

NORTH CAROLINA
DEPARTMENT OF STATE TREASURER



Dale R. Folwell, CPA
STATE TREASURER OF NORTH CAROLINA
DALE R. FOLWELL, CPA

INVESTMENT MANAGEMENT DIVISION

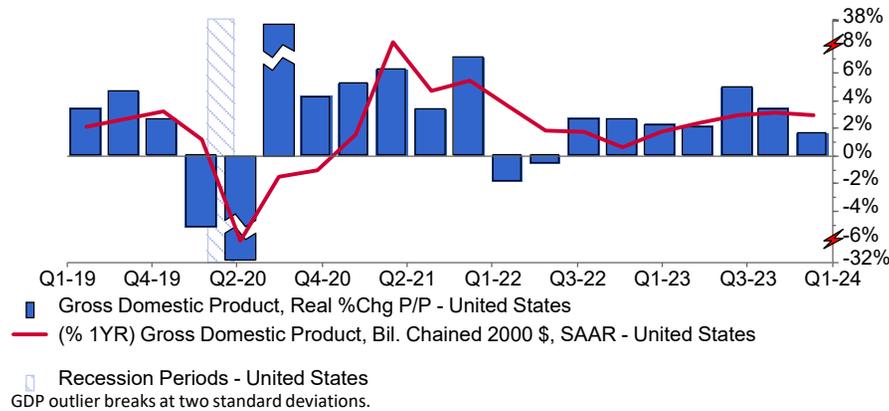
Performance Review

May 29, 2024



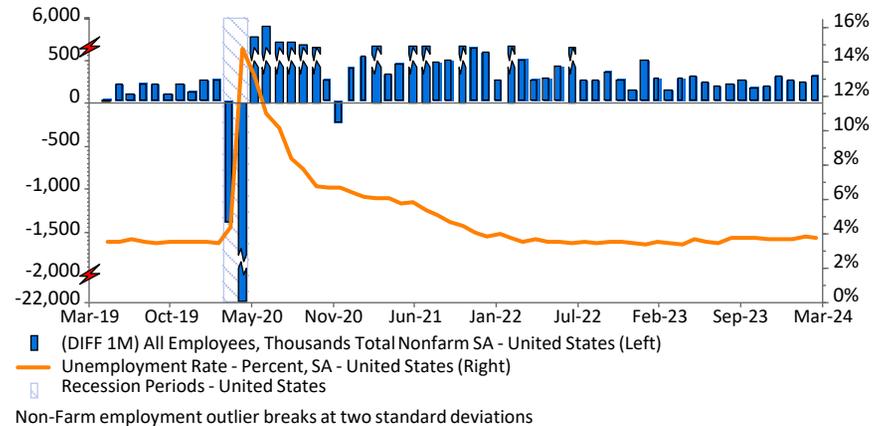
US Economic Environment

US Real GDP Growth



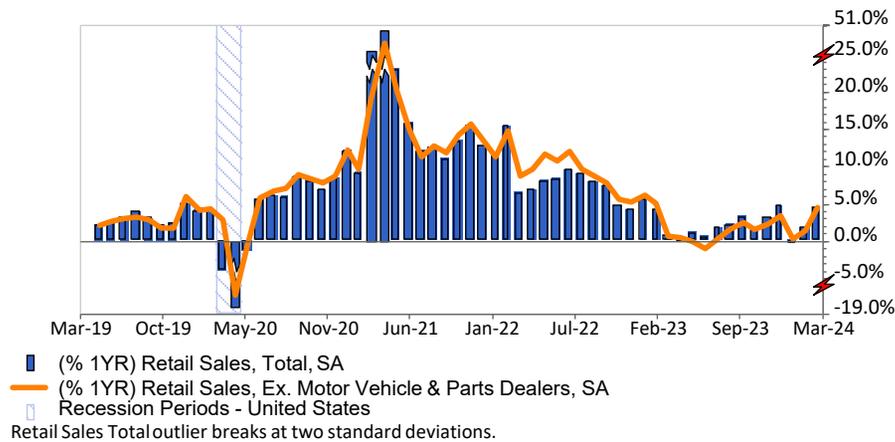
©FactSet Research Systems

US Change in NonFarm Employment & Unemployment Rate



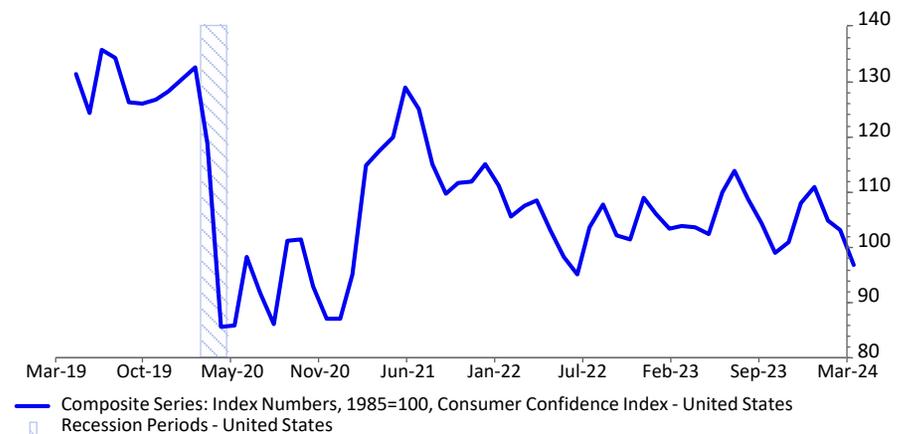
©FactSet Research Systems

US Retail Sales



©FactSet Research Systems

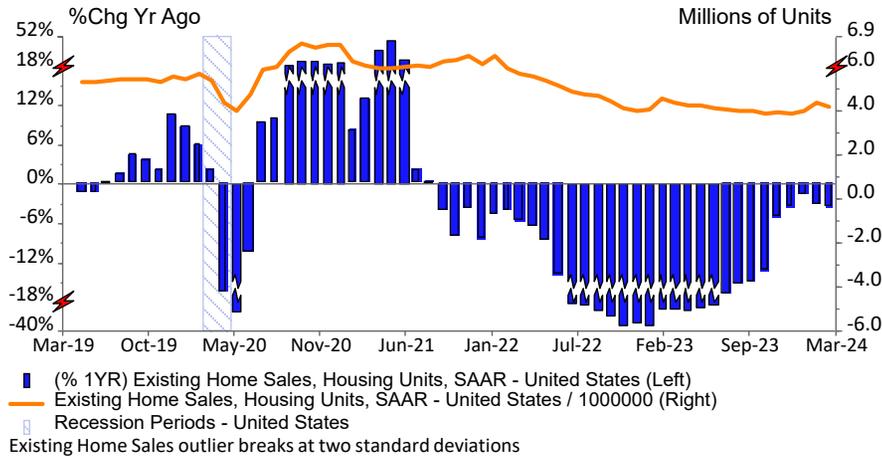
US Consumer Confidence



©FactSet Research Systems

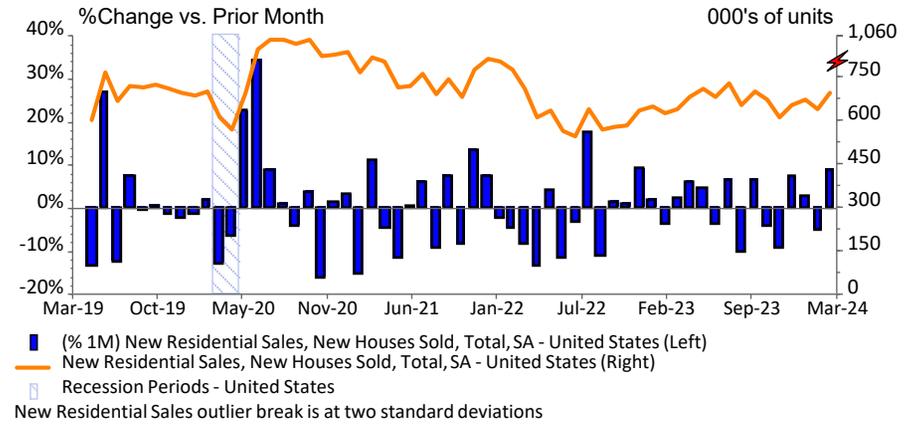
US Economic Environment

US Existing Home Sales



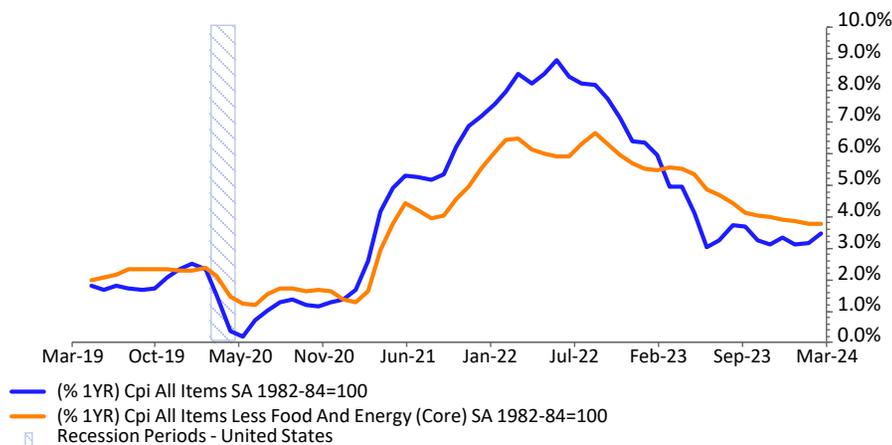
©FactSet Research Systems

US New Home Sales



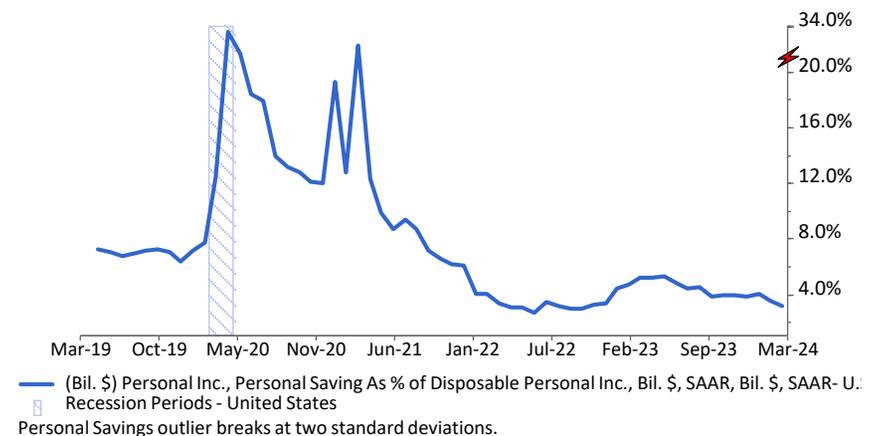
©FactSet Research Systems

US Consumer Price Inflation



©FactSet Research Systems

US Personal Savings Rate

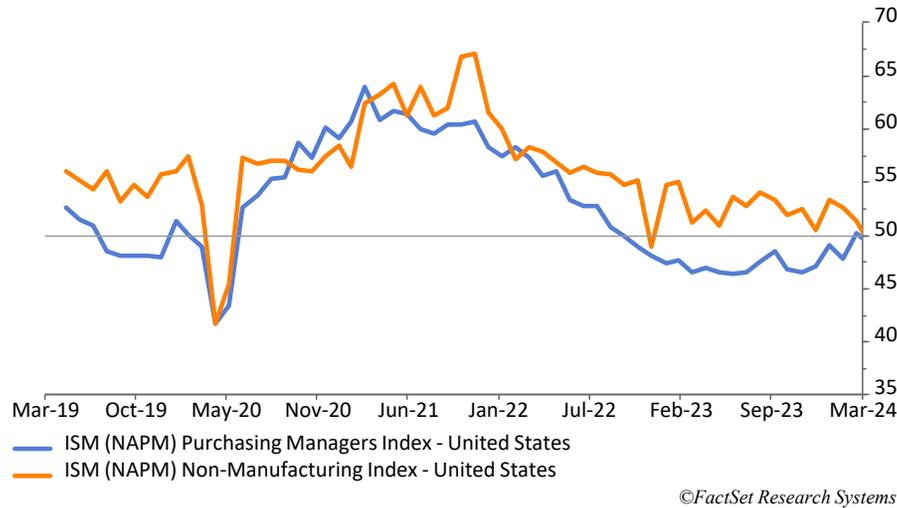


©FactSet Research Systems

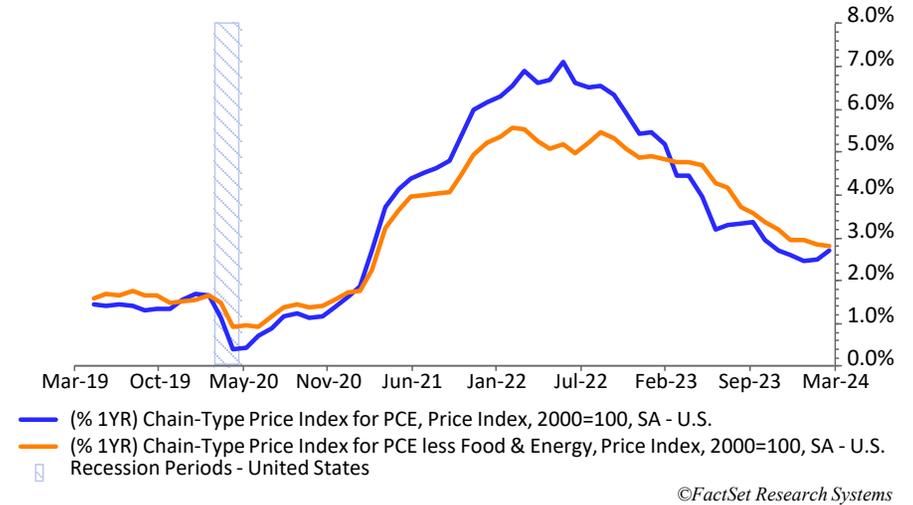


US and Global Economic Environment

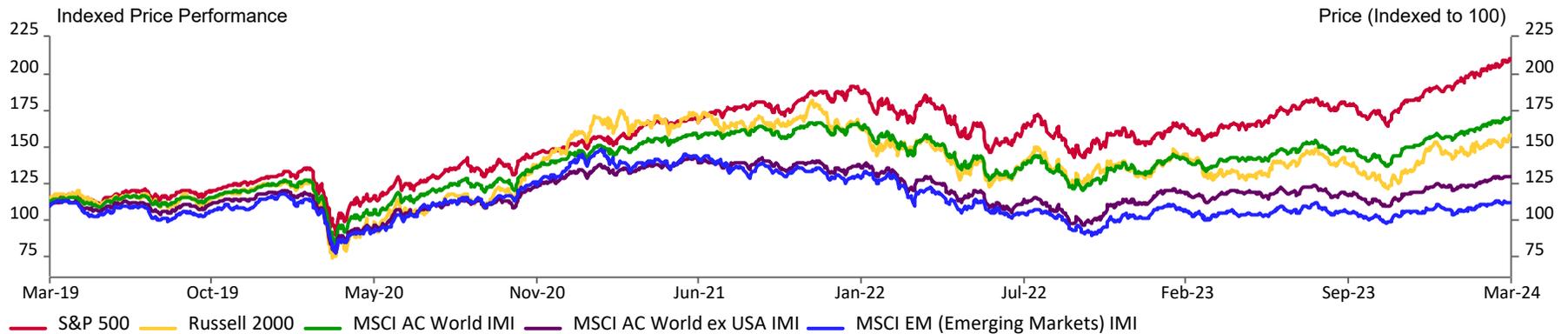
ISM Report on Business



US PCE Inflation



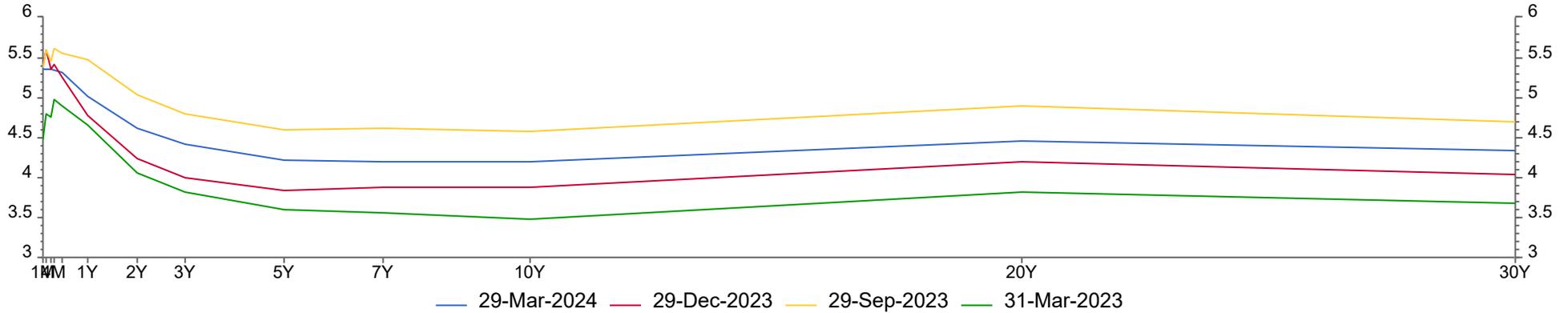
S&P 500 vs. Peers





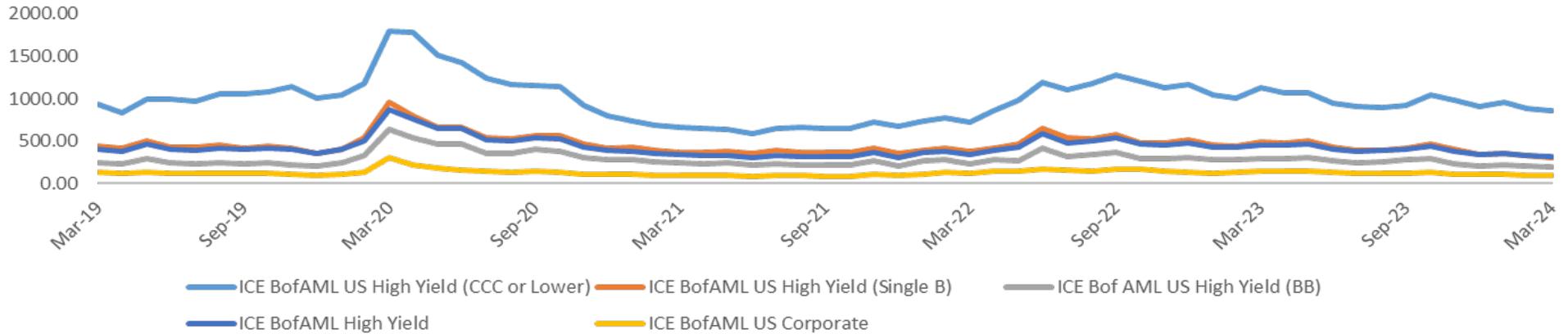
Market Environment

United States Treasury Yield Curve



Source: FactSet Interest Rate Database

Corporate Credit OAS (ICE BAML Indices)



Source: Bloomberg



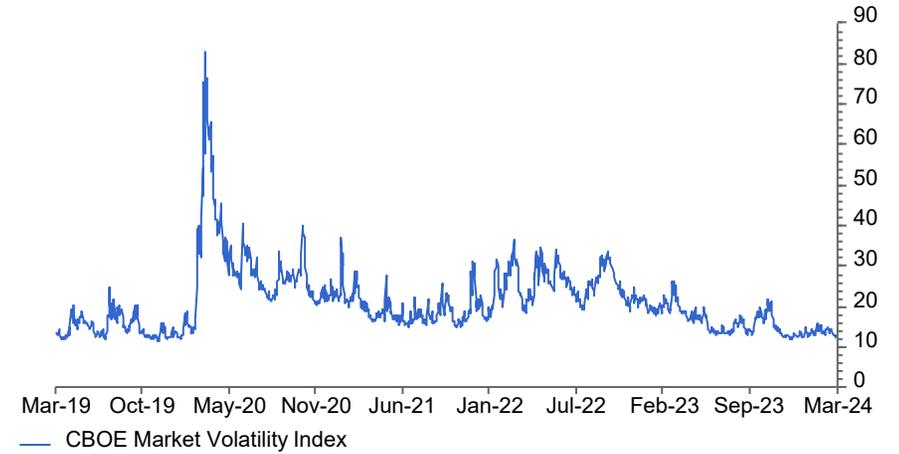
Market Environment

Closing Price Fed Nominal Broad Dollar Index



Source: FactSet Prices

Closing Price CBOE VIX Index



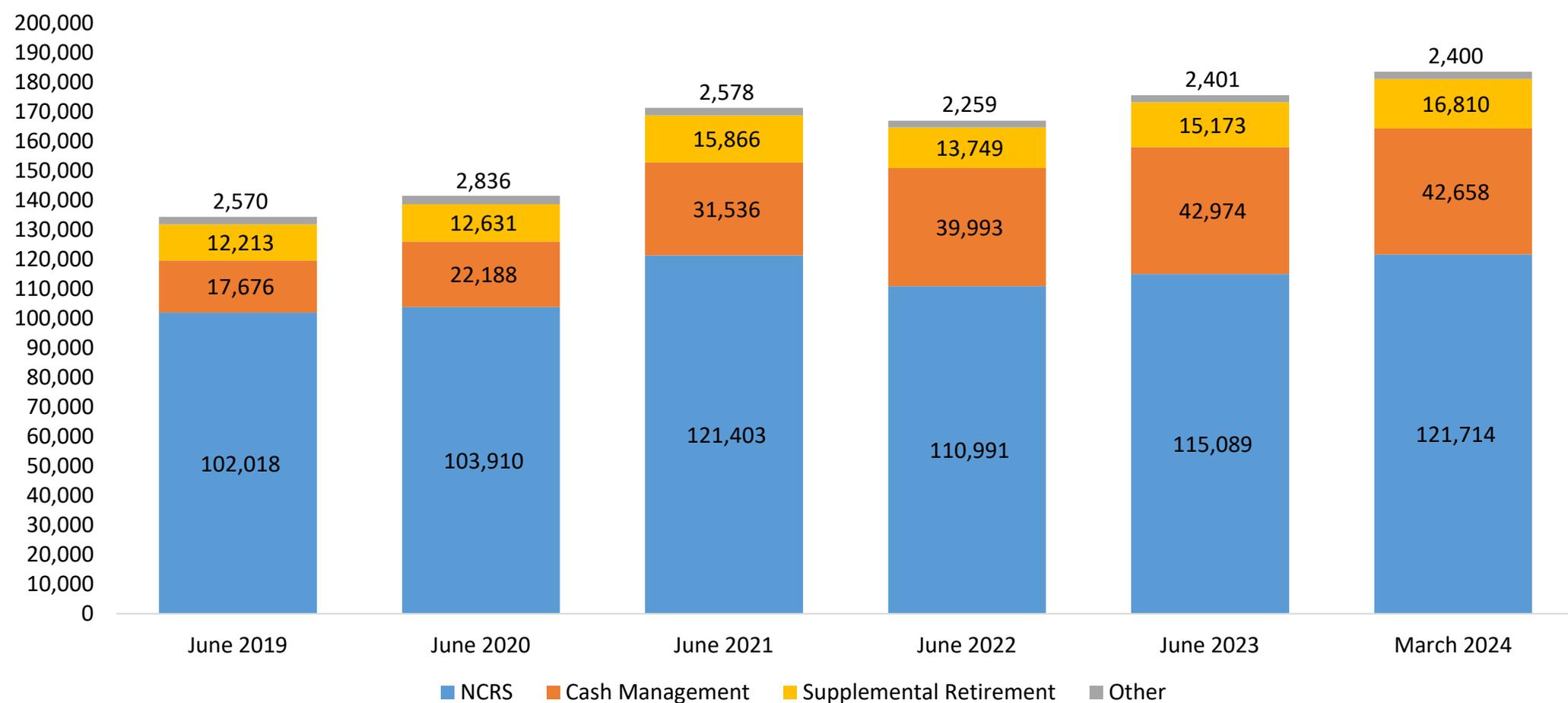
Source: FactSet Prices

Countries	Real GDP YoY		Unemployment		CPI YoY		Countries	Real GDP YoY		Unemployment		CPI YoY	
	Date	Value	Date	Value	Date	Value		Date	Value	Date	Value	Date	Value
U.S.	03/24	3.0	03/24	3.8	03/24	3.5	Asia/Pacific/Latam						
Europe							China	03/24	5.3			03/24	0.1
Germany	03/24	-0.2	03/24	5.9	03/24	2.2	India	12/23	8.4			01/24	4.6
France	03/24	1.1	03/24	7.3	03/24	2.3	Japan	12/23	1.2	03/24	2.6	03/24	2.7
U.K.	12/23	-0.2	02/24	4.2	03/24	3.2	Indonesia	12/23	5.0			03/24	3.1
Italy	03/24	0.6	03/24	7.2	03/24	1.2	Brazil	12/23	2.1			03/24	3.9
Spain	03/24	2.4	03/24	11.7	03/24	3.2	Australia	12/23	1.5	03/24	3.8	03/24	3.6

Source: Bloomberg

Assets Under Management (\$MM)

\$183.6 billion as of March 31, 2024



Note: The Cash Management Program does not include Assets with Fiscal Agent, which are reflected in the Bond Proceeds Fund. These funds, which may have been reported in the Cash Management Program previously, have now been removed for all years shown in this report to more accurately reflect the Cash Management Program balance.



NCRS Asset Allocation

As of March 31, 2024

	Market Value (\$MM)	%	Target	Range		Relative %	Relative \$ (\$MM)
				Minimum	Maximum		
Growth	63,783	52.40%	55.0%	37.0%	68.0%	-2.60%	(3,160)
Public Equity	48,166	39.57%	38.0%	33.0%	43.0%	1.57%	1,914
Private Equity	6,123	5.03%	7.0%	0.0%	8.8%	-1.97%	(2,397)
Non Core Real Estate	2,020	1.66%	3.0%	0.0%	8.0%	-1.34%	(1,632)
Opportunistic Fixed Income	7,474	6.14%	7.0%	0.0%	7.5%	-0.86%	(1,046)
Rates & Liquidity	43,574	35.80%	33.0%	23.0%	48.0%	2.80%	3,408
IG Fixed Income & Cash	33,641	27.64%	28.0%	23.0%	33.0%	-0.36%	(439)
Pension Cash	9,933	8.16%	5.0%	0.0%	15.0%	3.16%	3,847
Inflation Sensitive & Diversifiers	11,808	9.70%	11.0%	4.0%	16.0%	-1.30%	(1,581)
Inflation Sensitive	5,605	4.61%	6.0%	2.0%	7.5%	-1.39%	(1,698)
Core Real Estate	6,203	5.10%	5.0%	2.0%	10.0%	0.10%	117
Multi-Strategy	2,550	2.09%	1.0%	0.0%	4.0%	1.09%	1,333
Grand Total	121,714	100.00%					



NCRS Asset Allocation (Preliminary)

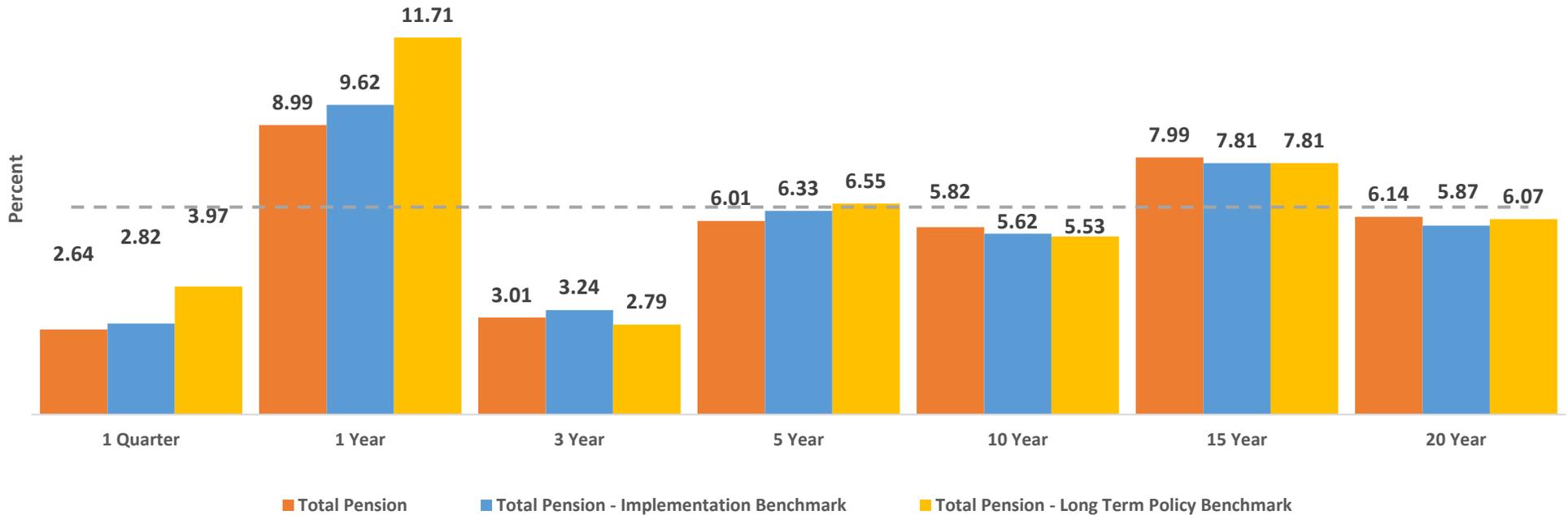
As of May 14, 2024

	Market Value (\$MM)	%	Target	Range		Relative %	Relative \$ (\$MM)
				Minimum	Maximum		
Growth	64,205	52.73%	55.0%	37.0%	68.0%	-2.27%	(2,770)
Public Equity	48,534	39.86%	38.0%	33.0%	43.0%	1.86%	2,260
Private Equity	6,140	5.04%	7.0%	0.0%	8.8%	-1.96%	(2,384)
Non Core Real Estate	2,010	1.65%	3.0%	0.0%	8.0%	-1.35%	(1,644)
Opportunistic Fixed Income	7,521	6.18%	7.0%	0.0%	7.5%	-0.82%	(1,003)
Rates & Liquidity	43,269	35.53%	33.0%	23.0%	48.0%	2.53%	3,084
IG Fixed Income & Cash	33,298	27.34%	28.0%	23.0%	33.0%	-0.66%	(798)
Pension Cash	9,971	8.19%	5.0%	0.0%	15.0%	3.19%	3,882
Inflation Sensitive & Diversifiers	11,773	9.67%	11.0%	4.0%	16.0%	-1.33%	(1,622)
Inflation Sensitive	5,592	4.59%	6.0%	2.0%	7.5%	-1.41%	(1,714)
Core Real Estate	6,181	5.08%	5.0%	2.0%	10.0%	0.08%	93
Multi-Strategy	2,525	2.07%	1.0%	0.0%	4.0%	1.07%	1,308
Grand Total	121,772	100.00%					

NCRS Total Net Portfolio Return vs. Benchmarks

As of March 31, 2024

Annualized Returns



Notes:

Actuarial Assumed Investment Return was lowered from 7.0% to 6.5% as of December 31, 2020

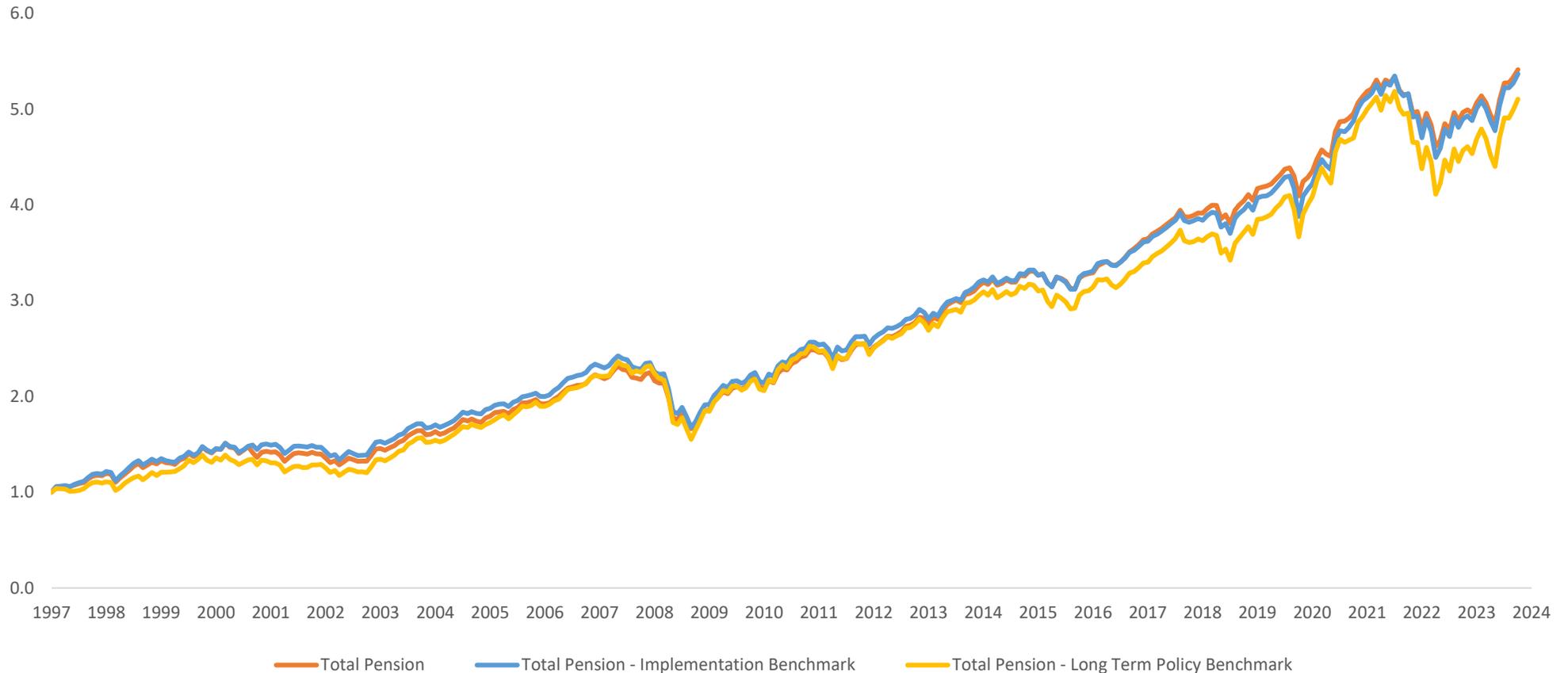
Returns for periods greater than one year are annualized.

Implementation Benchmark is a blend of the Asset Class Benchmarks at policy weights. It is currently weighted as follows: 55% Growth Benchmark; 33% Rates & Liquidity Benchmark; 11% Inflation Sensitive & Diversifiers Benchmark; and 1% Multi-Strategy Benchmark.

Long-Term Policy Benchmark is comprised of 56% MSCI ACWI IMI Net, 28% ICE BofA 5+ Years U.S. Treasury Index, 6.5% Bloomberg Commodity Index, 5% ICE BofA 3 Month Treasury Bill Index, and 4.5% ICE BofA 1-3 Years U.S. Inflation-Linked Treasury Index.



Growth of a Dollar Through March 31, 2024



Notes:

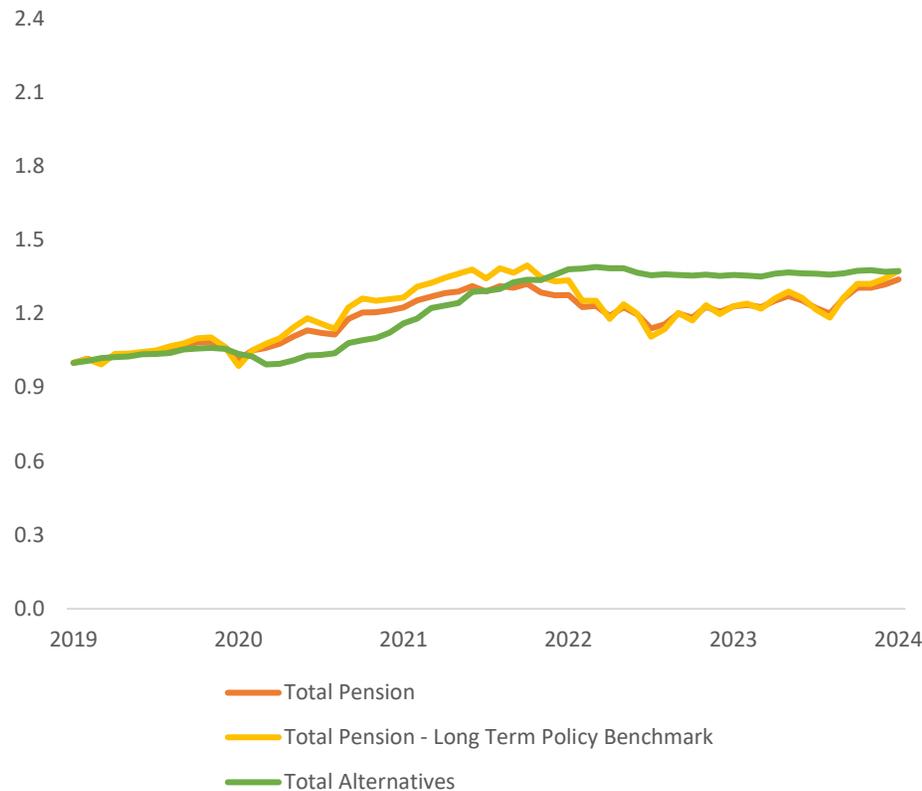
Implementation Benchmark is a blend of the Asset Class Benchmarks at policy weights. It is currently weighted as follows: 55% Growth Benchmark; 33% Rates & Liquidity Benchmark; 11% Inflation Sensitive & Diversifiers Benchmark; and 1% Multi-Strategy Benchmark. *Long-Term Policy Benchmark* is comprised of 56% MSCI ACWI IMI Net, 28% ICE BofA 5+ Years U.S. Treasury Index, 6.5% Bloomberg Commodity Index, 5% ICE BofA 3 Month Treasury Bill Index, and 4.5% ICE BofA 1-3 Years U.S. Inflation-Linked Treasury Index.

@FactSet Research Systems



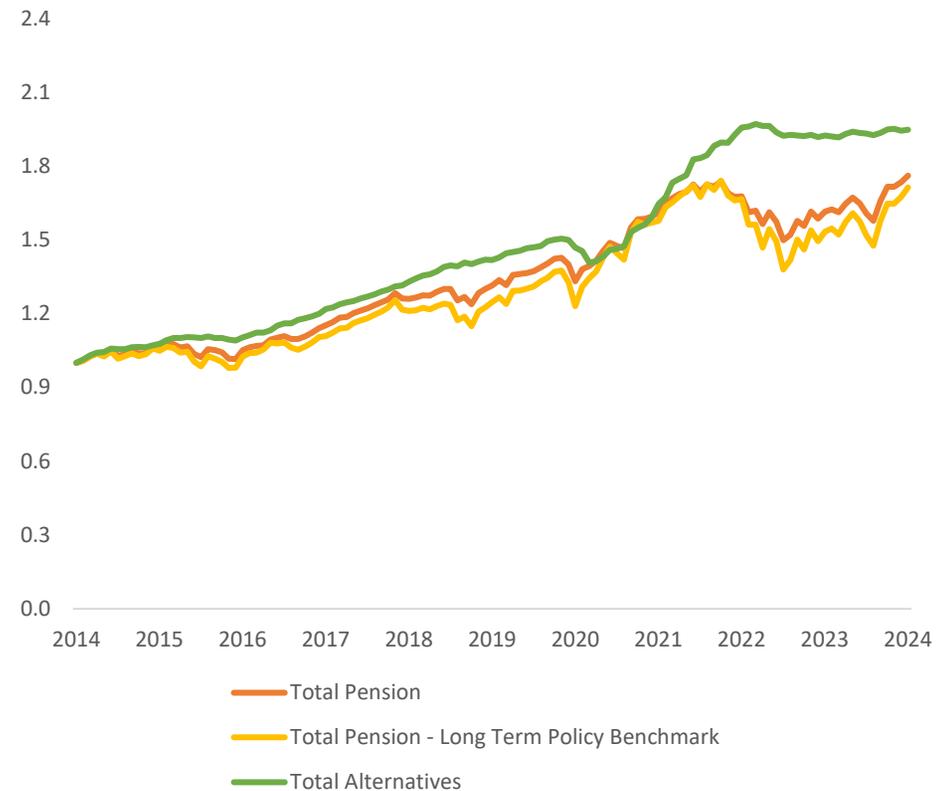
Growth of a Dollar

5 Years Ending March 31, 2024



@FactSet Research Systems

10 Years Ending March 31, 2024



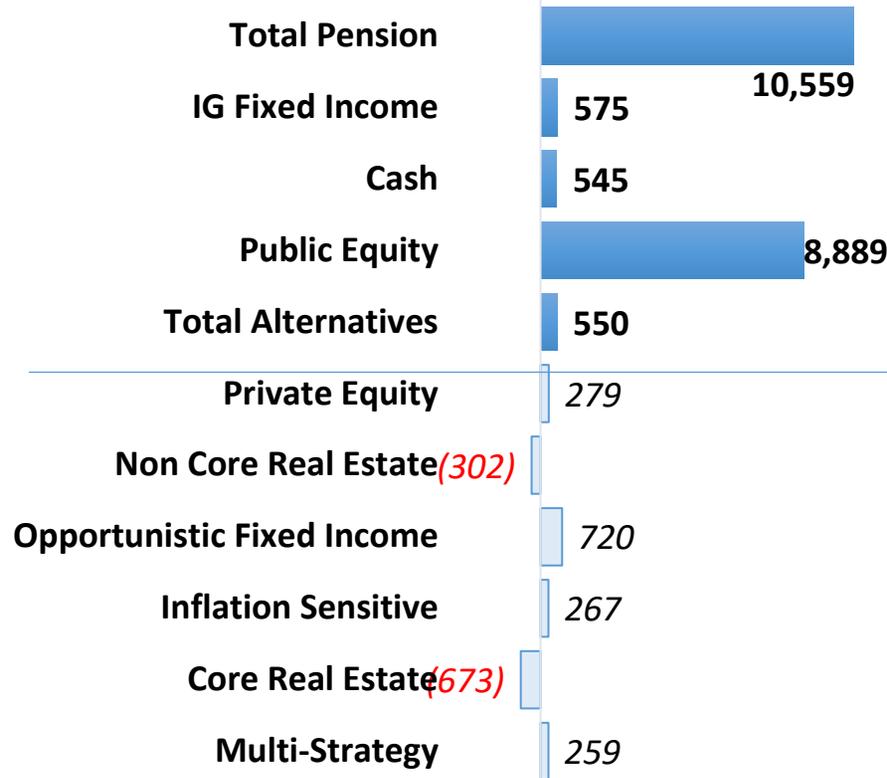
@FactSet Research Systems

Note: NCRS Alternatives includes the following: Core Real Estate; Inflation Sensitive – Private Natural Resources; Inflation Sensitive – Real Assets and Other Diversifiers; Multi-Strategy Investments; Non-Core Real Estate; Opportunistic Fixed Income; Private Equity; Equity Hedge Strategies; and closed-end Public Natural Resource funds.

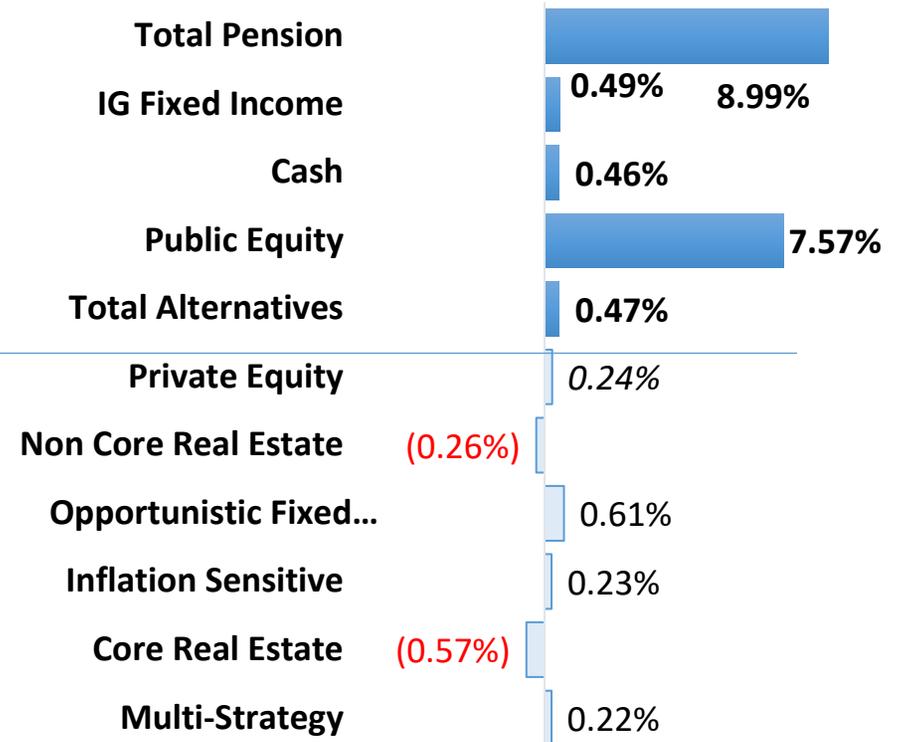
Estimated Contribution to Total Plan Return – 1 Year

As of March 31, 2024

Contribution to Total Plan \$ Earnings



Contribution to Total Plan % Returns



*Millions

Notes:

1.) Estimated Contributions are based on average market value and the total return for the period.

Contribution to Total Plan \$ Earnings = Average \$ Market Value * % Total Return for each asset class

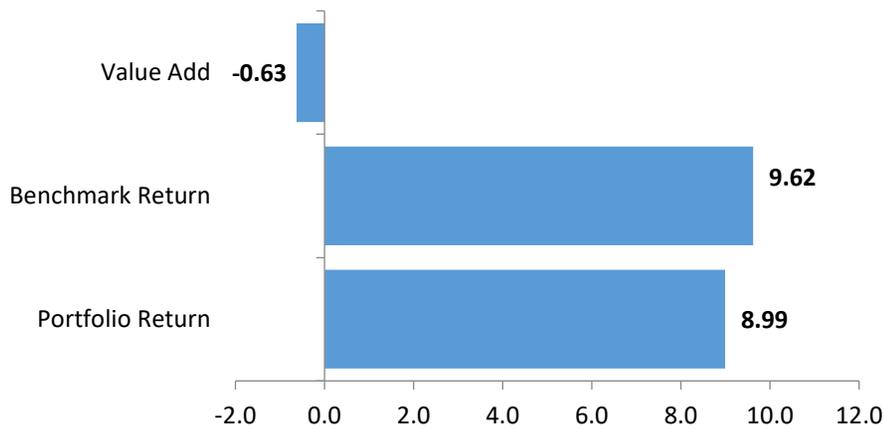
Contribution to Total Plan % Returns = Average Market Value % weight * % Total Return for each asset class

2.) Alternatives for this analysis include the following: Private Equity, Non-Core Real Estate, Opportunistic Fixed Income, Inflation Sensitive, Core Real Estate, and Multi-Strategy investments.

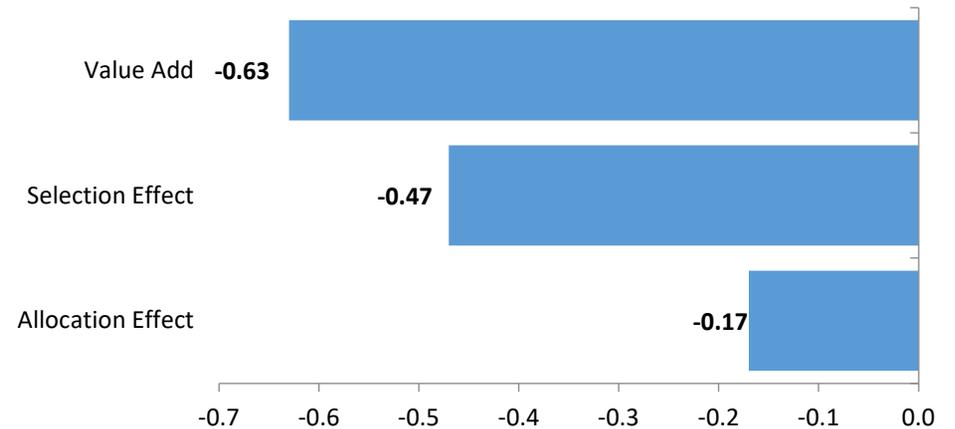
NCRS Net of Fees Return Attribution

Total Fund vs. Implementation Benchmark: 1 Year Ending March 31, 2024

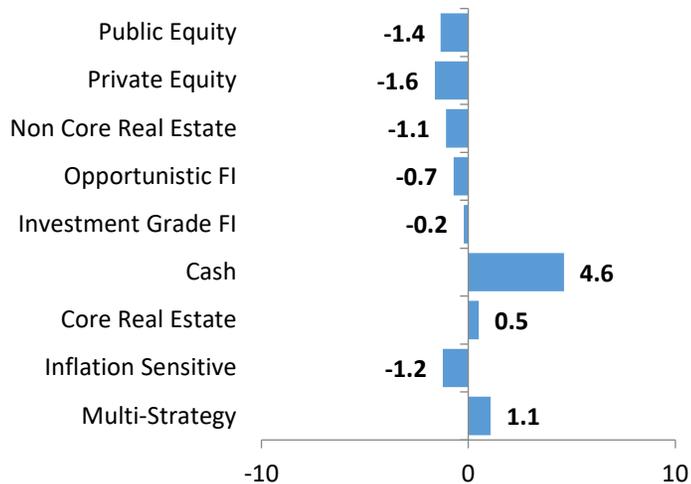
Total Fund Performance



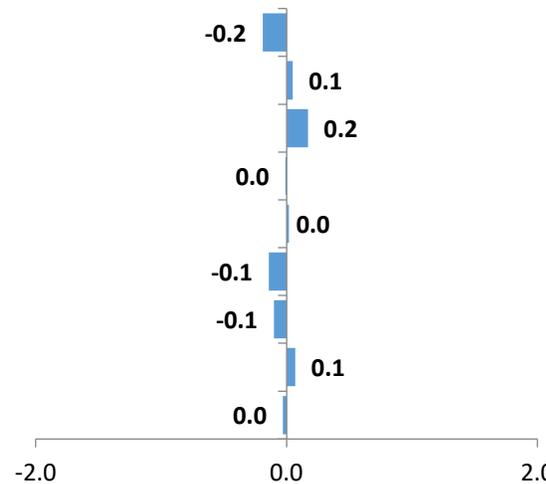
Attribution



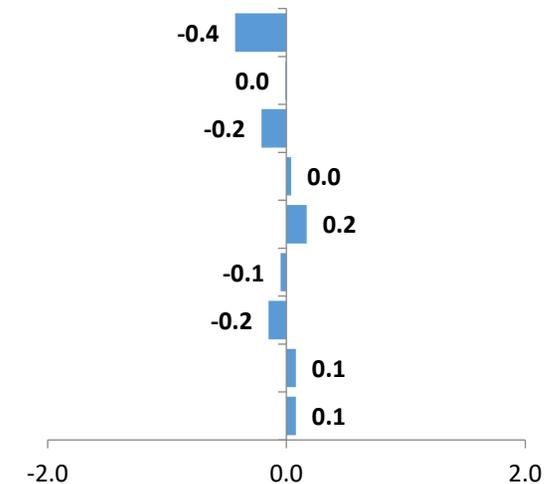
Avg Active Weight



Allocation Effect



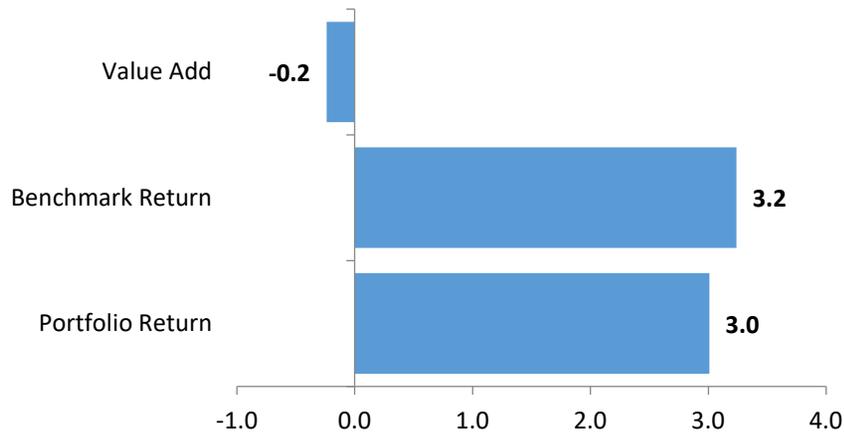
Selection Effect



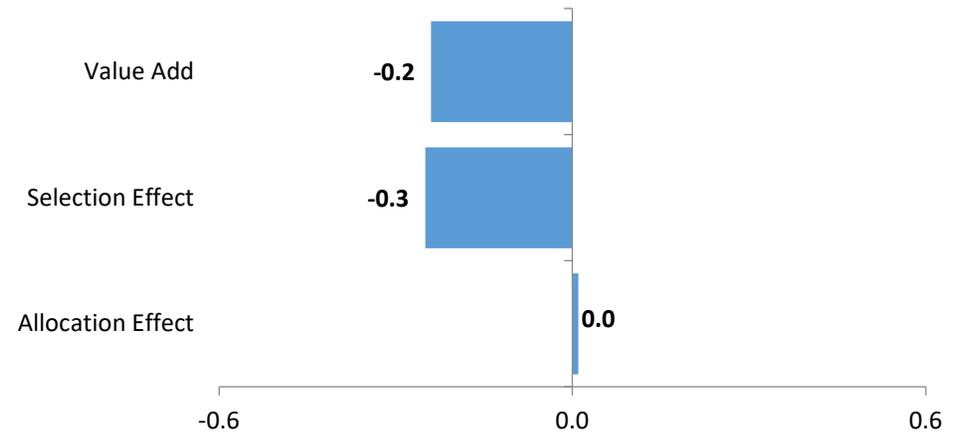
NCRS Net of Fees Return Attribution

Total Fund vs. Implementation Benchmark: 3 Years Ending March 31, 2024

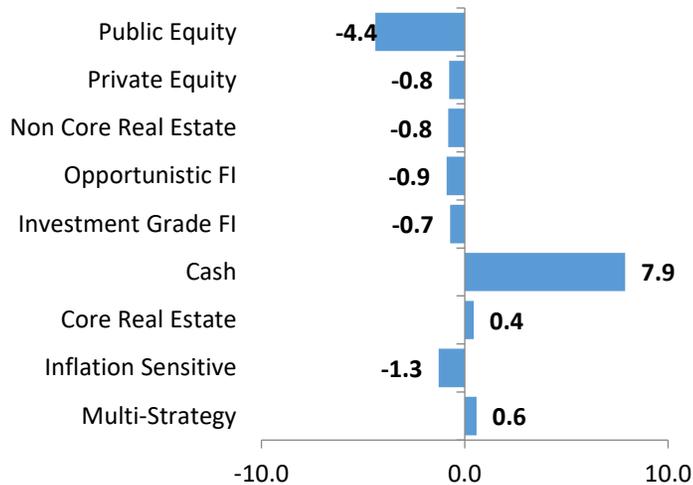
Total Fund Performance



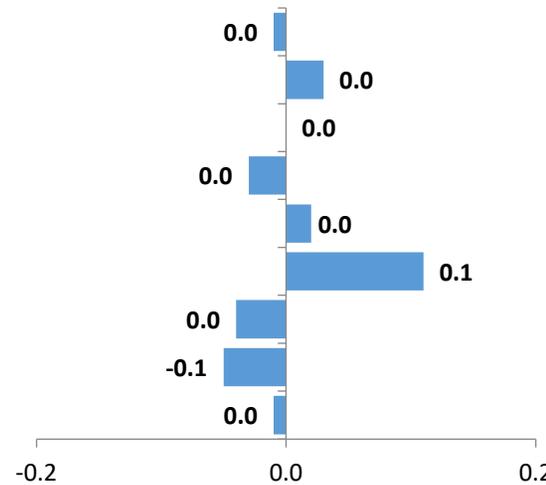
Attribution



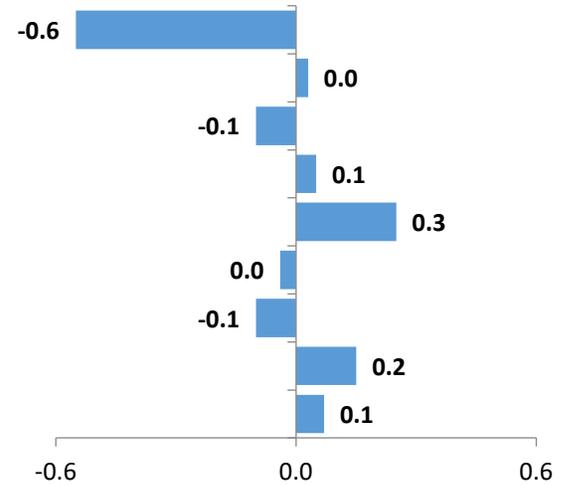
Avg Active Weight



Allocation Effect



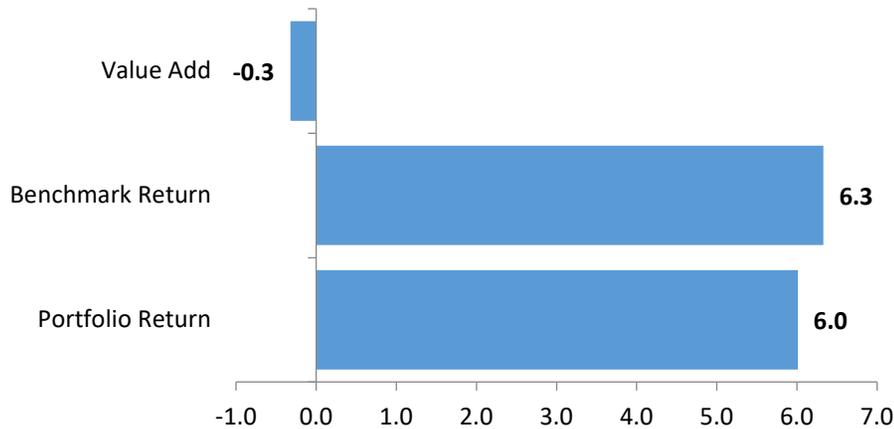
Selection Effect



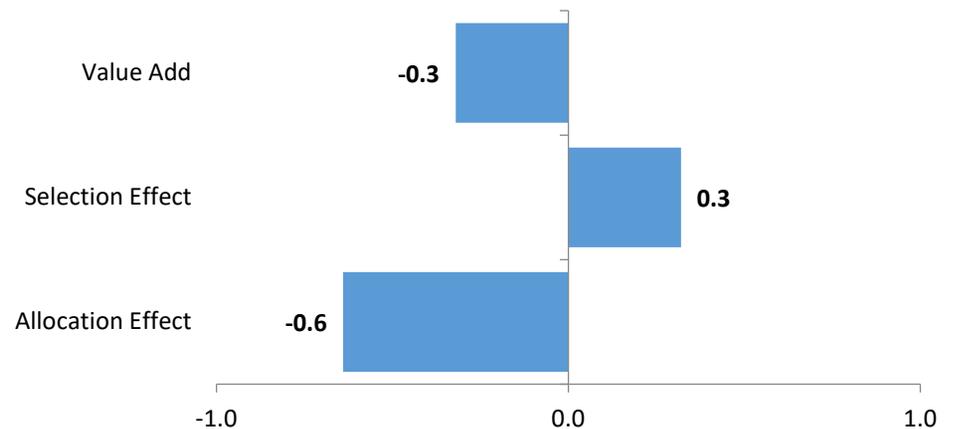
NCRS Net of Fees Return Attribution

Total Fund vs. Implementation Benchmark: 5 Years Ending March 31, 2024

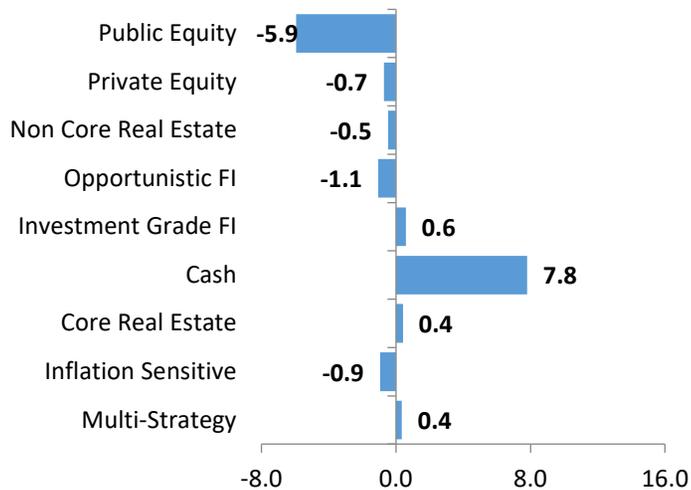
Total Fund Performance



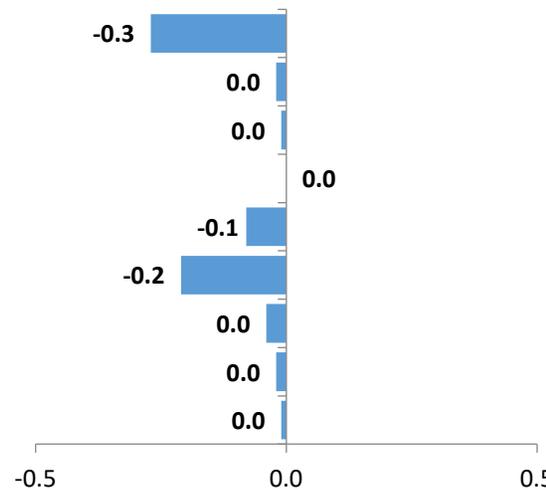
Attribution



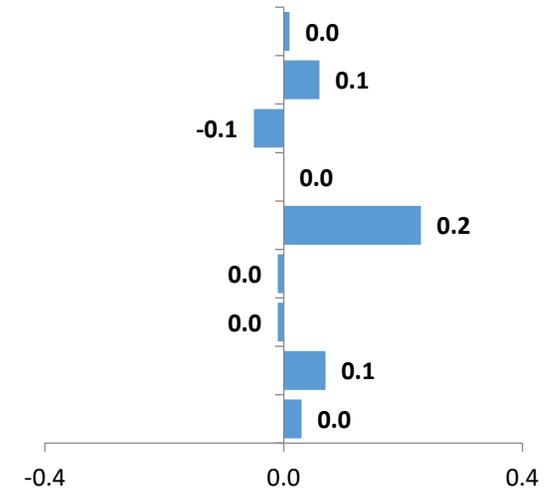
Avg Active Weight



Allocation Effect



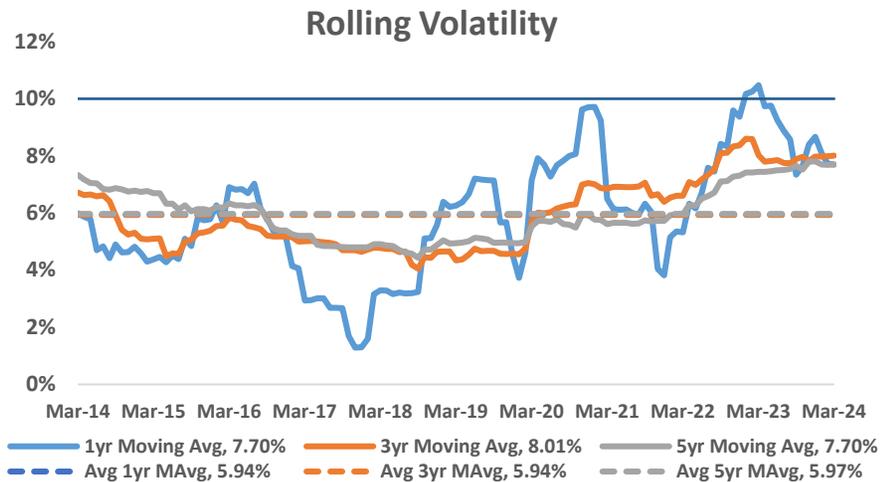
Selection Effect



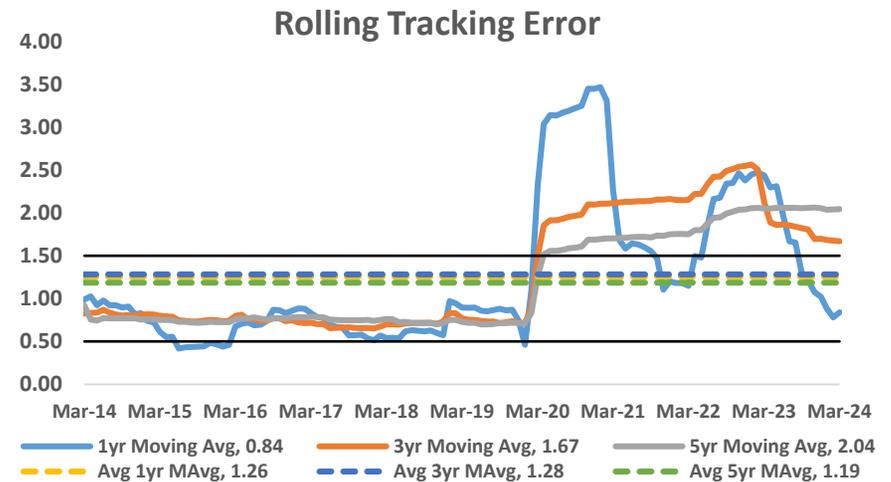


NCRS Net of Fees Risk Metrics

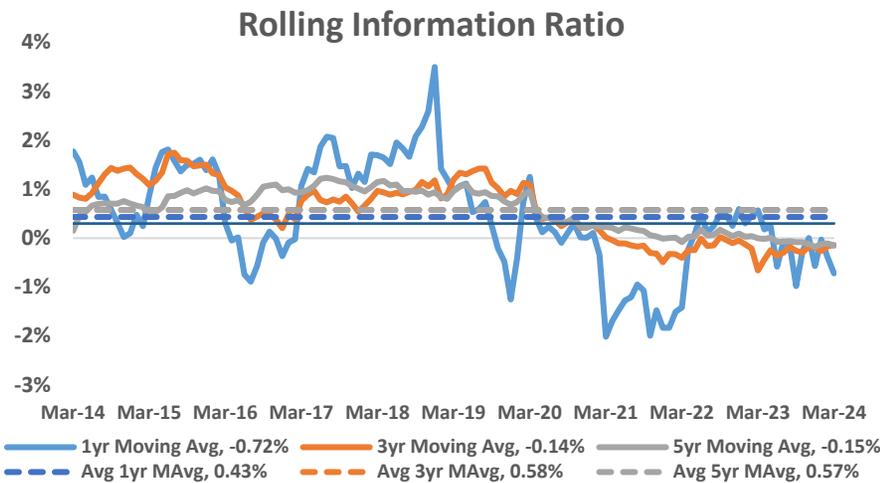
As of March 31, 2024



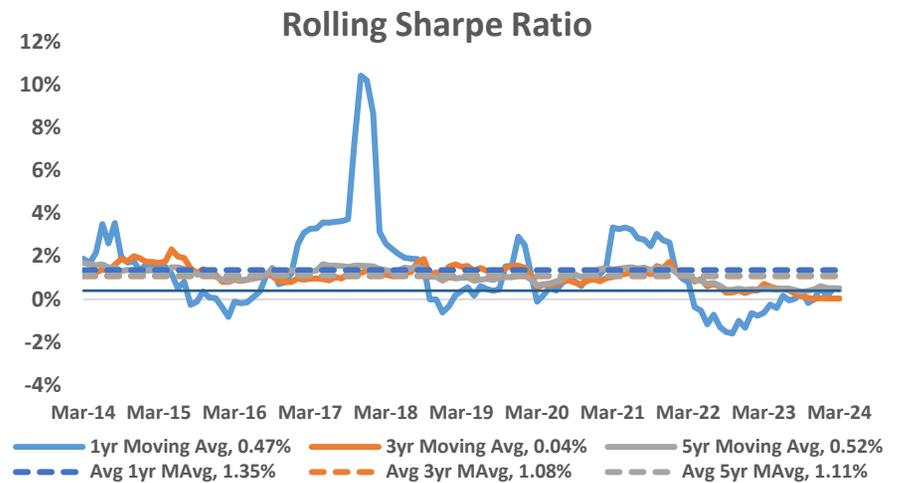
@FactSet Research Systems



@FactSet Research Systems



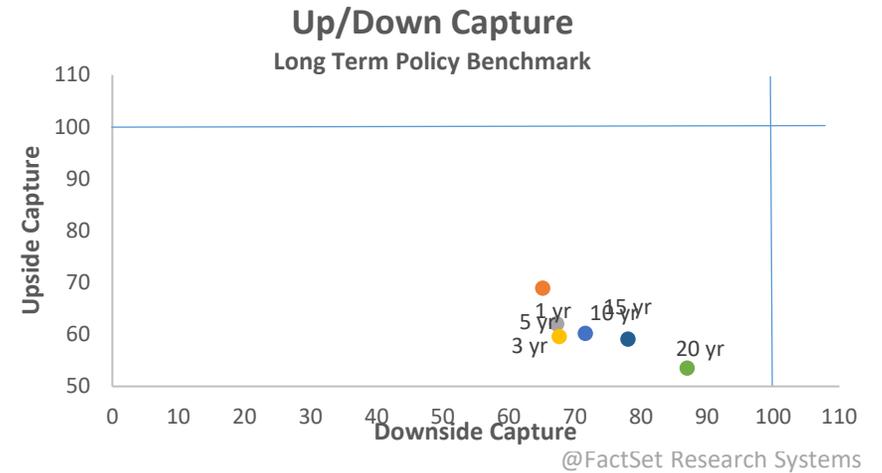
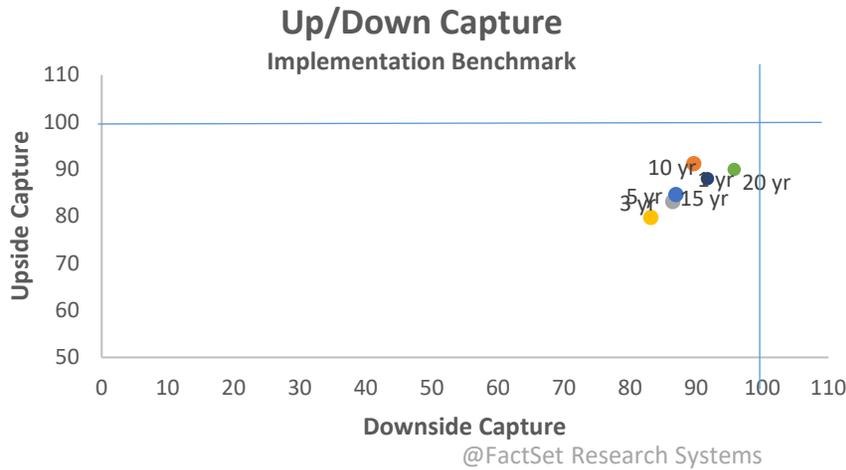
@FactSet Research Systems



@FactSet Research Systems

NCRS Net of Fees Risk Metrics

As of March 31, 2024



Drawdown





NCRS Gross of Fees Return and Risk

BNY Mellon Universe: US Public Funds > \$20B; Data as of March 31, 2024

Returns	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years
25th Percentile	12.25	7.25	9.41	8.03	10.22	7.77
Median Percentile	11.48	5.80	8.81	7.88	9.75	7.44
75th Percentile	8.60	4.53	7.34	6.86	8.70	7.18
NCRS	9.29	3.33	6.34	6.28	8.46	6.54
Percentile Rank (1 = highest performance)	67	87	87	80	80	86

Risk	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years
25th Percentile	8.21	9.83	10.03	8.27	8.67	9.11
Median Percentile	7.58	8.69	8.79	7.24	7.55	8.49
75th Percentile	5.72	7.14	7.79	6.64	6.84	7.96
NCRS	7.42	7.90	7.64	6.40	6.75	7.35
Percentile Rank (1 = highest risk)	54	60	94	80	80	93

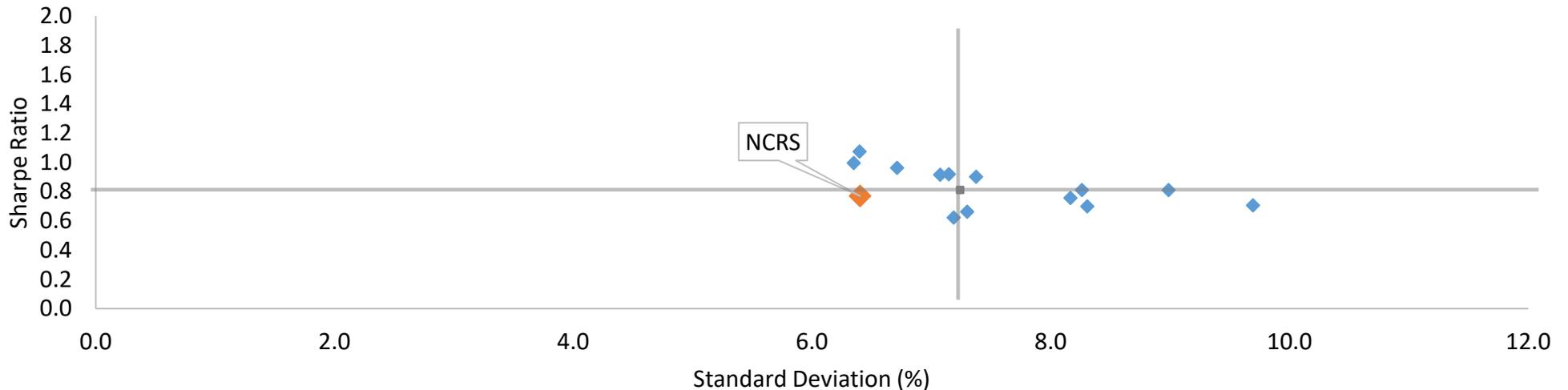
Note: Data shown is gross of fees with the exception of incentive payments, which have been deducted from NAV when applicable.

NCRS Gross of Fees Sharpe Ratio

BNY Mellon Universe: US Public Funds > \$20B; Data as of March 31, 2024

Sharpe	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years
25th Percentile	1.07	0.66	0.83	0.93	1.16	0.75
Median Percentile	0.84	0.39	0.74	0.81	1.08	0.71
75th Percentile	0.53	0.24	0.58	0.70	0.98	0.66
NCRS	0.54	0.13	0.58	0.77	1.10	0.70
Percentile Rank (1 = highest performance)	74	87	74	60	47	65

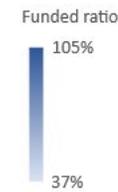
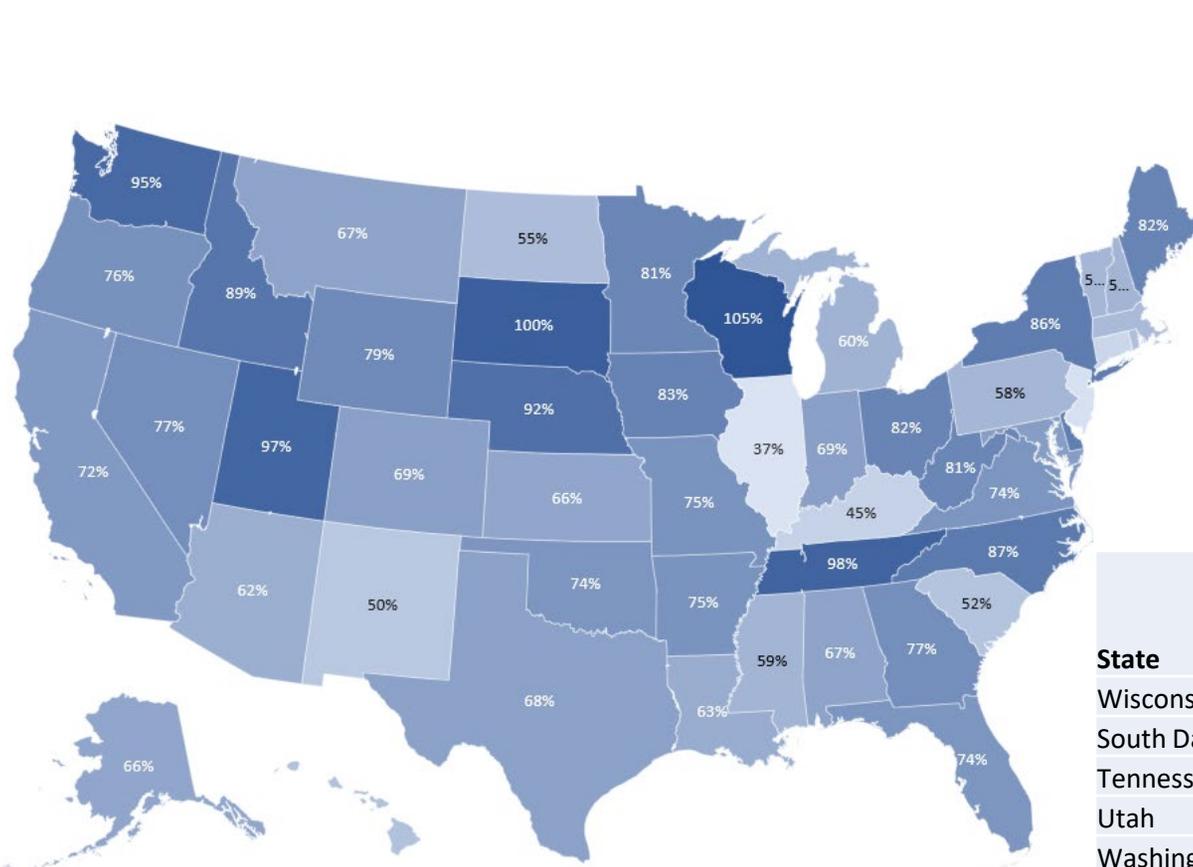
10 Year Plot: Sharpe Ratio vs. Volatility



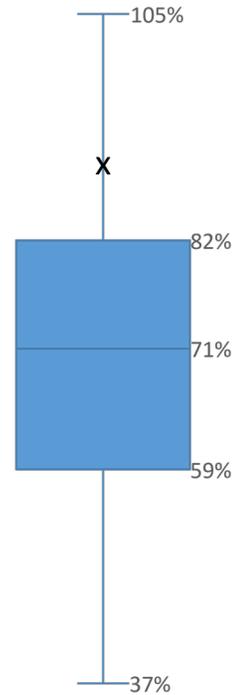
Note: Data shown is gross of fees with the exception of incentive payments, which have been deducted from NAV when applicable.



Funded Status Universe Comparison U.S. Public Funds



25th %ile	82%
50th %ile	71%
75th %ile	59%
NCRS	87%
NCRS %ile	14%



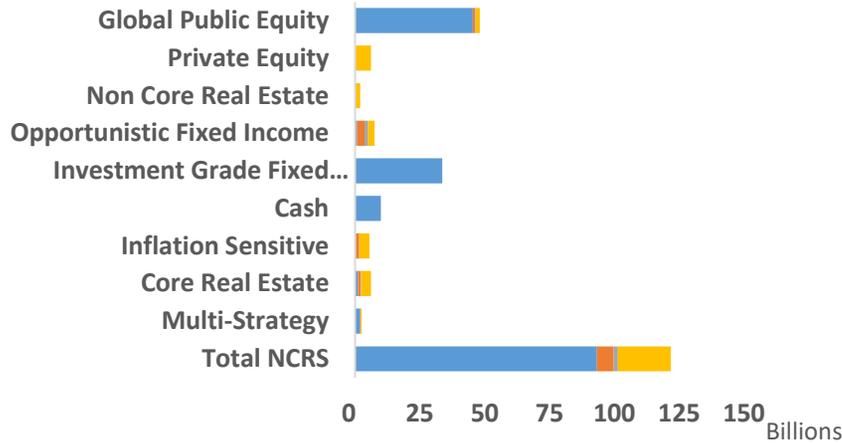
State	Funded Ratio	Actuarial Assumed Rate of Return
Wisconsin	105%	7.00%
South Dakota	100%	6.50%
Tennessee	98%	7.25%
Utah	97%	6.85%
Washington	95%	7.50%
Nebraska	92%	7.50%
Idaho	89%	7.00%
North Carolina	87%	6.50%

Source: Pew Charitable Trusts & PublicPlansData.org, Data as of 2020

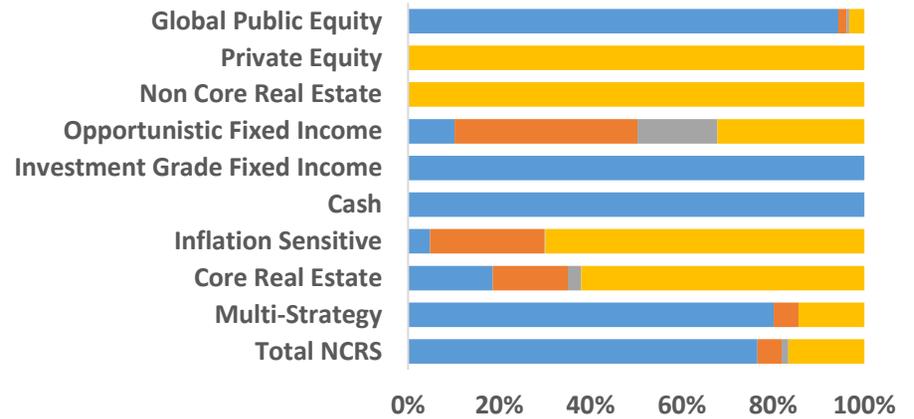
NCRS Liquidity Profile

As of March 31, 2024

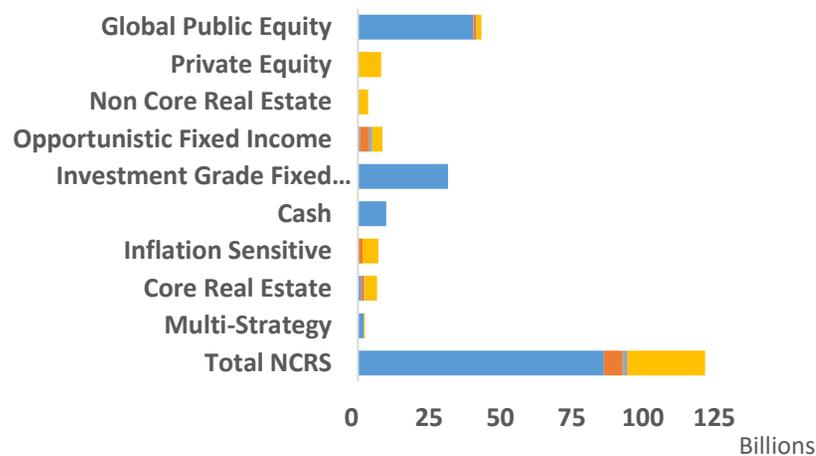
Liquidity Allocation (\$ Market Value)



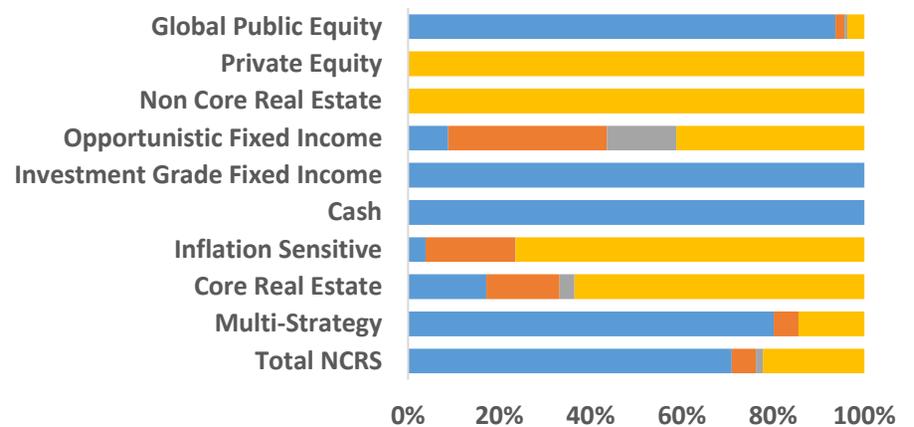
Liquidity Allocation (% Market Value)



Liquidity Allocation (\$ Market Value + Unfunded)



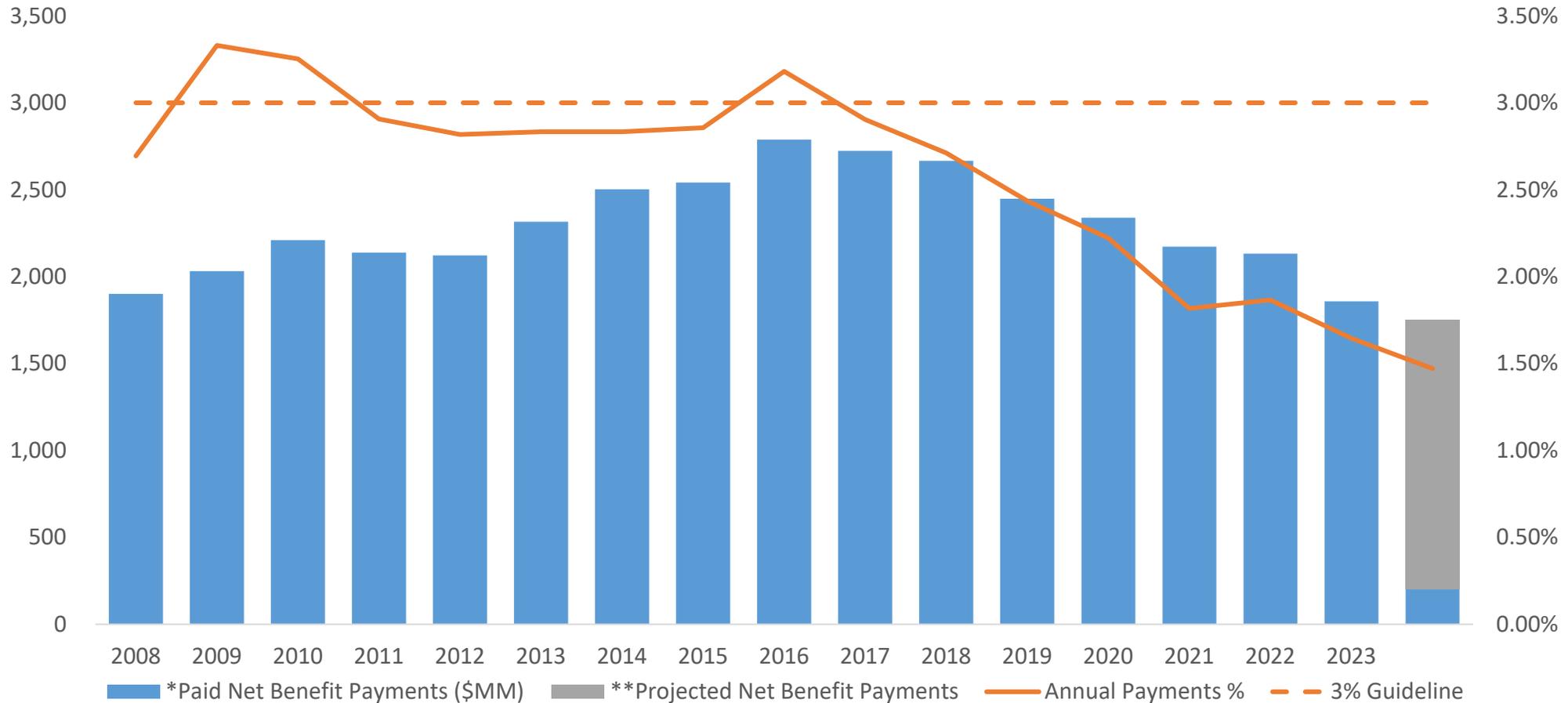
Liquidity Allocation (% Market Value + Unfunded)



Note: ■ Level 1 Liquidity = T+3; ■ Level 2 = T+3 to 12 Months; ■ Level 3 = 12 to 24 Months; ■ Level 4 = Greater than 24 Months

NCRS Liquidity Profile

Net benefit payments by calendar year



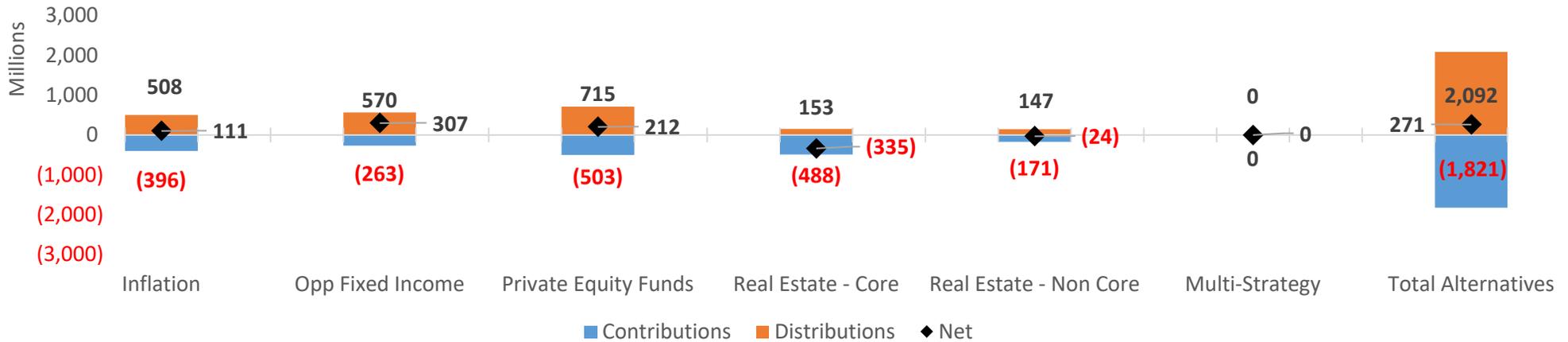
*Benefit payments exclude transfers from the Retiree Health Premium Fund as of January 1, 2022

**Projected Net Benefit Payments for remainder of calendar year

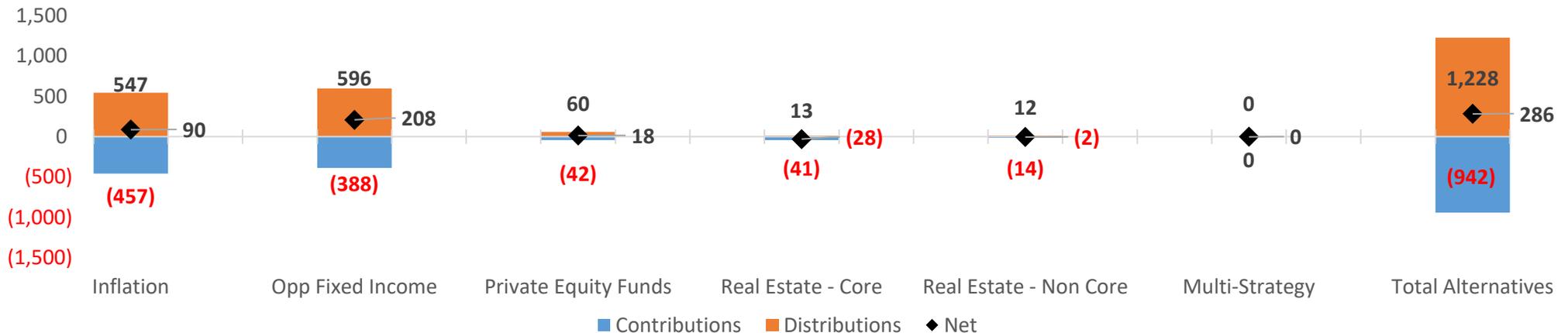
NCRS Alternatives Liquidity Profile

Through March 31, 2024

Prior 12-Months
Total Cash Flows by Alternative Asset Class (\$MM)



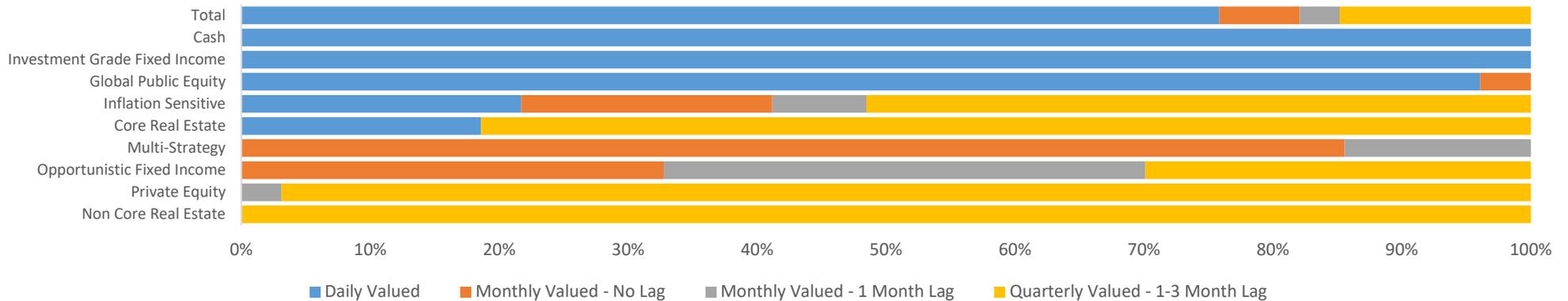
Prior 12-Months
Average Monthly Cash Flows by Alternative Asset Class (\$MM)



NCRS Valuation Lag Profile

As of March 31, 2024

PORTFOLIO VALUATION LAG



VALUATION LAG BY PORTFOLIO

in Millions





NCRS Asset Class Net of Fees Performance

As of March 31, 2024

	Market Value (\$MM)	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years
Growth	\$63,783	16.52	5.43	10.10	8.64	11.28	7.55
Benchmark ¹		17.02	6.30	10.00	7.90	10.73	7.09
Public Equity	\$48,166	21.17	4.71	10.60	8.61	11.89	7.67
Benchmark ²		22.45	6.30	10.52	8.26	11.40	7.19
Private Equity	\$6,123	4.80	8.50	13.13	12.11	10.78	10.00
Benchmark ³		5.03	8.02	11.93	10.04	11.56	11.45
Non-Core Real Estate	\$2,020	-14.53	-0.80	1.56	7.56	5.33	6.06
Benchmark ⁴		-5.27	4.25	4.40	5.83	4.71	6.39
Opportunistic Fixed Income	\$7,474	10.36	6.71	6.58	5.02	8.75	-
Benchmark ⁵		9.82	5.76	6.44	3.73	4.84	-
Rates & Liquidity	\$43,574	2.82	-0.69	1.52	2.32	3.91	4.04
Benchmark ⁶		1.94	-2.52	0.38	1.90	3.41	3.61
IG Fixed Income	\$33,641	1.89	-2.11	0.93	2.09	3.75	3.92
Benchmark ⁷		1.29	-3.01	0.13	1.81	3.35	3.56
Cash	\$9,933	4.84	2.33	1.94	1.52	-	-
Benchmark ⁸		5.28	2.63	1.98	1.35	-	-
Inflation Sensitive & Diversifiers	\$11,808	-3.85	4.46	3.93	4.13	3.07	3.96
Benchmark ⁹		-2.19	4.48	3.72	3.58	2.87	3.60
Inflation Sensitive	\$5,605	5.05	9.03	5.93	3.64	0.94	3.65
Benchmark ¹⁰		3.50	5.86	4.41	1.70	0.89	4.08
Core Real Estate	\$6,203	-11.00	0.76	2.40	5.34	6.24	5.55
Benchmark ¹¹		-8.72	2.74	2.81	5.80	6.12	6.04
Multi-Strategy	\$2,550	11.20	4.74	4.12	4.33	7.00	5.19
Benchmark ¹²		7.27	1.52	2.69	3.14	6.18	5.92
Total Pension Plan	\$121,714	8.99	3.01	6.01	5.82	7.99	6.14
Implementation Benchmark ¹³		9.62	3.24	6.33	5.62	7.81	5.87
Long-Term Policy Benchmark ¹⁴		11.71	2.79	6.55	5.53	7.81	6.07

See slide 44 for benchmark descriptions



NCRS Calendar Year Asset Class Return Diversification

As of March 31, 2024

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Non-Core Real Estate 19.45%	Non-Core Real Estate 14.84%	Non-Core Real Estate 11.73%	Public Equity 24.44%	Private Equity 18.32%	Public Equity 27.91%	Public Equity 22.23%	Private Equity 48.03%	Inflation Sensitive 9.43%	Public Equity 22.3%	Public Equity 7.35%
Private Equity 14.02%	Private Equity 9.20%	Public Equity 7.33%	Multi-Strategy 13.58%	Non-Core Real Estate 13.32%	Total Pension 14.88%	Private Equity 18.86%	Opportunistic Fixed Income 17.46%	Non-Core Real Estate 6.6%	Multi-Strategy 10.31%	Multi-Strategy 3.97%
Core Real Estate 10.41%	Core Real Estate 8.28%	Inflation Sensitive 7.19%	Total Pension 13.53%	Inflation Sensitive 6.88%	Multi-Strategy 14.82%	Total Pension 11.30%	Non-Core Real Estate 16.75%	Core Real Estate 5.76%	Total Pension 10.18%	Opportunistic Fixed Income 2.9%
IG Fixed Income & Cash 8.51%	Multi-Strategy 0.85%	Opportunistic Fixed Income 7.09%	Non-Core Real Estate 12.40%	Opportunistic Fixed Income 5.69%	Core Real Estate 10.71%	IG Fixed Income & Cash 9.34%	Public Equity 14.51%	Pension Cash 1.22%	Opportunistic Fixed Income 9.67%	Total Pension 2.64%
Total Pension 6.19%	Pension Cash 0.58%	Core Real Estate 6.68%	Private Equity 11.95%	Core Real Estate 5.67%	IG Fixed Income & Cash 10.33%	Opportunistic Fixed Income 2.85%	Core Real Estate 14.51%	Opportunistic Fixed Income (1.91%)	Inflation Sensitive 7.92%	Pension Cash 1.27%
Public Equity 3.68%	Total Pension 0.29%	Total Pension 6.26%	Core Real Estate 10.12%	Pension Cash 1.88%	Non-Core Real Estate 9.93%	Pension Cash 1.06%	Inflation Sensitive 11.97%	Multi-Strategy (4.48%)	IG Fixed Income & Cash 5.92%	Private Equity 1.21%
Opportunistic Fixed Income 3.40%	IG Fixed Income & Cash 0.28%	Private Equity 6.05%	Inflation Sensitive 7.53%	IG Fixed Income & Cash (0.57%)	Private Equity 8.15%	Non-Core Real Estate 0.45%	Total Pension 9.71%	Private Equity (5.81%)	Pension Cash 4.44%	Inflation Sensitive 1.1%
Multi-Strategy 2.69%	Public Equity (1.26%)	Multi-Strategy 6.00%	Opportunistic Fixed Income 7.05%	Total Pension (1.47%)	Opportunistic Fixed Income 3.61%	Core Real Estate (0.13%)	Multi-Strategy 7.74%	Total Pension (10.39%)	Private Equity 2.42%	IG Fixed Income & Cash (0.93%)
Pension Cash 0.45%	Opportunistic Fixed Income (2.61%)	IG Fixed Income & Cash 3.24%	IG Fixed Income & Cash 4.42%	Multi-Strategy (4.79%)	Pension Cash 2.20%	Inflation Sensitive (3.50%)	Pension Cash 0.15%	IG Fixed Income & Cash (12.74%)	Core Real Estate (9.27%)	Core Real Estate (4.41%)
Inflation Sensitive (0.65%)	Inflation Sensitive (9.05%)	Pension Cash 0.98%	Pension Cash 1.12%	Public Equity (9.32%)	Inflation Sensitive 2.09%	Multi-Strategy (4.13%)	IG Fixed Income & Cash (1.84%)	Public Equity (20.5%)	Non-Core Real Estate (13.66%)	Non-Core Real Estate (6.64%)



New, Incremental, & Unfunded Investment Commitments

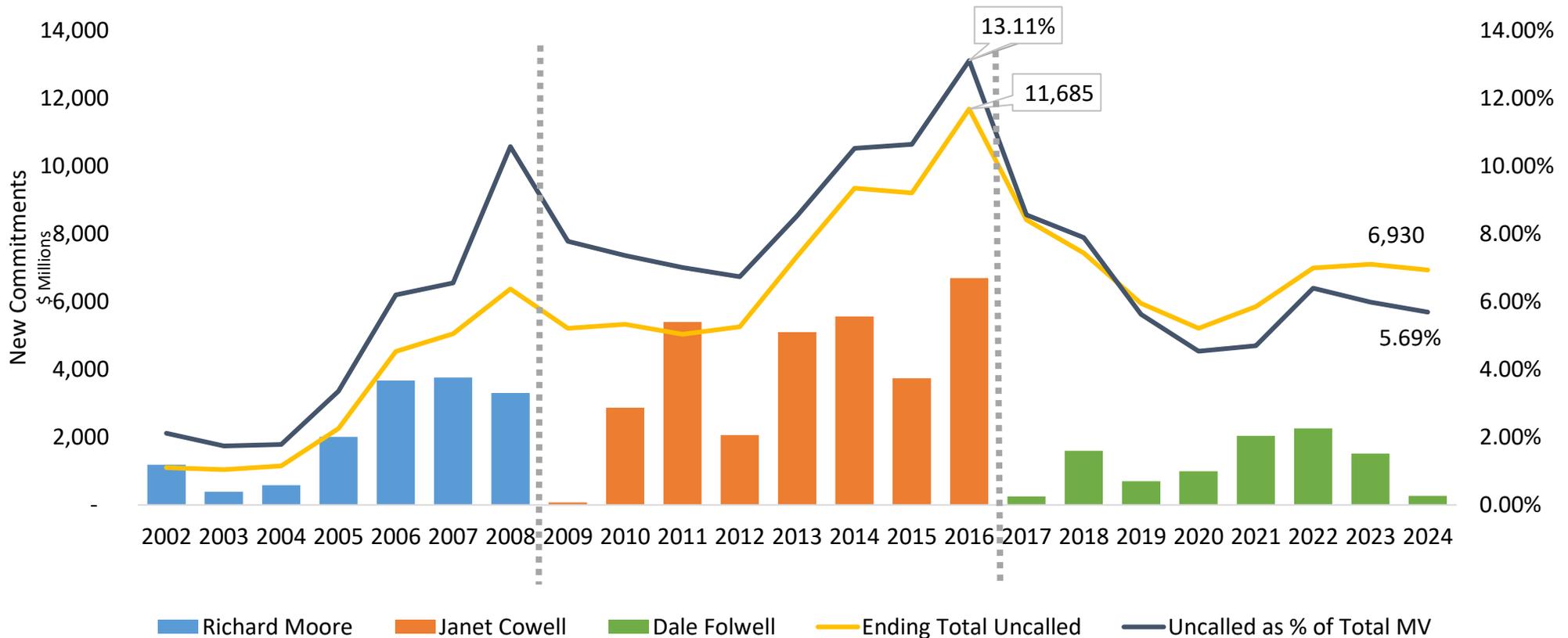
Since February 28th IAC Meeting As of March 31, 2024

<u>Fund Name</u>	<u>Firm Name</u>	<u>New or Incremental Commitment (\$MM)</u>	<u>Closing Date</u>
Public Equity			
Private Equity			
HG Titan 2A Co-Invest	HG	\$50mm	4/12
Non-Core Real Estate			
RXR NC Development Partners	RXR	\$75mm	4/29
Opportunistic Fixed Income			
Inflation Sensitive			
Core Real Estate			
NorthRock IV (Additional Commitment)	Rockwood Capital	\$141mm	2/14
Multi-Strategy			

<u>Asset Class</u>	<u>Unfunded Commitments (\$MM)</u>
Public Equity	0
Private Equity	2,094
Non-Core Real Estate	1,599
Opportunistic Fixed Income	1,192
Inflation Sensitive	1,531
Core Real Estate	514
Multi Strategy	0
Total	6,930

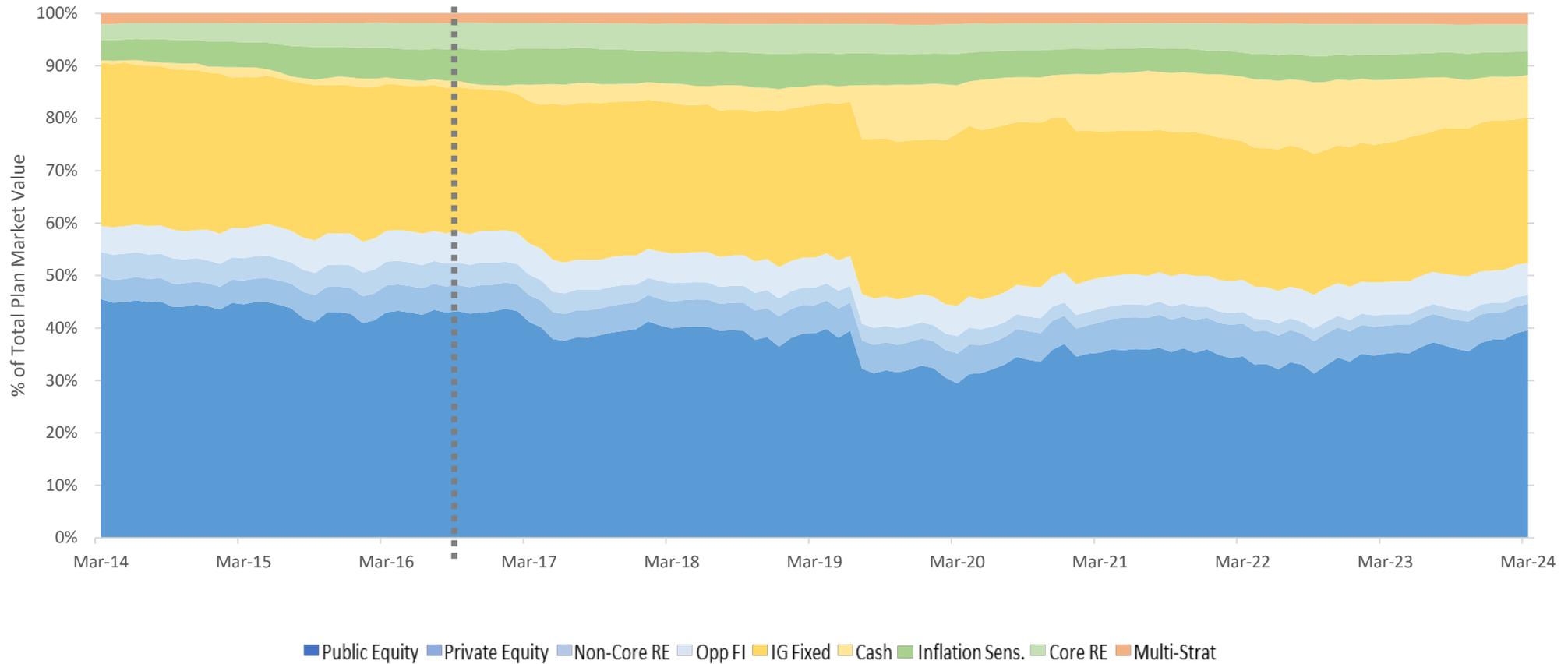
New and Total Unfunded Private Asset Class Commitments

By Calendar Year of Closing through March 31, 2024





Asset Allocation History as of March 31, 2024





Exited Investments

Since February 28th IAC Meeting

<u>Fund Name</u>	<u>Redemption Amount (\$MM)</u>	<u>Redemption Effective</u>
Public Equity		
None		
Private Equity		
None		
Non-Core Real Estate		
None		
Opportunistic Fixed Income		
None		
Inflation Sensitive		
None		
Core Real Estate		
None		
Multi Strategy		
None		



Top 20 Investment Managers

As of March 31, 2024

	Manager	Market Value (\$)	Uncalled (\$)	% MV	% MV Cum.
1	Internal Fixed Income	43,573,984,256	-	35.8%	35.8%
2	Internal Equity	22,811,175,115	-	18.7%	54.5%
3	BlackRock, Inc.	10,062,916,195	-	8.3%	62.8%
4	Wellington Management	3,832,861,833	-	3.1%	66.0%
5	Baillie Gifford	3,488,444,085	-	2.9%	68.8%
6	Mondrian Investment Partners Limited	3,111,255,153	-	2.6%	71.4%
7	Walter Scott & Partners	2,717,365,736	-	2.2%	73.6%
8	Rockwood Capital	2,540,117,805	129,502,199	2.1%	75.7%
9	Ares Management	2,365,324,274	1,586,705,695	1.9%	77.6%
10	Blackstone Group	2,233,537,106	1,103,071,998	1.8%	79.5%
11	Gladius Capital Management LP	2,181,697,732	-	1.8%	81.3%
12	ValueAct Capital	1,896,370,815	-	1.6%	82.8%
13	Angelo, Gordon & Co.	1,736,419,020	28,278,793	1.4%	84.3%
14	HPS Investment Partners, LLC	1,347,962,235	55,387,626	1.1%	85.4%
15	LBA Realty	1,235,621,579	131,683,168	1.0%	86.4%
16	Earnest Partners	918,223,250	-	0.8%	87.1%
17	DoubleLine Capital LP	908,619,497	-	0.7%	87.9%
18	Campbell Group LLC, The	845,707,315	-	0.7%	88.6%
19	Monarch Alternative Capital	790,300,000	-	0.6%	89.2%
20	Franklin Templeton Investments	737,253,044	-	0.6%	89.8%
	76 Remaining Managers*	12,379,264,342	3,895,649,760	10.2%	100.0%
Total		121,714,420,386	6,930,279,239	100.0%	100.0%

*Manager count consists of all manager accounts with a market value greater than \$5.0 million and new, not yet funded, accounts.



Appendix



NCRS Public Equity Net of Fees Performance

As of March 31, 2024

	Market Value (\$MM)	3 Month	1 Year	3 Years	5 Years	10 Years
Public Equity	\$48,166	7.35	21.17	4.71	10.60	8.61
Benchmark ²		7.72	22.45	6.30	10.52	8.26
Domestic Portfolio	\$28,064	9.82	29.25	9.44	14.53	12.30
Russell 3000		10.02	29.29	9.78	14.34	12.33
Non-US Portfolio	\$20,099	4.07	11.40	(0.62)	6.18	5.00
Custom Benchmark		4.33	13.20	1.72	6.00	4.32

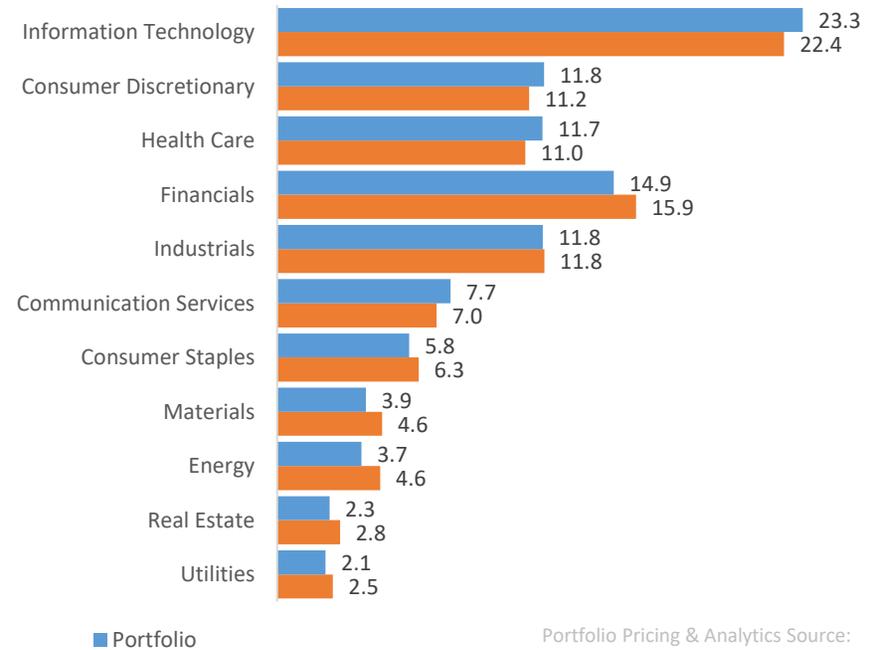
Russell 3000: Data is sourced from BNY Mellon

Non-US Custom Benchmark: As of October 2010, the Non U.S. Benchmark is the MSCI ACWI ex US IMI Net Index. Prior to October 2010, the Non-U.S. Benchmark was a blend of MSCI EAFE and MSCI Emerging Markets at policy weights. This data is also sourced from BNY Mellon

NCRS Public Equity Portfolio Characteristics

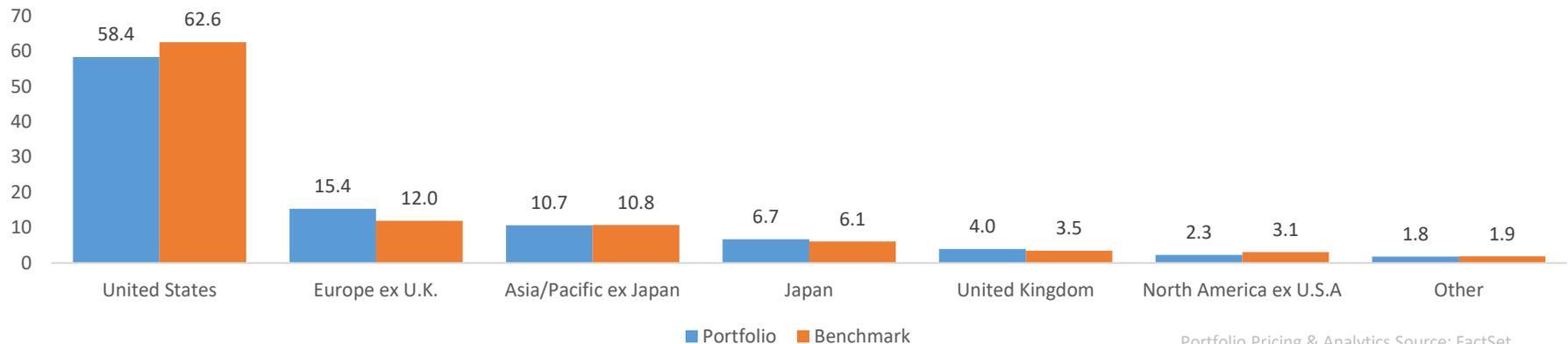
As of March 31, 2024

Portfolio Characteristics		
	Portfolio	MSCI ACWI IMI
Price/Earnings	22.0	20.2
Dividend Yield	1.7	1.9
Price/Book	3.1	2.8
Market Capitalization	475,930	466,250
Return On Equity	22.6	22.0



Portfolio Pricing & Analytics Source: FactSet
Benchmark Pricing & Analytics Source: FactSet

Total Equity Regional Allocation



Portfolio Pricing & Analytics Source: FactSet
Benchmark Pricing & Analytics Source: FactSet

NCRS Private Equity Portfolio

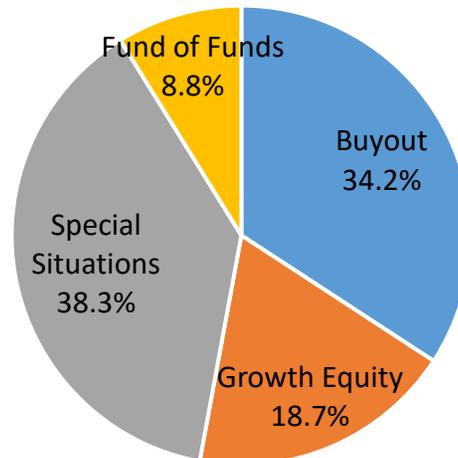
As of March 31, 2024

	(\$MM)	3 Month	1 Year	3 Years	5 Years	10 Years
Private Equity	\$6,123	1.21	4.80	8.50	13.13	12.11
Benchmark ³		2.48	5.03	8.02	11.93	10.04
Buyout	\$2,094	0.50	1.54	12.04	15.01	12.42
Growth	\$1,145	4.19	4.39	(3.89)	10.13	12.45
Special Situations	\$2,342	0.78	11.17	15.39	13.29	9.38
Fund of Funds	\$541	(0.30)	(4.88)	11.00	10.66	12.14

IRR by Vintage Year

	<u>Pre-2010</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>Total</u>
NCRS	7.30	19.62	8.54	13.57	11.29	14.23	17.92	21.07	18.63	16.21	N/A	7.12	10.22	2.76	N/A	9.92
# of Funds	98	1	6	6	9	4	9	6	7	3	N/A	1	4	2	N/A	156

Strategy Allocation (Based on Valuation)



*Private Equity returns include a stock distribution account, in the amount of roughly \$1 million, which does not fall under any specific sub-section.



NCRS Non-Core Real Estate Portfolio

As of March 31, 2024

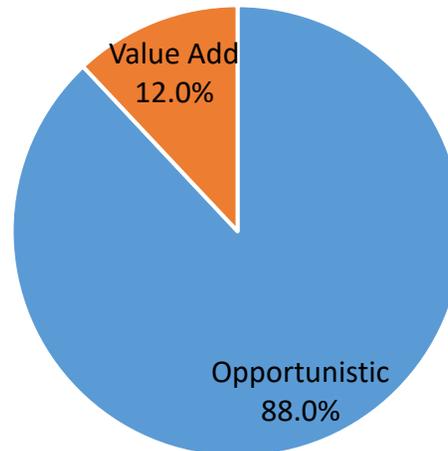
Net of Fees Performance (%)

	(\$MM)	3 Month	1 Year	3 Years	5 Years	10 Years
Non-Core Real Estate	\$2,020	(6.64)	(14.53)	(0.80)	1.56	7.56
Benchmark ⁴		(2.80)	(5.27)	4.25	4.40	5.83
Opportunistic	\$1,778	(6.47)	(12.97)	0.17	2.46	7.67
Value Add	\$242	(7.83)	(25.38)	(7.09)	(3.01)	5.63

IRR by Vintage Year

	<u>Pre-2010</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>Total</u>
NCRS	3.14	15.90	17.13	13.97	11.22	0.61	7.22	7.29	N/A	13.20	15.65	N/A	N/A	-9.54	0.00	6.12
# of Funds	61	6	7	5	7	7	6	7	N/A	1	1	N/A	N/A	4	1	112

Strategy Allocation (Based on Valuation)



NCRS Opportunistic Fixed Income Portfolio

As of March 31, 2024

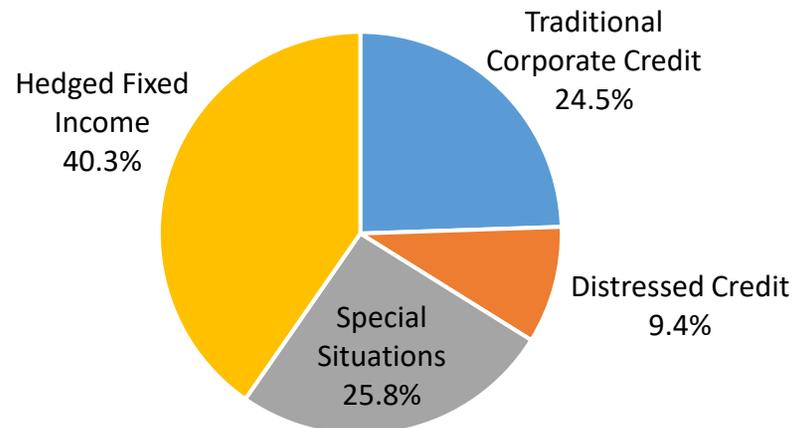
Net of Fees Performance (%)

	(\$MM)	3 Month	1 Year	3 Years	5 Years	10 Years
Opportunistic Fixed Income	\$7,474	2.90	10.36	6.71	6.58	5.02
Benchmark ⁵		2.29	9.82	5.76	6.44	3.73
Traditional Corporate Credit	\$1,829	3.36	12.51	4.74	6.03	5.20
Distressed Credit	\$702	2.85	10.64	9.69	9.40	8.03
Special Situations	\$1,928	2.49	10.25	9.53	7.36	8.26
Hedged Fixed Income	\$3,014	2.93	9.16	5.52	6.12	3.64

IRR by Vintage Year

	<u>Pre 2010</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>Total</u>
NCRS	8.83	5.23	5.09	3.38	5.07	3.97	8.30	7.57	10.49	N/A	7.71	13.70	10.25	9.40	18.54	6.28
# of Funds	6	4	9	2	7	3	1	8	2	N/A	1	2	1	2	1	49

Strategy Allocation (Based on Valuation)





NCRS Rates & Liquidity Portfolio

As of March 31, 2024

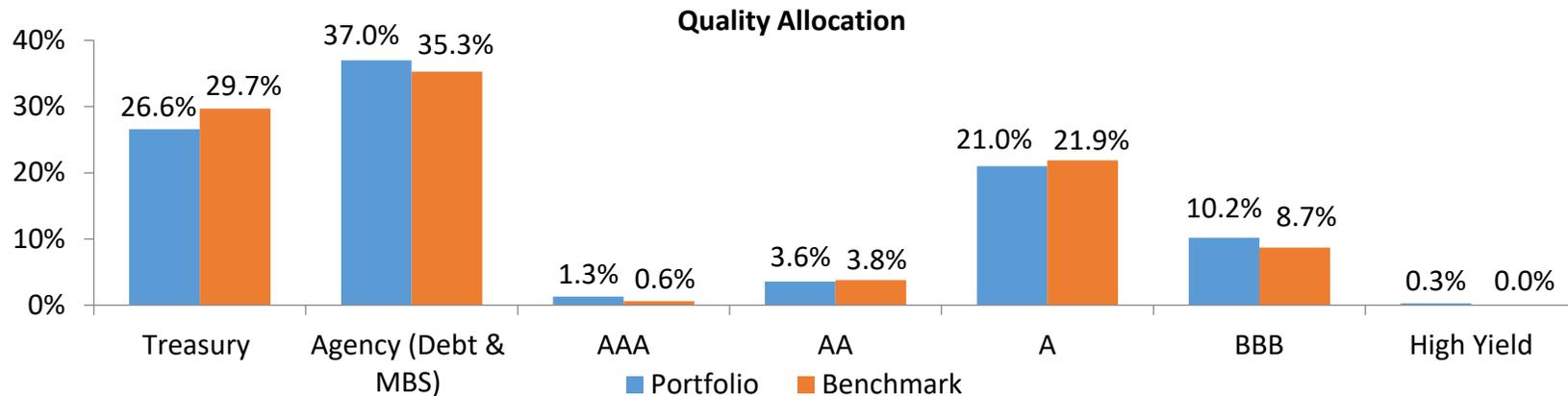
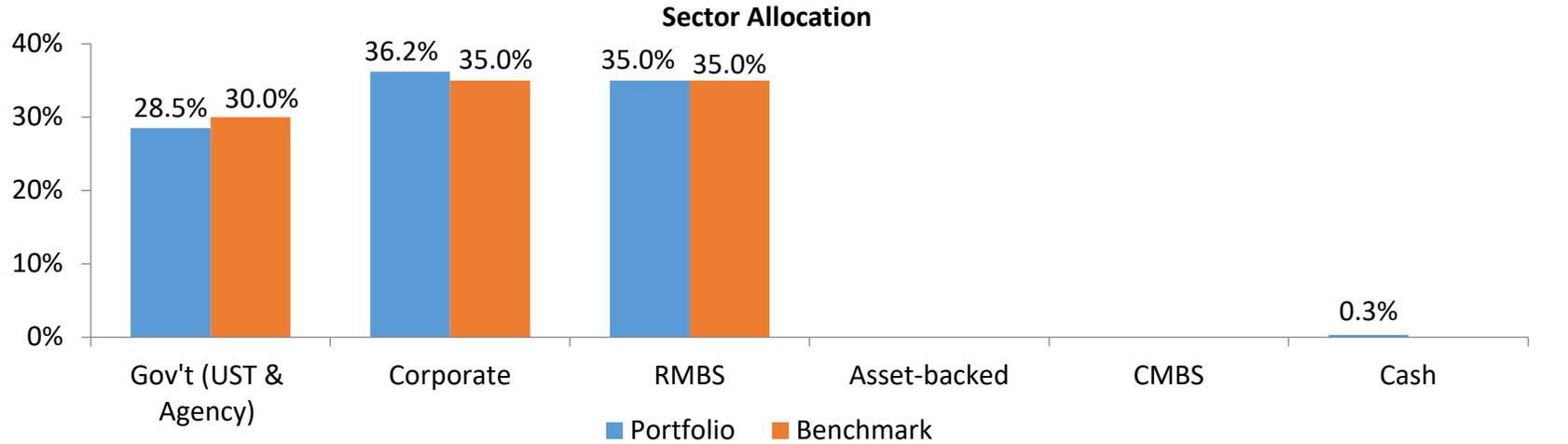
	Market Value (\$MM)	Net of Fees Performance (%)				
		3 Month	1 Year	3 Years	5 Years	10 Years
Rates & Liquidity	\$43,574	(0.43)	2.82	(0.69)	1.52	2.32
Benchmark ⁶		(0.65)	1.94	(2.52)	0.38	1.90
IG Fixed Income	\$33,641	(0.93)	1.89	(2.11)	0.93	2.09
Core Fixed Income	\$30,328	(1.14)	1.56	(2.69)	0.72	2.09
IG Fixed Income Cash	\$1,596	1.14	4.19	1.96	1.74	-
IG Short Credit	\$1,717	0.92	4.85	-	-	-
Pension Cash	\$9,933	1.27	4.84	2.33	1.94	1.52

Core Fixed Income Portfolio Characteristics

	<u>Avg. Coupon</u>	<u>Yield to Worst</u>	<u>Effective Duration</u>
Government (Treasury & Agency)	3.5%	4.3%	10.8
Corporate	4.4%	5.2%	8.9
Mortgage	3.7%	5.0%	5.4
Total	3.9%	4.9%	8.2

NCRS Core Fixed Income Portfolio Characteristics

As of March 31, 2024



Benchmark: The Core Fixed Income Benchmark is a custom ICE BofA Core Investment Grade Index comprised of the following weightings: 30% ICE BofA 5+ Years Governments, 35% ICE BofA 5+ Years Investment Grade Corporates, and 35% ICE BofA Mortgage Master



NCRS Inflation Sensitive Portfolio

As of March 31, 2024

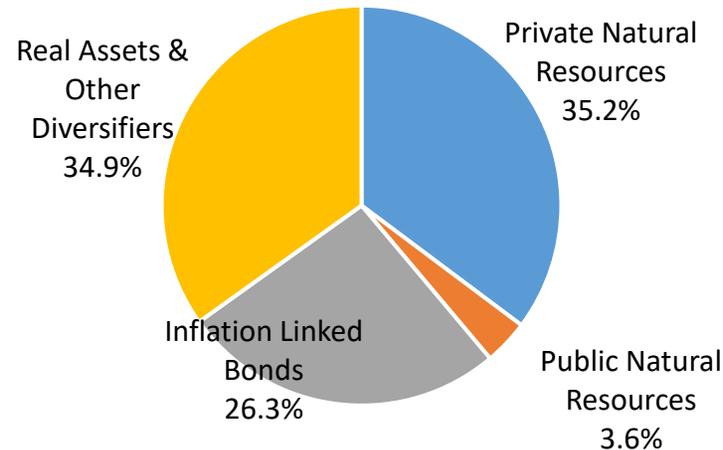
Net of Fees Performance (%)

	(\$MM)	3 Month	1 Year	3 Years	5 Years	10 Years
Inflation Sensitive	\$5,605	1.10	5.05	9.03	5.93	3.64
Benchmark ¹⁰		1.28	3.50	5.86	4.41	1.70
Private Natural Resources	\$1,974	1.53	7.28	12.69	6.41	4.13
Public Natural Resources	\$204	3.46	1.62	9.35	6.74	(1.28)
Inflation Linked Bonds	\$1,472	2.44	8.51	2.98	3.63	-
Real Assets & Other Diversifiers	\$1,955	(0.52)	0.70	9.48	7.24	7.88

IRR by Vintage Year

	<u>Pre-2010</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>Total</u>
NCRS	1.80	-5.41	-5.78	5.31	6.96	7.20	8.25	3.66	8.18	21.14	26.58	N/A	28.25	N/A	1.58	2.62
# of Funds	8	3	9	7	11	12	4	3	1	3	2	N/A	5	N/A	2	70

Strategy Allocation (Based on Valuation)





NCRS Core Real Estate Portfolio

As of March 31, 2024

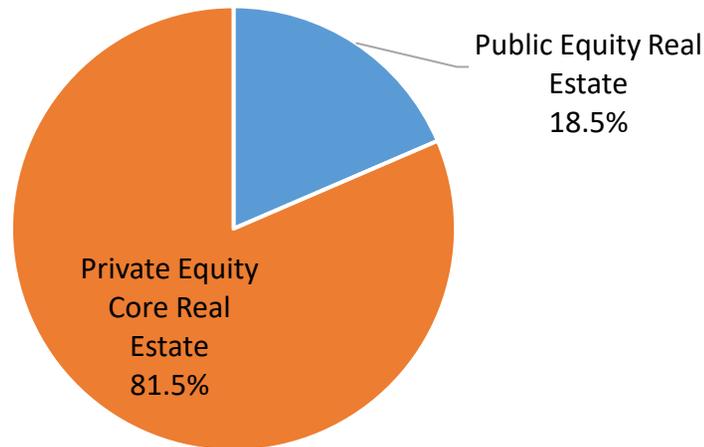
Net of Fees Performance (%)

	(\$MM)	3 Month	1 Year	3 Years	5 Years	10 Years
Core Real Estate	\$6,203	(4.41)	(11.00)	0.76	2.40	5.34
Benchmark ¹¹		(4.23)	(8.72)	2.74	2.81	5.80
Public Equity Real Estate	\$1,150	(1.38)	11.02	(1.86)	1.14	4.56
Private Equity Core Real Estate	\$5,053	(5.06)	(14.97)	0.84	2.38	5.35

IRR by Vintage Year

	<u>Pre-2010</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>Total</u>
NCRS	6.61	23.62	N/A	N/A	4.32	3.85	2.33	6.30	N/A	15.77	N/A	N/A	3.35	N/A	N/A	5.99
# of Funds	13	1	N/A	N/A	2	6	2	9	N/A	1	N/A	N/A	3	N/A	N/A	37

Strategy Allocation (Based on Valuation)



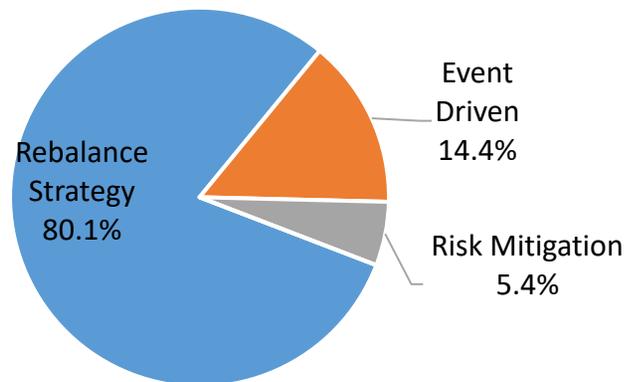
NCRS Multi-Strategy Portfolio

As of March 31, 2024

Net of Fees Performance (%)

	(\$MM)	3 Month	1 Year	3 Years	5 Years	10 Years
Multi-Strategy	\$2,550	3.97	11.20	4.74	4.12	4.33
Benchmark ¹²		2.65	7.27	1.52	2.69	3.14
Rebalance Strategy	\$2,043	3.80	11.41	4.61	5.21	5.41
Event Driven	\$368	6.12	15.09	7.00	6.54	-
Risk Mitigation	\$139	1.07	(0.35)	0.90	0.14	-
Volatility Trading	-	-	-	-	-	-

Strategy Allocation (Based on Valuation)



Notes:

All data presented are based on currently available information at time of publication and may be revised subsequently.

1. The Growth Benchmark is a blend of the Public Equity Benchmark, Private Equity Benchmark, Non-Core Real Estate Benchmark, & Opportunistic FI Benchmark at policy weights.
2. The Public Equity Benchmark is a dynamically weighted combination of the MSCI ACWI IMI Net (Long-Only) and a beta adjusted MSCI ACWI IMI Net (Hedged Equity).
3. The Private Equity Benchmark is comprised of the following Burgiss Private Capital indices: Effective 7/1/2022 at 45% Buyout, 25% Venture Capital, and 30% Distressed.
4. The Non-Core Real Estate Benchmark is comprised of the following Burgiss Private Capital indices: 80% U.S. Non-Core Real Estate (Opportunistic and Value-Added) and 20% Non-U.S. Non-Core Real Estate (Opportunistic and Value-Added).
5. The Opportunistic Fixed Income Benchmark is a comprised of 50% HFRX Distressed Securities Index, 20% HFRX Relative Value Index, 15% Credit Suisse Leveraged Loan Index, and 15% ICE BofA High Yield Index.
6. The Rates & Liquidity Benchmark is a blend of the IG Fixed Income & Cash Benchmark and the Pension Cash Benchmark at policy weights.
7. The IG Fixed Income & Cash Benchmark is comprised 10% iMoneyNet First Tier Institutional Money Market Funds Net Index and 90% custom ICE BofA Core Investment Grade Index. The custom ICE BofA core index comprised of the following weightings: 30% ICE BofA 5+ Years Governments, 35% ICE BofA 5+ Years Investment Grade Corporates, and 35% ICE BofA Mortgage Master.
8. The Pension Cash Benchmark is the iMoneyNet First Tier Institutional Money Market Funds Net Index.
9. The Inflation Sensitive & Diversifiers Benchmark is a blend of the Inflation Sensitive Benchmark and the Core Real Estate Benchmark at policy weights.
10. The Inflation Sensitive Benchmark is the dynamically weighted combination of the ICE BofA 1-3 Years U.S. Inflation-Linked Treasury Index (TIPS), the Bloomberg Commodities Index (Commodities), and a combination of the benchmarks of investments classified within Private Natural Resources or Other Real Assets and Diversifiers.
11. The Core Real Estate Benchmark is comprised of 80% Custom NCREIF ODCE Net Index and 20% FTSE EPRA NAREIT Global Index.
12. The Multi-Strategy Benchmark is comprised of a dynamically weighted combination of the HFRX ED: Multi-Strategy Index, net of fees, and the market value weighted benchmarks for any other total fund strategies within the Portfolio.
13. The Implementation Benchmark is a blend of the Asset Class Benchmarks at policy weights. It is currently weighted as follows: 55% Growth Benchmark, 33% Rates & Liquidity Benchmark, 11% Inflation Sensitive & Diversifiers Benchmark, and 1% Multi-Strategy Benchmark.
14. The Long-Term Policy Benchmark is comprised of 56% MSCI ACWI IMI Net, 28% ICE BofA 5+ Years U.S. Treasury Index, 6.5% Bloomberg Commodity Index, 5% ICE BofA 3 Month Treasury Bill Index, and 4.5% ICE BofA 1-3 Years U.S. Inflation-Linked Treasury Index.

*Source: ICE Data Indices, used with permission. See disclaimer on next page.



Disclaimer

Source ICE Data Indices, LLC ("ICE DATA"), is used with permission. ICE DATA, ITS AFFILIATES AND THEIR RESPECTIVE THIRD PARTY SUPPLIERS DISCLAIM ANY AND ALL WARRANTIES AND REPRESENTATIONS, EXPRESS AND/OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, INCLUDING THE INDICES, INDEX DATA AND ANY DATA INCLUDED IN, RELATED TO, OR DERIVED THEREFROM. NEITHER ICE DATA, ITS AFFILIATES NOR THEIR RESPECTIVE THIRD PARTY SUPPLIERS SHALL BE SUBJECT TO ANY DAMAGES OR LIABILITY WITH RESPECT TO THE ADEQUACY, ACCURACY, TIMELINESS OR COMPLETENESS OF THE INDICES OR THE INDEX DATA OR ANY COMPONENT THEREOF, AND THE INDICES AND INDEX DATA AND ALL COMPONENTS THEREOF ARE PROVIDED ON AN "AS IS" BASIS AND YOUR USE IS AT YOUR OWN RISK. ICE DATA, ITS AFFILIATES AND THEIR RESPECTIVE THIRD PARTY SUPPLIERS DO NOT SPONSOR, ENDORSE, OR RECOMMEND THE NORTH CAROLINA STATE TREASURER, OR ANY OF ITS PRODUCTS OR SERVICES.

NORTH CAROLINA
DEPARTMENT OF STATE TREASURER



Dale R. Folwell, CPA
STATE TREASURER OF NORTH CAROLINA
DALE R. FOLWELL, CPA

INVESTMENT MANAGEMENT DIVISION