years Performance



Asset Allocation & Performance

International Equity Composite

Periods Ended December 31, 2024

	Performance (%) Net of Fees									Market Value $	%
	1 Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	Since Inception	Inception Date		
International Equity Composite	**-7.14**	**-0.17**	**6.57**	**1.44**	**4.67**	**5.15**	**5.14**	**5.39**	**10/1/1989**	**5,777,312,889**	**100.00**
International Equity Policy Index	-7.60	-0.15	5.53	0.82	4.10	4.99	5.29	5.27			
BlackRock Canada	**-1.64**	**10.36**	**12.74**	**4.84**	**9.22**	**6.43**	**7.23**	**7.35**	**12/1/2000**	**473,151,006**	**8.19**
MSCI Canada (Net)	-1.81	9.96	11.89	4.02	8.35	5.63	6.53	6.66			
BlackRock Passive EAFE	**-8.33**	**-1.65**	**3.85**	**1.93**	**5.05**			**6.34**	**4/1/2019**	**2,033,933,988**	**35.21**
MSCI EAFE (Net)	-8.11	-1.44	3.82	1.65	4.73			6.00			
BlackRock EAFE SAE	**-6.80**	**-0.86**	**6.56**	**3.59**	**6.21**			**7.00**	**5/1/2019**	**1,160,463,014**	**20.09**
MSCI EAFE (Net)	-8.11	-1.44	3.82	1.65	4.73			5.57			
BlackRock Emerging Markets SAE	**-6.98**	**-0.96**	**8.16**	**-2.08**	**1.18**			**2.09**	**5/1/2019**	**397,618,187**	**6.88**
MSCI Emerging Markets (Net)	-8.01	0.02	7.50	-1.92	1.70			2.46			
Columbia EAFE										**7,359,073**	**0.13**
PanAgora Dynamic EAFE	**-7.18**	**-1.45**	**7.41**	**3.56**	**6.22**			**6.48**	**5/1/2019**	**366,868,390**	**6.35**
MSCI EAFE (Net)	-8.11	-1.44	3.82	1.65	4.73			5.57			
Wellington Emerging Markets	**-7.39**	**-3.92**	**8.16**	**-3.72**	**2.02**	**4.74**		**7.68**	**3/1/2009**	**250,104,619**	**4.33**
Wellington EM Custom Benchmark	-8.01	0.02	7.50	-1.92	1.70	3.64		7.68			
Mellon Emerging Markets Fund	**-7.57**	**0.11**	**7.31**	**-2.21**	**1.56**			**3.45**	**7/1/2015**	**1,025,427,499**	**17.75**
MSCI Emerging Markets (Net)	-8.01	0.02	7.50	-1.92	1.70			3.51			
Synthetic International Equity	**-6.69**	**19.16**	**13.13**	**28.24**	**-127.65**			**-139.02**	**4/1/2017**	**50,506,777**	**0.87**
Active International Equity	**-6.96**	**-1.34**	**7.08**	**1.50**	**4.69**	**5.20**	**4.69**	**5.46**	**1/1/2004**	**2,193,962,747**	**37.98**
Passive International Equity	**-7.26**	**0.59**	**5.94**	**1.55**	**4.78**	**5.03**	**5.24**	**5.94**	**1/1/2004**	**3,583,019,271**	**62.02**
All Public Plans > $1B-Intl. Equity Segment Median	-7.05	0.33	5.83	1.14	5.14	6.11	6.16				
MSCI AC World ex USA (Net)	-7.60	-0.15	5.53	0.82	4.10	4.80	4.97		1/1/1999		

Asset Allocation & Performance

International Equity Composite

Periods Ended December 31, 2024

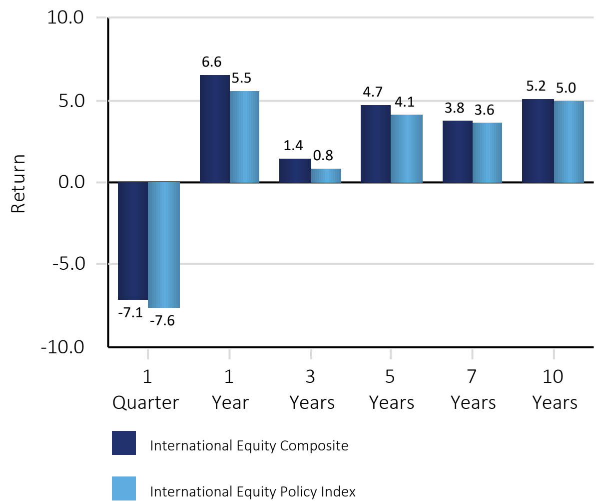
	Performance (%) Net of Fees									Market Value $	%
	1 Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	Since Inception	Inception Date		
MSCI EAFE (Net)	-8.11	-1.44	3.82	1.65	4.73	5.20	4.81	8.31	1/1/1970		
MSCI Emerging Markets (Net)	-8.01	0.02	7.50	-1.92	1.70	3.64	6.01	7.55	1/1/1999		

Performance Summary

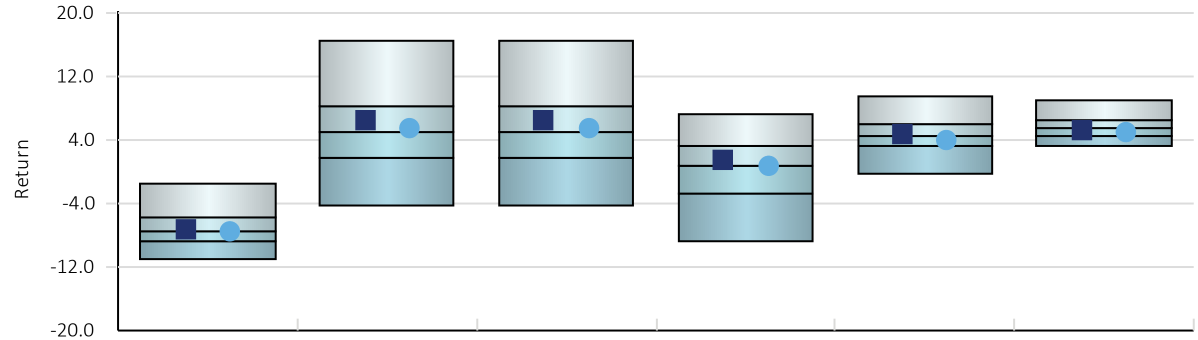
International Equity Composite

Periods Ended December 31, 2024

Comparative Performance

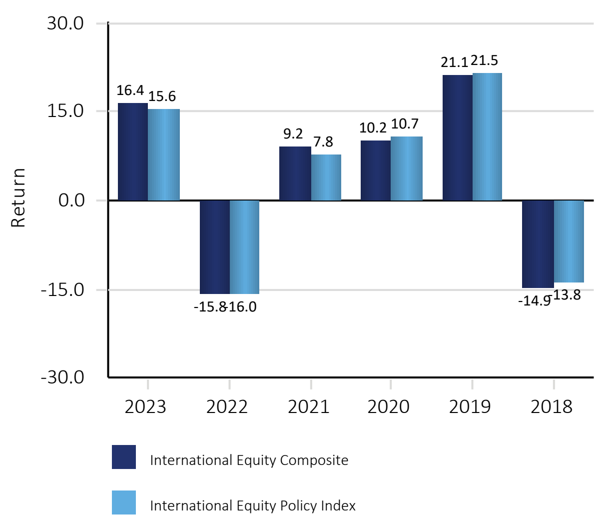


Peer Group Analysis: IM International Equity (SA+CF)

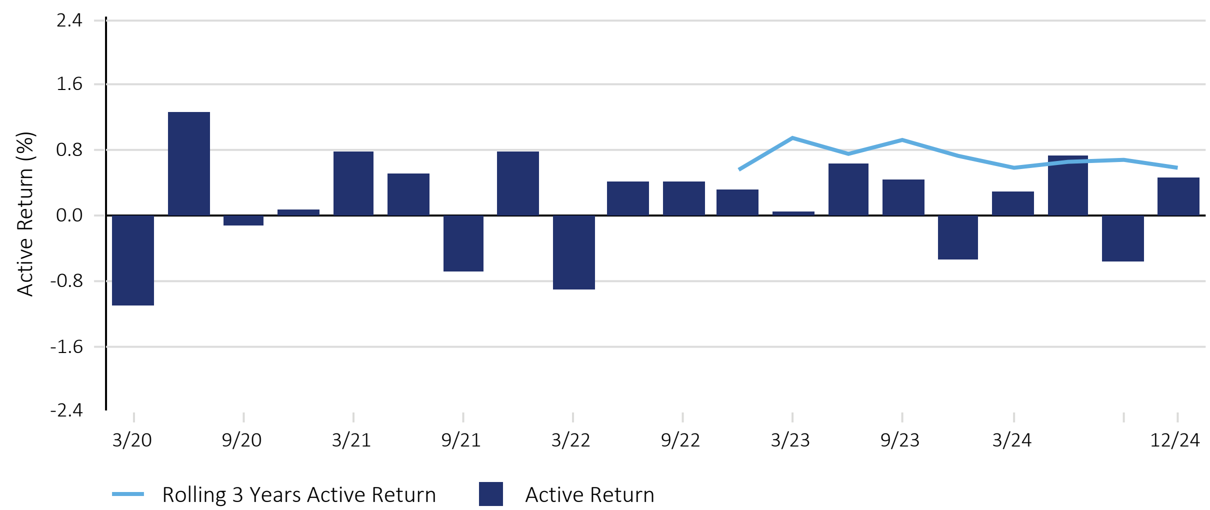


	Quarter	2024	1 Year	3 Years	5 Years	10 Years
Fund	-7.14 (43)	6.57 (38)	6.57 (38)	1.44 (41)	4.67 (47)	5.15 (60)
Benchmark	-7.60 (53)	5.53 (45)	5.53 (45)	0.82 (46)	4.10 (59)	4.99 (66)
Median	-7.47	5.11	5.11	0.64	4.46	5.39

Comparative Performance



Rolling 3 Years Performance



Asset Allocation & Performance

Total Fixed Composite

Periods Ended December 31, 2024

	Performance (%) Net of Fees									Market Value $
	1 Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	Since Inception	Inception Date	
Total Fixed Composite	-2.87	2.32	1.90	-2.19	0.13	2.08	3.71	6.43	7/1/1985	12,945,658,028
Fixed Income Policy Index	-2.80	2.28	1.88	-1.99	0.04	1.72	3.30	5.87		
Total US Fixed Income Composite	-2.90	2.26	1.71	-2.28	0.10	2.02	3.70	6.40	7/1/1985	12,483,912,751
Fixed Income Policy Index	-2.80	2.28	1.88	-1.99	0.04	1.72	3.30	5.87		
Core Fixed Income Composite	-3.13	2.01	1.20	-2.72	-0.30	1.73	3.41	6.21	7/1/1985	11,567,873,617
Core Fixed Income Policy Index	-3.06	1.98	1.25	-2.33	-0.17	1.62	3.25	5.84		
Active Core Fixed Composite	-3.17	2.49	1.00	-2.95	-0.23	1.80	3.54	3.90	9/1/1995	1,578,177,934
Blackrock										3,755
Principal Global Investors										448
MacKay Shields Core Plus										58
Prudential Fixed Income										1,472
TCW Asset Management										96,647
Western Asset Mgmt										308,942
Passive Fixed Composite	-3.12	1.95	1.25	-2.77	-0.97	1.02	2.88	4.92	7/1/1990	9,989,695,683
Mellon Aggregate	-3.05	1.98	1.28	-2.35	-0.30	1.37	3.05	5.04	7/1/1990	9,967,705,475
Blmbg. U.S. Aggregate Index	-3.06	1.98	1.25	-2.41	-0.33	1.35	3.01	4.99		
Synthetic Fixed Income	-25.92	-12.38	-11.70	-38.36	-26.63			-17.27	4/1/2017	21,990,208
Relative Value Composite	-3.17	2.49	1.00	-2.29				-1.69	11/1/2020	1,577,766,611
Relative Value Policy Index	-3.06	1.98	1.25	-2.33				-1.56		

Asset Allocation & Performance

Total Fixed Composite

Periods Ended December 31, 2024

	Performance (%) Net of Fees									Market Value $
	1 Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	Since Inception	Inception Date	
BlackRock Universal	**-3.98**	**0.95**	**2.24**	**-1.81**				**-0.54**	**11/1/2020**	**658,047,147**
Core Fixed Income Policy Index	-3.06	1.98	1.25	-2.33				-1.56		
Prudential Universal	**-2.77**	**2.83**	**1.74**	**-1.25**				**-1.56**	**3/1/2021**	**531,135,404**
Core Fixed Income Policy Index	-3.06	1.98	1.25	-2.33				-1.62		
Man EM Global Macro	**-0.84**	**-1.45**	**-1.90**					**-6.81**	**10/1/2023**	**148,416,545**
Blmbg. U.S. Aggregate Index	-3.06	1.98	1.25					6.47		
Mesirow EM Currency	**-3.21**	**8.10**	**-1.52**					**2.73**	**10/1/2023**	**240,167,514**
Blmbg. U.S. Aggregate Index	-3.06	1.98	1.25					6.47		
Public Credit Composite	**-0.64**	**4.99**	**7.96**	**1.99**	**3.19**	**4.51**	**5.66**	**5.79**	**4/1/1998**	**1,377,784,412**
Public Credit Policy Index	-0.59	4.92	7.37	1.69	2.93	4.40	5.62	5.68		
High Yield Composite	**0.08**	**5.48**	**8.41**	**2.90**	**4.33**	**5.01**	**6.14**	**6.15**	**4/1/1998**	**916,039,134**
High Yield Policy Index	0.17	5.47	8.19	2.92	4.20	5.02	6.11	6.05		
Aegon	**0.13**	**5.46**	**7.68**	**2.45**	**3.89**	**4.98**		**5.68**	**2/1/2012**	**449,675,392**
High Yield Policy Index	0.17	5.47	8.19	2.92	4.20	5.02		5.47		
Prudential High Yield	**0.03**	**5.51**	**9.13**	**3.10**	**4.62**			**5.14**	**7/1/2019**	**464,914,113**
Blmbg. U.S. High Yield - 2% Issuer Cap	0.17	5.47	8.19	2.92	4.20			4.55		
Emerging Market Debt Composite	**-2.05**	**4.05**	**7.07**	**0.02**	**0.78**	**3.48**		**2.60**	**10/1/2012**	**461,745,277**
JPM EMBI Global Index (USD)	-2.12	3.82	5.73	-0.82	0.35	3.08		2.66		
Prudential Emerging Markets Debt	**-2.05**	**4.05**	**7.07**	**0.02**	**0.78**			**3.44**	**5/1/2016**	**461,745,277**
JPM EMBI Global Index (USD)	-2.12	3.82	5.73	-0.82	0.35			2.58		
Active Fixed Composite	**-2.01**	**3.64**	**4.12**	**-0.83**	**1.20**	**2.67**	**4.00**	**6.65**	**7/1/1985**	**2,955,962,345**

Asset Allocation & Performance

Total Fixed Composite

Periods Ended December 31, 2024

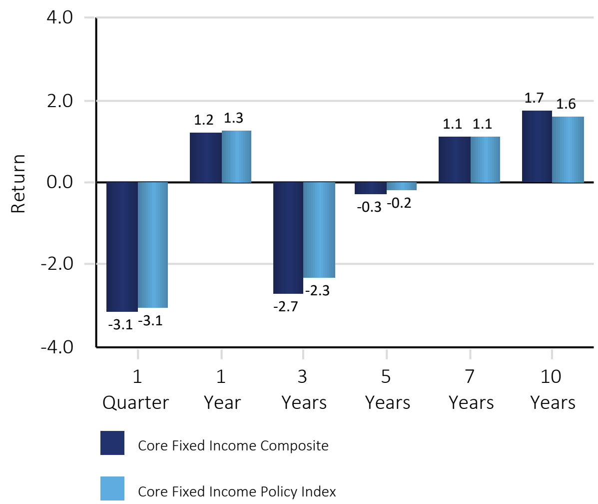
	Performance (%) Net of Fees									Market Value $
	1 Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	Since Inception	Inception Date	
All Public Plans > $1B-US Fixed Income Segment Median	-2.54	1.96	2.11	-1.35	0.97	2.18	3.75			
Blmbg. U.S. Universal Index	-2.73	2.32	2.04	-1.95	0.06	1.73	3.31	5.23	1/1/1990	
Blmbg. U.S. Aggregate Index	-3.06	1.98	1.25	-2.41	-0.33	1.35	3.01	6.50	1/1/1976	
Bloomberg U.S. Government/Credit Index	-3.08	1.87	1.18	-2.59	-0.21	1.50	3.08	6.42	1/1/1973	
Blmbg. U.S. Credit Index	-3.04	2.50	2.03	-2.20	0.23	2.29	3.86	6.91	1/1/1973	
Blmbg. U.S. Treasury Index	-3.14	1.45	0.58	-2.88	-0.68	0.83	2.59	6.19	1/1/1973	
Blmbg. U.S. Mortgage Backed Securities	-3.16	2.20	1.20	-2.13	-0.74	0.91	2.81	6.49	1/1/1976	
Blmbg. U.S. High Yield - 2% Issuer Cap	0.17	5.47	8.19	2.92	4.20	5.16	6.44	7.09	1/1/1993	
FTSE High Yield Cash Pay	0.21	5.56	8.34	3.11	4.17	5.00	6.16	7.46	1/1/1989	
JPM Global Government Bond Index (Hedged)	-1.67	2.40	1.53	-1.89	-0.42	1.50	3.07	5.44	2/1/1986	
JPM EMBI Global Index (USD)	-2.12	3.82	5.73	-0.82	0.35	3.08	5.36	7.34	1/1/1994	

Performance Summary

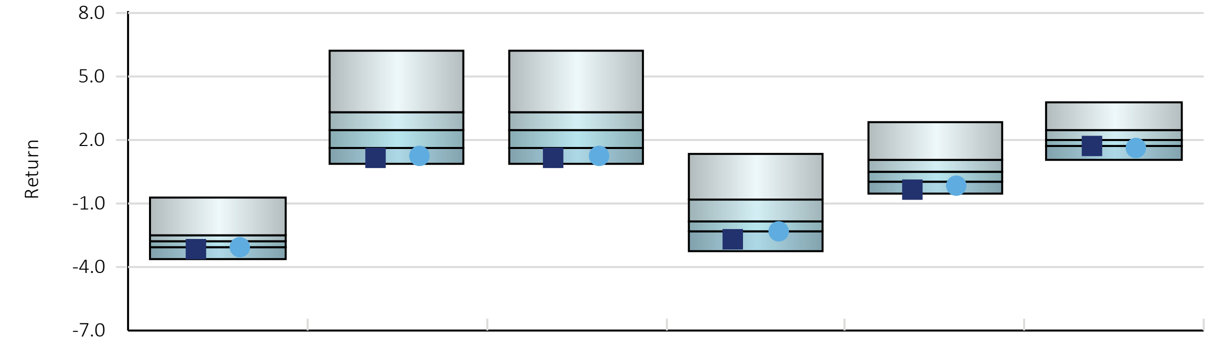
Core Fixed Income Composite

Periods Ended December 31, 2024

Comparative Performance

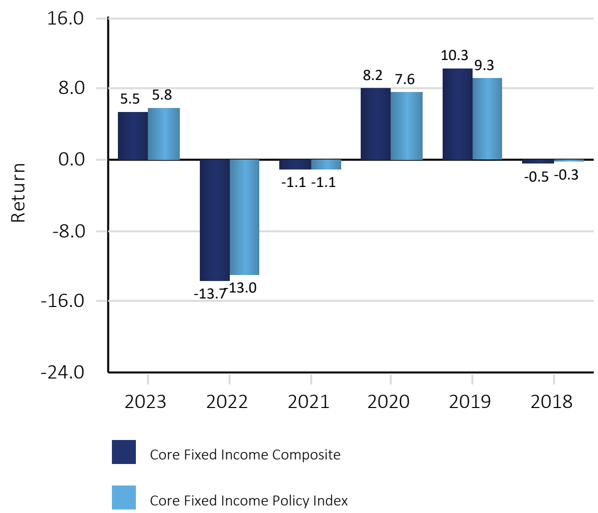


Peer Group Analysis: IM U.S. Broad Market Core+ Fixed Income (SA+CF)

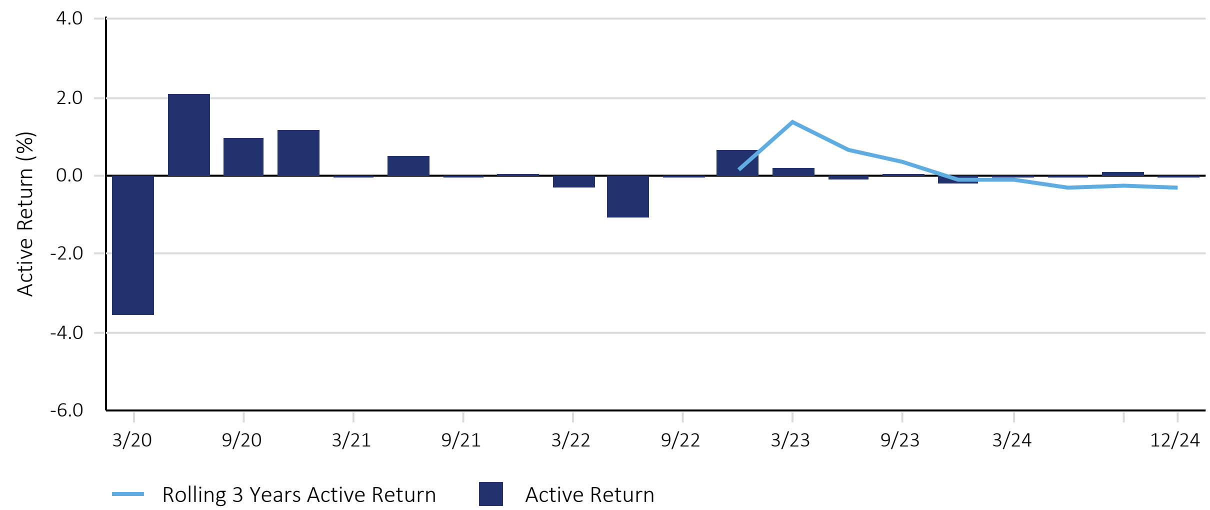


	Quarter	2024	1 Year	3 Years	5 Years	10 Years
Fund	-3.13 (83)	1.20 (87)	1.20 (87)	-2.72 (89)	-0.30 (91)	1.73 (74)
Benchmark	-3.06 (75)	1.25 (86)	1.25 (86)	-2.33 (79)	-0.17 (88)	1.62 (78)
Median	-2.80	2.50	2.50	-1.89	0.51	2.04

Comparative Performance



Rolling 3 Years Performance

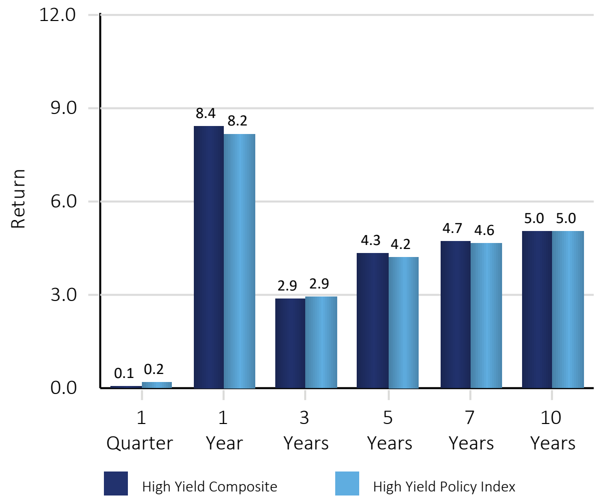


Performance Summary

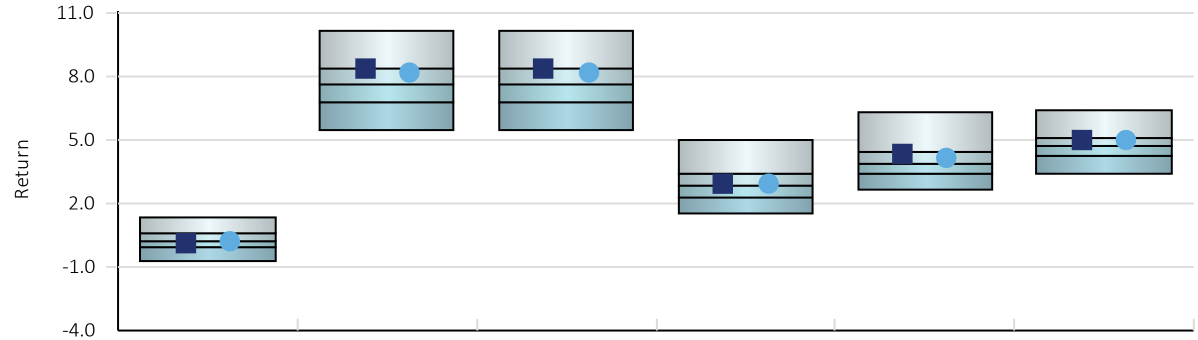
High Yield Composite

Periods Ended December 31, 2024

Comparative Performance

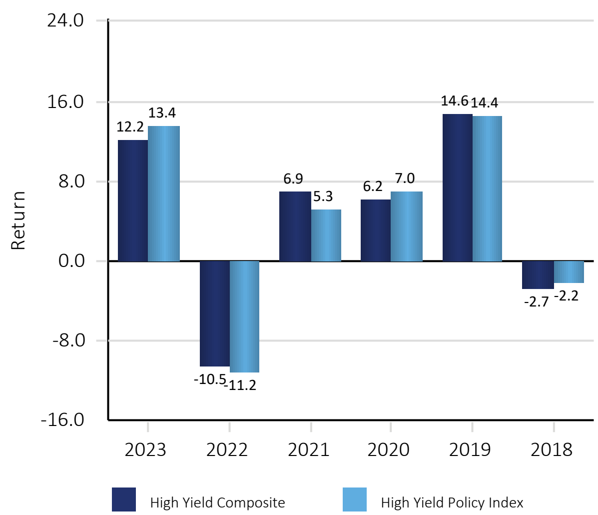


Peer Group Analysis: IM U.S. High Yield Bonds (SA+CF)

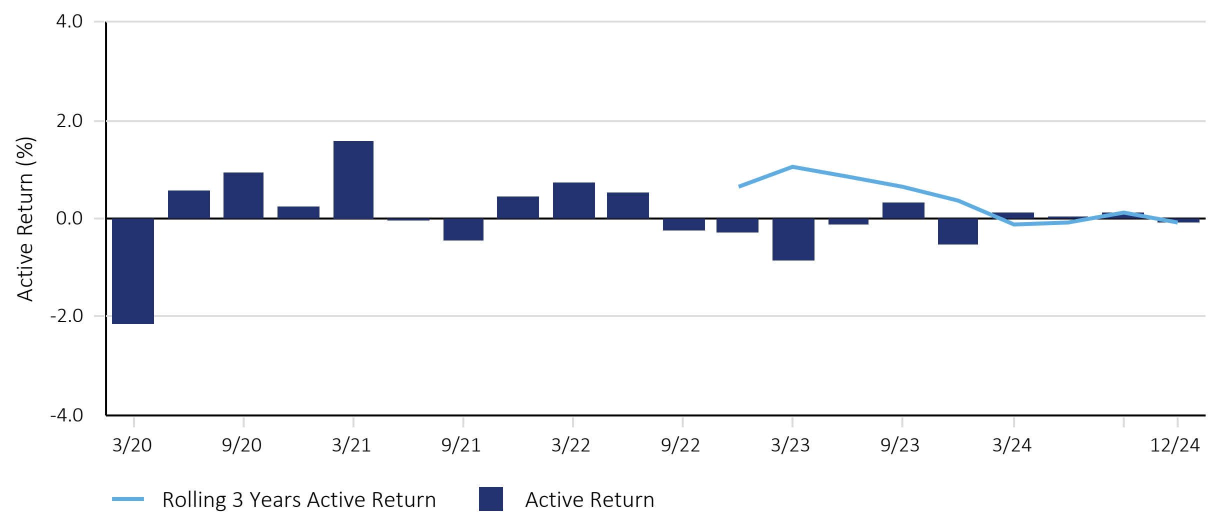


	Quarter	2024	1 Year	3 Years	5 Years	10 Years
Fund	0.08 (57)	8.41 (24)	8.41 (24)	2.90 (46)	4.33 (30)	5.01 (29)
Benchmark	0.17 (52)	8.19 (30)	8.19 (30)	2.92 (46)	4.20 (34)	5.02 (29)
Median	0.21	7.59	7.59	2.81	3.83	4.70

Comparative Performance



Rolling 3 Years Performance



Asset Allocation & Performance

Global Smart Beta Composite

Periods Ended December 31, 2024

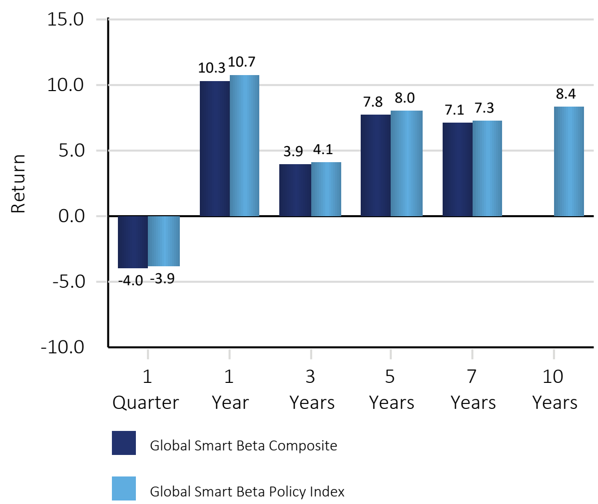
	Performance (%) Net of Fees									Market Value $
	1 Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	Since Inception	Inception Date	
Global Smart Beta Composite	**-3.96**	**4.98**	**10.34**	**3.89**	**7.76**			**7.92**	**8/1/2017**	**2,181,427,248**
Global Smart Beta Policy Index	-3.85	5.16	10.69	4.12	7.97			8.06		
MSCI AC World Index (Net)	-0.99	5.56	17.49	5.44	10.06			9.83		
U.S. Equity Smart Beta	**-1.58**	**7.52**	**14.43**	**5.39**	**9.98**			**10.30**	**8/1/2017**	**1,312,227,688**
Russell 1000 Comprehensive Factor Index	-1.53	7.60	14.51	5.43	9.98			10.30		
Developed Ex-U.S. Equity Smart Beta	**-7.92**	**1.69**	**3.76**	**0.45**	**3.86**			**4.28**	**8/1/2017**	**646,405,739**
FTSE Dev. Ex-U.S. Comprehensive Factor Index (N)	-7.96	1.68	3.69	0.45	4.03			4.34		
Emerging Markets Smart Beta	**-6.53**	**-0.47**	**5.90**	**5.56**	**7.32**			**5.30**	**8/1/2017**	**222,793,821**
FTSE Emerging Comprehensive Factor Index (N)	-6.17	0.08	7.83	6.64	8.16			5.86		
Russell 1000 Comprehensive Factor Index	-1.53	7.60	14.51	5.43	9.98	10.14	11.09	11.27	8/1/2001	
FTSE Dev. Ex-U.S. Comprehensive Factor Index (N)	-7.96	1.68	3.69	0.45	4.03	5.60	7.23	9.43	10/1/2001	
FTSE Emerging Comprehensive Factor Index (N)	-6.17	0.08	7.83	6.64	8.16	5.76	9.84	13.51	10/1/2001	

Performance Summary

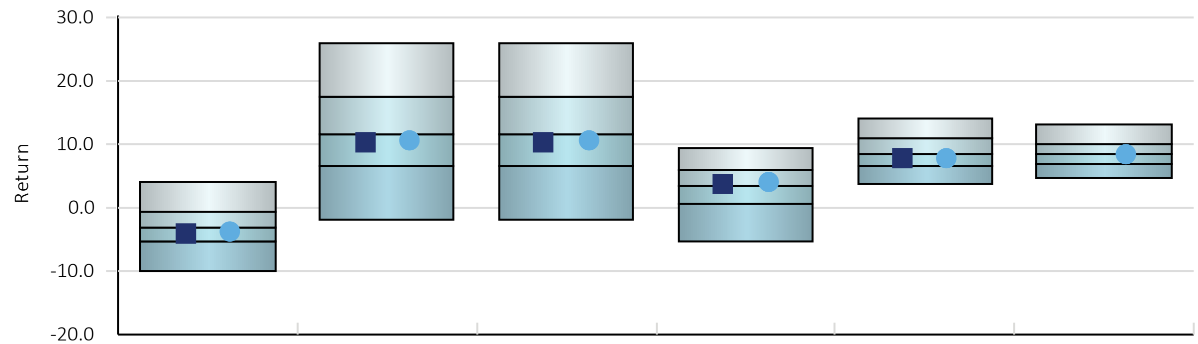
Global Smart Beta Composite

Periods Ended December 31, 2024

Comparative Performance

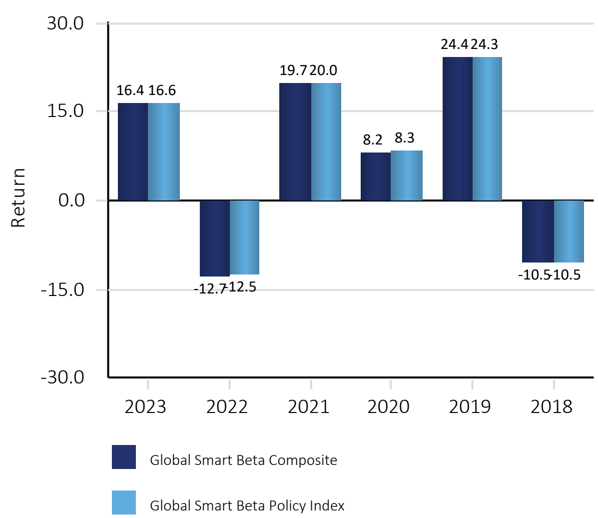


Peer Group Analysis: IM Global Equity (SA+CF)

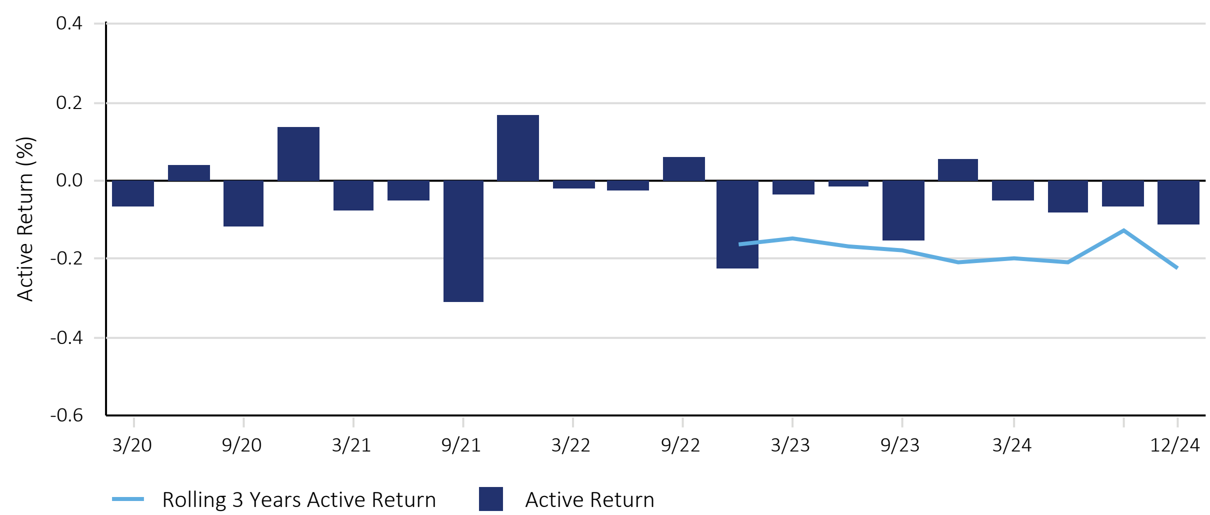


	Quarter	2024	1 Year	3 Years	5 Years	10 Years
Fund	-3.96 (63)	10.34 (58)	10.34 (58)	3.89 (44)	7.76 (60)	
Benchmark	-3.85 (60)	10.69 (56)	10.69 (56)	4.12 (42)	7.97 (57)	8.37 (52)
Median	-3.10	11.55	11.55	3.30	8.40	8.52

Comparative Performance



Rolling 3 Years Performance



Appendix

Cash Flow Summary

Total Fund

1 Quarter Ending December 31, 2024

	Begin Value	Contributions	Distributions	Net Transfers	Fees	Expenses	Capital Apprec./ Deprec.	End Value
Total Fund	45,268,543,021	535,783,050	-841,673,705		-12,965,804	-5,394	-377,931,724	44,571,749,445
Public Markets Composite	31,586,909,955	711,371,624	-791,979,283	-62,263,355	-410,356	-5,394	-633,448,280	30,810,174,911
U.S. Equity Composite	9,807,288,836	-17,037		-750,000,000	17,037		247,330,660	9,304,619,496
Active Equity Composite	2,350,309,404						43,032,012	2,393,341,416
Blackrock Russell 1000 SAE	2,115,505,572						43,281,210	2,158,786,782
BlackRock Russell 2000 SAE	234,803,832						-249,198	234,554,634
Passive Equity Composite	7,456,979,432	-17,037		-750,000,000	17,037		204,298,648	6,911,278,080
Mellon Russell 1000	7,128,816,679	-34,976		-685,000,000	34,976		201,438,815	6,645,255,494
Mellon Russell 2000	248,744,271	6,632		-65,000,000	-6,632		1,973,802	185,718,073
Synthetic Domestic Equity	79,418,482	11,307			-11,307		886,031	80,304,513
Northern Trust Domestic Equity Transition								
International Equity Composite	6,133,226,625	165,498		80,000,000	-165,498	-1,075	-435,912,661	5,777,312,889
Active International Equity	2,357,827,511	130,285			-130,285	-1,075	-163,863,689	2,193,962,747
BlackRock Europe SAE	11,536,380						-690,493	10,845,887
Oechsle Intl. Advisors	758,306						-54,730	703,576
BlackRock EAFE SAE	1,245,098,072						-84,635,059	1,160,463,014
PanAgora Dynamic EAFE	395,258,745						-28,390,355	366,868,390
Columbia EAFE	7,780,536						-421,463	7,359,073
Active Emerging Markets Equity Composite	697,395,471	130,285			-130,285	-1,075	-49,671,589	647,722,806
BlackRock Emerging Markets SAE	427,457,567						-29,839,380	397,618,187
Wellington Emerging Markets	269,937,903	130,285			-130,285	-1,075	-19,832,209	250,104,619

Cash Flow Summary

Total Fund

1 Quarter Ending December 31, 2024

	Begin Value	Contributions	Distributions	Net Transfers	Fees	Expenses	Capital Apprec./ Deprec.	End Value
Passive International Equity	3,775,072,171	35,213		80,000,000	-35,213		-272,052,900	3,583,019,271
BlackRock Canada	476,342,174			5,000,000			-8,191,167	473,151,006
Mellon Emerging Markets Fund	1,071,226,586	29,146		35,000,000	-29,146		-80,799,087	1,025,427,499
Synthetic International Equity	54,122,198	6,067			-6,067		-3,615,421	50,506,777
BlackRock Passive EAFE	2,173,381,214			40,000,000			-179,447,225	2,033,933,988
International Equity Transition	326,943						3,928	330,871
Active Fixed Composite	3,016,373,976	132,541			-132,541	-4,289	-60,407,342	2,955,962,345
Total US Fixed Income Composite	12,398,263,802	74,241		450,000,000	-74,241	-893	-364,350,158	12,483,912,751
Total Fixed Composite	12,869,683,996	74,241		450,000,000	-74,241	-4,289	-374,021,678	12,945,658,028
Core Fixed Income Ex RV	10,251,521,801	-58,300		450,000,000	58,300		-322,830,736	10,378,691,065
Core Fixed Income Composite	11,483,126,331	-58,300		450,000,000	58,300	-29	-365,252,685	11,567,873,617
Passive Fixed Composite	9,853,310,020	-58,300		450,000,000	58,300		-313,614,337	9,989,695,683
Mellon Aggregate	9,823,647,063	-74,751		450,000,000	74,751		-305,941,588	9,967,705,475
Synthetic Fixed Income	29,662,957	16,451			-16,451		-7,672,749	21,990,208
Active Core Fixed Composite	1,629,816,312					-29	-51,638,349	1,578,177,934
MacKay Shields Core Plus	58						1	58
Prudential Fixed Income	3,632						-2,160	1,472
Principal Global Investors	452						-4	448
TCW Asset Management	103,561						-6,914	96,647
Western Asset Mgmt	308,886						56	308,942
Blackrock	3,711						44	3,755
Relative Value Composite	1,629,396,012					-29	-51,629,372	1,577,766,611
BlackRock Universal	685,336,962						-27,289,815	658,047,147
Prudential Universal	546,267,569					-29	-15,132,135	531,135,404

Cash Flow Summary

Total Fund

1 Quarter Ending December 31, 2024

	Begin Value	Contributions	Distributions	Net Transfers	Fees	Expenses	Capital Apprec./ Deprec.	End Value
Man EM Global Macro	149,670,566						-1,254,021	148,416,545
Mesirow EM Currency	248,120,916						-7,953,402	240,167,514
Public Credit Composite	**1,386,557,664**	**132,541**			**-132,541**	**-4,260**	**-8,768,993**	**1,377,784,412**
High Yield Composite	**915,137,470**	**132,541**			**-132,541**	**-864**	**902,528**	**916,039,134**
Prudential High Yield	464,789,070					-864	125,907	464,914,113
Oaktree Capital Mgmt.	1,389,713						59,917	1,449,630
Aegon	448,958,688	132,541			-132,541		716,704	449,675,392
Emerging Market Debt Composite	**471,420,194**					**-3,396**	**-9,671,520**	**461,745,277**
Prudential Emerging Markets Debt	471,420,194					-3,396	-9,671,520	461,745,277
Global Smart Beta Composite	**2,347,139,328**	**187,655**		**-75,000,000**	**-187,655**	**-29**	**-90,712,051**	**2,181,427,248**
Developed Ex-U.S. Equity Smart Beta	701,968,296	56,007			-56,007		-55,562,558	646,405,739
Emerging Markets Smart Beta	238,349,927	18,880			-18,880	-29	-15,556,077	222,793,821
U.S. Equity Smart Beta	1,406,821,105	112,767		-75,000,000	-112,767		-19,593,416	1,312,227,688
Managed Short Term	**429,571,171**	**710,961,268**	**-791,979,283**	**232,736,645**			**19,867,450**	**601,157,250**
Cash Composite	**429,571,171**	**710,961,268**	**-791,979,283**	**233,040,021**			**19,564,074**	**601,157,250**
STIF	205,281,738	710,961,268	-791,979,283	233,040,021			4,444,747	361,748,491
LARS	224,289,433						15,119,326	239,408,760
Cash - Securities Lending Income				-303,376			303,376	
Private Markets Composite	**13,681,633,066**	**-175,588,574**	**-49,694,422**	**62,263,355**	**-12,555,448**		**255,516,556**	**13,761,574,534**
Private Equity/Debt	**7,959,044,359**	**-206,863,574**			**-2,953,695**		**160,163,990**	**7,909,391,080**
Pathway Fund of Funds	7,164,397,333	-166,068,256			-2,795,911		156,044,736	7,151,577,902

Cash Flow Summary

Total Fund

1 Quarter Ending December 31, 2024

	Begin Value	Contributions	Distributions	Net Transfers	Fees	Expenses	Capital Apprec./ Deprec.	End Value
Private Equity/Debt Long Perf	**794,647,026**	**-40,795,318**			**-157,784**		**4,119,254**	**757,813,178**
LBO Composite	435,260,931	-28,614,819			-106,560		458,162	406,997,714
Venture Capital Composite	359,386,095	-12,180,499			-51,224		3,661,092	350,815,464
Private Credit Composite	**2,678,892,918**			**45,264,235**	**-5,843,895**		**72,120,974**	**2,790,434,232**
Private Corporate Debt Composite	**957,215,493**			**-6,015,274**	**-1,910,022**		**28,796,912**	**978,087,108**
Tennenbaum CP Direct Lending	326,160,097			-9,262,948	-713,085		9,420,457	325,604,522
Monroe Capital	414,474,194			-7,474,623	-941,017		12,012,503	418,071,057
PPEF XXV B	216,581,202			10,722,297	-255,921		7,363,952	234,411,530
Private Real Asset Debt Composite	**735,273,469**			**-8,446,764**	**-1,522,554**		**19,196,745**	**744,500,896**
Principal Real Estate Debt II	3,865,554			-1,268,397	-6,111		156,232	2,747,278
PGIM Real Estate Global Debt	121,617,809			-461,360	-226,750		3,080,789	124,010,488
Kayne Anderson Real Estate Debt IV	97,446,586			-6,739,252	-238,340		2,819,848	93,288,842
Heitman Credit	99,355,520			-1,888,627	-199,117		1,409,044	98,676,820
IFM US Infrastructure Debt Fund	95,312,124			-2,015,394	-107,823		1,636,878	94,825,785
JP Morgan Global Transport Income Fund	103,241,079			-2,147,218	-265,813		4,970,857	105,798,905
ITE Rail Fund IA	88,530,467			-1,955,028	-251,545		2,447,163	88,771,057
PGIM PREDS	71,330,444			-1,619,840	-140,560		1,389,935	70,959,978
Oaktree RECIF	48,198,291			4,658,148	-77,352		974,006	53,753,093
Principal OEDF	6,375,595			4,990,205	-9,144		311,993	11,668,650
Opportunistic Credit Composite	**986,403,956**			**59,726,273**	**-2,411,318**		**24,127,317**	**1,067,846,228**
KKR Global Corporate Debt	284,601,032			-4,705,253	-614,582		7,556,564	286,837,761
Crestline Opportunistic Credit	193,529,075			-11,584,159	-590,571		2,709,766	184,064,111
ARES PCS II	64,896,317			-2,420,230	-242,153		2,552,749	64,786,683
Audax Mezzanine Coinvest	12,622,338			-268,684			427,701	12,781,354

Cash Flow Summary

Total Fund

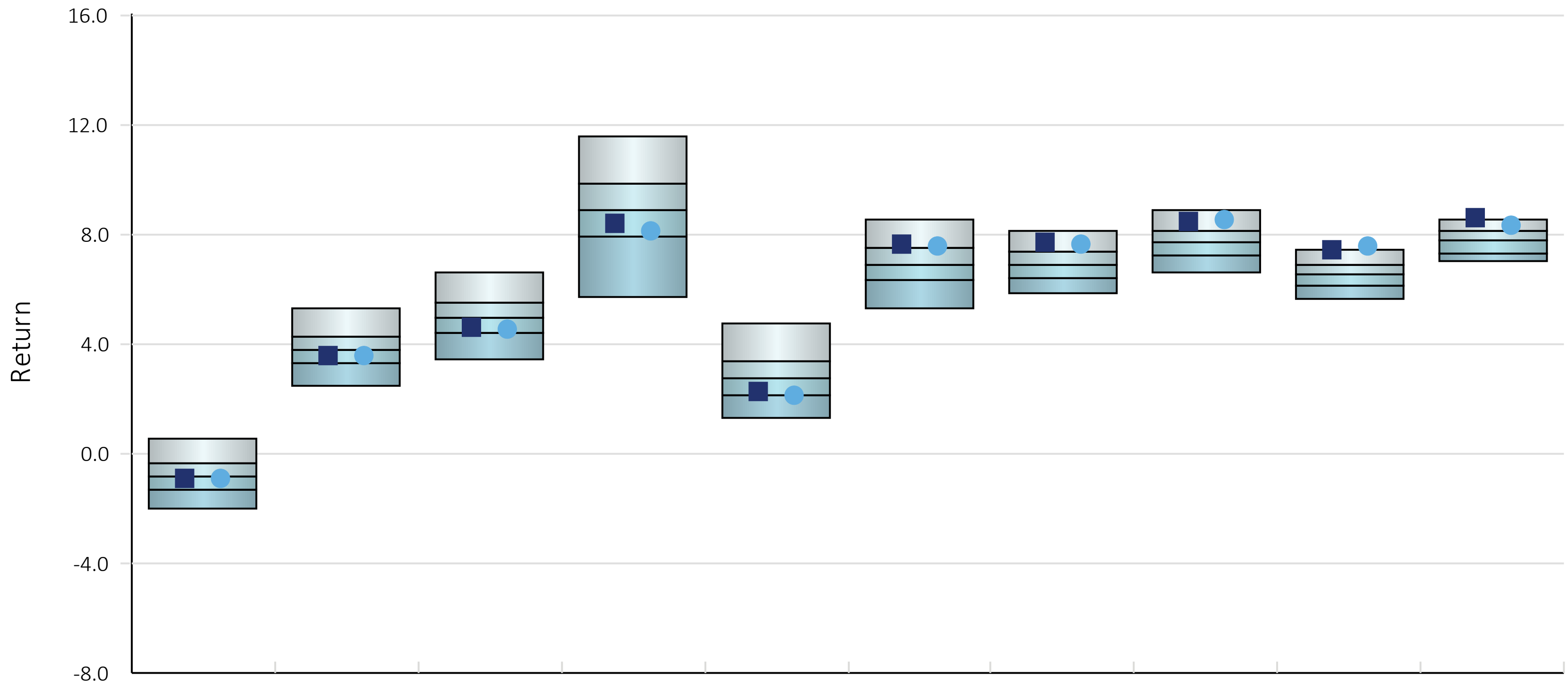
1 Quarter Ending December 31, 2024

	Begin Value	Contributions	Distributions	Net Transfers	Fees	Expenses	Capital Apprec./ Deprec.	End Value
Marathon SPS	243,918,495				-660,975		5,013,122	248,270,642
Arrowmark	98,407,159			70,500,217			3,563,053	172,470,429
Audax Mezzanine V	33,184,367			-3,726,311	-197,259		1,105,218	30,366,015
Crestline Opportunistic Credit - Series 2	55,245,175			11,930,693	-105,778		1,199,144	68,269,234
Private Real Assets Composite	**3,043,695,789**	**31,275,000**	**-49,694,422**	**16,999,120**	**-3,757,858**		**23,231,592**	**3,061,749,222**
Private Other Real Assets Composite	**668,131,229**		**-3,019,748**		**-1,334,109**		**-59,533**	**663,717,839**
UBS Farmland Investors	111,210,066		-800,000		-234,706		914,787	111,090,147
Forest Investment Associates	226,968,378				-354,254		-8,379,788	218,234,336
Brookfield Super-Core Infrastructure	329,952,785		-2,219,748		-745,149		7,405,468	334,393,355
Private Real Estate Composite	**2,375,564,560**	**31,275,000**	**-46,674,674**	**16,999,120**	**-2,423,749**		**23,291,126**	**2,398,031,383**
UBS	486,330,470		-5,000,000		-506,736		10,227,578	491,051,312
Clarion Partners	81,075,844		-7,225,000				-7,194,515	66,656,329
RREEF America LLC	927,666,574	30,500,000	-4,329,981		-918,290		2,028,438	954,946,742
Invesco Separate Account	880,491,672	775,000	-30,119,693		-998,723		18,229,624	868,377,881
KAREP VII				16,999,120				16,999,120
Settlement Proceeds								

Plan Sponsor Peer Group Analysis

Total Fund vs All Public Plans > $1B-Total Fund

Periods Ended December 31, 2024



	1 Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	30 Years
■ Total Fund	-0.87 (53)	3.56 (65)	4.65 (60)	8.43 (65)	2.30 (69)	7.64 (21)	7.72 (14)	8.47 (11)	7.46 (6)	8.61 (4)
● Total Fund Policy Benchmark	-0.90 (57)	3.58 (64)	4.52 (67)	8.16 (70)	2.11 (76)	7.58 (22)	7.66 (17)	8.57 (10)	7.58 (3)	8.37 (10)
5th Percentile	0.56	5.30	6.59	11.59	4.76	8.56	8.15	8.93	7.48	8.53
1st Quartile	-0.37	4.31	5.55	9.88	3.40	7.53	7.37	8.13	6.90	8.14
Median	-0.85	3.78	4.95	8.87	2.76	6.89	6.91	7.73	6.56	7.78
3rd Quartile	-1.29	3.28	4.38	7.94	2.12	6.35	6.40	7.23	6.15	7.30
95th Percentile	-1.98	2.46	3.47	5.70	1.30	5.30	5.84	6.64	5.67	7.06
Population	108	107	107	107	103	100	94	85	71	26

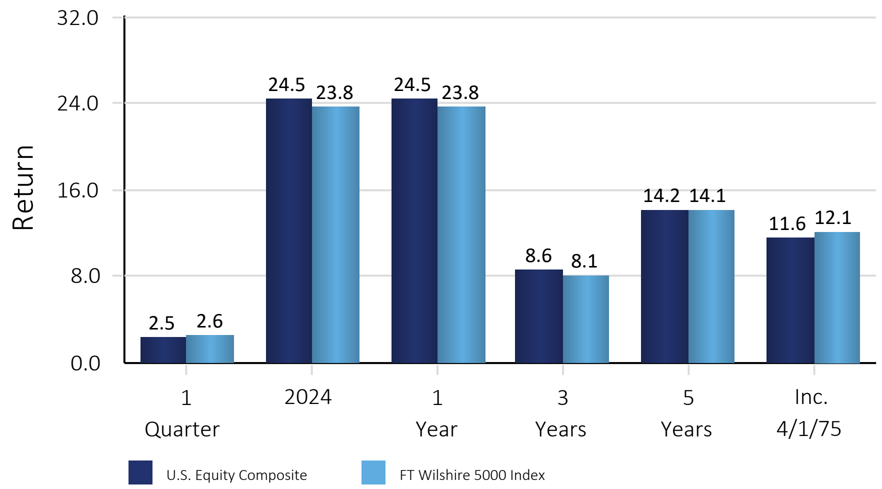
Parentheses contain percentile rankings.
Calculation based on quarterly periodicity.

Manager Summary

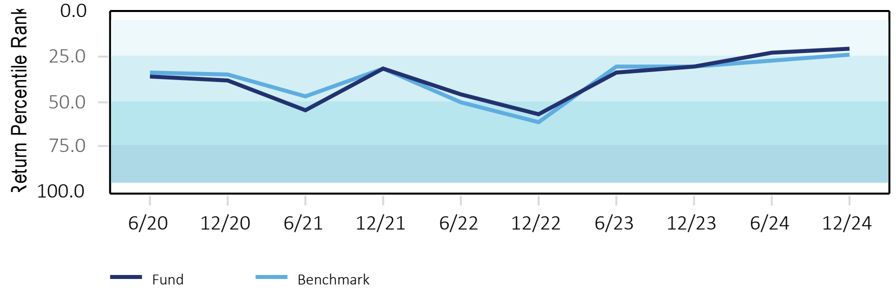
U.S. Equity Composite vs IM U.S. All Cap Equity (SA+CF)

Periods Ended December 31, 2024

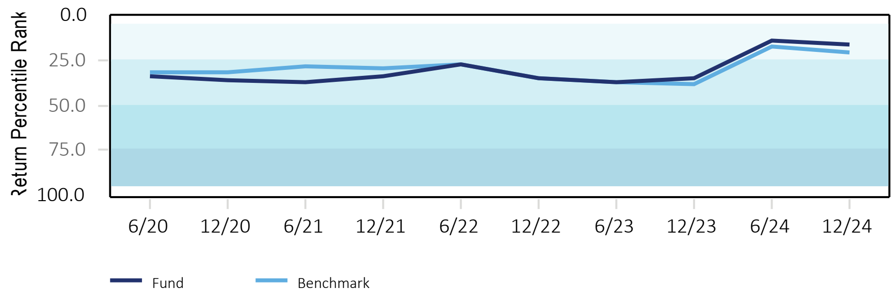
Comparative Performance



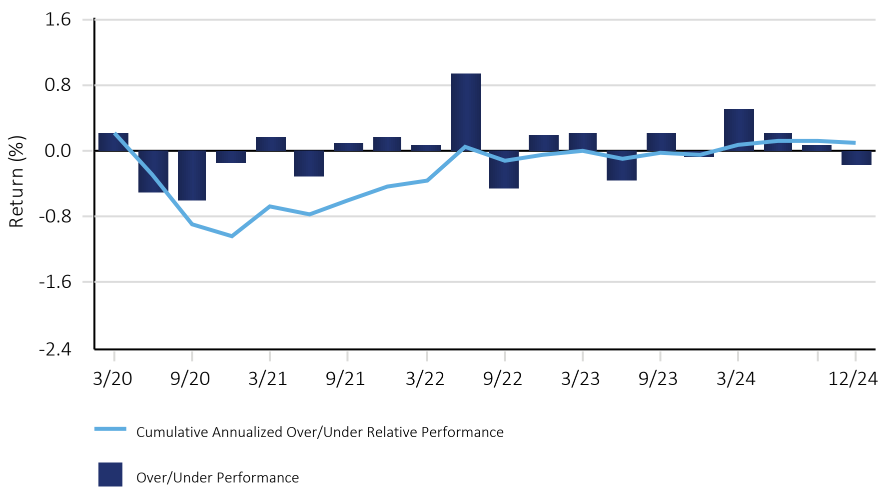
1 Year Rolling Percentile Ranking



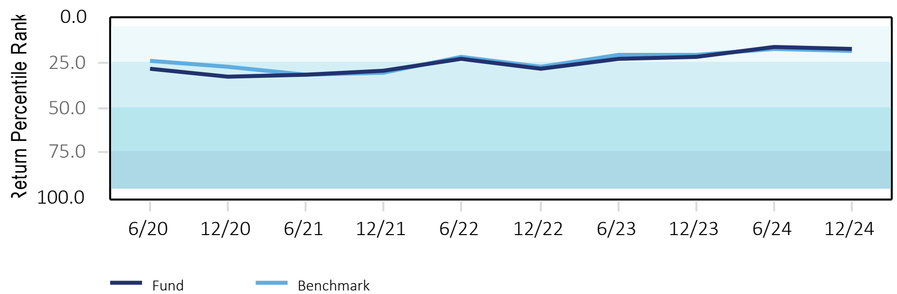
3 Year Rolling Percentile Ranking



Relative Performance



5 Year Rolling Percentile Ranking

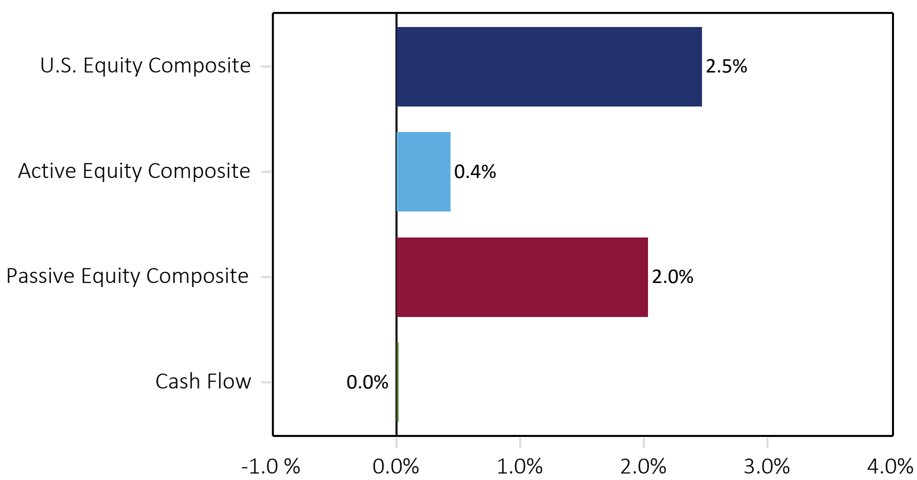


Return and Risk Contribution

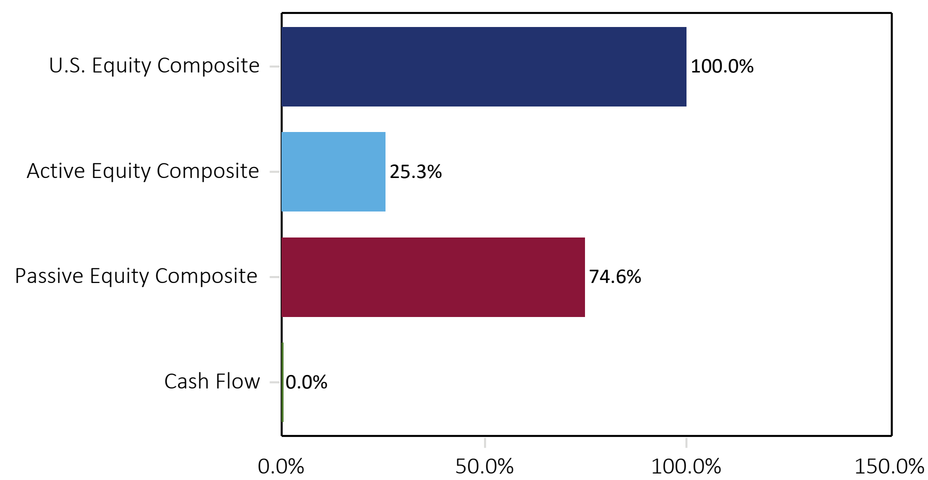
U.S. Equity Composite

Periods Ended 1 Quarter December 31, 2024

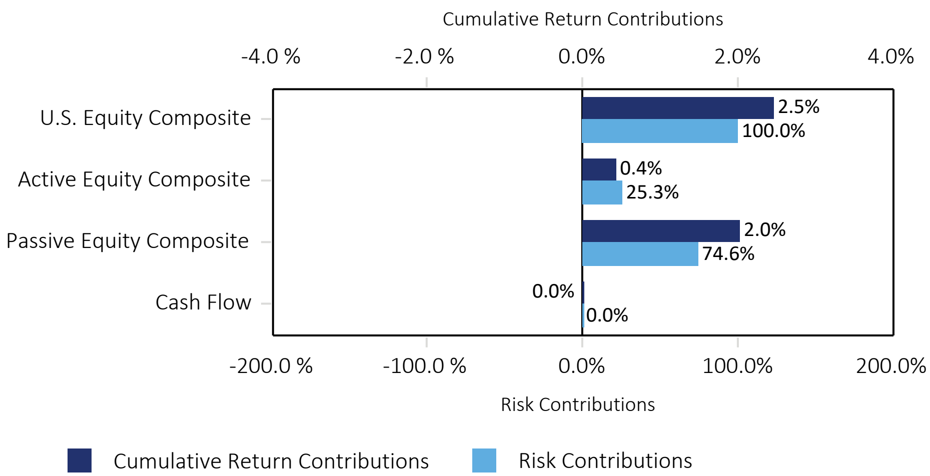
Cumulative Return Contributions



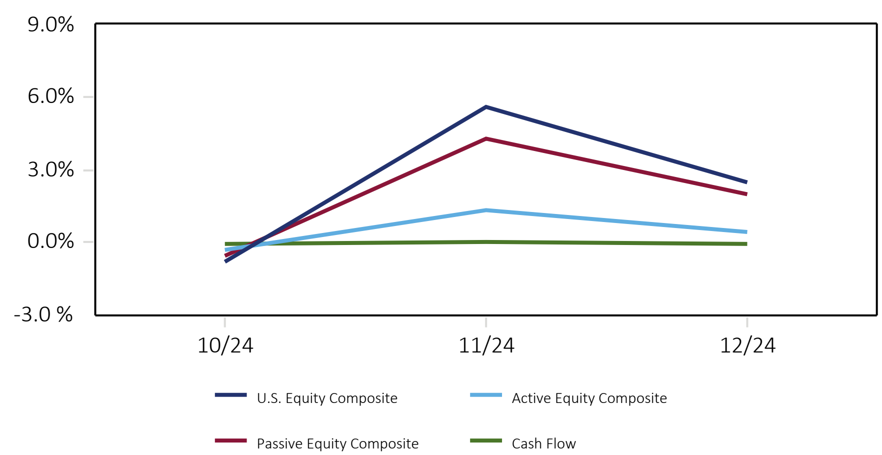
Risk Contributions



Cumulative Return and Risk Contributions



Cumulative Return Contributions History

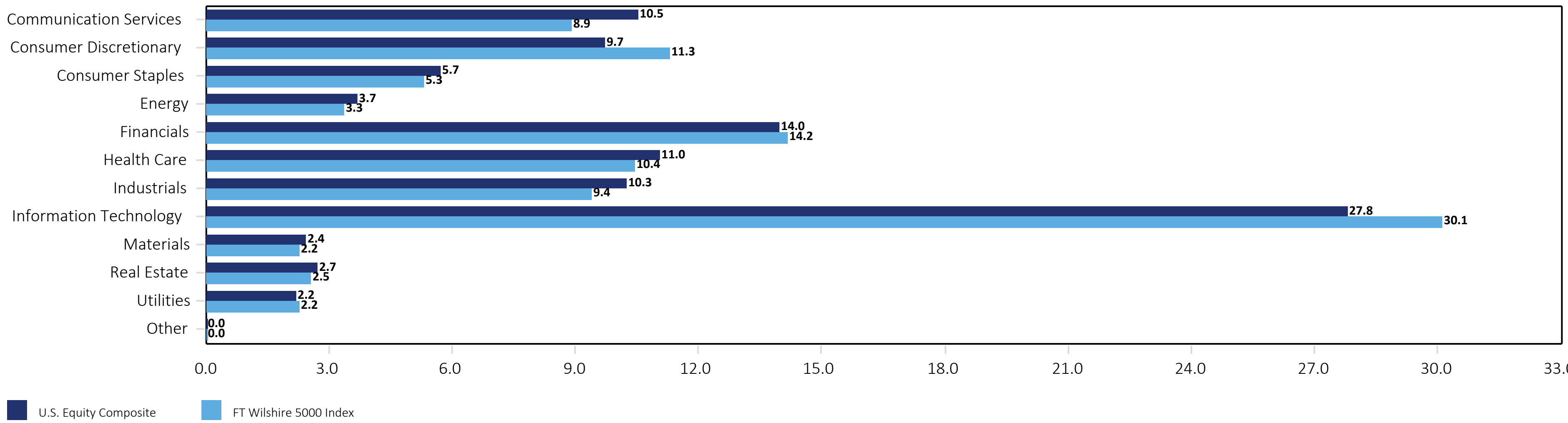


Portfolio Characteristics

U.S. Equity Composite

Periods Ended As of December 31, 2024

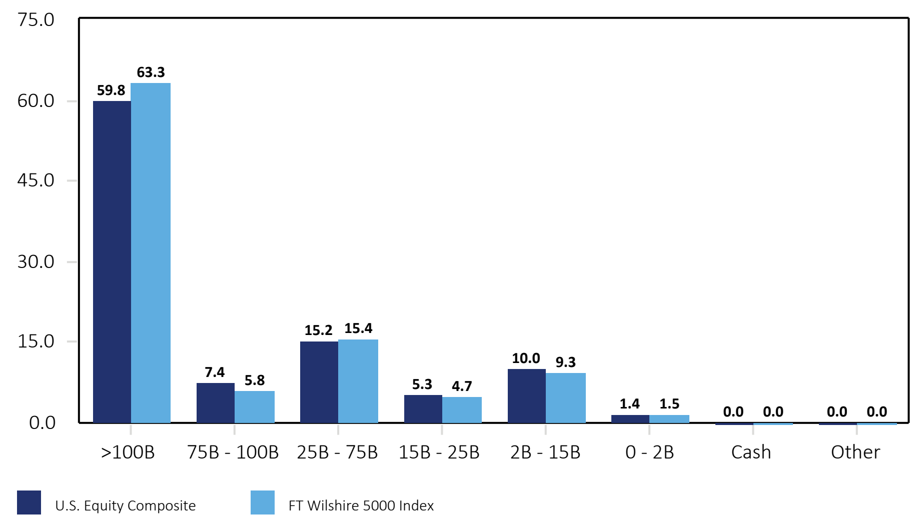
Sector Weights (%)



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap $	818,367,708,305	959,100,462,205
Median Mkt. Cap $	22,781,493,457	1,557,640,160
Price/Earnings ratio	25.6	26.3
Price/Book ratio	4.8	4.7
5 Yr. EPS Growth Rate (%)	20.3	20.0
Current Yield (%)	1.4	1.3
Beta (5 Years, Monthly)	0.98	1.00
Number of Stocks	0	3,326

Distribution of Market Capitalization (%)

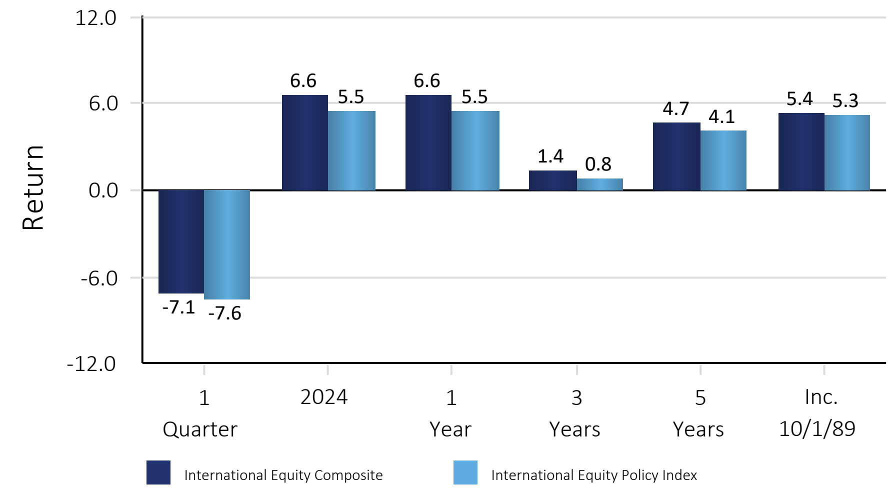


Manager Summary

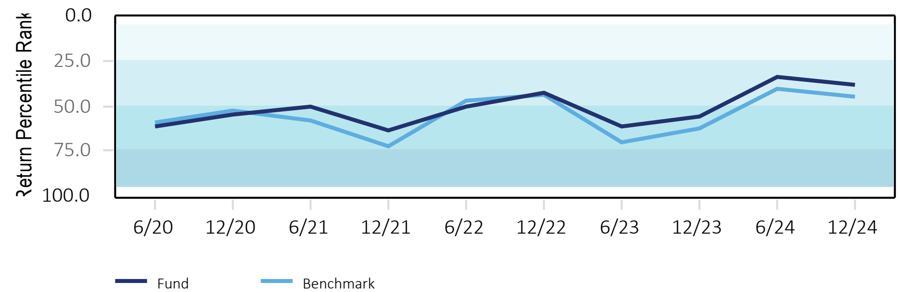
International Equity Composite vs IM International Equity (SA+CF)

Periods Ended December 31, 2024

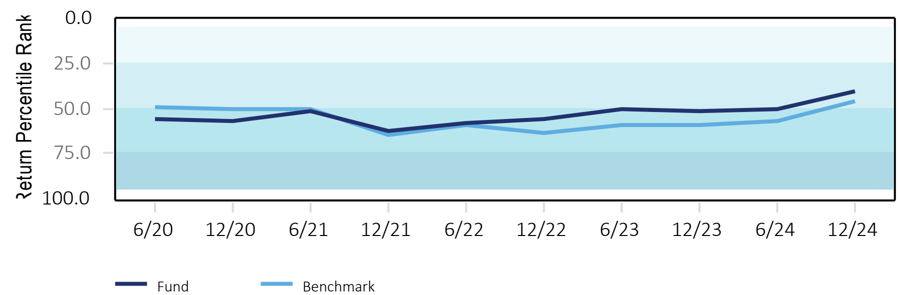
Comparative Performance



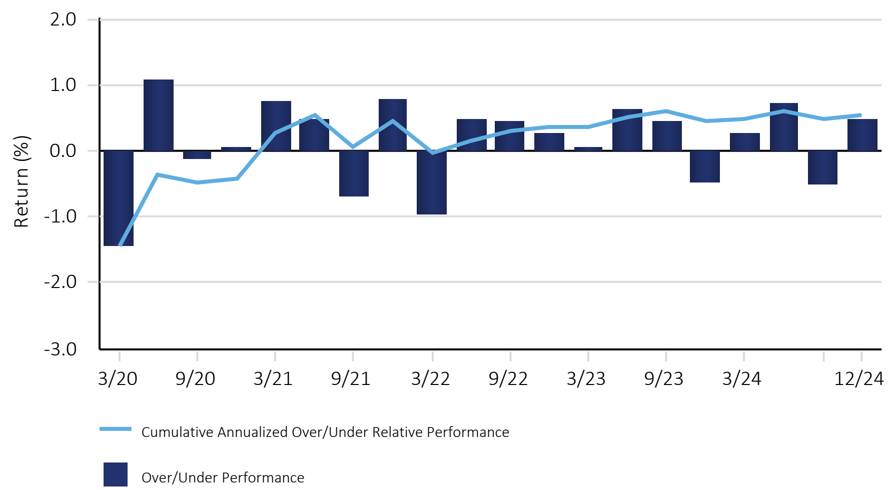
1 Year Rolling Percentile Ranking



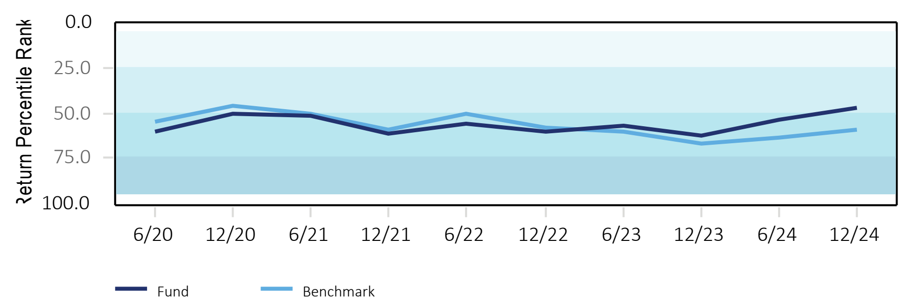
3 Year Rolling Percentile Ranking



Relative Performance



5 Year Rolling Percentile Ranking

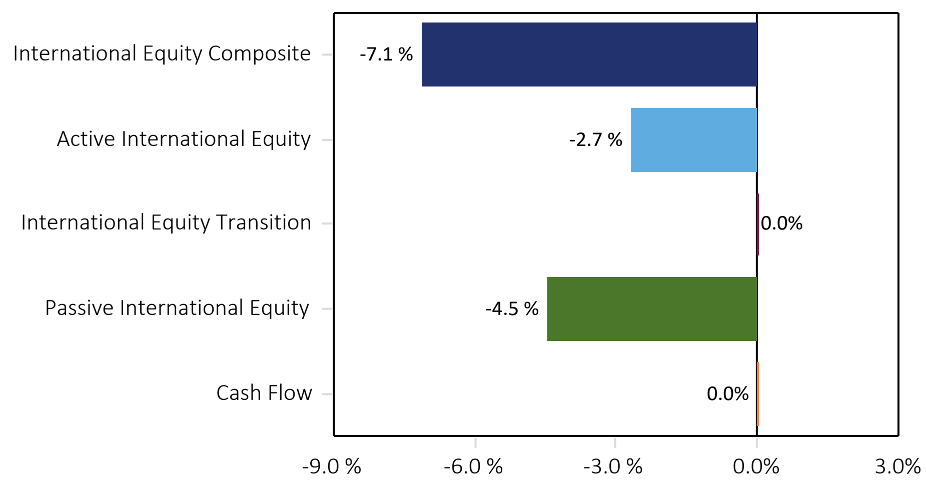


Return and Risk Contribution

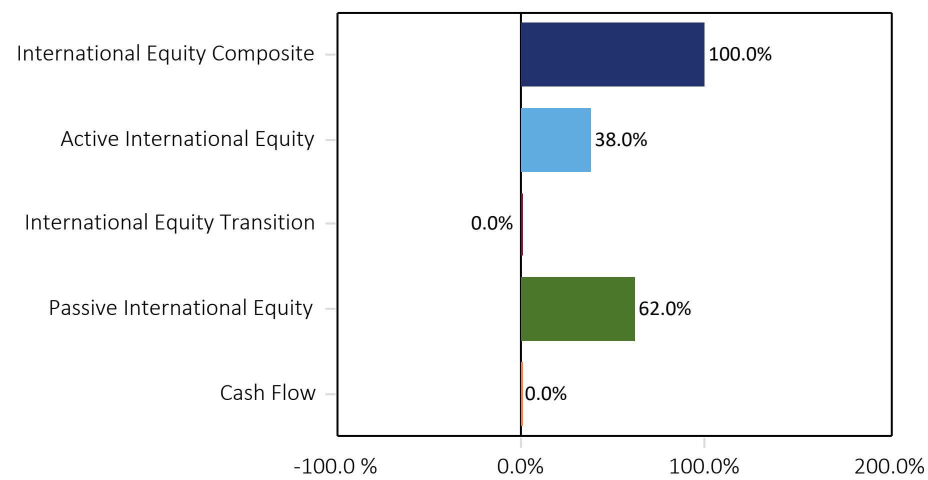
International Equity Composite

Periods Ended 1 Quarter December 31, 2024

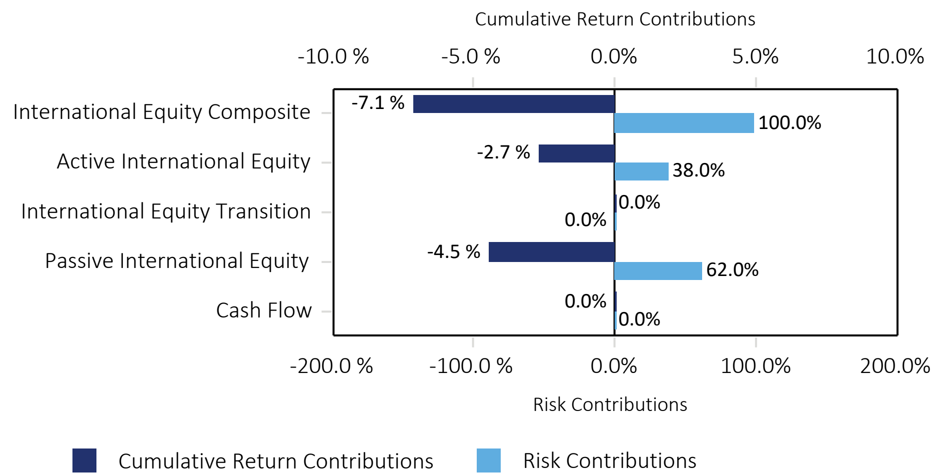
Cumulative Return Contributions



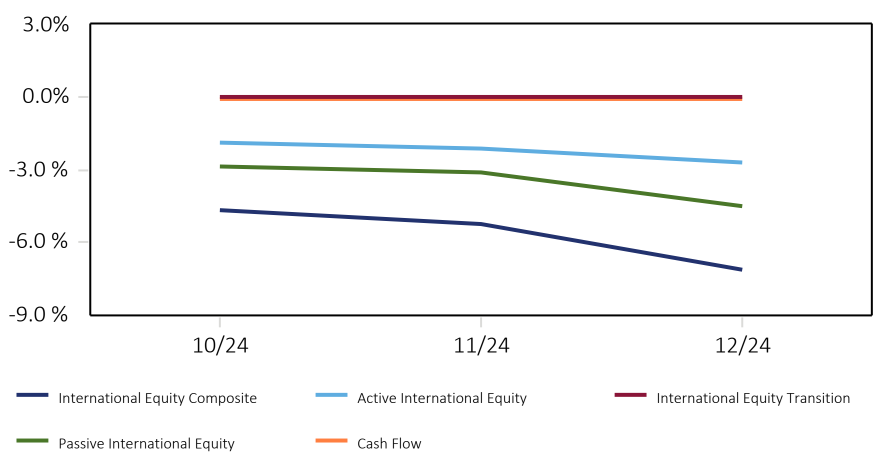
Risk Contributions



Cumulative Return and Risk Contributions



Cumulative Return Contributions History

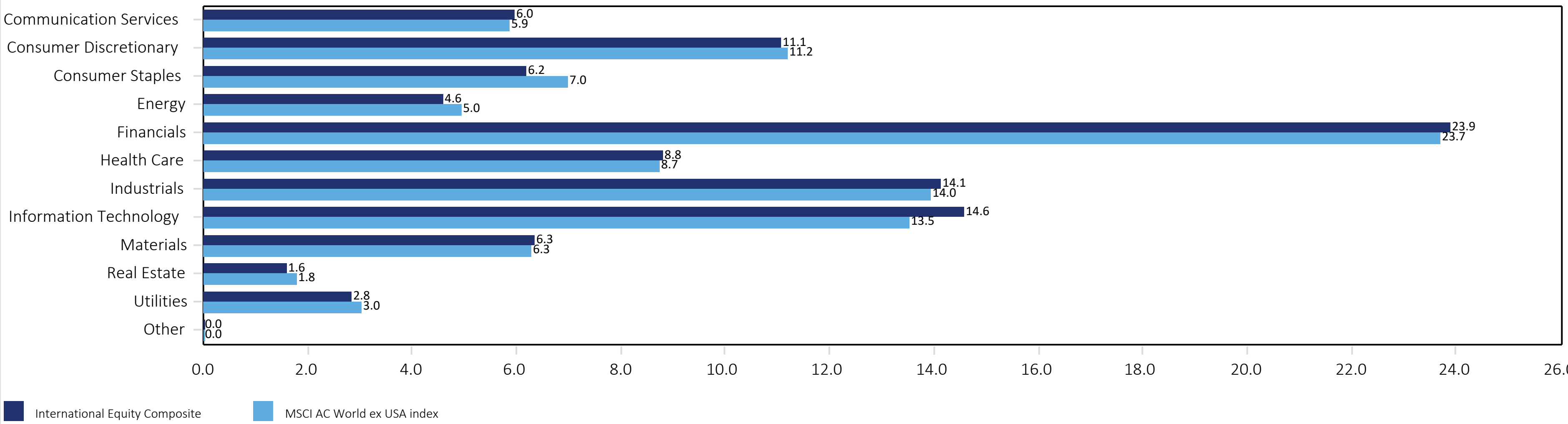


Portfolio Characteristics

International Equity Composite

Periods Ended As of December 31, 2024

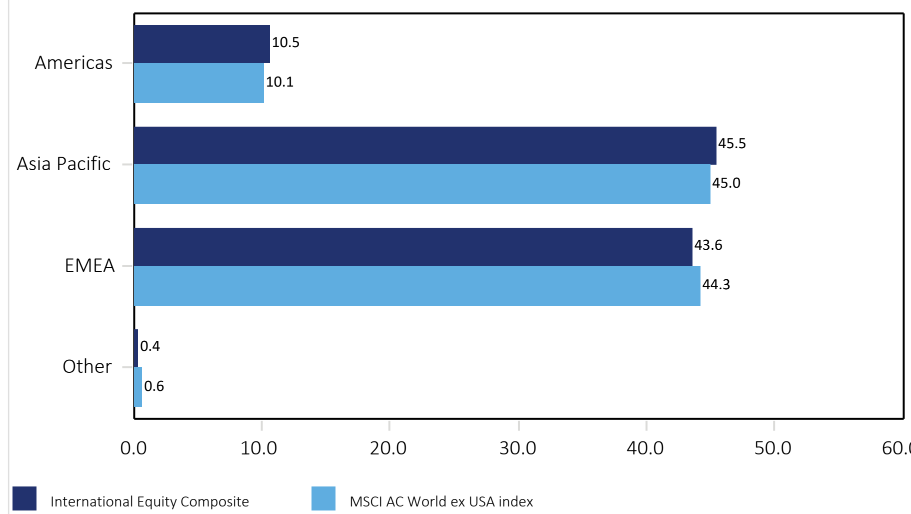
Sector Weights (%)



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap $	107,993,166,286	107,605,769,118
Median Mkt. Cap $	15,426,805,388	9,818,212,462
Price/Earnings ratio	13.6	15.8
Price/Book ratio	2.7	2.5
5 Yr. EPS Growth Rate (%)	12.8	12.0
Current Yield (%)	2.3	3.0
Beta (5 Years, Monthly)	1.00	1.00
Number of Stocks	0	2,058

Region Allocation



Country/RegionAllocation

International Equity Composite

Periods Ended December 31, 2024

	International Equity Composite	MSCI AC World ex USA index
Canada	0.00	8.10
United States	0.00	0.08
Americas	**0.00**	**8.18**
Australia	0.00	4.38
Hong Kong	0.00	1.75
Japan	0.00	14.48
New Zealand	0.00	0.19
Singapore	0.00	1.19
Asia Pacific	**0.00**	**21.98**
Austria	0.00	0.12
Belgium	0.00	0.48
Denmark	0.00	1.80
Finland	0.00	0.61
France	0.00	6.37
Germany	0.00	5.72
Ireland	0.00	0.74
Israel	0.00	0.60
Italy	0.00	1.62
Netherlands	0.00	3.47
Norway	0.00	0.36
Portugal	0.00	0.09
Spain	0.00	1.65
Sweden	0.00	1.95
Switzerland	0.00	6.20
United Kingdom	0.00	8.95
EMEA	**0.00**	**40.72**
Developed Markets	**0.00**	**70.89**

	International Equity Composite	MSCI AC World ex USA index
Brazil	0.00	1.18
Chile	0.00	0.12
Colombia	0.00	0.03
Mexico	0.00	0.52
Peru	0.00	0.06
Americas	**0.00**	**1.91**
China	0.00	7.29
India	0.00	5.76
Indonesia	0.00	0.44
Korea	0.00	2.67
Malaysia	0.00	0.46
Philippines	0.00	0.16
Taiwan	0.00	5.85
Thailand	0.00	0.43
Asia Pacific	**0.00**	**23.05**
Czech Republic	0.00	0.04
Egypt	0.00	0.02
Greece	0.00	0.14
Hungary	0.00	0.07
Kuwait	0.00	0.22
Poland	0.00	0.23
Qatar	0.00	0.25
Saudi Arabia	0.00	1.23
South Africa	0.00	0.80
Turkey	0.00	0.19
United Arab Emirates	0.00	0.41
EMEA	**0.00**	**3.60**
Emerging Markets	**0.00**	**28.56**
Frontier Markets	**0.00**	**0.00**

Country/RegionAllocation

International Equity Composite

Periods Ended December 31, 2024

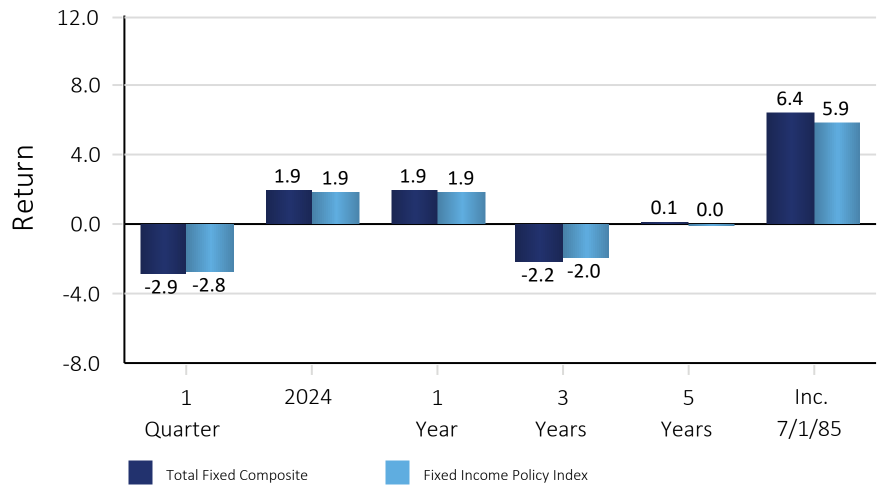
	International Equity Composite	MSCI AC World ex USA index
Cash	0.00	0.00
Other	0.00	0.56
Total	**0.00**	**100.00**

Manager Summary

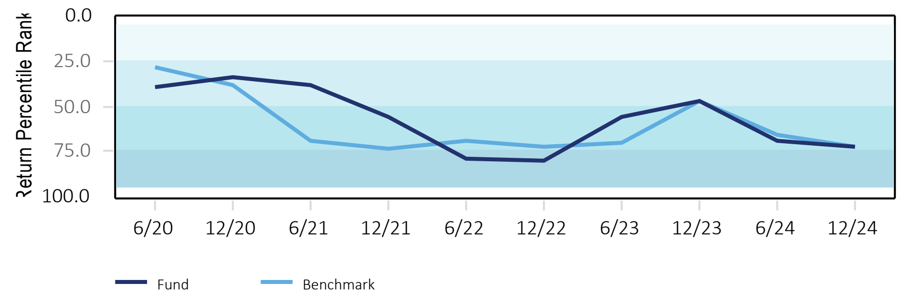
Total Fixed Composite vs IM U.S. Fixed Income (SA+CF)

Periods Ended December 31, 2024

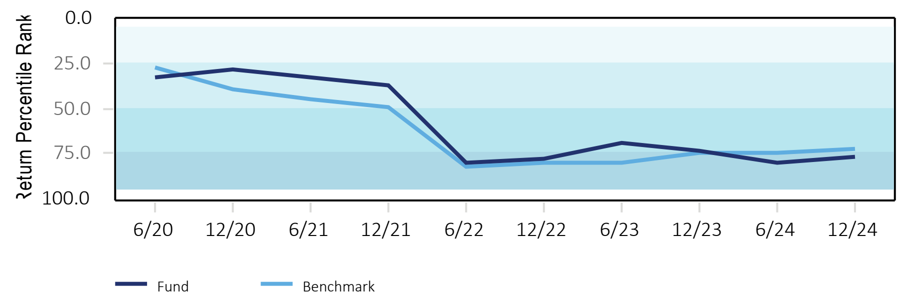
Comparative Performance



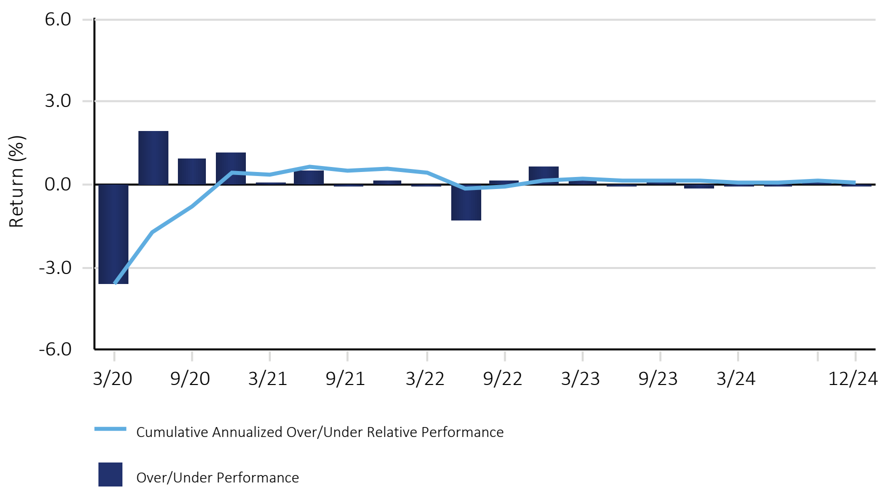
1 Year Rolling Percentile Ranking



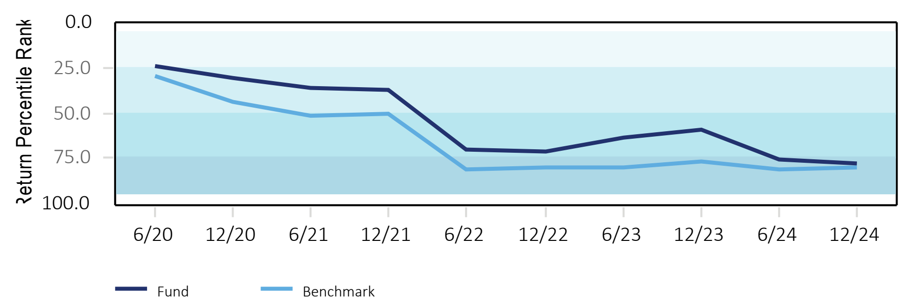
3 Year Rolling Percentile Ranking



Relative Performance



5 Year Rolling Percentile Ranking

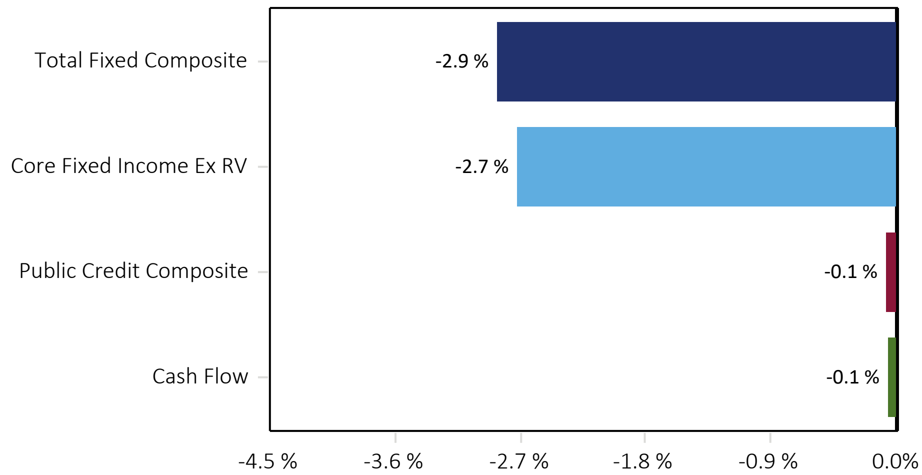


Return and Risk Contribution

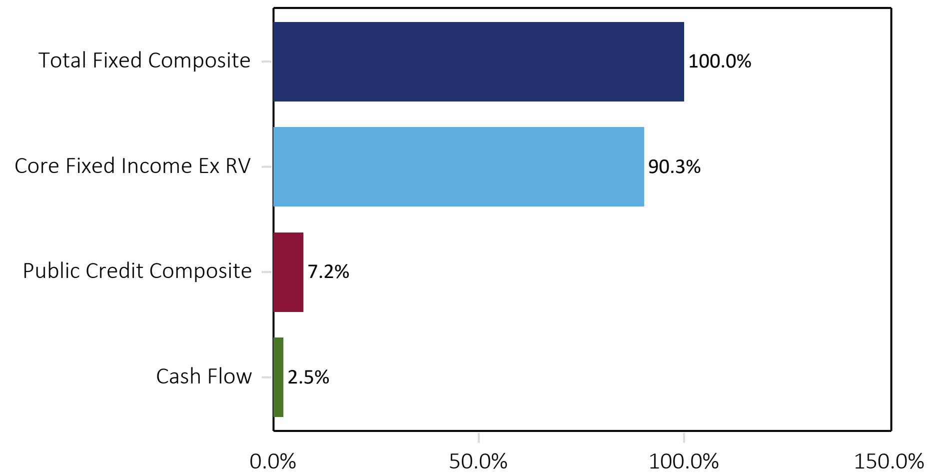
Total Fixed Composite

Periods Ended 1 Quarter December 31, 2024

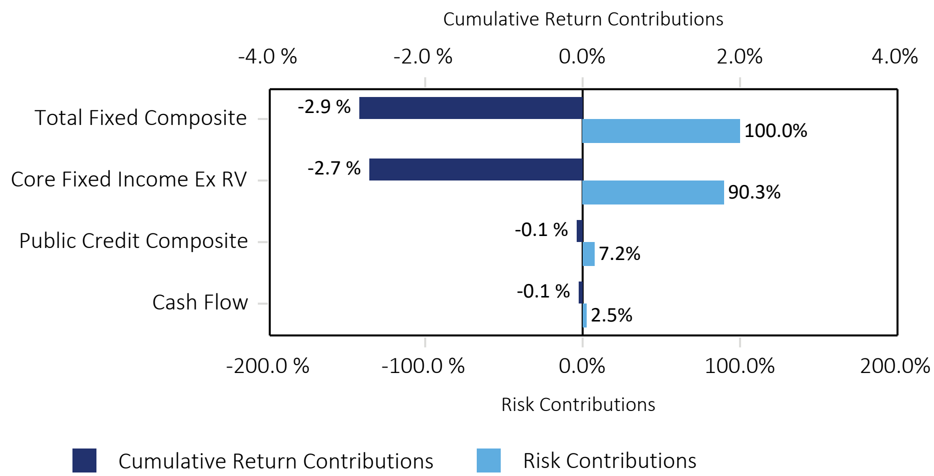
Cumulative Return Contributions



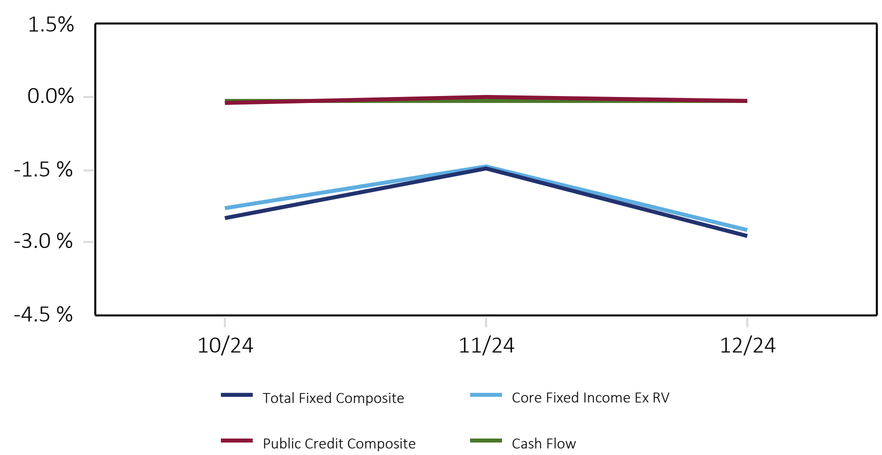
Risk Contributions



Cumulative Return and Risk Contributions



Cumulative Return Contributions History



Portfolio Characteristics

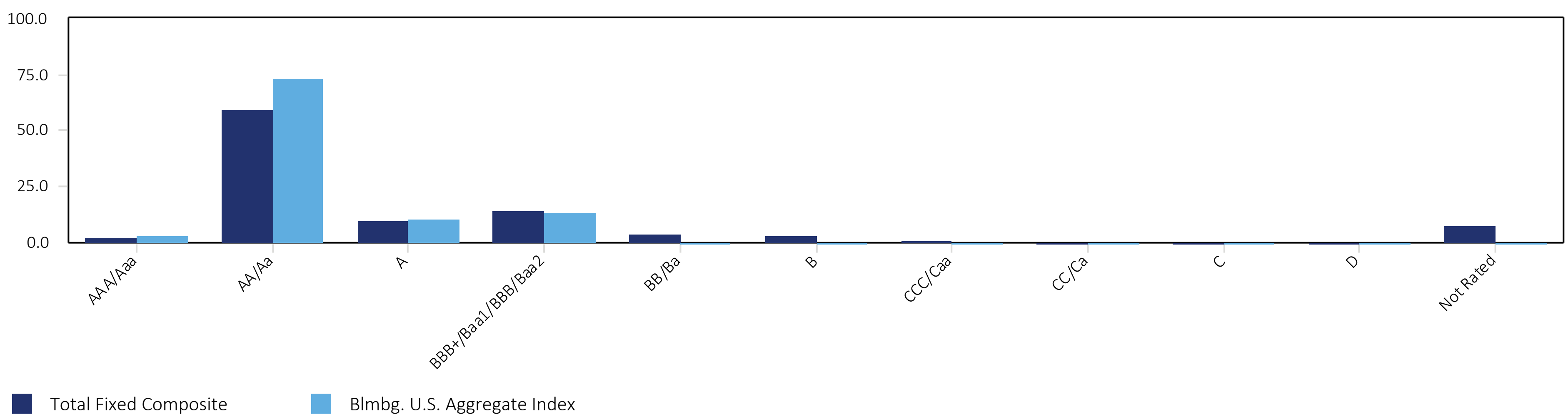
Total Fixed Composite vs Blmbg. U.S. Aggregate Index

Periods Ended As of December 31, 2024

Portfolio Characteristics

	Portfolio	Benchmark
Avg. Quality	AA	AA
Convexity	0.27	0.28
Coupon Rate (%)	3.74	3.54
Current Yield	3.77	4.88
Effective Duration	5.89	5.90
Yield To Maturity (%)	5.02	4.88
Years to Maturity	8.40	8.40
Holdings Count	15,048	13,630

Credit Quality Distribution (%)



Portfolio Characteristics

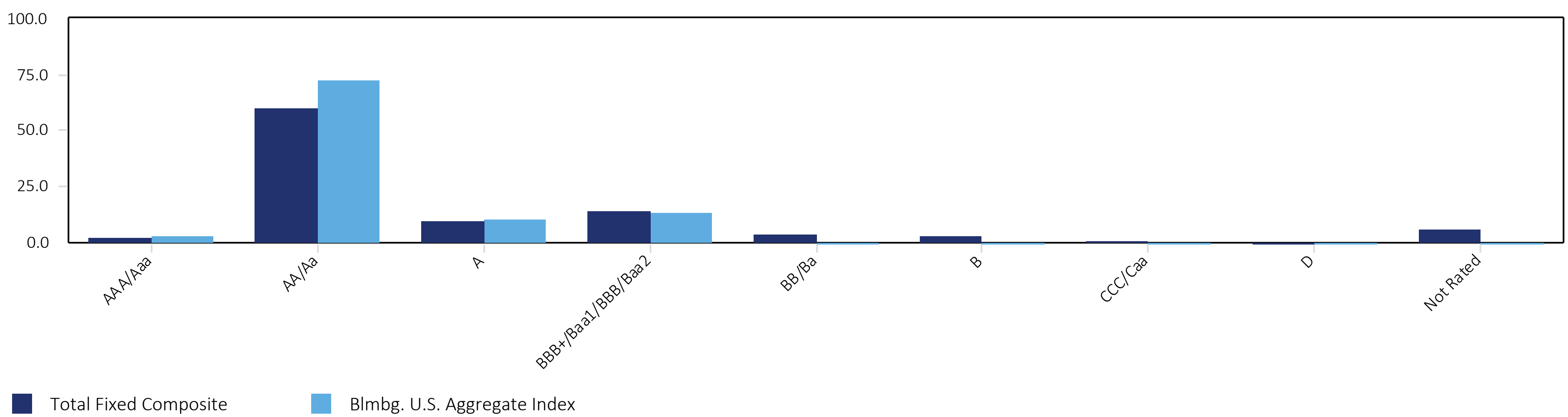
Total Fixed Composite vs Blmbg. U.S. Aggregate Index

Periods Ended As of December 31, 2023

Portfolio Characteristics

	Portfolio	Benchmark
Avg. Quality	AA	AA
Convexity	0.28	0.29
Coupon Rate (%)	3.44	3.19
Current Yield	3.87	4.52
Effective Duration	6.11	6.08
Yield To Maturity (%)	4.80	4.52
Years to Maturity	8.40	8.43
Holdings Count	14,812	13,334

Credit Quality Distribution (%)



Portfolio Characteristics

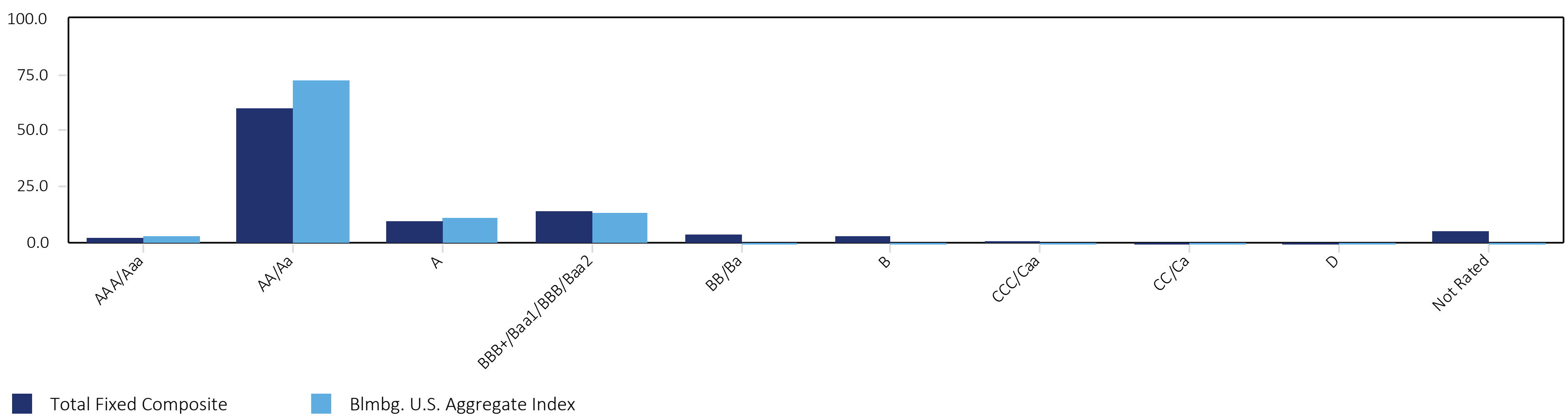
Total Fixed Composite vs Blmbg. U.S. Aggregate Index

Periods Ended As of March 31, 2024

Portfolio Characteristics

	Portfolio	Benchmark
Avg. Quality	AA	AA
Convexity	0.27	0.29
Coupon Rate (%)	3.54	3.31
Current Yield	4.79	4.73
Effective Duration	5.79	5.99
Yield To Maturity (%)	5.51	4.73
Years to Maturity	8.54	8.35
Holdings Count	14,930	13,530

Credit Quality Distribution (%)



Portfolio Characteristics

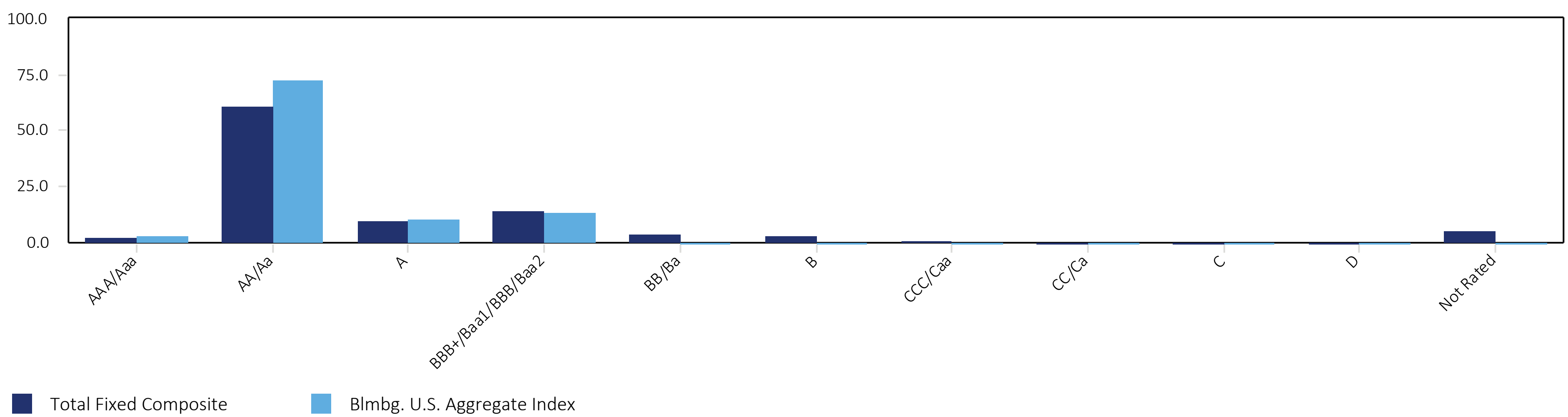
Total Fixed Composite vs Blmbg. U.S. Aggregate Index

Periods Ended As of June 30, 2024

Portfolio Characteristics

	Portfolio	Benchmark
Avg. Quality	AA	AA
Convexity	0.27	0.28
Coupon Rate (%)	3.63	3.41
Current Yield	3.63	4.93
Effective Duration	5.86	5.96
Yield To Maturity (%)	5.30	4.93
Years to Maturity	8.51	8.39
Holdings Count	14,923	13,617

Credit Quality Distribution (%)



Portfolio Characteristics

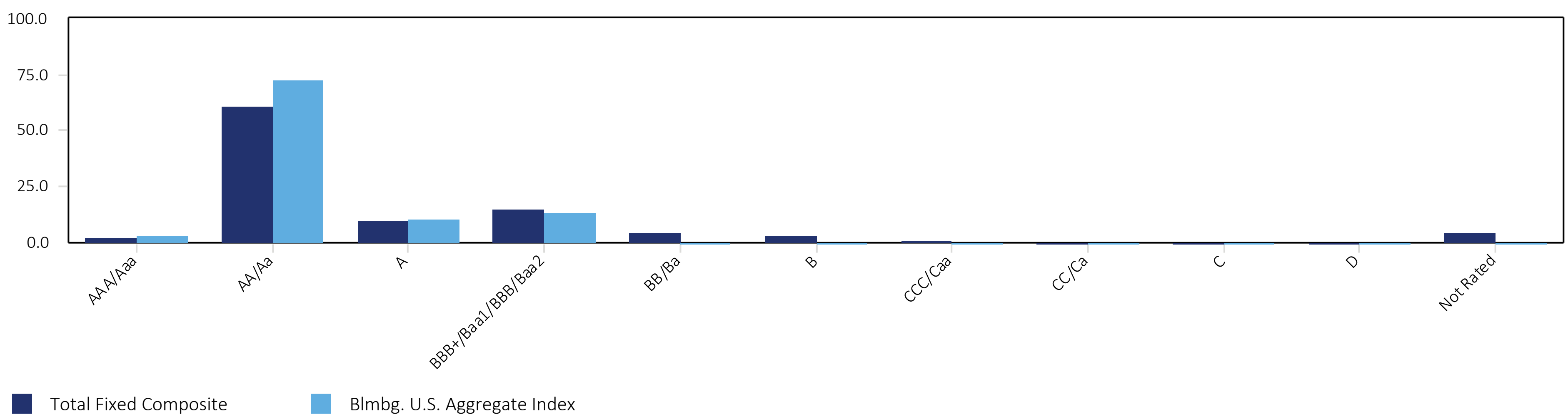
Total Fixed Composite vs Blmbg. U.S. Aggregate Index

Periods Ended As of September 30, 2024

Portfolio Characteristics

	Portfolio	Benchmark
Avg. Quality	AA	AA
Convexity	0.26	0.28
Coupon Rate (%)	3.73	3.48
Current Yield	3.75	4.19
Effective Duration	6.01	5.97
Yield To Maturity (%)	4.86	4.19
Years to Maturity	8.49	8.27
Holdings Count	14,980	13,702

Credit Quality Distribution (%)

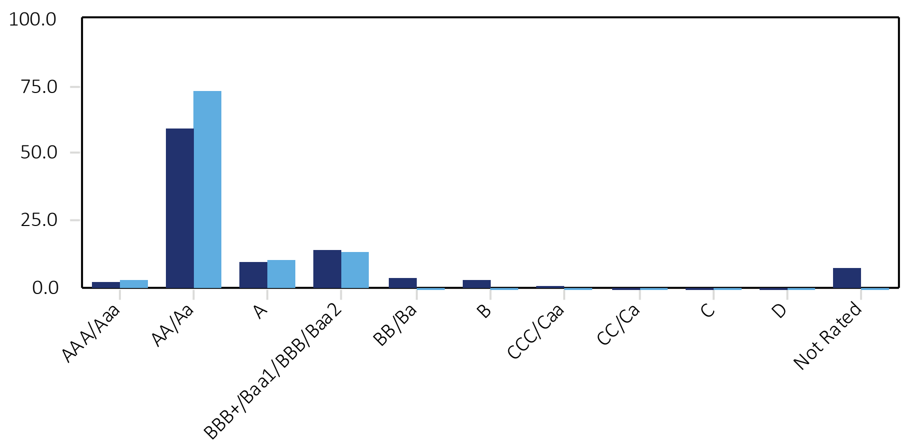


Portfolio Characteristics

Total Fixed Composite vs Blmbg. U.S. Aggregate Index

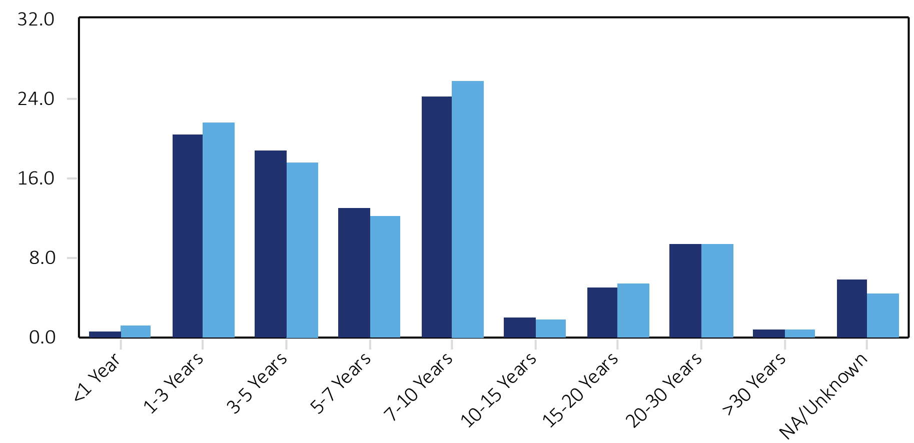
Periods Ended As of December 31, 2024

Credit Quality Distribution (%)



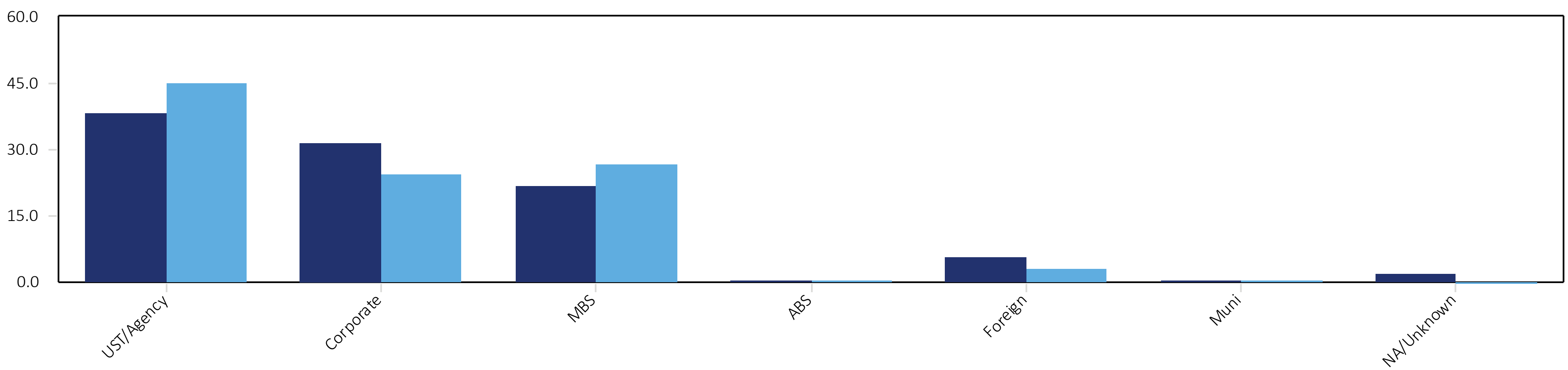
Total Fixed Composite   Blmbg. U.S. Aggregate Index

Maturity Distribution (%)



Total Fixed Composite   Blmbg. U.S. Aggregate Index

Sector Distribution (%)



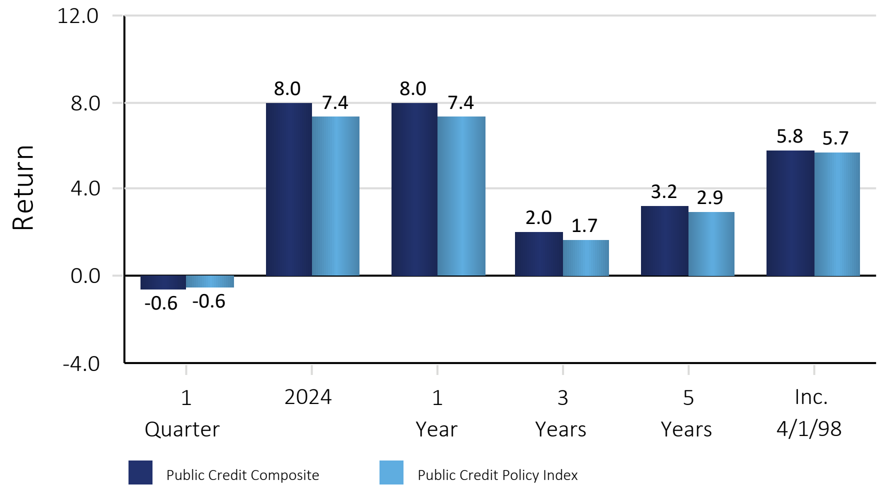
Total Fixed Composite   Blmbg. U.S. Aggregate Index

Manager Summary

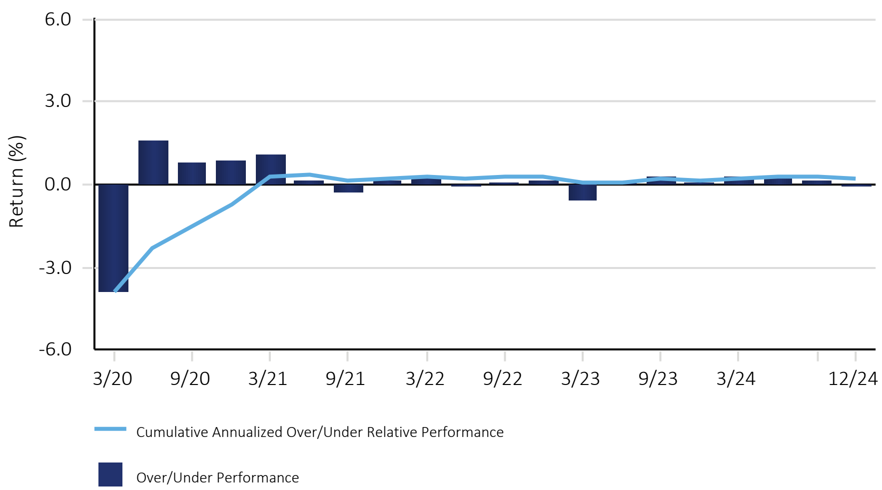
Public Credit Composite vs IM U.S. High Yield Bonds (SA+CF)

Periods Ended December 31, 2024

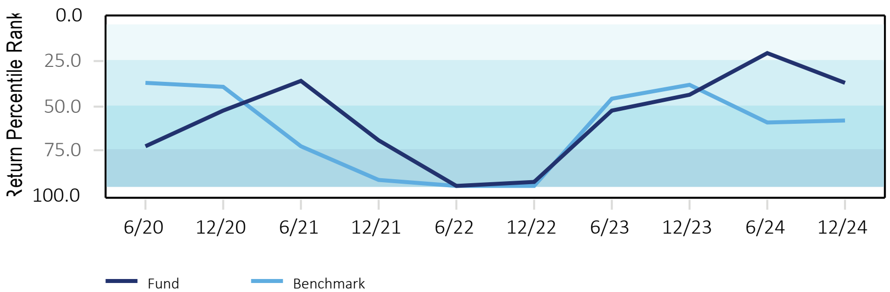
Comparative Performance



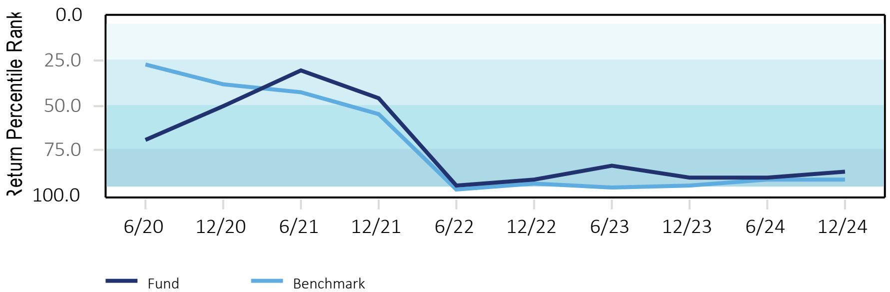
Relative Performance



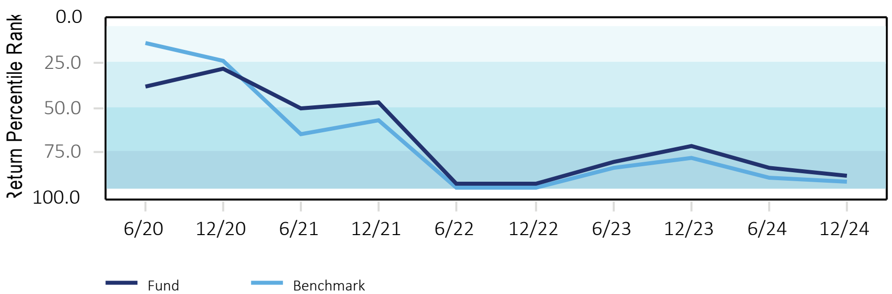
1 Year Rolling Percentile Ranking



3 Year Rolling Percentile Ranking



5 Year Rolling Percentile Ranking

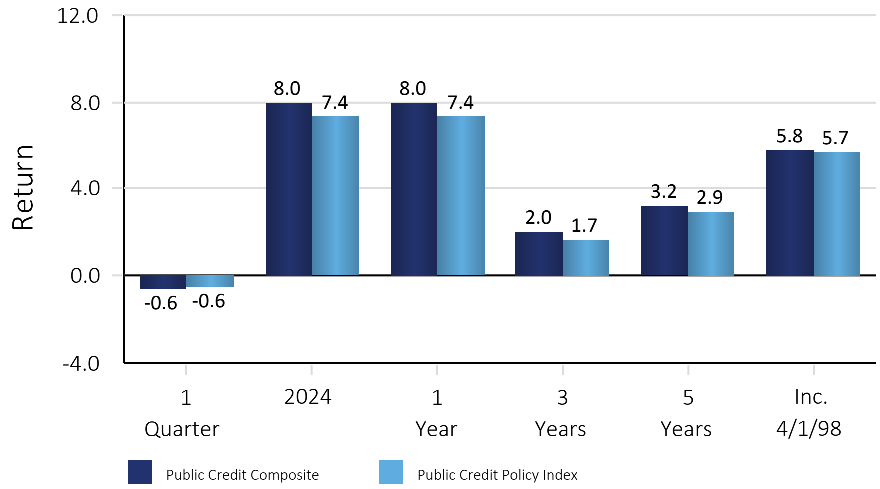


Manager Summary

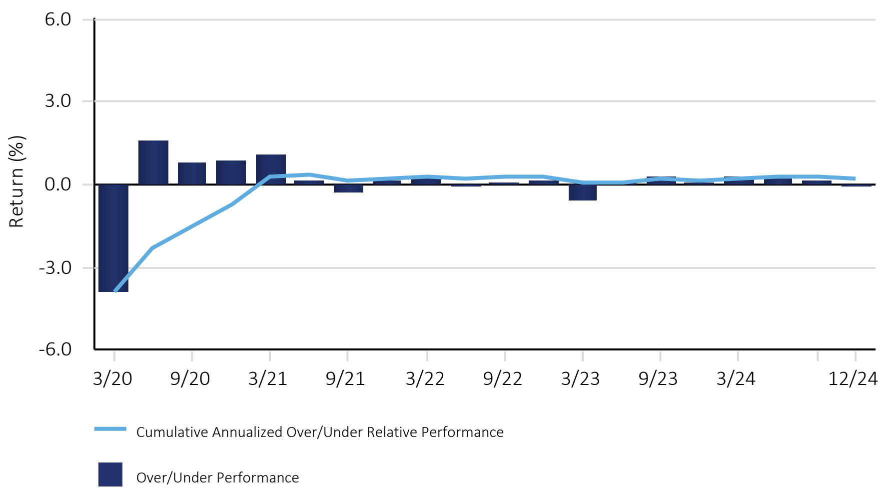
Public Credit Composite vs IM Emerging Markets Debt (SA+CF)

Periods Ended December 31, 2024

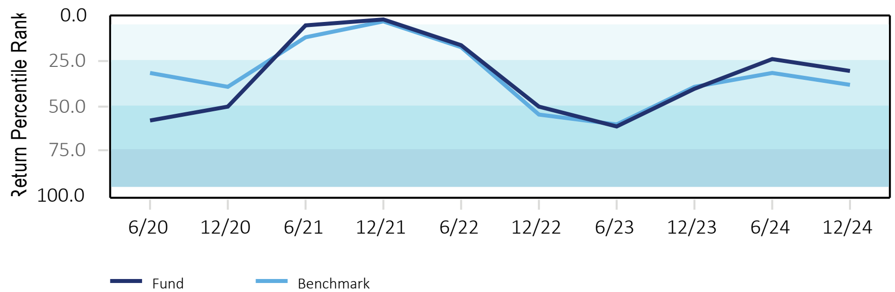
Comparative Performance



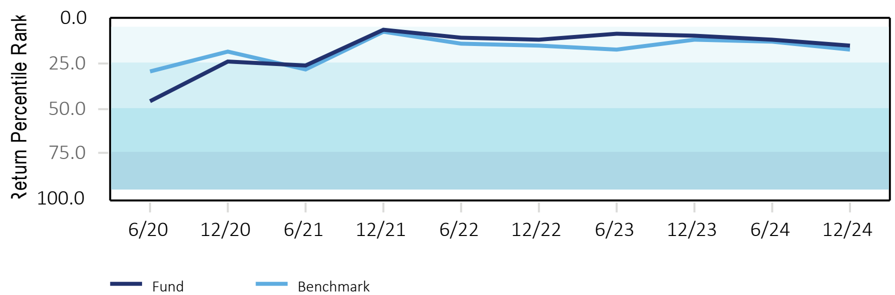
Relative Performance



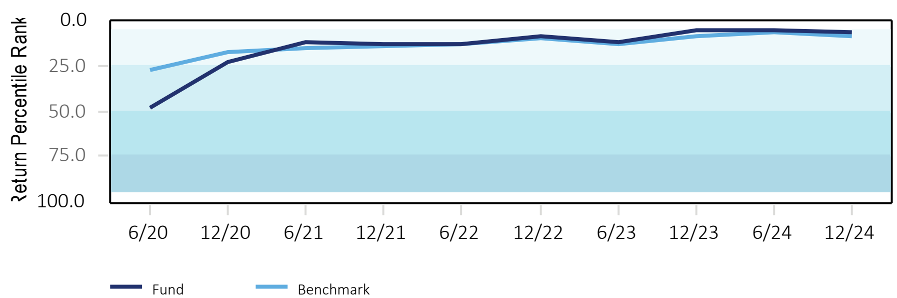
1 Year Rolling Percentile Ranking



3 Year Rolling Percentile Ranking



5 Year Rolling Percentile Ranking

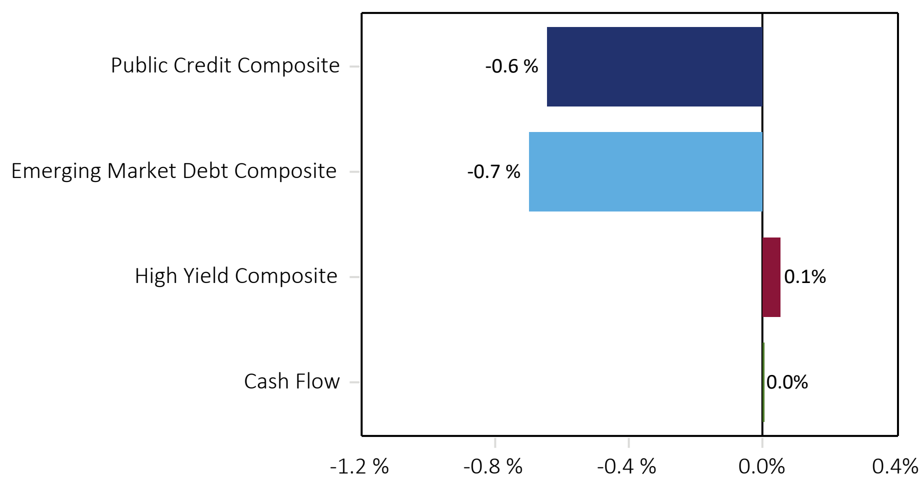


Return and Risk Contribution

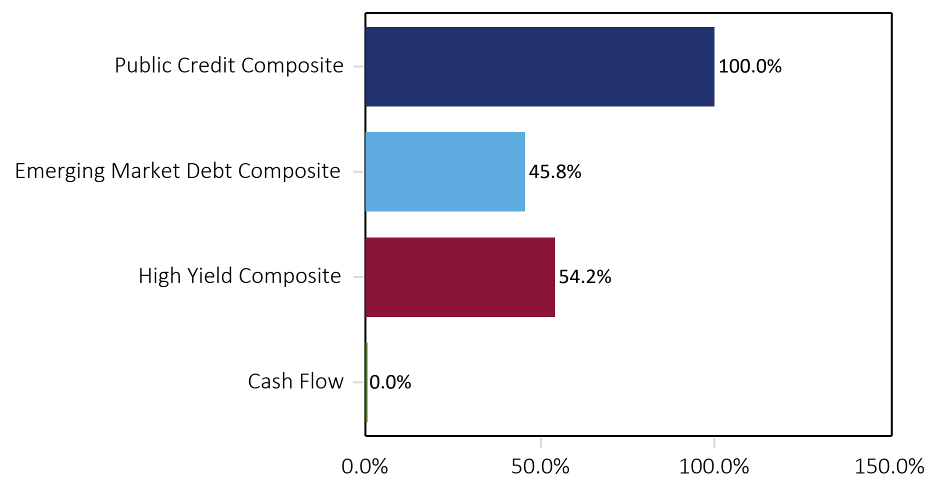
Public Credit Composite

Periods Ended 1 Quarter December 31, 2024

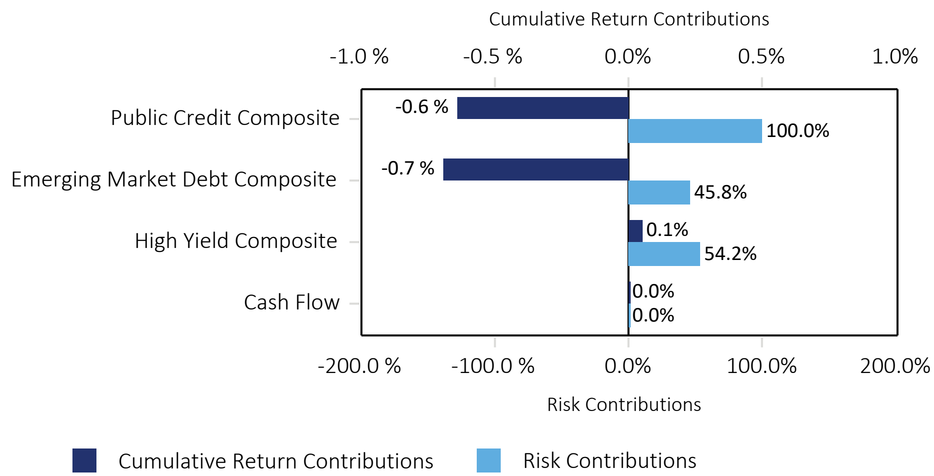
Cumulative Return Contributions



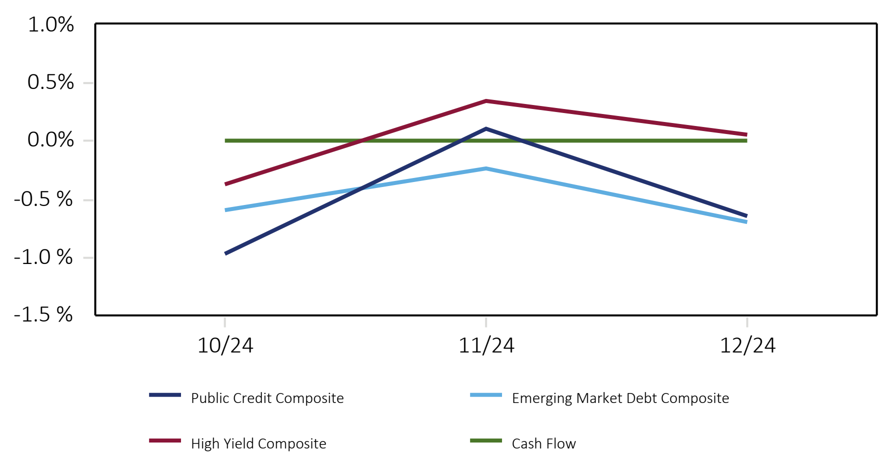
Risk Contributions



Cumulative Return and Risk Contributions



Cumulative Return Contributions History



Asset Allocation & Performance

Private Markets Composite

Periods Ended December 31, 2024

	Performance (%) Net of Fees									Market Value $
	1 Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	Since Inception	Inception Date	
Private Markets Composite	**1.79**	**2.39**	**4.66**	**2.13**	**12.61**			**13.47**	**10/1/2016**	**13,761,574,534**
Private Equity/Debt	**2.00**	**2.54**	**6.54**	**1.50**	**15.70**	**15.58**	**15.85**	**12.86**	**10/1/1985**	**7,909,391,080**
Private Equity Policy Index	2.00	2.54	6.54	1.50	15.70	15.58	13.42	14.43		
Private Credit Composite	**2.43**	**4.18**	**8.54**	**7.23**	**7.32**			**7.54**	**10/1/2016**	**2,790,434,232**
Private Credit Policy Index	2.43	4.18	8.54	7.23	7.32			7.54		
Private Real Assets Composite	**0.64**	**0.40**	**-3.08**	**0.23**	**5.98**			**6.82**	**10/1/2016**	**3,061,749,222**
Private Real Assets Policy Index	0.64	0.40	-3.08	0.23	5.98			6.82		
Russell 3000 + 3%	3.39	10.65	27.52	11.25	17.28	15.92	13.53	15.50	1/1/1979	
Morningstar LSTA US Leveraged Loan + 1%	2.52	4.88	10.04	8.07	6.91	6.20	6.07	6.15	1/1/1997	
NCREIF Fund Index-ODCE (VW) (Net)	0.96	0.99	-2.26	-3.14	1.99	4.94	5.53	6.96	1/1/1978	

Asset Allocation & Performance

Private Credit Composite

Periods Ended December 31, 2024

	Performance (%) Net of Fees									Market Value $
	1 Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	Since Inception	Inception Date	
Private Credit Composite	2.43	4.18	8.54	7.23	7.32			7.54	10/1/2016	2,790,434,232
Private Corporate Debt Composite	2.82	4.24	8.31	7.27	7.49			7.41	1/1/2017	978,087,108
Tennenbaum CP Direct Lending	2.67	2.70	6.16	6.43	6.79			7.19	1/1/2017	325,604,522
Monroe Capital	2.72	4.25	7.96	7.19	7.48			7.45	4/1/2017	418,071,057
PPEF XXV B	3.25	6.66	12.67					9.26	3/1/2022	234,411,530
Private Real Asset Debt Composite	2.42	4.35	7.71	6.10	6.10	7.35		7.49	7/1/2013	744,500,896
Principal Real Estate Debt II	5.67	16.22	18.81	6.29	6.63			7.59	10/1/2017	2,747,278
PGIM Real Estate Global Debt	2.35	4.75	10.63	7.95	7.15			7.06	10/1/2018	124,010,488
Kayne Anderson Real Estate Debt IV	2.79	5.76	11.76					8.86	6/1/2022	93,288,842
Heitman Credit	1.24	-0.38	-5.60					-2.39	10/1/2022	98,676,820
IFM US Infrastructure Debt Fund	1.64	1.97	3.04					4.14	1/1/2023	94,825,785
JP Morgan Global Transport Income Fund	4.65	8.71	15.91					10.41	5/1/2023	105,798,905
ITE Rail Fund IA	2.51	6.41	16.52					12.15	9/1/2023	88,771,057
PGIM PREDS	1.78	3.56	5.17					4.76	12/1/2023	70,959,978
Oaktree RECIF	1.66	3.13	4.17					4.17	1/1/2024	53,753,093
Principal OEDF	2.68	2.87						2.36	4/1/2024	11,668,650
Opportunistic Credit Composite	2.09	4.03	9.55	7.94				8.12	8/1/2021	1,067,846,228
KKR Global Corporate Debt	2.46	4.79	10.52	7.41	7.90			7.92	4/1/2019	286,837,761
Crestline Opportunistic Credit	1.15	2.45	8.42	9.01				8.00	8/1/2021	184,064,111
ARES PCS II	3.70	6.31	12.70	7.21				6.86	10/1/2021	64,786,683
Audax Mezzanine Coinvest	3.46	7.89	15.13	12.96				12.24	11/1/2021	12,781,354
Marathon SPS	1.78	2.96	6.45	6.74				6.37	11/1/2021	248,270,642
Arrowmark	2.20	6.14	13.95	9.89				9.89	1/1/2022	172,470,429
Audax Mezzanine V	3.08	5.71	9.10					17.17	6/1/2022	30,366,015
Crestline Opportunistic Credit - Series 2	1.70	1.95						1.86	5/1/2024	68,269,234

Asset Allocation & Performance

Private Credit Composite

Periods Ended December 31, 2024

	Performance (%) Net of Fees									Market Value $
	1 Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	Since Inception	Inception Date	
Morningstar LSTA US Leveraged Loan + 1%	2.52	4.88	10.04	8.07	6.91	6.20	6.07	6.15	1/1/1997	

Asset Allocation & Performance

Private Real Assets Composite

Periods Ended December 31, 2024

	Performance (%) Net of Fees									Market Value $
	1 Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	Since Inception	Inception Date	
Private Real Assets Composite	**0.64**	**0.40**	**-3.08**	**0.23**	**5.98**			**6.82**	**10/1/2016**	**3,061,749,222**
Private Real Assets Policy Index	0.64	0.40	-3.08	0.23	5.98			6.82		
Private Real Estate Composite	**0.88**	**0.70**	**-4.94**	**-1.63**	**5.25**	**7.74**	**7.25**	**6.58**	**4/1/1987**	**2,398,031,383**
Private Real Estate Policy Index	0.96	0.99	-2.27	-3.14	1.99	4.94	6.70	8.00		
Private Other Real Assets Composite	**-0.21**	**-0.68**	**4.25**	**6.93**	**6.25**			**5.22**	**10/1/2016**	**663,717,839**
CPI + 5%	1.32	2.94	8.03	9.43	9.41			8.47		
NCREIF Fund Index-ODCE (VW) (Net)	0.96	0.99	-2.27	-3.14	1.99	4.94	5.53	6.96	1/1/1978	
CPI - All Urban Consumers (Unadjusted)	0.10	0.46	2.89	4.22	4.20	3.00	2.56	3.15	2/1/1913	
CPI + 5%	1.32	2.94	8.03	9.43	9.41	8.15	7.69		2/1/1913	

Asset Allocation & Performance

Private Real Estate Composite (G)

Periods Ended December 31, 2024

	Performance (%) Net of Fees								
	1 Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	Since Inception	Inception Date
Private Real Estate Composite (G)	0.99	0.90	-4.57	-1.22	5.70	8.27	8.03	7.42	4/1/1987
Private Real Estate Composite (N)	0.88	0.70	-4.94	-1.63	5.25	7.74	7.25	6.58	
Private Real Estate Policy Index	0.96	0.99	-2.27	-3.14	1.99	4.94	6.70	8.00	
Clarion Partners (G)	-9.49	-16.67	-25.81	-17.48	-9.19	-0.70		3.43	7/1/2005
Clarion Partners (N)	-9.49	-16.67	-25.81	-17.73	-9.52	-1.21		2.69	
Invesco Separate Account (G)	2.10	2.58	-2.01	0.61	10.55	12.52	10.37	11.05	7/1/1996
Invesco Separate Account (N)	1.99	2.34	-2.46	0.15	10.03	11.94	9.60	10.10	
RREEF America LLC (G)	0.22	-0.13	-4.29	1.40	6.73	8.74	8.70	10.00	4/1/1997
RREEF America LLC (N)	0.12	-0.31	-4.66	0.98	6.27	8.23	7.89	9.06	
UBS (G)	2.11	3.21	-0.59	3.15	10.06	11.09	9.66	10.33	10/1/1998
UBS (N)	2.00	3.00	-1.00	2.75	9.61	10.60	9.05	9.71	
KAREP VII (G)									1/1/2025
KAREP VII (N)									
NCREIF Fund Index-ODCE (VW) (Net)	0.96	0.99	-2.27	-3.14	1.99	4.94	5.53	6.96	1/1/1978

Asset Allocation & Performance

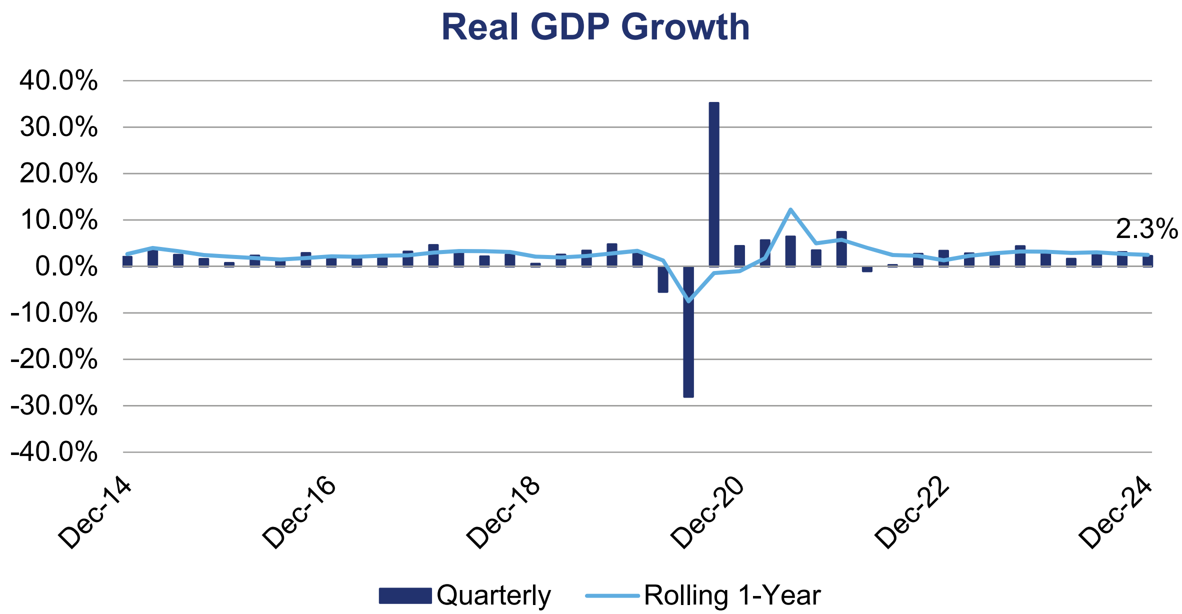
Private Other Real Assets Composite

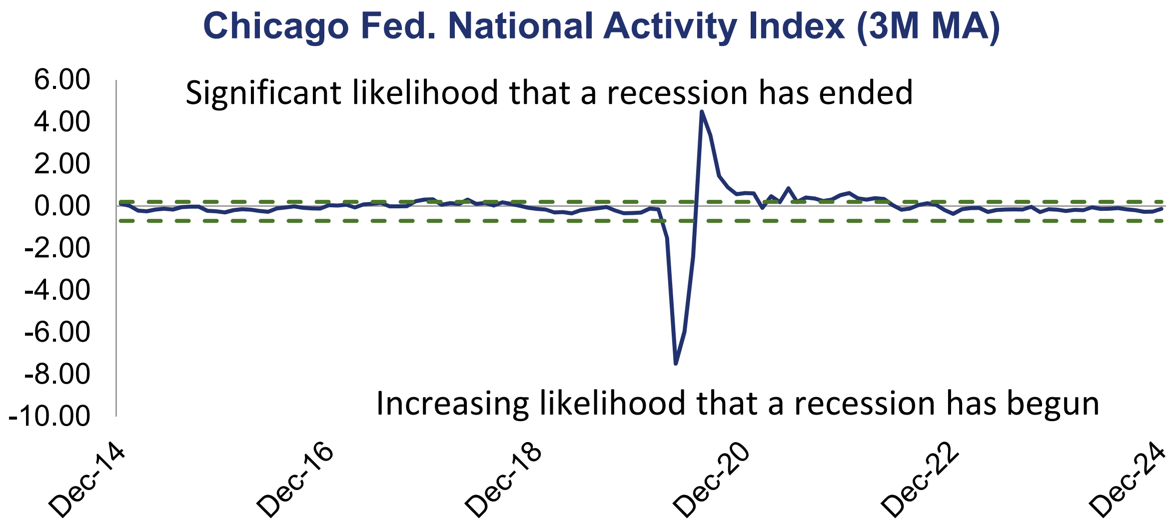
Periods Ended December 31, 2024

	Performance (%) Net of Fees								
	1 Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	Since Inception	Inception Date
Private Other Real Assets Composite	**-0.21**	**-0.68**	**4.25**	**6.93**	**6.25**			**5.22**	**10/1/2016**
CPI + 5%	1.32	2.94	8.03	9.43	9.41			8.47	
Forest Investment Associates	**-3.85**	**-5.40**	**-1.83**	**6.78**	**6.50**	**4.79**		**5.71**	**7/1/2012**
CPI + 5%	1.32	2.94	8.03	9.43	9.41	8.15		7.71	
UBS Farmland Investors	**0.61**	**1.12**	**6.95**	**6.99**	**5.31**			**6.95**	**7/1/2016**
CPI + 5%	1.32	2.94	8.03	9.43	9.41			8.38	
Brookfield Super-Core Infrastructure	**2.03**	**2.03**	**7.68**					**7.31**	**4/1/2022**
CPI + 5%	1.32	2.94	8.03					8.62	
NCREIF Farmland Index	-1.32	-1.55	-1.03	4.38	4.80	5.90	11.17	7.55	10/1/1980
NCREIF Timberland Index	1.44	3.00	6.97	9.75	7.79	5.43	6.86	10.73	4/1/1987

Economic/Market Activity

Economic Growth

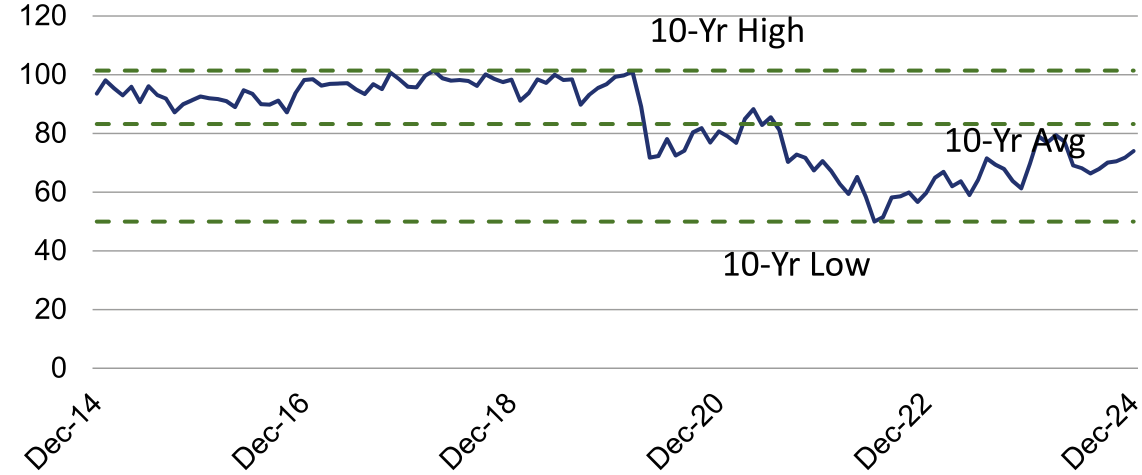




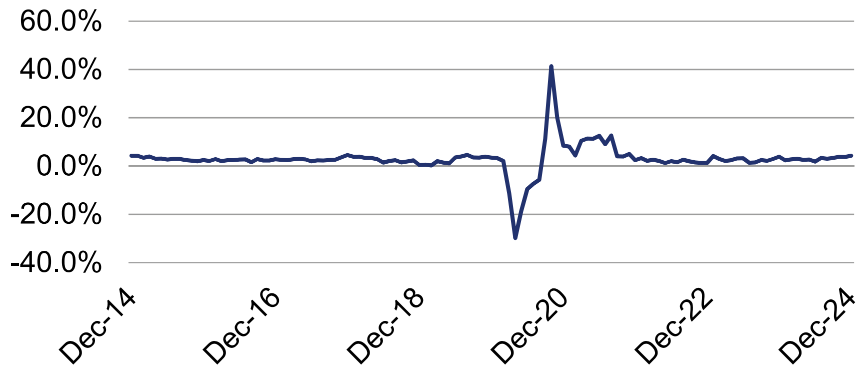
Data Source: Bloomberg

Consumer Activity

University of Michigan: Consumer Sentiment

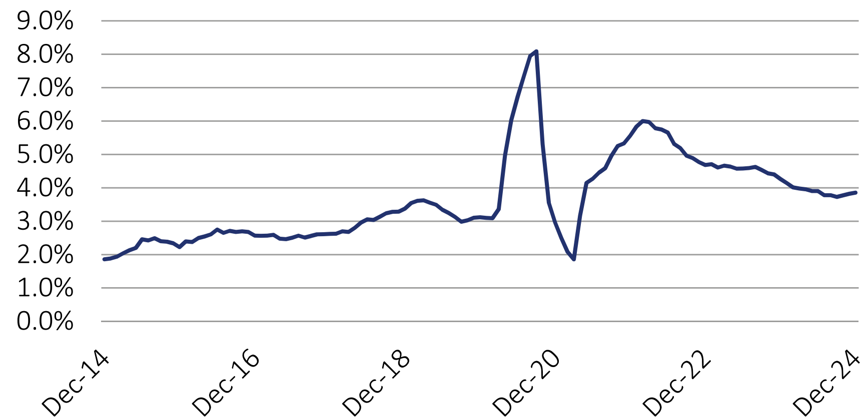


Real Personal Consumption Expenditures



Real PCE (6-mo annualized)

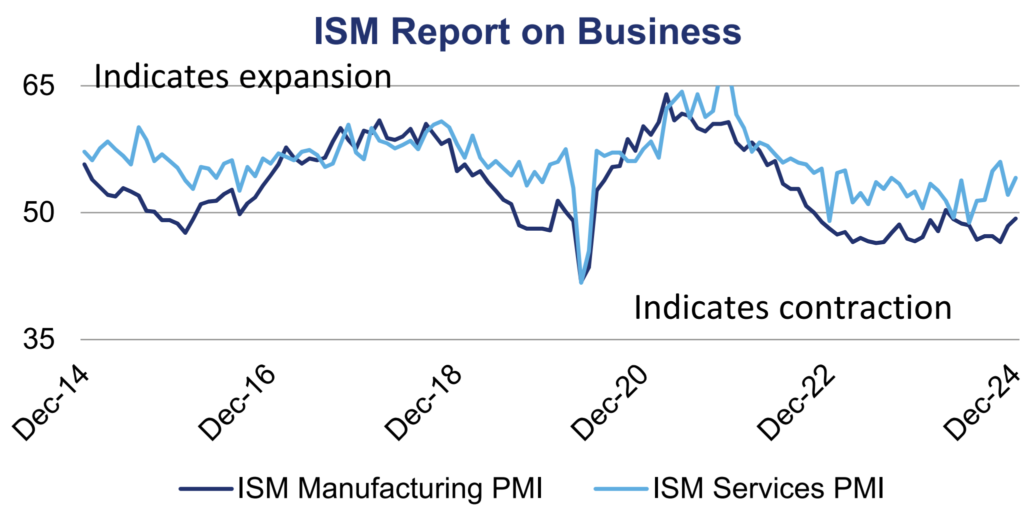
Average Hourly Earnings

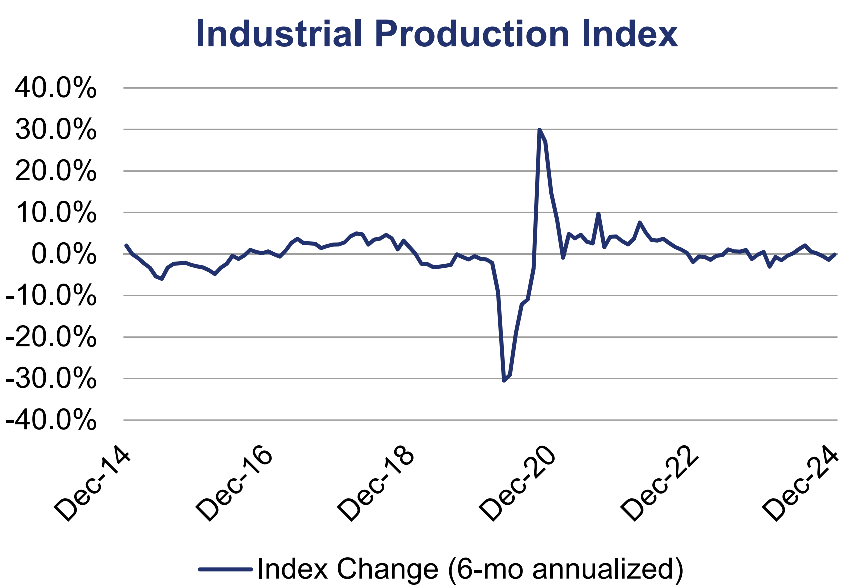


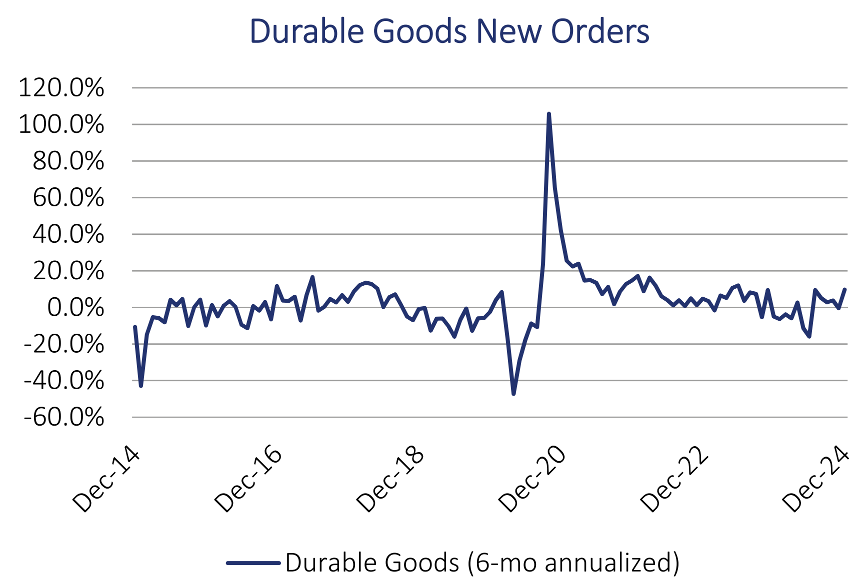
Wage Growth (6-mo annualized)

Data Source: Bloomberg

Business Activity

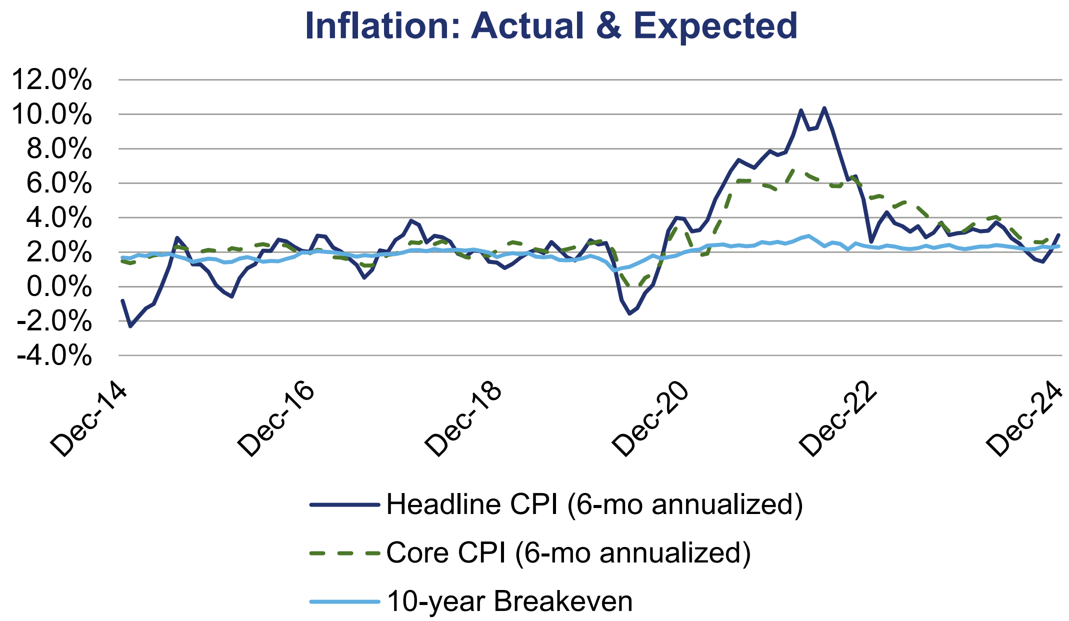


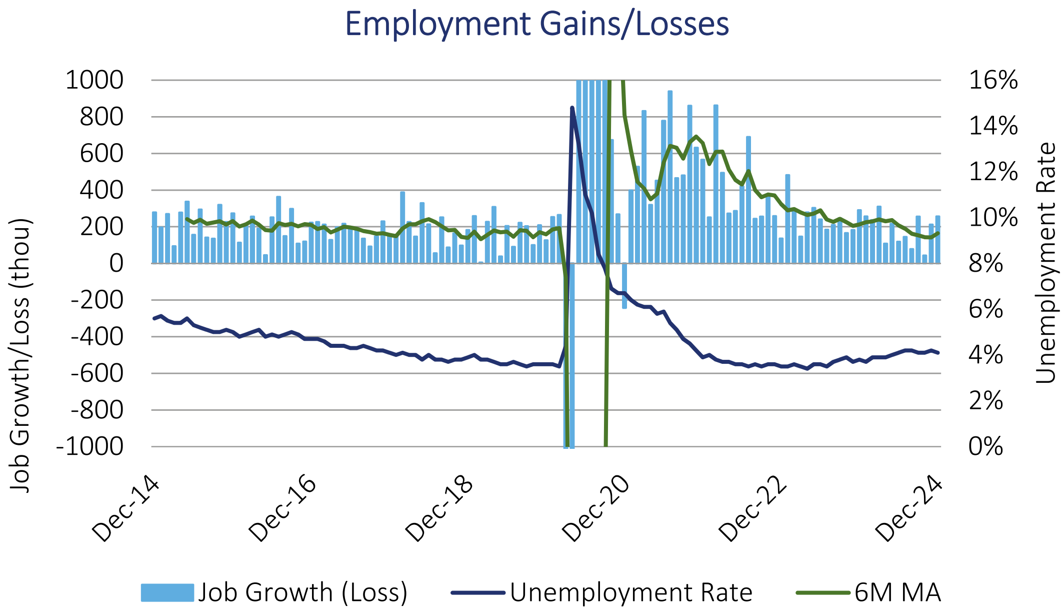




Data Source: Bloomberg

Inflation and Employment



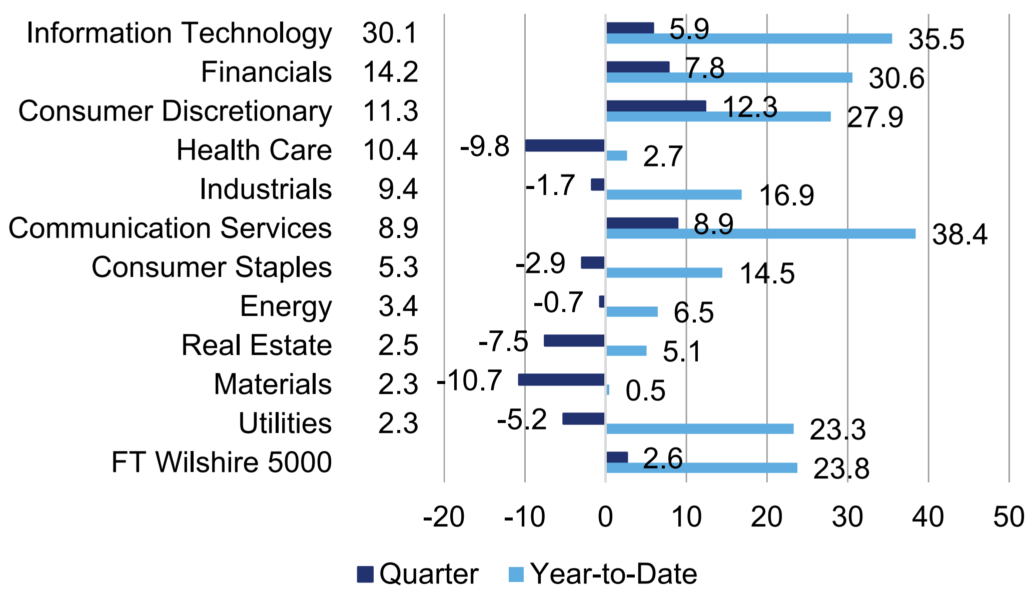


Data Source: Bloomberg

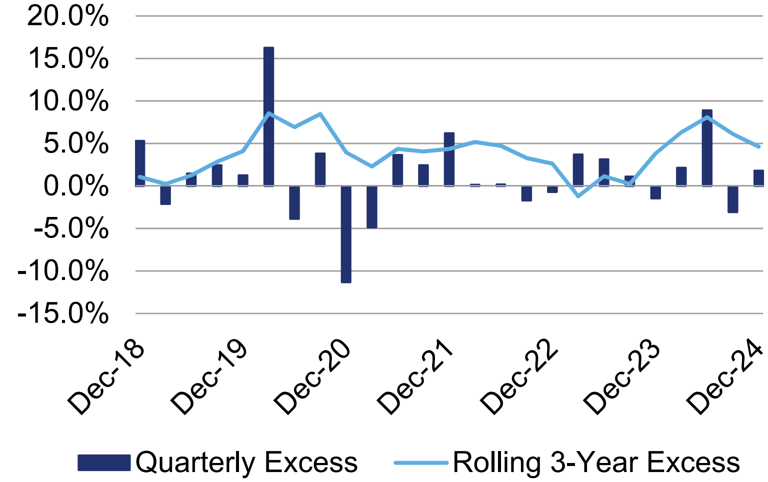
U.S. Equity Market

As of 12/31/2024	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
FT Wilshire 5000	2.6	23.8	23.8	8.1	14.1	12.7
FT Wilshire U.S. Large Cap	2.8	25.2	25.2	8.8	14.8	13.1
FT Wilshire U.S. Small Cap	1.0	14.1	14.1	4.0	9.5	9.2
FT Wilshire U.S. Large Growth	7.2	35.5	35.5	10.9	19.4	n/a
FT Wilshire U.S. Large Value	-1.7	15.2	15.2	6.4	9.8	n/a
FT Wilshire U.S. Small Growth	2.4	15.5	15.5	2.2	8.8	n/a
FT Wilshire U.S. Small Value	-0.4	12.7	12.7	5.6	9.9	n/a
Wilshire REIT Index	-5.0	9.1	9.1	-2.5	4.5	5.7
MSCI USA Min. Vol. Index	-2.3	16.0	16.0	5.0	8.2	10.4
FTSE RAFI U.S. 1000 Index	-0.3	17.1	17.1	8.0	12.3	10.9

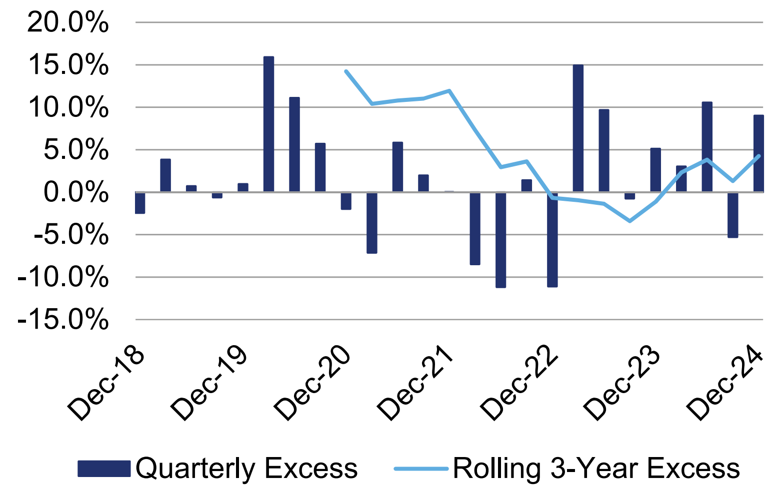
U.S. Sector Weight and Return (%)



Large Cap vs. Small Cap



Large Growth vs Large Value

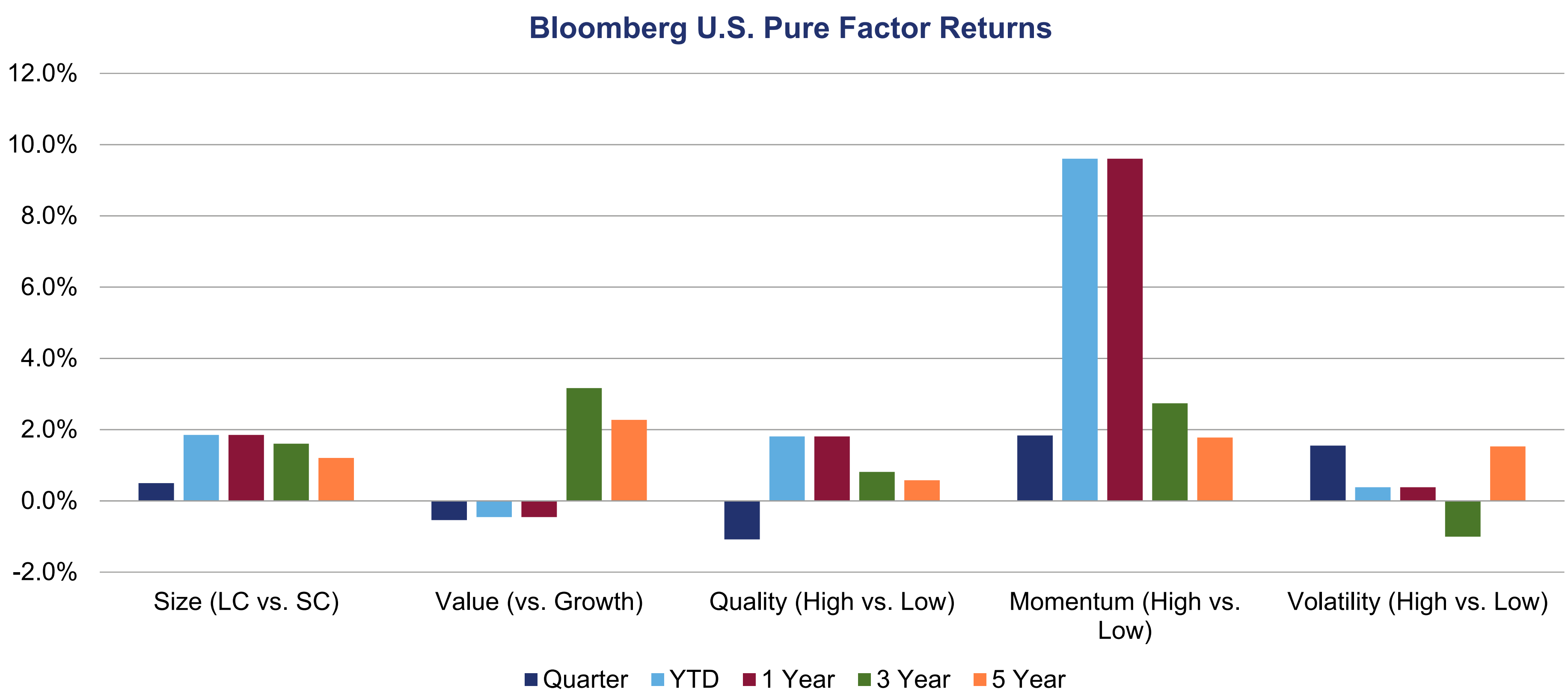


Data Sources: Bloomberg, Wilshire Atlas

U.S. Factor Returns

Factor returns represent the contribution from large cap, value, etc. stocks within Bloomberg's Portfolio & Risk Analytics module

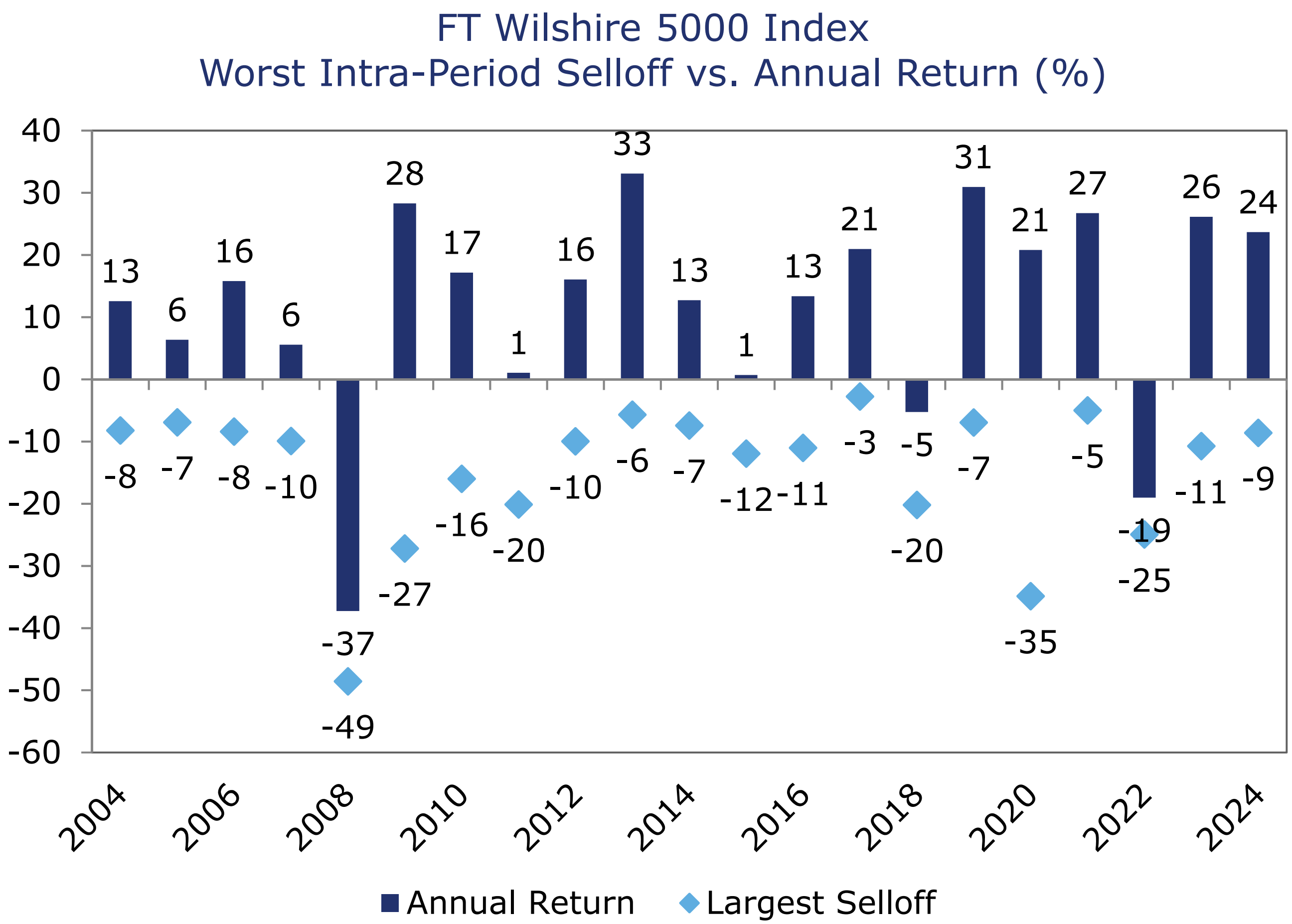
Value detracted from returns for the year while momentum was a meaningful contributor



Data Source: Bloomberg

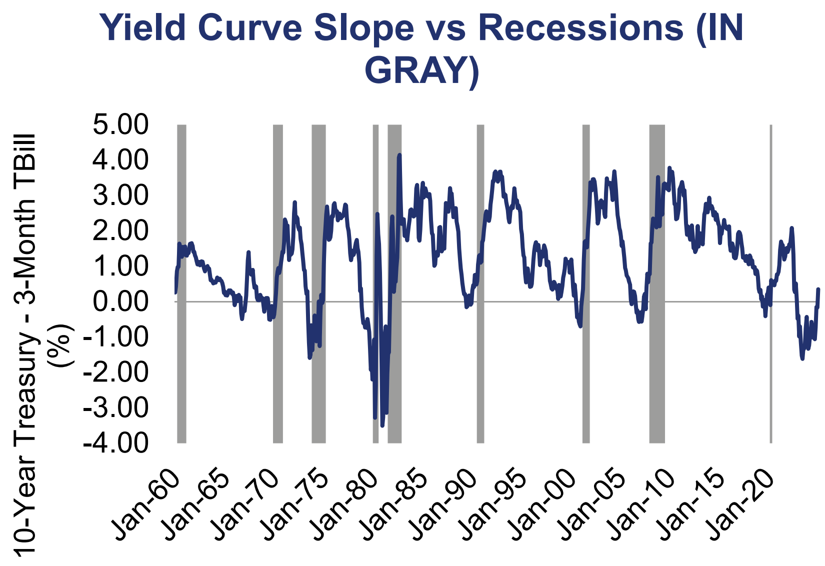
Annual Equity Market Selloffs

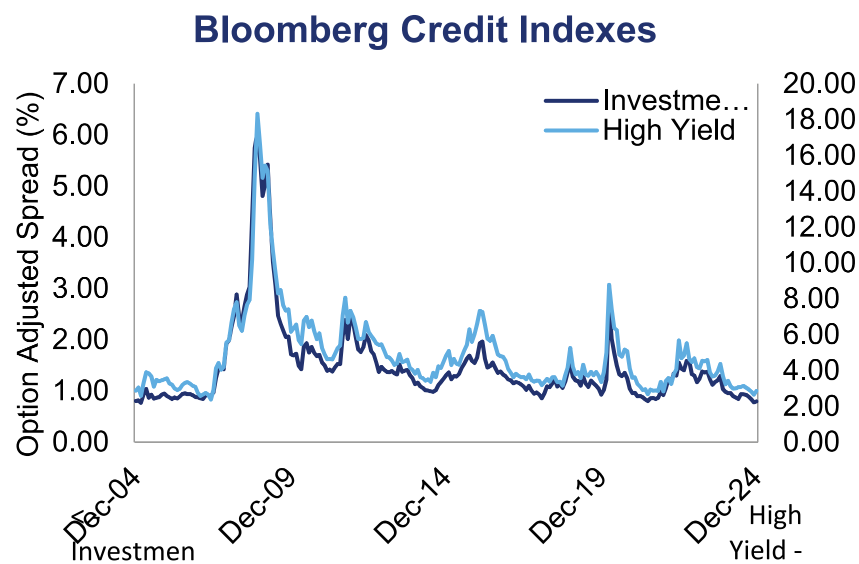
U.S. equity during 2024 was similar to 2023 – a roughly 25% gain with a modest sell-off during the year

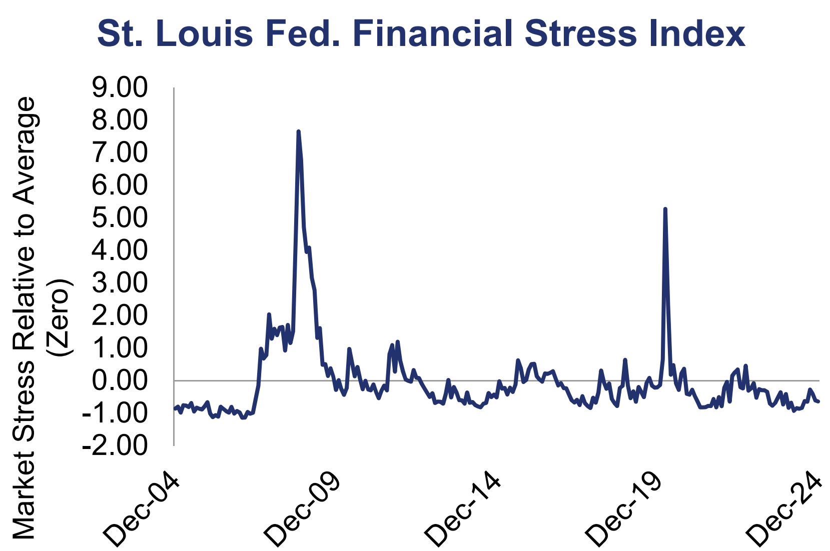


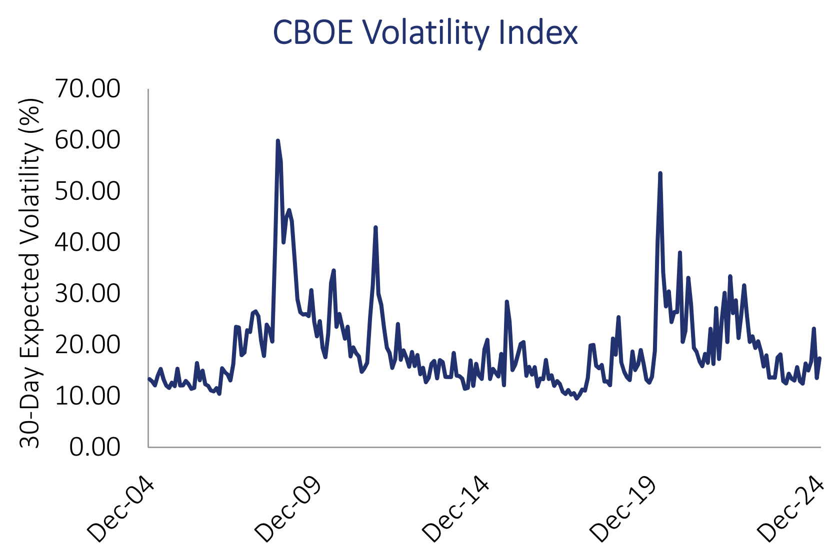
Data Sources: Wilshire Web, Bloomberg

Risk Monitor





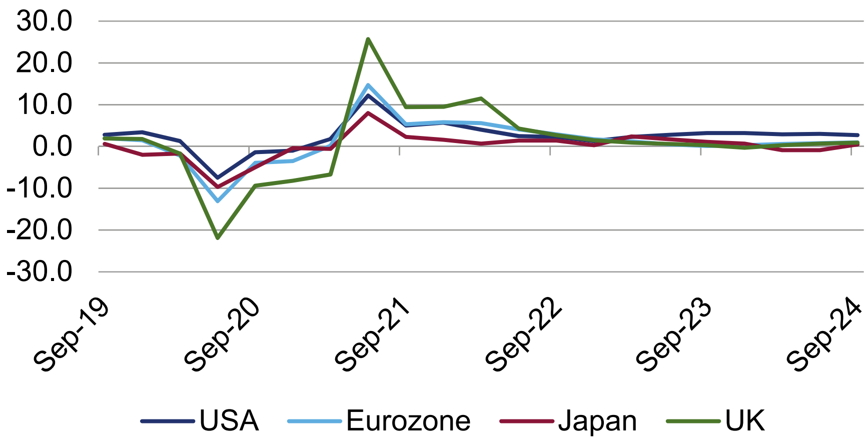




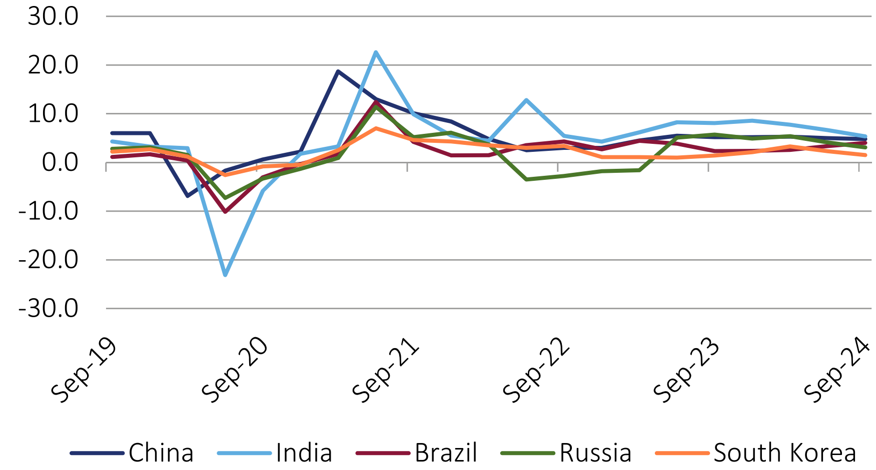
Data Source: Bloomberg

Non-U.S. Growth and Inflation

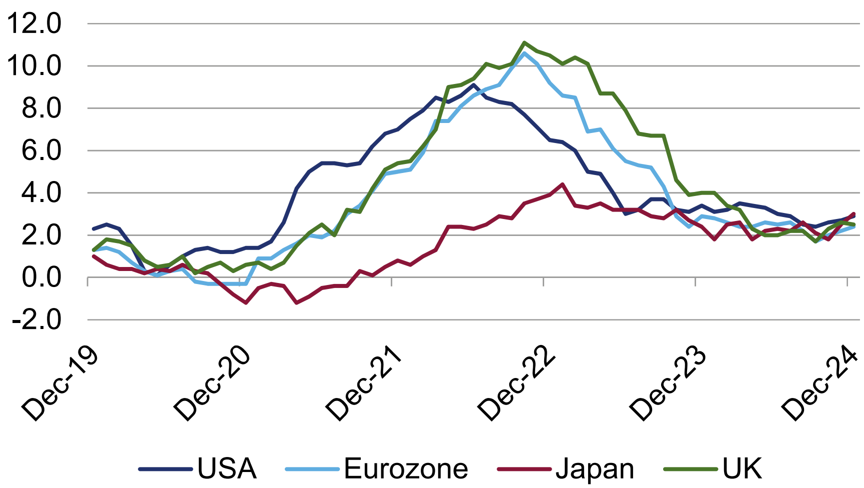
Developed Markets Real GDP Growth YoY (%)



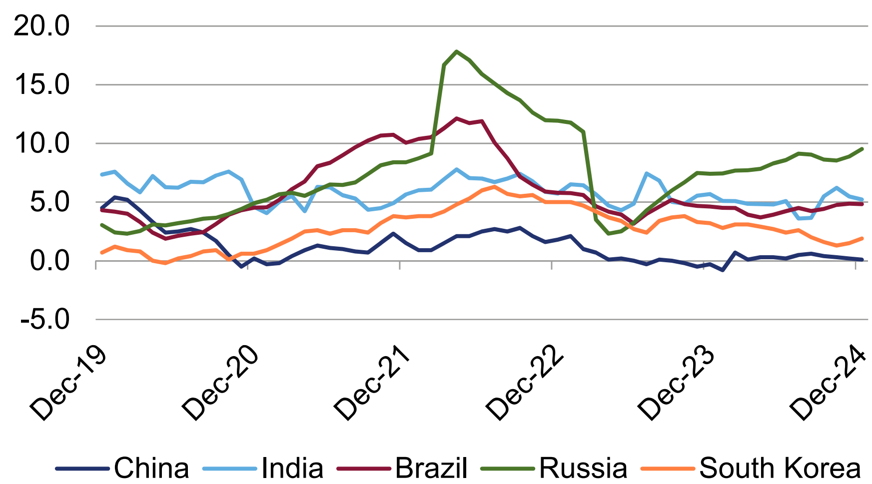
Emerging Markets Real GDP Growth YoY (%)



Developed Markets CPI Growth YoY (%)



Emerging Markets CPI Growth YoY (%)

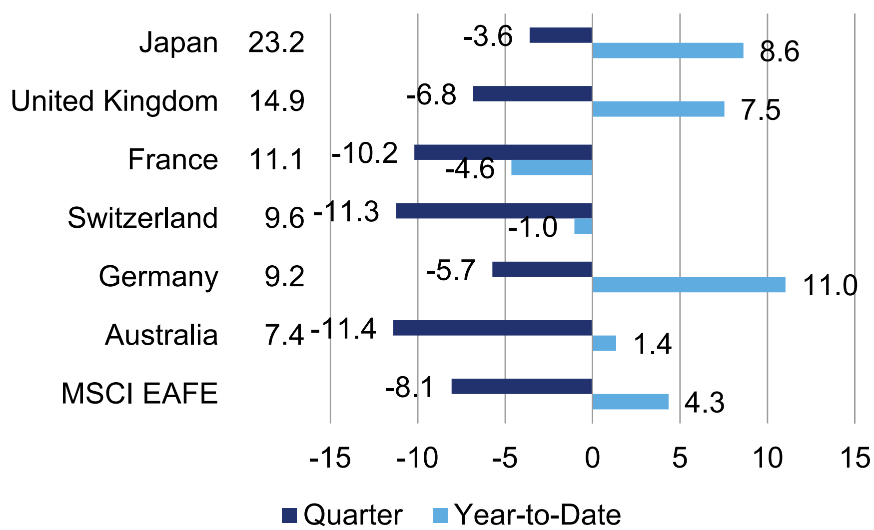


Data Source: Bloomberg

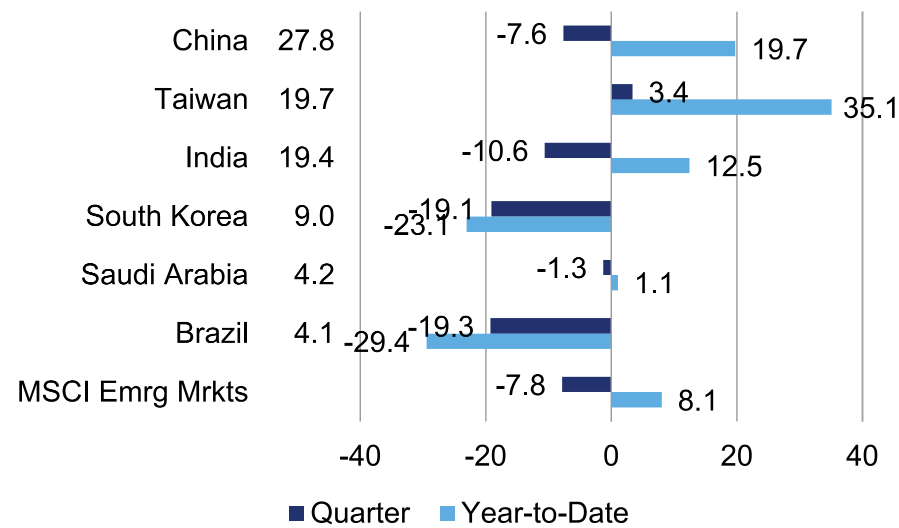
Non-U.S. Equity Market

As of 12/31/2024	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
MSCI ACWI ex-US ($G)	-7.5	6.1	6.1	1.3	4.6	5.3
MSCI EAFE ($G)	-8.1	4.3	4.3	2.2	5.2	5.7
MSCI Emerging Markets ($G)	-7.8	8.1	8.1	-1.5	2.1	4.0
MSCI Frontier Markets ($G)	-5.0	6.8	6.8	-0.4	0.2	0.8
MSCI ACWI ex-US Growth ($G)	-7.8	5.4	5.4	-2.4	3.7	5.7
MSCI ACWI ex-US Value ($G)	-7.3	6.5	6.5	4.7	5.2	4.9
MSCI ACWI ex-US Small ($G)	-7.6	3.9	3.9	-1.0	4.8	6.1
MSCI ACWI Minimum Volatility	-3.4	12.0	12.0	3.1	5.3	7.6
MSCI EAFE Minimum Volatility	-6.8	6.0	6.0	0.6	2.0	4.8
FTSE RAFI Developed ex-US	-7.3	4.6	4.6	4.3	6.2	5.5
MSCI EAFE LC (G)	-0.6	11.8	11.8	6.9	8.1	7.7
MSCI Emerging Markets LC (G)	-4.2	13.7	13.7	2.1	4.9	6.4

Developed Markets Weight and Return (%)



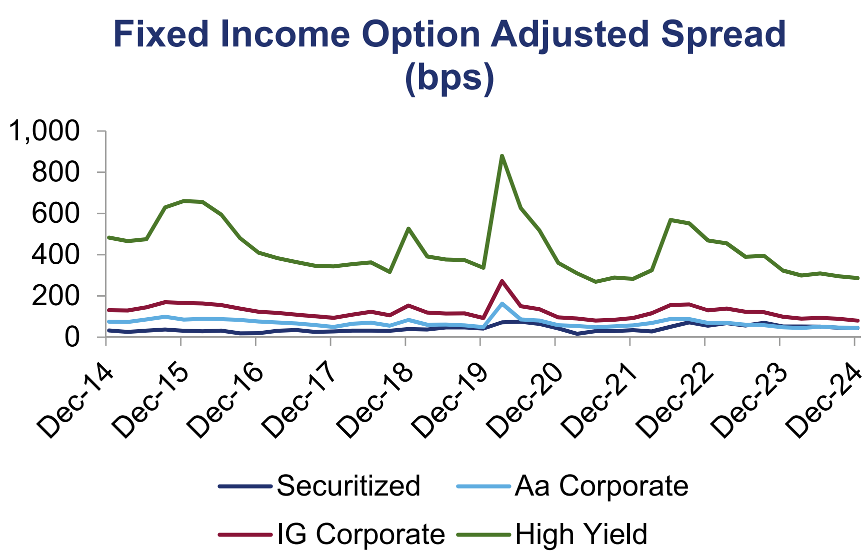
Emerging Markets Weight and Return (%)

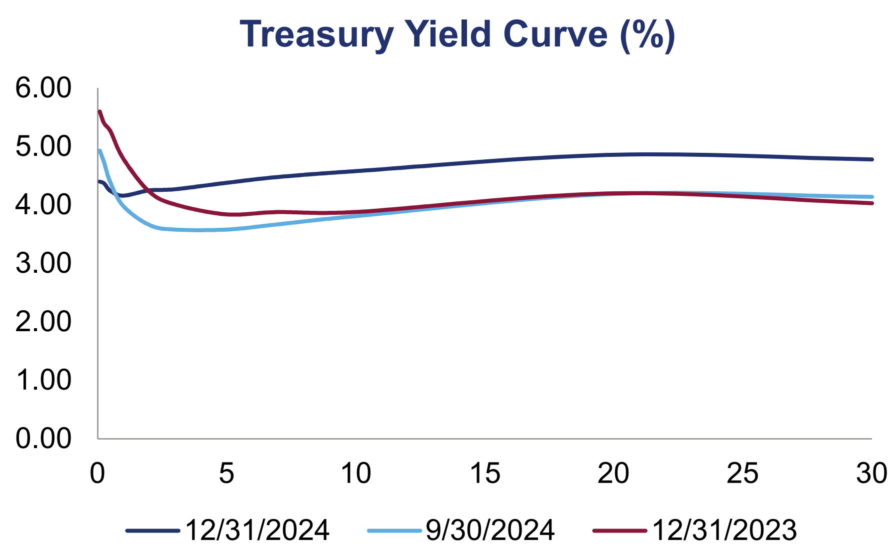


Data Source: Bloomberg

U.S. Fixed Income

As of 12/31/2024	YTW	Dur.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Aggregate	4.9	6.1	-3.1	1.3	1.3	-2.4	-0.3	1.3
Bloomberg Treasury	4.5	5.8	-3.1	0.6	0.6	-2.9	-0.7	0.8
Bloomberg Gov't-Rel.	4.9	5.2	-2.7	1.7	1.7	-1.5	0.0	1.5
Bloomberg Securitized	5.3	6.0	-3.0	1.5	1.5	-2.0	-0.6	1.0
Bloomberg Corporate	5.3	6.8	-3.0	2.1	2.1	-2.3	0.3	2.4
Bloomberg LT Gov't/Credit	5.3	13.6	-7.4	-4.2	-4.2	-9.2	-3.3	1.0
Bloomberg LT Treasury	4.9	14.7	-8.6	-6.4	-6.4	-12.0	-5.2	-0.6
Bloomberg LT Gov't-Rel.	5.9	11.4	-6.7	-2.5	-2.5	-6.4	-2.4	1.5
Bloomberg LT Corporate	5.8	12.5	-6.2	-1.9	-1.9	-6.8	-1.8	2.2
Bloomberg U.S. TIPS*	4.5	7.1	-2.9	1.8	1.8	-2.3	1.9	2.2
Bloomberg High Yield	7.5	3.1	0.2	8.2	8.2	2.9	4.2	5.2
S&P/LSTA Leveraged Loan	8.0	0.3	2.3	9.0	9.0	7.0	5.9	5.1
Treasury Bills	4.3	0.3	1.2	5.3	5.3	3.9	2.5	1.8





*Yield and Duration statistics are for a proxy index based on similar maturity, the Bloomberg Barclays U.S. Treasury 7-10 Year Index.

Data Source: Bloomberg

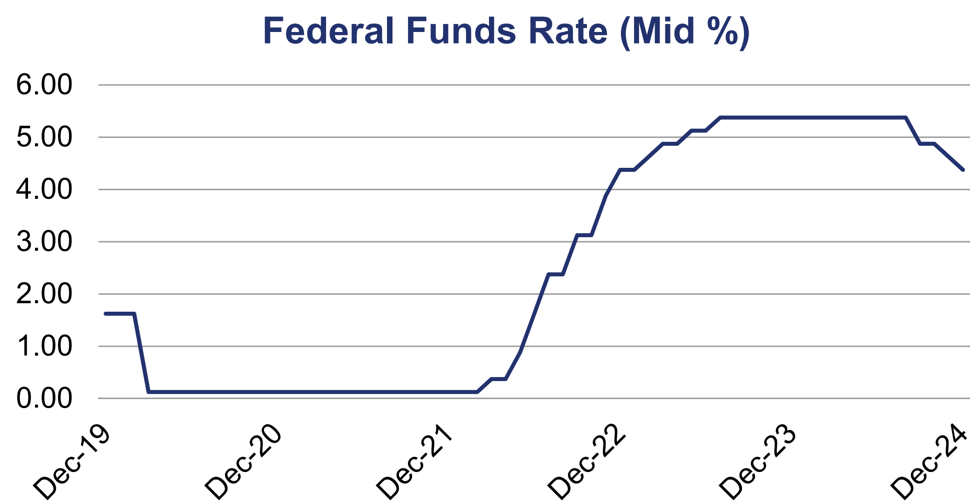
Federal Reserve

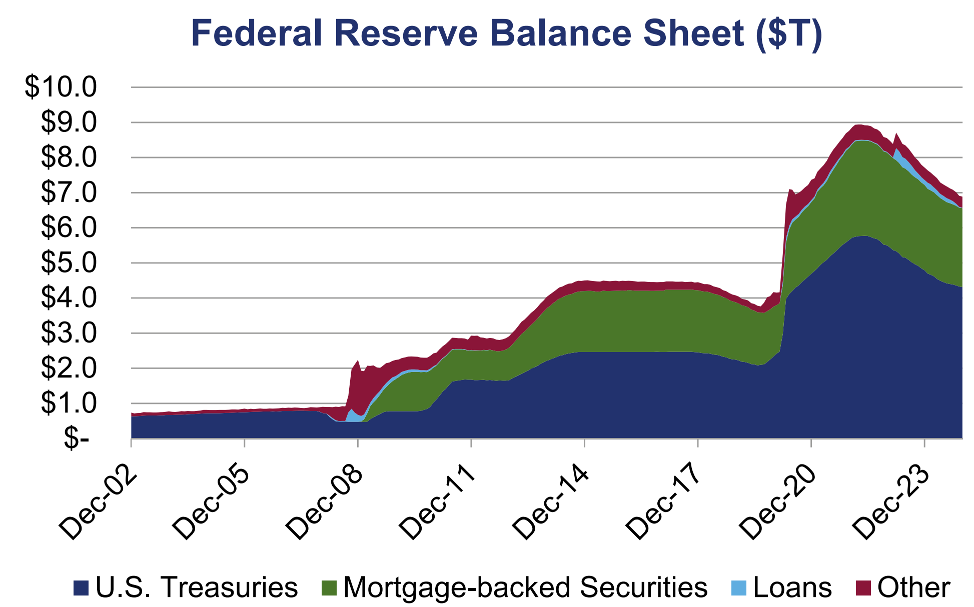
The Federal Open Market Committee decreased their overnight rate by 0.50% during Q4 and 1% in six months

QE4 was larger than the 3 phases of quantitative easing – combined – following the global financial crisis

The Fed's balance sheet is roughly equal to its level following the COVID spike

	Announced	Closed	Amount (bil)
QE1	11/25/2008	3/31/2010	$1,403
QE2	11/3/2010	6/29/2012	$568
QE3	9/13/2012	10/29/2014	$1,674
QE4	3/23/2020	3/15/2022	$4,779



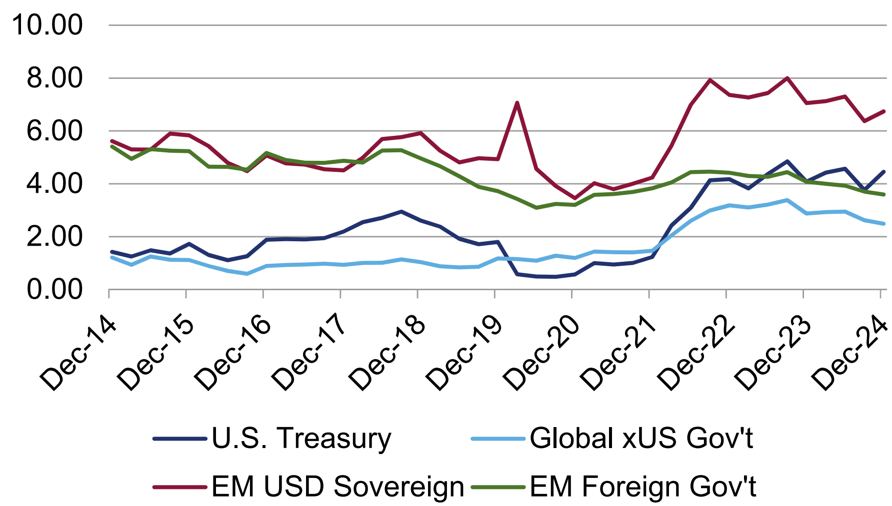


Data Source: Bloomberg

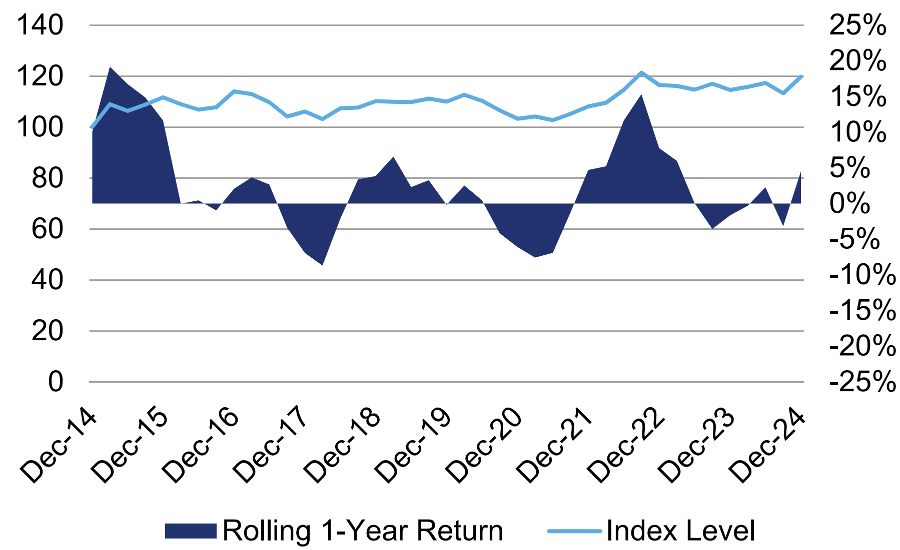
Non-U.S. Fixed Income

As of 12/31/2024	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Developed Markets						
Bloomberg Global Aggregate xUS	-6.8	-4.2	-4.2	-6.3	-3.4	-0.9
Bloomberg Global Aggregate xUS*	0.7	5.0	5.0	0.9	1.0	2.4
Bloomberg Global Inflation Linked xUS	-9.9	-8.3	-8.3	-11.5	-4.6	-1.4
Bloomberg Global Inflation Linked xUS*	-2.6	-2.6	-2.6	-6.8	-1.6	1.8
Emerging Markets (Hard Currency)						
Bloomberg EM USD Aggregate	-1.5	6.6	6.6	-0.5	0.6	3.2
Emerging Markets (Foreign Currency)						
Bloomberg EM Local Currency Gov't	-3.8	1.7	1.7	-0.2	0.6	1.7
Bloomberg EM Local Currency Gov't*	2.2	9.3	9.3	4.9	3.3	3.4
Euro vs. Dollar	-7.0	-6.2	-6.2	-3.1	-1.6	-1.5
Yen vs. Dollar	-8.6	-10.3	-10.3	-9.9	-7.1	-2.7
Pound vs. Dollar	-6.4	-1.7	-1.7	-2.6	-1.1	-2.2

Global Fixed Income Yield to Worst (%)



U.S. Dollar Index: Advanced Economies

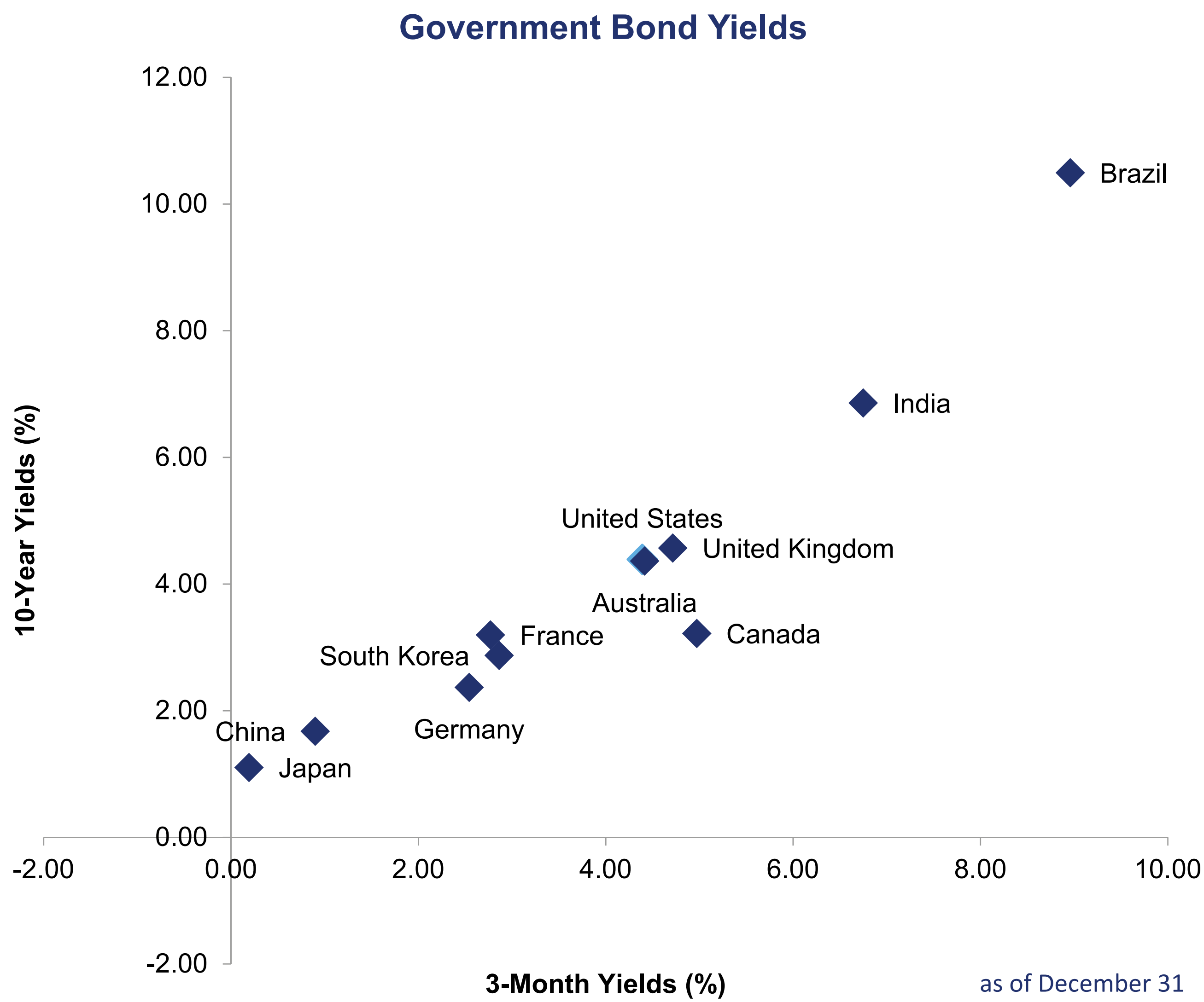


*Returns are reported in terms of local market investors, which removes currency effects.

Data Source: Bloomberg

Global Interest Rates

Short-term rates have turned positive across the globe; longer-term rates above 4.0% in the U.S., U.K. and Australia

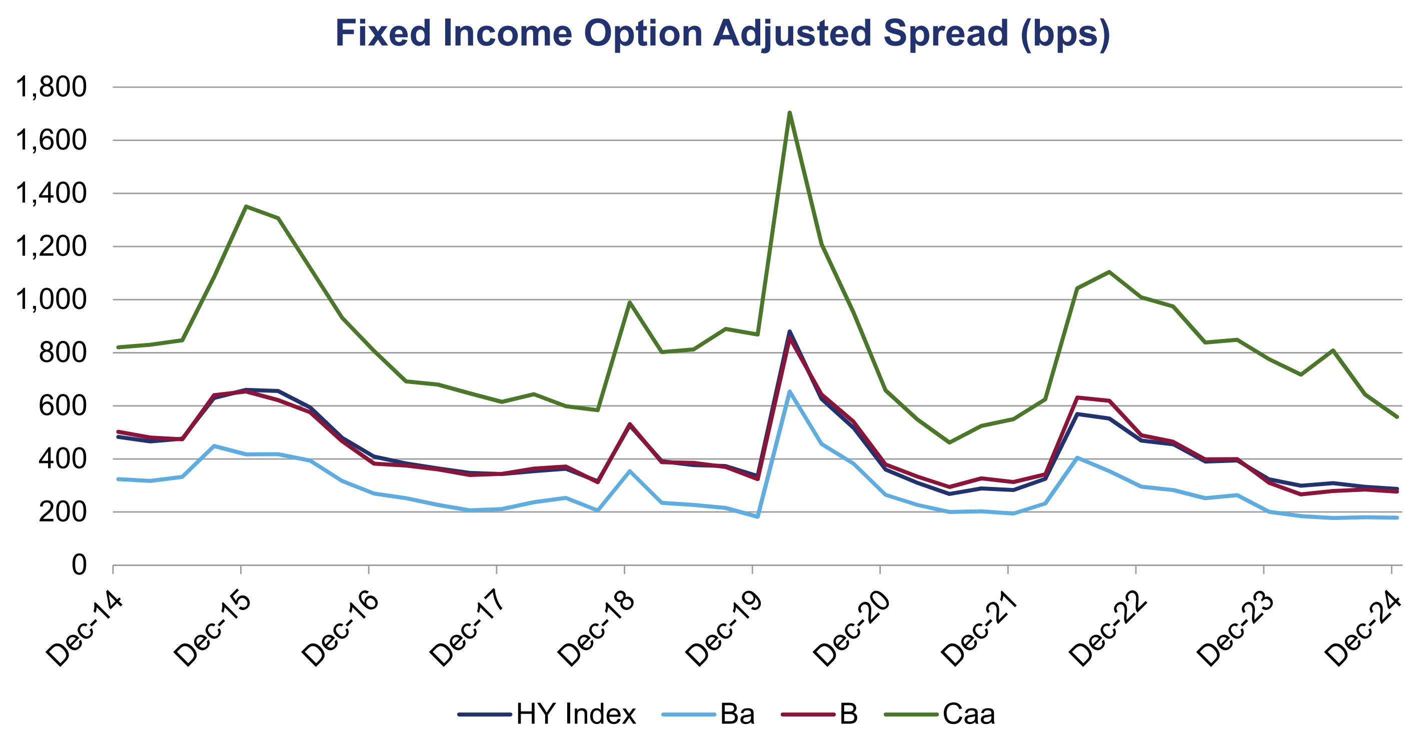


as of December 31

Data Source: Bloomberg

High Yield Bond Market

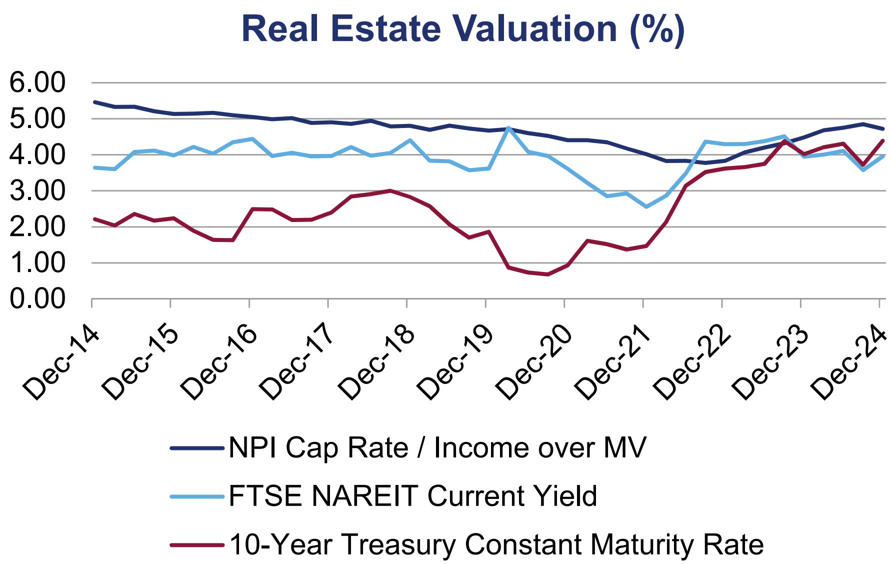
As of 12/31/2024	Weight	YTW	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg High Yield		7.5	0.2	8.2	8.2	2.9	4.2	5.2
S&P LSTA Leveraged Loan		8.0	2.5	8.7	8.7	6.9	5.4	4.8
High Yield Quality Distribution								
Ba U.S. High Yield	50.8%	6.4	-0.5	6.3	6.3	1.9	4.1	5.1
B U.S. High Yield	35.2%	7.4	0.3	7.4	7.4	3.1	3.8	4.8
Caa U.S. High Yield	12.1%	10.2	2.3	15.1	15.1	4.9	5.1	5.6
Ca to D U.S. High Yield	2.0%	20.2	2.2	48.3	48.3	15.6	12.3	4.9

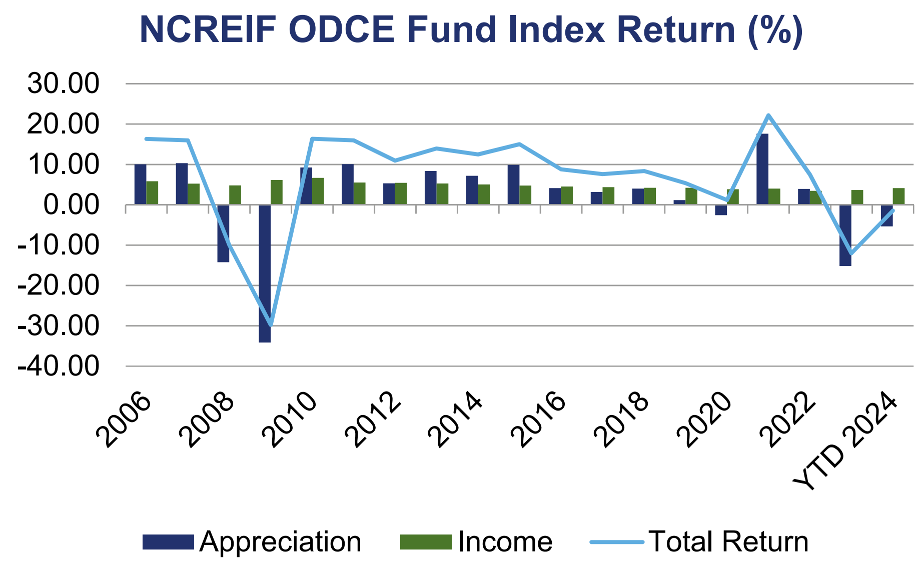


Data Source: Bloomberg

Real Assets

As of 12/31/2024	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg U.S. TIPS	-2.9	1.8	1.8	-2.3	1.9	2.2
Bloomberg Commodity Index	-0.4	5.4	5.4	4.1	6.8	1.3
Bloomberg Gold Index	-0.5	26.6	26.6	12.3	10.4	7.4
Wilshire Global RESI Index	-7.5	5.4	5.4	-3.1	2.2	4.5
NCREIF ODCE Fund Index	1.2	-1.4	-1.4	-2.3	2.9	5.9
NCREIF Timberland Index	1.4	7.0	7.0	9.8	7.8	5.4
FTSE Global Core Infrastructure 50/50	-5.5	10.5	10.5	3.0	4.1	6.2
Alerian Midstream Energy	13.5	44.5	44.5	26.0	16.3	6.5
Bitcoin	46.9	120.5	120.5	26.5	67.3	76.6





Data Sources: Bloomberg, National Council of Real Estate Investment Fiduciaries

Policy Definitions

Historical Hybrid Composition

Total Fund Policy Benchmark

Periods Ended December 31, 2024

Policy Index	Weight (%)
Oct-2024	
Russell 3000 Index	21.39
Blmbg. U.S. Aggregate Index	25.98
MSCI AC World ex USA (Net)	13.24
Global Smart Beta Policy Index	5.09
Private Equity Policy Index	17.58
90 Day U.S. Treasury Bill	1.02
Private Credit Policy Index	5.92
Private Real Assets Policy Index	6.72
Public Credit Policy Index	3.06
Jul-2024	
Russell 3000 Index	21.04
Blmbg. U.S. Aggregate Index	25.54
MSCI AC World ex USA (Net)	13.02
Global Smart Beta Policy Index	5.01
Private Equity Policy Index	18.38
90 Day U.S. Treasury Bill	1.00
Private Credit Policy Index	5.93
Private Real Assets Policy Index	7.07
Public Credit Policy Index	3.01

Policy Index	Weight (%)
Apr-2024	
Russell 3000 Index	21.03
Blmbg. U.S. Aggregate Index	25.54
MSCI AC World ex USA (Net)	13.02
Global Smart Beta Policy Index	5.01
Private Equity Policy Index	18.34
90 Day U.S. Treasury Bill	1.00
Private Credit Policy Index	5.70
Private Real Assets Policy Index	7.35
Public Credit Policy Index	3.01
Jan-2024	
Russell 3000 Index	20.97
Blmbg. U.S. Aggregate Index	25.47
MSCI AC World ex USA (Net)	12.98
Global Smart Beta Policy Index	4.99
Private Equity Policy Index	18.58
90 Day U.S. Treasury Bill	1.00
Private Credit Policy Index	5.65
Private Real Assets Policy Index	7.36
Public Credit Policy Index	3.00

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Historical Hybrid Composition

Total Fund Policy Benchmark

Periods Ended December 31, 2024

Policy Index	Weight (%)
Oct-2023	
Russell 3000 Index	20.41
Blmbg. U.S. Aggregate Index	24.79
MSCI AC World ex USA (Net)	12.64
Global Smart Beta Policy Index	4.86
Private Equity Policy Index	19.71
90 Day U.S. Treasury Bill	0.97
Private Credit Policy Index	5.69
Private Real Assets Policy Index	8.01
Public Credit Policy Index	2.92
Jul-2023	
Russell 3000 Index	20.75
Blmbg. U.S. Aggregate Index	21.74
MSCI AC World ex USA (Net)	16.30
Global Smart Beta Policy Index	4.94
Private Equity Policy Index	19.12
90 Day U.S. Treasury Bill	0.99
Private Credit Policy Index	5.30
Private Real Assets Policy Index	7.90
Public Credit Policy Index	2.96

Policy Index	Weight (%)
Apr-2023	
Russell 3000 Index	20.42
Blmbg. U.S. Universal Index	22.36
MSCI AC World ex USA (Net)	16.04
Global Smart Beta Policy Index	4.86
Private Equity Policy Index	19.22
90 Day U.S. Treasury Bill	0.97
Private Credit Policy Index	4.86
Private Real Assets Policy Index	8.35
Public Credit Policy Index	2.92
Jan-2023	
Russell 3000 Index	20.16
Blmbg. U.S. Universal Index	22.09
MSCI AC World ex USA (Net)	15.84
Global Smart Beta Policy Index	4.80
Private Equity Policy Index	19.81
90 Day U.S. Treasury Bill	0.96
Private Credit Policy Index	4.69
Private Real Assets Policy Index	8.77
Public Credit Policy Index	2.88

Historical Hybrid Composition

Total Fund Policy Benchmark

Periods Ended December 31, 2024

Policy Index	Weight (%)
Oct-2022	
Russell 3000 Index	19.68
Blmbg. U.S. Universal Index	21.56
MSCI AC World ex USA (Net)	15.46
Global Smart Beta Policy Index	4.69
Private Equity Policy Index	20.78
90 Day U.S. Treasury Bill	0.94
Private Credit Policy Index	4.66
Private Real Assets Policy Index	9.42
Public Credit Policy Index	2.81
Jul-2022	
Russell 3000 Index	19.35
Blmbg. U.S. Universal Index	21.54
MSCI AC World ex USA (Net)	15.39
Global Smart Beta Policy Index	5.28
Private Equity Policy Index	21.03
90 Day U.S. Treasury Bill	0.88
Private Credit Policy Index	4.15
Private Real Assets Policy Index	8.86
Public Credit Policy Index	3.52

Policy Index	Weight (%)
Apr-2022	
Russell 3000 Index	20.17
Blmbg. U.S. Universal Index	23.84
MSCI AC World ex USA (Net)	16.04
Global Smart Beta Policy Index	5.50
Private Equity Policy Index	19.65
90 Day U.S. Treasury Bill	0.92
Private Credit Policy Index	3.39
Private Real Assets Policy Index	6.82
Public Credit Policy Index	3.67
Jan-2022	
Wilshire 5000 Total Market Index	20.77
Blmbg. U.S. Universal Index	24.55
MSCI AC World ex USA (Net)	16.52
Global Smart Beta Policy Index	5.67
Private Equity Policy Index	18.60
90 Day U.S. Treasury Bill	0.94
Private Credit Policy Index	3.04
Private Real Assets Policy Index	6.13
Public Credit Policy Index	3.78

Historical Hybrid Composition

Total Fund Policy Benchmark

Periods Ended December 31, 2024

Policy Index	Weight (%)
Oct-2021	
Wilshire 5000 Total Market Index	20.84
Blmbg. U.S. Universal Index	24.63
MSCI AC World ex USA (Net)	16.58
Global Smart Beta Policy Index	5.68
Private Equity Policy Index	18.90
90 Day U.S. Treasury Bill	0.95
Private Credit Policy Index	2.91
Private Real Assets Policy Index	5.72
Public Credit Policy Index	3.79
Jul-2021	
Wilshire 5000 Total Market Index	21.37
Blmbg. U.S. Universal Index	25.25
MSCI AC World ex USA (Net)	17.00
Global Smart Beta Policy Index	5.83
Private Equity Policy Index	17.51
90 Day U.S. Treasury Bill	0.97
Private Credit Policy Index	2.68
Private Real Assets Policy Index	5.51
Public Credit Policy Index	3.88

Policy Index	Weight (%)
Apr-2021	
Wilshire 5000 Total Market Index	21.63
Blmbg. U.S. Universal Index	25.56
MSCI AC World ex USA (Net)	17.21
Global Smart Beta Policy Index	5.90
Private Equity Policy Index	16.74
90 Day U.S. Treasury Bill	0.98
Private Credit Policy Index	2.75
Private Real Assets Policy Index	5.30
Public Credit Policy Index	3.93
Jan-2021	
Wilshire 5000 Total Market Index	21.94
Blmbg. U.S. Universal Index	25.93
MSCI AC World ex USA (Net)	17.45
Global Smart Beta Policy Index	5.98
Private Equity Policy Index	15.49
90 Day U.S. Treasury Bill	1.00
Private Credit Policy Index	2.86
Private Real Assets Policy Index	5.36
Public Credit Policy Index	3.99

Historical Hybrid Composition

Total Fund Policy Benchmark

Periods Ended December 31, 2024

Policy Index	Weight (%)
Oct-2020	
Wilshire 5000 Total Market Index	21.78
Blmbg. U.S. Universal Index	25.74
MSCI AC World ex USA (Net)	17.32
Global Smart Beta Policy Index	5.94
Private Equity Policy Index	15.37
90 Day U.S. Treasury Bill	0.99
Private Credit Policy Index	3.04
Private Real Assets Policy Index	5.86
Public Credit Policy Index	3.96
Jul-2020	
Wilshire 5000 Total Market Index	21.38
Blmbg. U.S. Universal Index	27.22
MSCI AC World ex USA (Net)	17.01
Global Smart Beta Policy Index	5.83
Private Equity Policy Index	14.44
90 Day U.S. Treasury Bill	0.97
Private Credit Policy Index	3.15
Private Real Assets Policy Index	6.11
Public Credit Policy Index	3.89
Apr-1979	
Total Fund Policy Benchmark	100.00

* Policy weights prior to July 2020 available on following page

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BETA REPORT
IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM PORTFOLIO
PRELIMINARY (Unreconciled) MARKET VALUES AT
3/21/2025

	Actual	Overlay	Total	Policy	Difference
PUBLIC MARKETS					
Domestic	$ 9,585,811,563	$ 182,057,104	$ 9,767,868,668	$ 9,663,828,811	$ 104,039,856
International	$ 5,966,574,485	$ (134,523,006)	$ 5,832,051,479	$ 5,980,871,251	$ (148,819,772)
Global Smart Beta	$ 2,275,233,563		$ 2,275,233,563	$ 2,297,913,691	$ (22,680,128)
Total Equities	**$ 17,827,619,612**		**$ 17,875,153,710**	**$ 17,942,613,754**	$ (67,460,044)
Core Fixed Income	$ 11,322,216,825	$ 79,384,185	$ 11,401,601,009	$ 11,503,059,144	$ (101,458,134)
Public Credit	$ 1,407,305,224		$ 1,407,305,224	$ 1,380,546,973	$ 26,758,251
Cash	**$ 648,946,512**	**$ (126,918,283)**	$ 522,028,229	**$ 463,180,255**	$ 58,847,974
PRIVATE MARKETS	**$ 13,762,868,605**		$ 13,762,868,605	**$ 13,679,556,652**	$ 83,311,954
Private Equity	$ 7,896,536,115		$ 7,896,536,115	$ 7,851,579,853	$ 44,956,262
Private Credit	$ 2,825,263,316		$ 2,825,263,316	$ 2,783,578,425	$ 41,684,891
Private Real Assets	$ 3,041,069,174		$ 3,041,069,174	$ 3,044,398,374	$ (3,329,199)
TOTAL FUND	**$ 44,968,956,777**			**$ 44,968,956,777**	**$ -**

	Actual	Overlay	Total	Policy	Difference
PUBLIC MARKETS					
Domestic	21.32%	0.40%	21.72%	21.49%	0.23%
International	13.27%	-0.30%	12.97%	13.30%	-0.33%
Global Smart Beta	5.06%		5.06%	5.11%	-0.05%
Total Equities	**39.64%**		39.75%	**39.90%**	-0.15%
Core Plus	25.18%	0.18%	25.35%	25.58%	-0.23%
Public Credit	3.13%		3.13%	3.07%	0.06%
Cash	**1.44%**	-0.28%	1.16%	**1.03%**	0.13%
PRIVATE MARKETS	**30.61%**		30.61%	**30.42%**	0.19%
Private Equity	17.56%		17.56%	17.46%	0.10%
Private Credit	6.28%		6.28%	6.19%	0.09%
Private Real Assets	6.76%		6.76%	6.77%	-0.01%
TOTAL FUND	**100.00%**			**100.00%**	**0.00%**

BETA REPORT
IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM PORTFOLIO
PRELIMINARY (Unreconciled) MARKET VALUES AT
3/21/2025

PUBLIC PORTFOLIO	69.39%	$ 31,206,088,172

Manager Name	Manager % of Asset Class	Total Market Value
Blackrock R2000 SAE	2.28%	$ 218,216,261
Blackrock Russell 1000 Alpha Tilts	21.55%	$ 2,065,275,951
DOMESTIC EQUITY - ACTIVE	**5.08%**	**$ 2,283,492,212**
Mellon - Russell 1000 Index	73.73%	$ 7,067,364,086
Mellon - Russell 2000 Index	1.79%	$ 171,844,578
Rhumbline Advisers	0.00%	$ -
Parametric - Domestic Equity	0.66%	$ 63,110,688
NT Transition Manager	0.00%	$ -
DOMESTIC EQUITY - PASSIVE	**16.24%**	**$ 7,302,319,351**
TOTAL DOMESTIC EQUITY	***21.32%***	**$ 9,585,811,563**
Blackrock - Canada	7.74%	$ 461,579,621
Passive - Blackrock EAFE	33.55%	$ 2,001,992,674
Parametric - Int'l Equity	0.86%	$ 51,363,007
Mellon Passive Emerging	17.69%	$ 1,055,513,067
INTERNATIONAL EQUITY - PASSIVE	**7.94%**	**$ 3,570,448,368**
Blackrock EAFE SAE	21.85%	$ 1,303,681,226
Blackrock EM SAE	6.75%	$ 402,834,929
Blackrock Europe Alpha Tilt	0.15%	$ 9,232,198
BMO EAFE	0.04%	$ 2,520,049
International Equity Transition	0.01%	$ 334,101
Oechsle	0.01%	$ 734,424
PanAgora Dynamic EAFE	6.82%	$ 406,894,569
Columbia EAFE Equity	0.09%	$ 5,083,096
Wellington EM	4.44%	$ 264,811,524
INTERNATIONAL EQUITY - ACTIVE	***5.33%***	**$ 2,396,126,116**
TOTAL INTERNATIONAL EQUITY	***13.27%***	**$ 5,966,574,485**

Manager Name	Manager % of Asset Class	Total Market Value
Western	0.00%	$ 245,761
IPERS MESIROW EM CURRENCY	2.08%	$ 235,201,684
IPERS MAN EM GLOBAL MACRO	1.30%	$ 146,659,568
Blackrock	0.00%	$ 17,747
Principal Global Investors	0.00%	$ 5,970
TCW	0.00%	$ 100,676
Prudential	0.00%	$ 11,353
BlackRock Universal Alpha	2.79%	$ 316,091,570
BlackRock Universal Beta	3.14%	$ 355,848,280
Mackay Shields	0.00%	$ 59
PGIM GLRV Alpha	2.50%	$ 283,097,451
PGIM GLRV Beta	2.35%	$ 265,925,773
CORE PLUS - ACTIVE	**3.57%**	**$ 1,603,205,891**
Parametric - Fixed Income	0.23%	$ 25,962,239
Mellon SLH Agg	85.61%	$ 9,693,048,695
CORE PLUS - PASSIVE	**21.61%**	**$ 9,719,010,933**
TOTAL CORE PLUS	**25.18%**	**$ 11,322,216,825**
Oaktree Capital Management	0.10%	$ 1,445,997
Aegon USA	32.34%	$ 455,173,704
Prudential EMD	33.81%	$ 475,797,264
PGIM High Yield	33.74%	$ 474,888,259
TOTAL PUBLIC CREDIT	***3.13%***	**$ 1,407,305,224**
UBS - US	58.74%	$ 1,336,558,382
UBS - Developed ex US	30.96%	$ 704,434,642
UBS - EM	10.30%	$ 234,240,539
TOTAL GLOBAL SMART BETA EQUITIES	**5.06%**	**$ 2,275,233,563**
Cash Account	62.87%	$ 408,011,196
LARS Liquid Assets	37.13%	$ 240,935,316
Parametric - Directed Trades	0.00%	$ -
Parametric - Synthetic Cash	0.00%	$ -
Public Real Assets Cash	0.00%	$ -
Pending Cash	0.00%	$ -
CASH ACCOUNT	**1.44%**	**$ 648,946,512**

PRIVATE PORTFOLIO	30.61%	$ 13,762,868,605

Manager Name	Manager % of Asset Class	Total Market Value
Legacy Portfolio	9.42%	$ 743,711,763
Pathway PE Fund XXV	90.58%	$ 7,152,824,352
PRIVATE EQUITY	**17.56%**	**$ 7,896,536,115**
BlackRock	33.28%	$ 325,604,522
Pathway XXV-B	23.99%	$ 234,755,922
Monroe Capital	42.73%	$ 418,071,057
DIRECT LENDING	**2.18%**	**$ 978,431,500**
ArrowMark	18.72%	$ 206,403,330
Crestline Opps Credit IA	15.75%	$ 173,668,071
Crestline Opps Credit IA SRS	6.35%	$ 69,952,402
Audax Mezzanine Fund V	3.33%	$ 36,739,923
Marathon SPS IA Fund, L.P.	22.52%	$ 248,270,642
KKR Goldfinch	25.98%	$ 286,343,899
Ares Private Credit Solutions II	6.22%	$ 68,514,694
Audax Mezzanine Coinvest IA	1.13%	$ 12,444,233
OPPORTUNISTIC	**2.45%**	**$ 1,102,337,194**
Oaktree RECIF	8.78%	$ 65,353,093
IPERS Principal OEDF	1.57%	$ 11,668,650
ITE	11.92%	$ 88,771,057
IFM USIDF	12.54%	$ 93,390,509
PGIM RE Global Debt	16.66%	$ 124,010,488
IPERS PGIM PREDS	9.41%	$ 70,070,502
Principal RE Debt II	0.37%	$ 2,747,278
KARED IV	11.79%	$ 87,793,736
IPERS GTIF	13.92%	$ 103,630,009
Heitman Credit	13.04%	$ 97,059,299
REAL ASSETS CREDIT	**1.66%**	**$ 744,494,621**
PRIVATE CREDIT	**6.28%**	**$ 2,825,263,316**
GRAND TOTAL		**$ 44,968,956,777**

Manager Name	Manager % of Asset Class	Total Market Value
RREEF	40.40%	$ 961,986,741
Clarion Partners	2.17%	$ 51,566,331
KARED VII	0.71%	$ 16,999,120
Invesco	36.24%	$ 862,940,882
UBS Realty	20.48%	$ 487,551,313
REAL ESTATE	**5.29%**	**$ 2,381,044,387**
Brookfield Super Core Infrastructure	50.10%	$ 330,700,306
Forest Invest	33.06%	$ 218,234,336
UBS Farmland Investors	16.83%	$ 111,090,146
OTHER REAL ASSETS	**1.47%**	**$ 660,024,788**
PRIVATE REAL ASSETS	**6.76%**	**$ 3,041,069,174**

RECENT MARKET VALUES	
3/21/2025	$ 44,968,956,777
3/14/2025	$ 44,700,034,701
3/7/2025	$ 45,002,151,359
2/28/2025	$ 45,223,430,756
2/21/2025	$ 45,464,312,297
2/14/2025	$ 45,601,662,125
2/7/2025	$ 45,233,111,051
1/31/2025	$ 45,182,248,088
1/24/2025	$ 45,158,344,261

	PERCENT	DOLLARS
PUBLIC MARKET	69.39%	$ 31,206,088,172
PRIVATE MARKET	30.61%	$ 13,762,868,605
TOTAL	**100.00%**	**$ 44,968,956,777**

IPERS Portfolio Structure and Allocations
Quarter End December 31, 2024
$44.6 Billion

Public Markets – 69% of Total Fund (Equities 39%)				
Domestic Equity $9.3 Billion 20.9%		**International Equity $5.8 Billion 13.0%**		**Global Smart Beta $2.2 Billion 4.9%**
Active $2.4 Billion 25.7%	**Passive $6.9 Billion 74.3%**	**Active $2.2 Billion 38.0%**	**Passive $3.6 Billion 62.0%**	**Passive $2.2 Billion 100.0%**
BlackRock (R1000 SAE) $2.2 billion	BNY Mellon (R1000) $6.6 billion	BlackRock (EAFE SAE) $1.2 billion	BlackRock (EAFE) $2.0 billion	UBS (U.S. Equity Smart Beta) $1.3 billion
BlackRock (R2000 SAE) $234.6 million	BNY Mellon (R2000) $185.7 million	Panagora (Dynamic EAFE) $366.9 million	BlackRock (Canada) $473.2 million	UBS (Developed ex U.S. Smart Beta) $646.4 million
	Parametric (Synthetic) $80.3 million	BlackRock (Emerging SAE) $397.6 million	BNY Mellon (Emerging) $1.0 billion	UBS (Emerging Market Smart Beta) $222.8 million
		Wellington (Emerging) $250.1 million	Parametric (Synthetic) $50.5 million	

Terminated managers with residual amounts in their accounts are not included.

IPERS Portfolio Structure and Allocations
Quarter End December 31, 2024
$44.6 Billion

Public Markets – 69% of Total Fund (Fixed Income and Cash 30%)				
Core Fixed Income $11.6 Billion 26.0%			**Public Credit $1.4 Billion 3.1%**	**Cash $601.2 Million 1.3%**
Active $1.6 Billion 13.6%		**Passive $10.0 Billion 86.4%**	**Active $1.4 Billion 100.0%**	
BlackRock Universal (Relative Value) $658.0 million	PGIM Universal (Relative Value) $531.1 million	BNY Mellon Agg (Core) $10.0 billion	Aegon USA (High Yield) $449.7 million	BNY Mellon (Cash) $361.7 million
Man EM Global Macro (Relative Value) $148.4 million	Mesirow EM Currency (Relative Value) $240.2 million	Parametric (Synthetic) $22.0 million	PGIM (High Yield) $464.9 million	LARS Liquid Assets (Cash) $239.4 million
			PGIM (Emerging Market Debt) $461.7 million	

Terminated managers with residual amounts in their accounts are not included.

IPERS Portfolio Structure and Allocations
Quarter End December 31, 2024
$44.6 Billion

Private Markets – 31% of Total Fund				
Private Equity **$7.9 Billion** **17.7%**	**Private Real Assets** **$3.1 Billion** **6.9%**	**Private Credit** **$2.8 Billion** **6.3%**		
Pathway Capital (Private Equity) $7.9 billion	Clarion Partners (RE Equity) $81.1 million	Tennenbaum Capital (Direct Lending) $325.6 million	PGIM PREDS (Real Assets Credit) $71.0 million	Audax Mezz Coinvest (Opportunistic Credit) $12.8 million
	Invesco (RE Equity) $880.5 million	Monroe Capital (Direct Lending) $418.1 million	Heitman Credit (Real Asset Credit) $98.7 million	Audax Mezz V (Opportunistic Credit) $30.4 million
	KAREP VII (RE Equity) $17.0 million	Pathway Capital (Direct Lending) $234.4 million	IFM USIDF (Real Asset Credit) $94.8 million	Arrowmark (Opportunistic Credit) $172.5 million
	RREEF (RE Equity) $927.7 million	Oaktree RECIF (Real Assets Credit) $53.8 million	PGIM RE Global Debt (Real Assets Credit) $124.0 million	Crestline Opp Credit (Opportunistic Credit) $184.1 million
	UBS Realty (RE Equity) $486.3 million	Principal OEDF (Real Assets Credit) $11.7 million	Kayne Anderson IV (Real Assets Credit) $93.3 million	Crestline Opp Credit 2 (Opportunistic Credit) $68.3 million
	Forest Investment (Timber) $227.0 million	Principal Global II (Real Assets Credit) $2.7 million	JP Morgan GTIF (Real Asset Credit) $105.8 million	Marathon SPS IA (Opportunistic Credit) $248.3 million
	UBS Farmland Investors (Farmland) $111.2 million	ITE Rail Fund (Real Asset Credit) $88.8 million	KKR Goldfinch (Opportunistic Credit) $286.8 million	ARES PCS II (Opportunistic Credit) $64.8 million
	Brookfield (Infrastructure) $330.0 million			

Alpha Report

For periods ending December 31, 2024

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IPERS' Active Manager Alpha Scorecard

Net of Fees as of 4Q24	4Q24	1 Year	3 Year	5 Year	SI	Perf	Org	People	Process
Domestic Equity									
BlackRock - Russell 1000 SAE	-0.70%	0.89%	NA	NA	0.35%				
BlackRock - Russell 2000 SAE	-0.44%	0.17%	0.58%	0.65%	1.33%				
International Equity									
BlackRock – EAFE SAE	1.32%	2.74%	1.94%	1.48%	1.43%				
PanAgora - Dynamic EAFE	0.93%	3.59%	1.91%	1.50%	0.91%				
Wellington - Emerging Markets	0.61%	0.66%	-1.80%	0.32%	0.00%				
BlackRock - Emerging Markets SAE	1.03%	0.65%	-0.16%	-0.52%	-0.38%				
Core Fixed Income									
BlackRock - Universal	-0.92%	0.99%	0.52%	NA	1.02%				
PGIM - Universal	0.29%	0.49%	1.08%	NA	0.05%				
Man EM Global Macro	2.22%	-3.15%	NA	NA	-13.28%				
Mesirow EM Currency	-0.14%	-2.77%	NA	NA	-3.74%				
Public Credit									
PGIM - High Yield	-0.15%	0.94%	0.18%	0.43%	0.59%				
Aegon USA - High Yield	-0.04%	-0.51%	-0.47%	-0.31%	0.21%				
PGIM - Emerging Market Debt	0.07%	1.34%	0.84%	0.43%	0.86%				
LARS									
Aspect Capital	-1.88%	4.30%	NA	NA	5.09%				
Graham Capital Management	-0.76%	2.70%	5.34%	0.30%	3.04%				
P/E Global	11.52%	9.46%	8.01%	0.45%	4.45%				
PIMCO	2.45%	5.42%	NA	NA	10.66%				
Welton Global	-2.71%	-2.48%	-2.34%	NA	-2.11%				
ARP	1.31%	0.33%	NA	NA	-1.61%				

No Concerns   Minor Concerns   Material Concerns

IPERS' Active Manager Listing

MANAGER	INCEPTION DATE	MANDATE	BENCHMARK
Domestic Equity			
BlackRock - Russell 1000 SAE	May 2022	Large Cap	Russell 1000
BlackRock - Russell 2000 SAE	May 2019	Small Cap	Russell 2000
International Equity			
BlackRock – EAFE SAE	May 2019	Developed EAFE	MSCI EAFE Index (net)
PanAgora - Dynamic EAFE	May 2019	Developed EAFE	MSCI EAFE Index (net)
Wellington - Emerging Markets	February 2009	Global Emerging Markets	MSCI Emerging Markets (net)
BlackRock - Emerging Markets SAE	May 2019	Global Emerging Markets	MSCI Emerging Markets (net)
Core Fixed Income			
BlackRock - Universal	November 2020	Relative Value	Bloomberg U.S. Aggregate
PGIM - Universal	March 2021	Relative Value	Bloomberg U.S. Aggregate
Man EM Global Macro	October 2023	Relative Value	Bloomberg U.S. Aggregate
Mesirow EM Currency	October 2023	Relative Value	Bloomberg U.S. Aggregate
Public Credit			
PGIM - High Yield	June 2019	High Yield	Bloomberg U.S. HY 2% Capped Index
Aegon USA - High Yield	February 2012	High Yield	High Yield Policy Index
PGIM - Emerging Market Debt	April 2016	Emerging Market Debt	JP Morgan EMBI Global
LARS			
Aspect Capital	March 2022	Diversified Trend	Absolute Return
Graham Capital Management	December 2016	Tactical Trend	Absolute Return
P/E Global	December 2016	FX Strategy	Absolute Return
PIMCO	July 2022	Commodity Alpha	Absolute Return
Welton Global	June 2021	Welton Global	Absolute Return
ARP	November 2022	Alternative Risk Premium	Absolute Return

Private Market Program Manager Updates

For periods ending December 31, 2024

IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

March 28, 2025

IPERS' PMP Manager Scorecard

	1 Year	5 Year	10 Year	SI	Performance	Organization	People	Process
Private Equity								
Multi-Strategy								
Pathway	6.54%	15.70%	15.58%	12.86%				
Private Credit								
Direct Lending								
BlackRock	6.16%	6.79%	N/A	7.19%				
Monroe	7.96%	7.48%	N/A	7.45%				
Pathway	12.67%	N/A	N/A	9.26%				
Opportunistic								
Arrowmark	13.95%	N/A	N/A	9.89%				
Ares Private Credit Solutions II	12.70%	N/A	N/A	6.86%				
Audax Mezzanine Fund V	9.10%	N/A	N/A	17.17%				
Audax Mezzanine Co-Invest Fund	15.13%	N/A	N/A	12.24%				
Crestline Series I	8.42%	N/A	N/A	8.00%				
Crestline Series II	N/A	N/A	N/A	1.86%				
KKR	10.52%	7.90%	N/A	7.92%				
Marathon	6.45%	N/A	N/A	6.37%				
Real Assets								
Heitman CREDIT	-5.60%	N/A	N/A	-2.39%				
IFM USIDF	3.04%	N/A	N/A	4.14%				
PGIM Global Real Estate Debt	10.63%	7.15%	N/A	7.06%				
Principal Real Estate Debt II	18.81%	6.63%	N/A	7.59%				
Kayne Anderson Real Estate Debt IV	11.76%	N/A	N/A	8.86%				
JP Morgan GTIF	15.91%	N/A	N/A	10.41%				
ITE Rail Fund IA	16.52%	N/A	N/A	12.15%				
PGIM PREDS	5.17%	N/A	N/A	4.76%				
Oaktree RECIF	4.17%	N/A	N/A	4.17%				
Principal OEDF	N/A	N/A	N/A	2.36%				

No Concerns Minor Concerns Material Concerns

IPERS' PMP Manager Scorecard

	1 Year	5 Year	10 Year	SI	Performance	Organization	People	Process
Private Real Assets								
Real Estate								
Clarion Partners	-25.81%	-9.52%	-1.21%	2.69%				
Invesco	-2.46%	10.03%	11.94%	10.10%				
RREEF	-4.66%	6.27%	8.23%	9.06%				
UBS Realty	-1.00%	9.61%	10.60%	9.71%				
Other Real Assets								
Brookfield	7.68%	N/A	N/A	7.31%				
Forest Investment Associates	-1.83%	6.50%	4.79%	5.71%				
UBS Farmland	6.95%	5.31%	N/A	6.95%				

No Concerns

Minor Concerns

Material Concerns

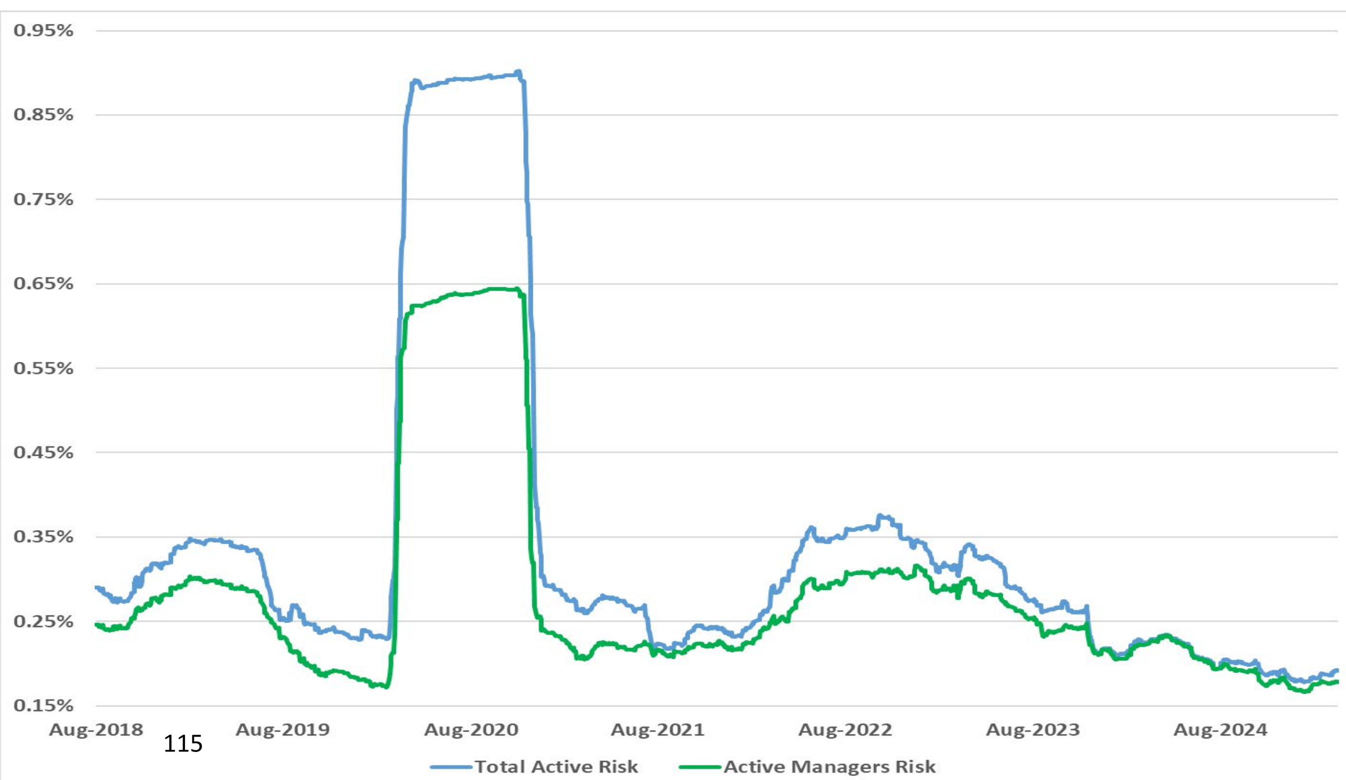
Active Risk –180 Days (Mar 2025)

	Active	Passive	Misfit	Total
Equities				
Domestic Equities	0.08%	0.01%	0.00%	0.08%
International Equities	0.09%	0.04%	0.00%	0.10%
Global Smart Beta Equities	-	0.00%	0.00%	0.00%
Fixed Income				
Core Fixed Income	0.10%	0.02%	0.00%	0.10%
Public Credit	0.03%	-	0.00%	0.03%
Cash/LARS	0.06%	-	-	0.06%
Asset Allocation	-	0.07%	-	0.07%
Total Public Markets	**0.18%**	**0.09%**	**0.00%**	**0.19%**

Target	1.50%
Upper Limit	3.00%

- Plan-level Total Active Risk at 0.19%
- Active Risk still low and is not yet affected by current market volatility
- We expect an increase to active risk with addition of new mandates and the ongoing market vol.

External Active Risk –180 Days (Mar 2025)



2 0 2 5

JANUARY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

FEBRUARY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

MARCH

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

APRIL

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

MAY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

JUNE

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

JULY

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

AUGUST

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

SEPTEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

OCTOBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

NOVEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

DECEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Board Meetings

March 28, 2025

CY2024 Investment Performance

June 19, 2025

Private Markets Program Review

September 24-25, 2025

Continuing Education Session

FY2025 Investment Performance Review

Asset Allocation

Investment Policy & Goal Statement

December 5, 2025

Actuarial Valuation Presentation