



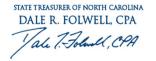
state treasurer of north carolina DALE R. FOLWELL, CPA

## INVESTMENT MANAGEMENT DIVISION

# Performance Review

August 28, 2024





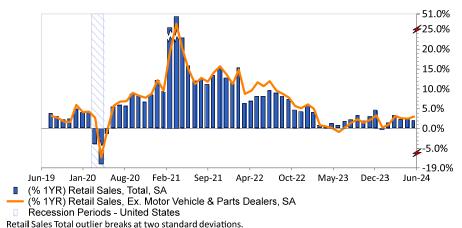
### **US Economic Environment**



Recession Periods - United States
 GDP outlier breaks at two standard deviations.

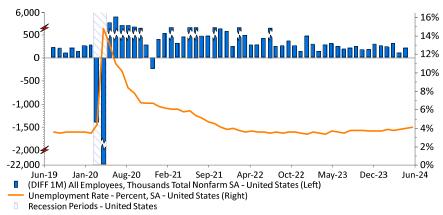
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#### **US Retail Sales**



©FactSet Research Systems

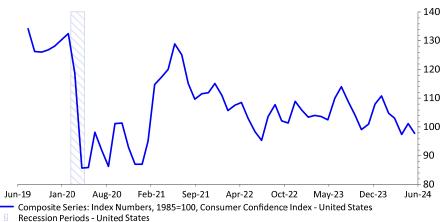
#### **US Change in NonFarm Employment & Unemployment Rate**



Non-Farm employment outlier breaks at two standard deviations

©FactSet Research Systems

#### **US Consumer Confidence**

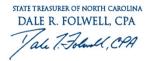


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Existing Home Sales outlier breaks at two standard deviations

## **Investment Management Division**

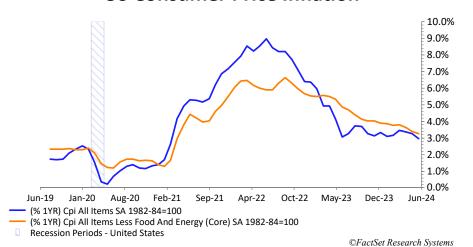


### **US Economic Environment**

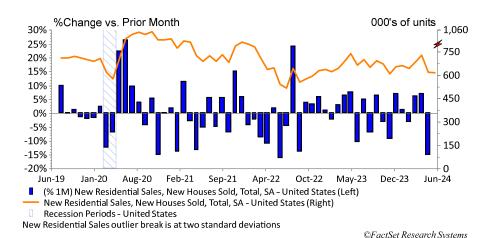
#### **US Existing Home Sales** %Chg Yr Ago Millions of Units 18% **≠**6.0 12% 4.0 6% 2.0 0% 0.0 -6% -2.0 -12% -4.0 -18% -40% -6.0 Jun-19 Aug-20 Feb-21 Sep-21 Apr-22 Oct-22 May-23 Jun-24 (% 1YR) Existing Home Sales, Housing Units, SAAR - United States (Left) - Existing Home Sales, Housing Units, SAAR - United States / 1000000 (Right) Recession Periods - United States

©FactSet Research Systems

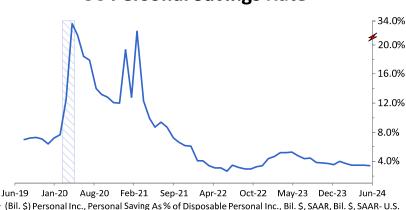
#### **US Consumer Price Inflation**



#### **US New Home Sales**



**US Personal Savings Rate** 



(Bil. \$) Personal Inc., Personal Saving As % of Disposable Personal Inc., Bil. \$, SAAR, Bil. \$, SAAR- U.S. Recession Periods - United States

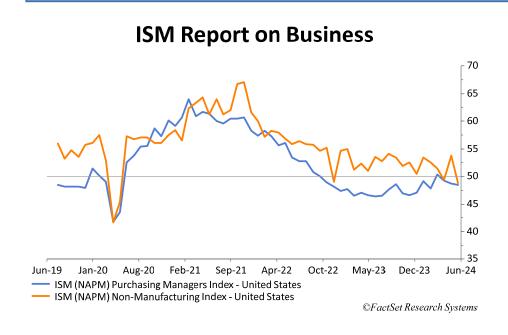
Personal Savings outlier breaks at two standard deviations.

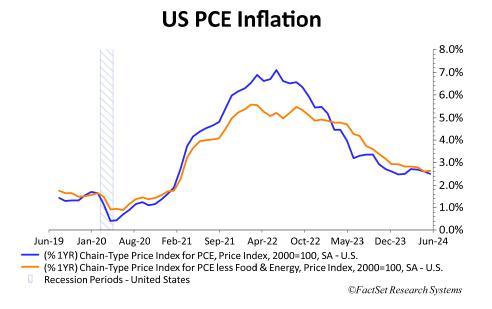
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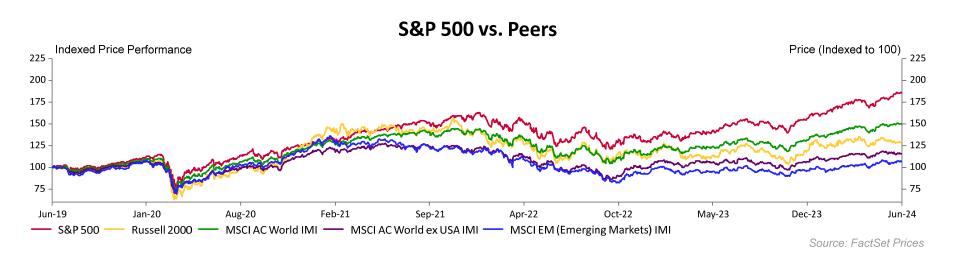




### **US and Global Economic Environment**





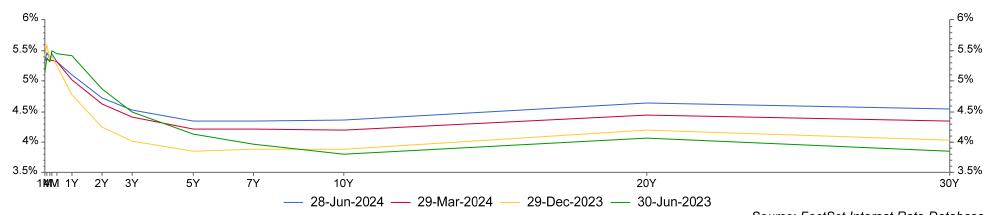




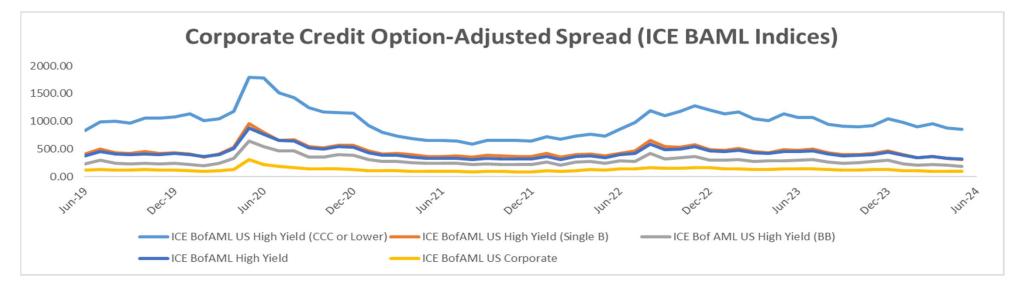


### **Market Environment**

#### **United States Treasury Yield Curve**



Source: FactSet Interest Rate Database

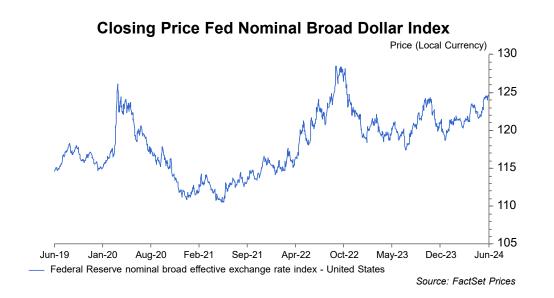


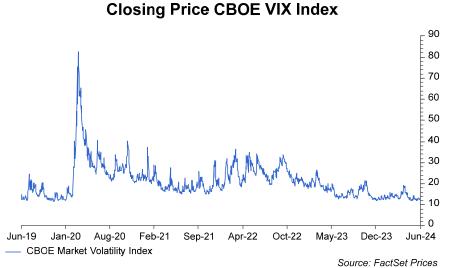
Source: Bloomberg





## **Market Environment**





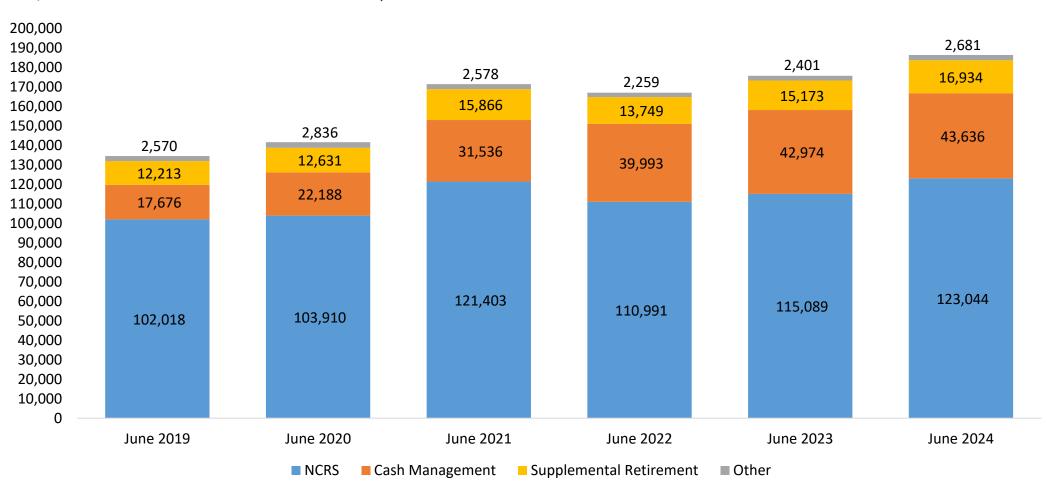
	Real G	DP YoY	Unempl	<u>oyment</u>	<u>CP</u>	YoY		Real G	DP YoY	<u>Unempl</u>	oyment	<u>CPI</u>	YoY
Countries	Date	Value	Date	Value	Date	Value	Countries	Date	Value	Date	Value	Date	Value
U.S.	06/24	3.1	06/24	4.1	06/24	3.0	Asia/Pacific,	/Latam					
Europe							China	06/24	4.7			06/24	0.2
Germany	06/24	-0.1	06/24	6.0	06/24	2.2	India	03/24	7.8			05/24	3.9
France	06/24	1.1	06/24	7.4	06/24	2.2	Japan	03/24	-0.7	06/24	2.5	06/24	2.8
U.K.	03/24	0.3	05/24	4.4	06/24	2.0	Indonesia	06/24	5.1			06/24	2.5
Italy	06/24	0.9	06/24	7.0	06/24	0.8	Brazil	03/24	2.5			06/24	4.2
Spain	06/24	2.9	06/24	11.5	06/24	3.4	Australia	03/24	1.1	06/24	4.1	06/24	3.8

Source: Bloomberg





## Assets Under Management (\$MM) \$186.3 billion as of June 30, 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 Total Net Portfolio Return vs. Benchmarks As of June 30, 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.





# NCRS Asset Allocation As of June 30, 2024

	Maykat Value (CNANA)	0/	Toward	Rai	nge	Dolotivo 0/	Deletine ¢ (¢BABA)
	Market Value (\$MM)	%	Target	Minimum	Maximum	Relative %	Relative \$ (\$MM)
Growth	65,301	53.07%	55.0%	33.0%	68.0%	-1.93%	(2,374)
Public Equity	49,367	40.12%	38.0%	33.0%	43.0%	2.12%	2,611
Private Equity	6,100	4.96%	7.0%	0.0%	8.75%	-2.04%	(2,513)
Non Core Real Estate	2,126	1.73%	3.0%	0.0%	8.0%	-1.27%	(1,566)
Opportunistic Fixed Income	7,708	6.26%	7.0%	0.0%	7.5%	-0.74%	(905)
Rates & Liquidity	43,272	35.17%	33.0%	23.0%	48.0%	2.17%	2,667
IG Fixed Income & Cash	33,630	27.33%	28.0%	23.0%	33.0%	-0.67%	(822)
Pension Cash	9,642	7.84%	5.0%	0.0%	15.0%	2.84%	3,490
Inflation Sensitive & Diversifiers	11,900	9.67%	11.0%	4.0%	16.0%	-1.33%	(1,634)
Inflation Sensitive	5,636	4.58%	6.0%	2.0%	7.5%	-1.42%	(1,747)
Core Real Estate	6,265	5.09%	5.0%	2.0%	10.0%	0.09%	113
Multi-Strategy	2,571	2.09%	1.0%	0.0%	4.0%	1.09%	1,341
Grand Total	123,044	100.00%					

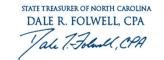




## NCRS Asset Allocation (Preliminary) As of August 16, 2024

	Market Value (¢NANA)	%	Torgot	Rai	nge	Polotivo 9/	Polotivo Ć (ĆNANA)
	Market Value (\$MM)	<b>7</b> 0	Target	Minimum	Maximum	Relative %	Relative \$ (\$MM)
Growth	66,516	53.01%	55.0%	33.0%	68.0%	-1.99%	(2,503)
Public Equity	50,518	40.26%	38.0%	33.0%	43.0%	2.26%	2,832
Private Equity	6,159	4.91%	7.0%	0.0%	8.8%	-2.09%	(2,626)
Non Core Real Estate	2,153	1.72%	3.0%	0.0%	8.0%	-1.28%	(1,612)
Opportunistic Fixed Income	7,687	6.13%	7.0%	0.0%	7.5%	-0.87%	(1,097)
Rates & Liquidity	44,314	35.31%	33.0%	23.0%	48.0%	2.31%	2,903
IG Fixed Income & Cash	34,887	27.80%	28.0%	23.0%	33.0%	-0.20%	(250)
Pension Cash	9,427	7.51%	5.0%	0.0%	15.0%	2.51%	3,153
Inflation Sensitive & Diversifiers	12,054	9.61%	11.0%	4.0%	16.0%	-1.39%	(1,750)
Inflation Sensitive	5,719	4.56%	6.0%	2.0%	7.5%	-1.44%	(1,810)
Core Real Estate	6,335	5.05%	5.0%	2.0%	10.0%	0.05%	60
Multi-Strategy	2,604	2.08%	1.0%	0.0%	4.0%	1.08%	1,349
Grand Total	125,489	100.00%					





## NCRS Strategy Breakout As of June 30, 2024

Portfolio	Manage	ers*	Active Funds
Public Equit	ty:	11	17
Pvt Equit	ty:	37	91
Opportunistic I	FI:	22	37
Non-Core R	RE:	17	59
Investment Grade	FI:	1	6
Pension Cas	sh:	1	1
Inflation Sensitiv	ve:	22	46
Core F	RE:	7	20
Multi-Strate	gy:	2	4



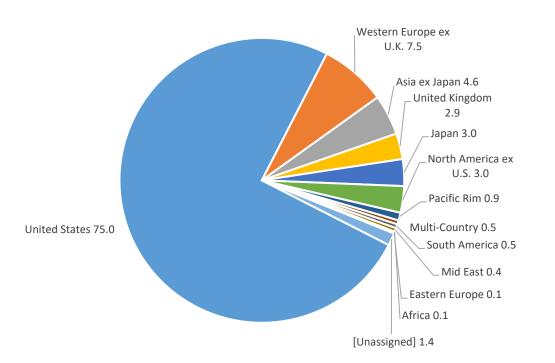




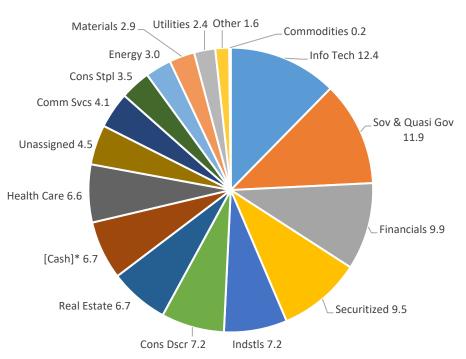


## NCRS Portfolio Geographical and Sector Exposures As of June 30, 2024





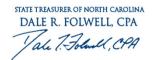
### Sector (%)



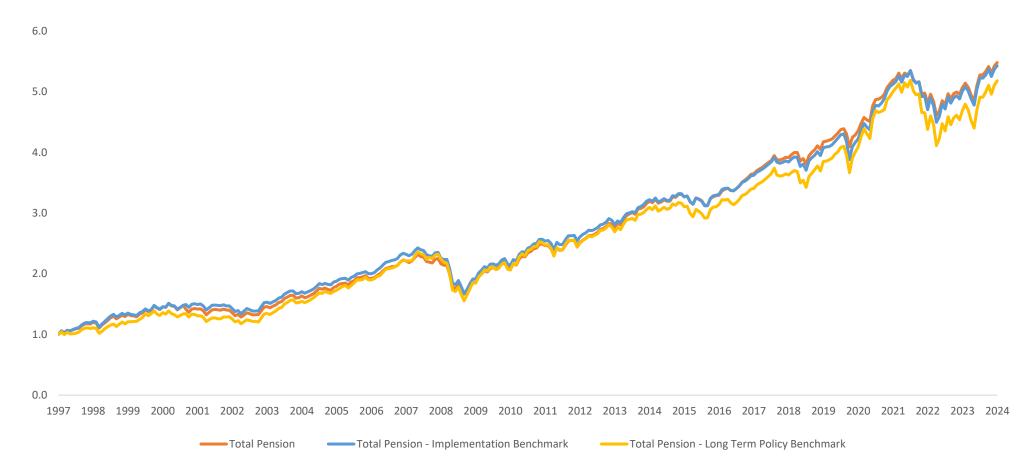
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<sup>\*</sup> This report is looking through the STIF account and classifying the underlying securities. [Cash] consists of money market funds, currency, liabilities and temporary cash entries.





# Growth of a Dollar Through June 30, 2024



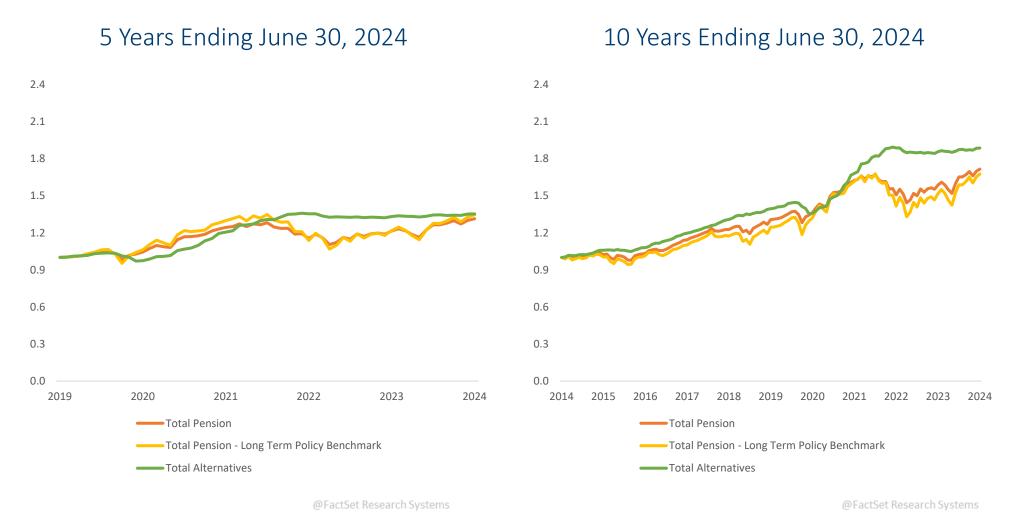
Notes: @FactSet Research Systems

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.



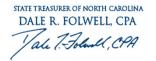


## Growth of a Dollar

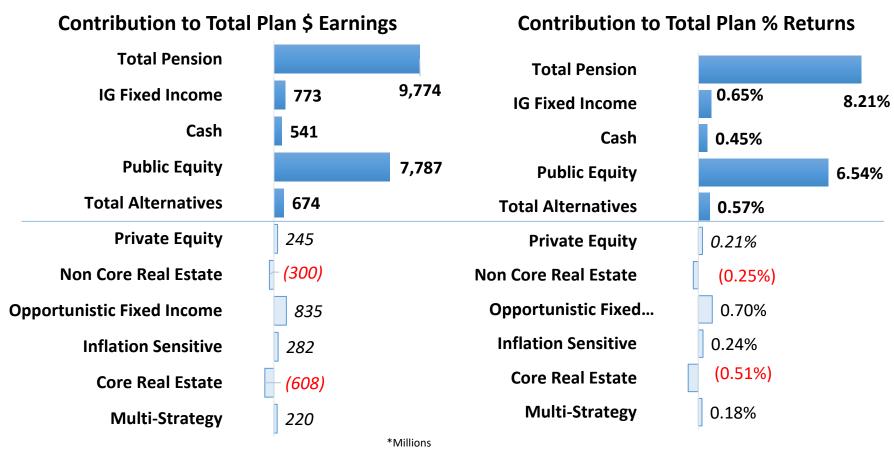


Note: NCRS Alternatives includes the following: Core Real Estate; Inflation Sensitive – Private Natural Resources; Inflation Sensitive – Real Assets and Other Diversifiers; Multi-Strategy Investments; Non-Core Real Estate; Opportunistic Fixed Income; Private Equity; Equity Hedge Strategies; and closedend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





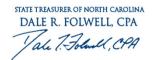
# Estimated Contribution to Total Plan Return — 1 Year As of June 30, 2024



#### Notes:

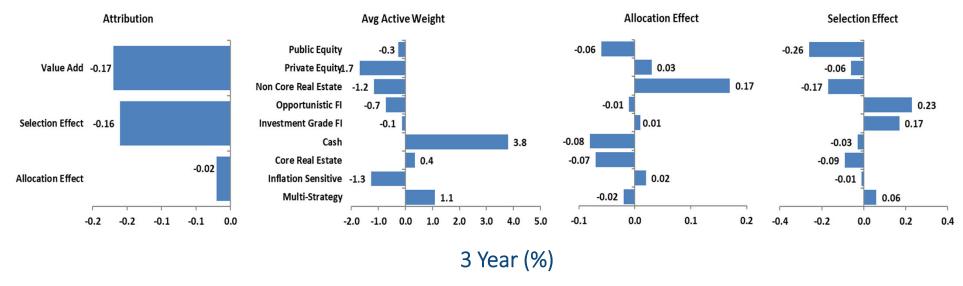
- 1.) Estimated Contributions are based on average market value and the total return for the period. Contribution to Total Plan \$ Earnings = Average \$ Market Value \* % Total Return for each asset class Contribution to Total Plan % Returns = Average Market Value % weight \* % Total Return for each 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.

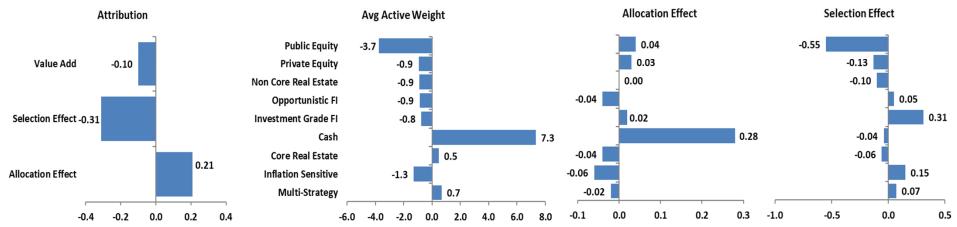




## NCRS Net of Fees Return Attribution

Total Fund vs. Implementation Benchmark: 1 and 3 Years Ending June 30, 2024 1 Year (%)

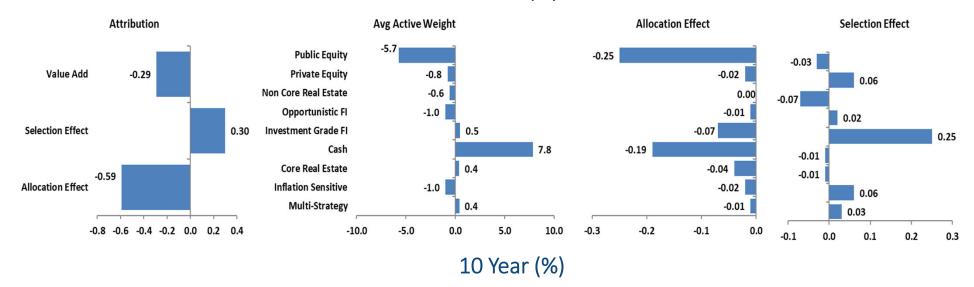


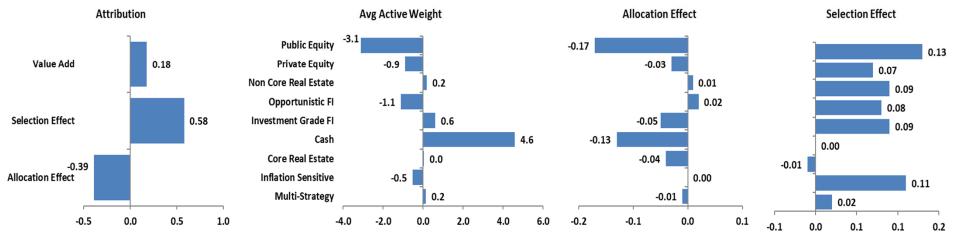




## NCRS Net of Fees Return Attribution

Total Fund vs. Implementation Benchmark: 5 and 10 Years Ending June 30, 2024 5 Year (%)

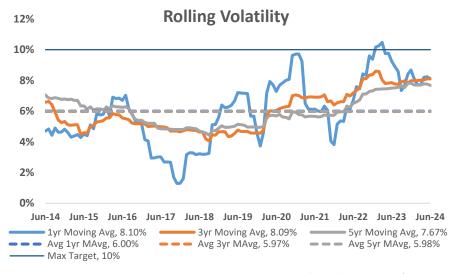




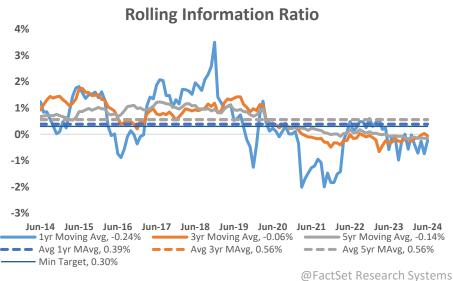


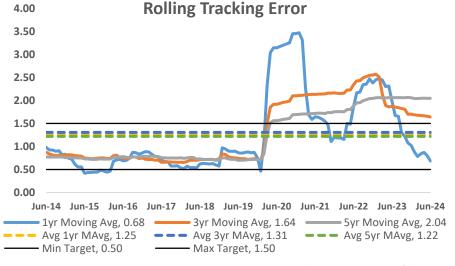


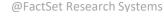
## NCRS Net of Fees Risk Metrics As of June 30, 2024

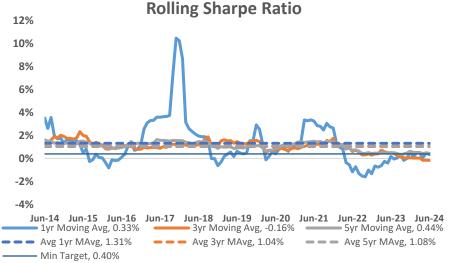








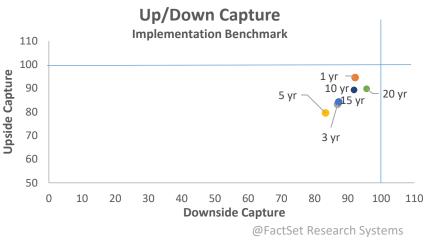


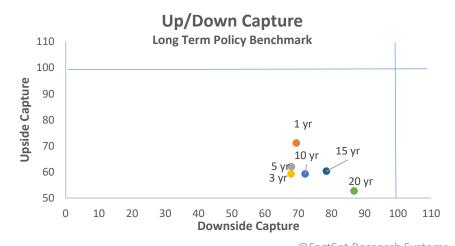




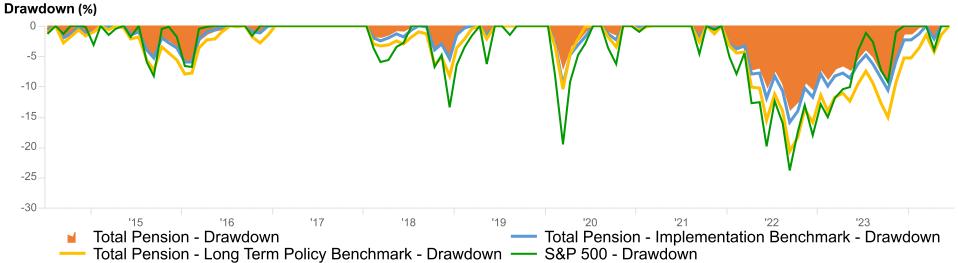


## NCRS Net of Fees Risk Metrics As of June 30, 2024





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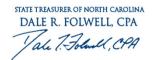


## NCRS Gross of Fees Return and Risk

BNY Mellon Universe: US Public Funds > \$20B; Data as of June 30, 2024

Returns	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years
25th Percentile	10.81	5.36	9.20	7.78	9.57	7.84
Median Percentile	10.43	4.09	8.35	7.62	9.01	7.57
75th Percentile	8.02	2.78	6.94	6.57	8.53	7.26
NCRS	8.48	2.16	5.92	5.99	7.95	6.65
Percentile Rank (1 = highest performance)	67	80	87	80	80	86

Risk	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years
25th Percentile	8.50	9.67	9.89	8.33	8.54	9.12
Median Percentile	7.88	8.74	8.76	7.31	7.36	8.46
75th Percentile	5.79	6.96	7.76	6.67	6.68	7.94
NCRS	7.80	7.98	7.61	6.46	6.68	7.35
Percentile Rank (1 = highest risk)	54	60	94	80	74	93

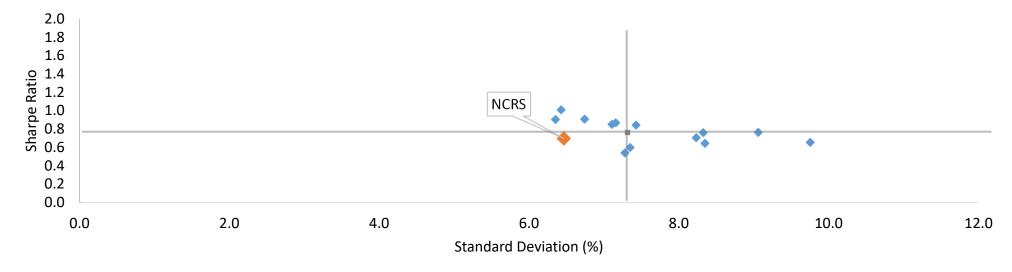


# NCRS Gross of Fees Sharpe Ratio

BNY Mellon Universe: US Public Funds > \$20B; Data as of June 30, 2024

Sharpe	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years
25th Percentile	0.77	0.34	0.78	0.88	1.09	0.75
Median Percentile	0.60	0.15	0.70	0.77	1.02	0.71
75th Percentile	0.40	0.02	0.52	0.66	0.91	0.66
NCRS	0.41	-0.07	0.51	0.70	1.03	0.70
Percentile Rank (1 = highest performance)	74	80	80	67	47	65

#### 10 Year Plot: Sharpe Ratio vs. Volatility





Nebraska

North Carolina

Idaho

92%

89%

87%



-105%

-37%

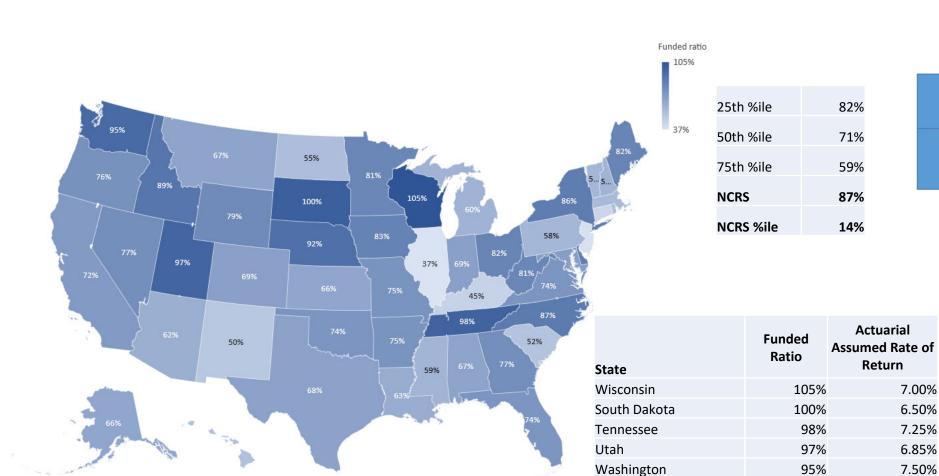
7.50%

7.00%

6.50%

# Funded Status Universe Comparison U.S. Public Funds

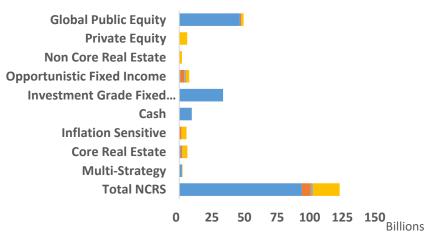
Source: Pew Charitable Trusts & PublicPlansData.org, Data as of 2020



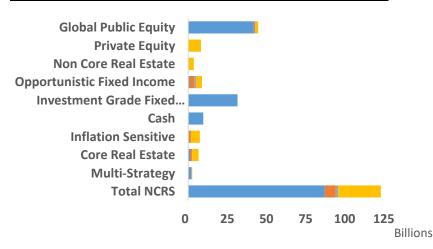


## NCRS Liquidity Profile As of June 30, 2024

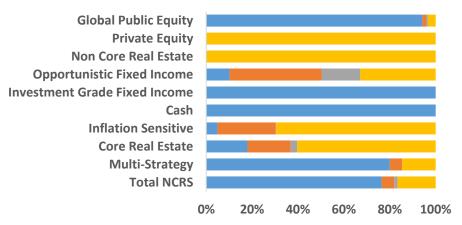
#### **Liquidity Allocation (\$ Market Value)**



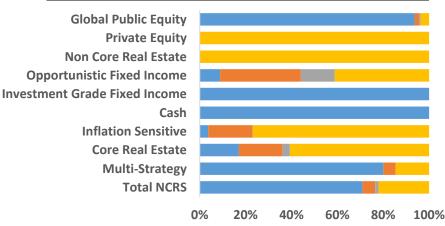
#### Liquidity Allocation (\$ Market Value + Unfunded)



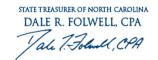
#### **Liquidity Allocation (% Market Value)**



#### **Liquidity Allocation (% Market Value + Unfunded)**







# NCRS Liquidity Profile

Net benefit payments by calendar year



<sup>\*</sup>Benefit payments exclude transfers from the Retiree Health Premium Fund as of January 1, 2022

<sup>\*\*</sup>Projected Net Benefit Payments for remainder of calendar year

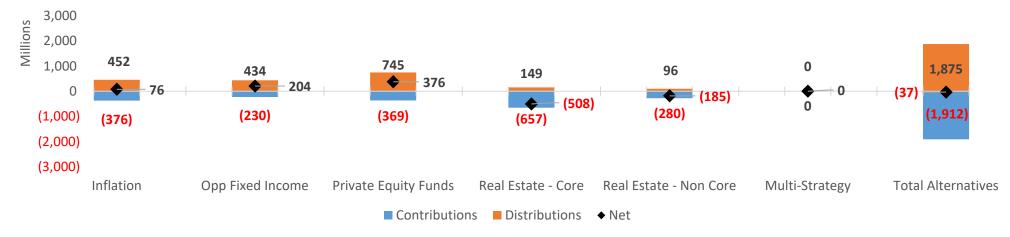


# NCRS Alternatives Liquidity Profile

Through June 30, 2024

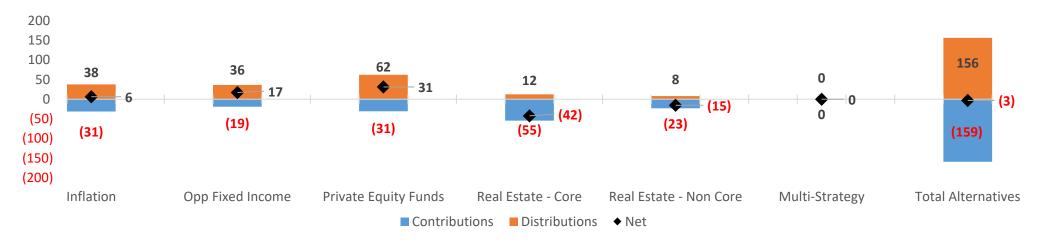
#### **Prior 12-Months**

Total Cash Flows by Alternative Asset Class (\$MM)



#### **Prior 12-Months**

Average Monthly Cash Flows by Alternative Asset Class (\$MM)

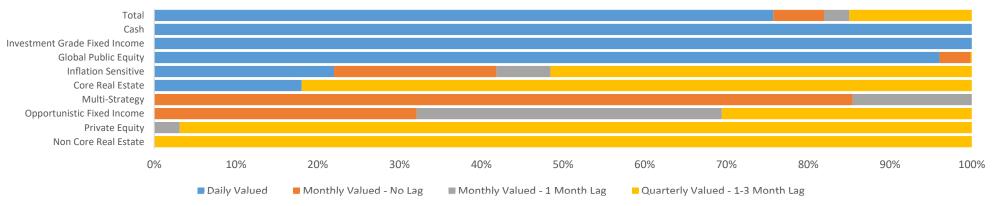






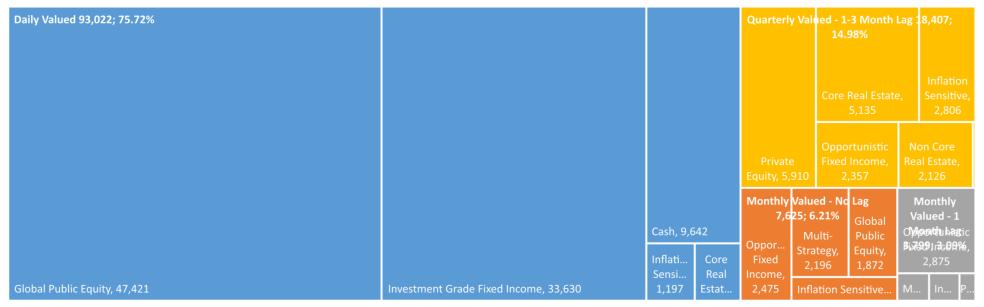
# NCRS Valuation Lag Profile As of June 30, 2024

#### PORTFOLIO VALUATION LAG

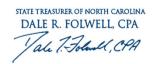


#### **VALUATION LAG BY PORTFOLIO**

in Millions

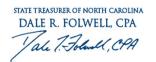






# NCRS Asset Class Net of Fees Performance (%) As of June 30, 2024

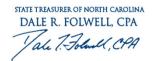
	Market Value (\$MM)	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years
Growth	\$65,301	14.24	3.65	9.82	8.37	10.45	7.60
Benchmark <sup>1</sup>		14.06	4.80	9.74	7.67	9.76	7.13
Public Equity	\$49,367	17.66	3.11	10.30	8.37	10.77	7.74
Benchmark <sup>2</sup>		18.40	4.70	10.31	8.00	10.23	7.26
Private Equity	\$6,100	4.11	3.80	12.66	11.49	11.35	9.92
Benchmark <sup>3</sup>		5.22	6.05	11.52	9.95	11.94	11.40
Non-Core Real Estate	\$2,126	-14.14	-1.74	0.70	6.83	6.10	5.73
Benchmark <sup>4</sup>		-6.10	3.26	3.99	5.56	5.40	6.15
Opportunistic Fixed Income	\$7,708	11.67	6.06	6.72	5.01	8.47	-
Benchmark <sup>5</sup>		8.00	5.19	6.23	3.61	4.45	-
Rates & Liquidity	\$43,272	3.22	-1.14	0.92	2.09	3.70	4.24
Benchmark <sup>6</sup>		2.46	-3.39	-0.32	1.59	3.27	3.81
IG Fixed Income	\$33,630	2.48	-2.86	0.21	1.81	3.52	4.10
Benchmark <sup>7</sup>		1.87	-3.98	-0.63	1.48	3.20	3.75
Cash	\$9,642	5.07	2.74	2.09	1.64	-	-
Benchmark <sup>8</sup>		5.36	3.07	2.12	1.48	-	-
Inflation Sensitive & Diversifiers	\$11,900	-3.06	3.32	3.55	3.85	3.23	3.88
Benchmark <sup>9</sup>		-1.07	3.15	3.39	3.35	3.20	3.48
Inflation Sensitive	\$5,636	5.27	8.52	5.80	3.63	1.16	3.52
Benchmark <sup>10</sup>		5.53	5.40	4.34	1.75	0.98	4.06
Core Real Estate	\$6,265	-9.94	-0.90	1.82	4.78	6.37	5.38
Benchmark <sup>11</sup>		-8.53	0.41	2.16	5.20	6.29	5.80
Multi-Strategy	\$2,571	9.24	4.24	3.75	4.10	6.71	5.24
Benchmark <sup>12</sup>		6.34	1.00	2.36	2.87	5.30	5.98
Total Pension Plan	\$123,044	8.21	1.85	5.61	5.55	7.48	6.24
Implementation Benchmark <sup>13</sup>		8.38	1.95	5.90	5.36	7.19	5.96
Long-Term Policy Benchmark <sup>14</sup>		10.50	1.19	6.11	5.29	7.12	6.23



# NCRS Calendar Year Asset Class Return Diversification As of June 30, 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 9.86%
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%	Opportunistic Fixed Income 5.42%
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%	Multi-Strategy 4.84%
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 3.89%
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%	Inflation Sensitive 3.16%
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%	Pension Cash 2.54%
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%	Private Equity 2.37%
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 (0.96%)
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 (5.91%)
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 (8.51%)



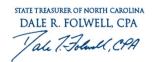


New, Incremental, & Unfunded Investment Commitments
Since May 29<sup>th</sup> IAC Meeting

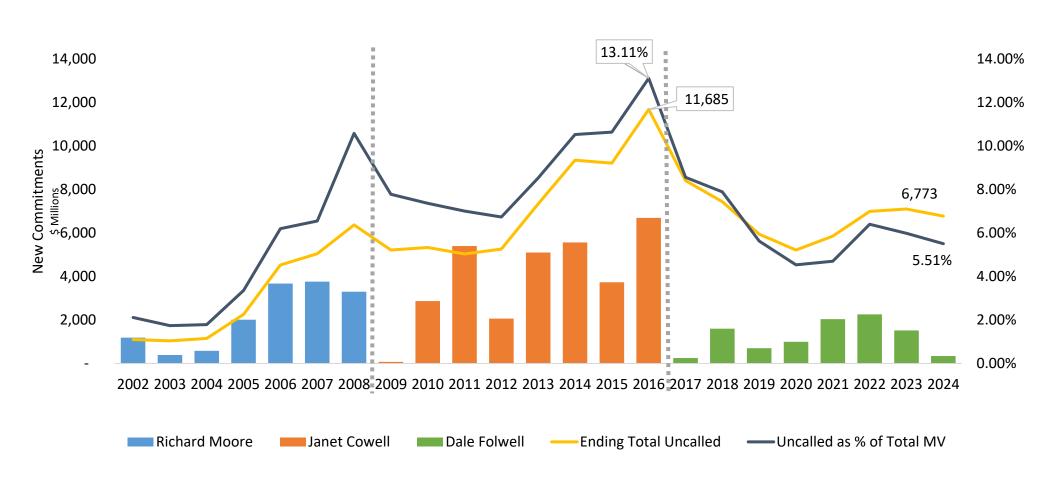
As of June 30, 2024

<u>Fund Name</u>	Firm Name	New or Incremental Commitment (\$MM)	<u>Closing</u> <u>Date</u>
Public Equity			
Baillie Gifford Co-Invest (No. 1)	Baillie Gifford	\$75mm	6/3/2024
Private Equity			
Levine Leichtman Capital Partners VII	Levine Leichtman Capital Partners	\$150mm	8/12/2024
Non-Core Real Estate			
Opportunistic Fixed Income			
Inflation Sensitive			
Core Real Estate			
Multi-Strategy			

Asset Class	<u>Unfunded</u> Commitments (\$MM)
Public Equity	0
Private Equity	2,031
Non-Core Real Estate	1,502
Opportunistic Fixed Income	1,121
Inflation Sensitive	1,782
Core Real Estate	337
Multi Strategy	0
Total	6,773



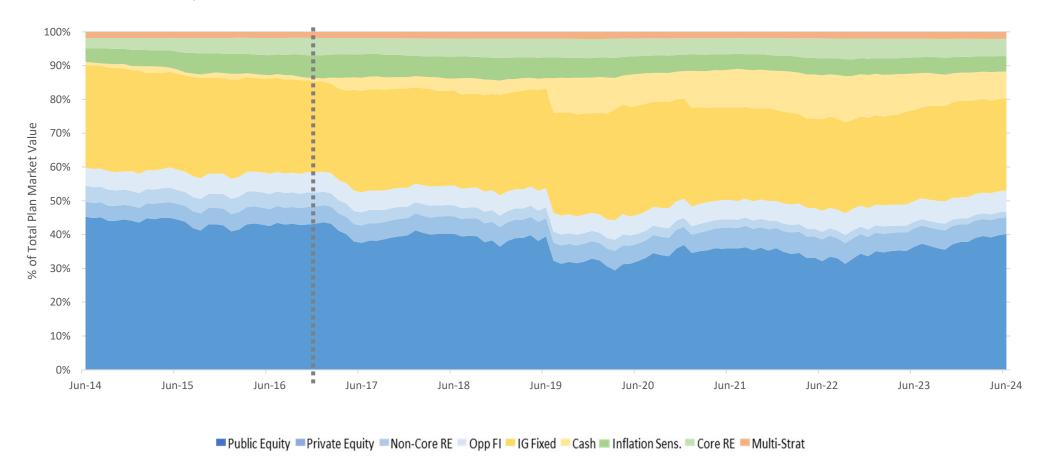
## New and Total Unfunded Private Asset Class Commitments By Calendar Year of Closing through June 30, 2024







# Asset Allocation History as of June 30, 2024







# Exited Investments Since May 29th IAC Meeting

<u>Fund Name</u>	Redemption Amount (\$MM)	Redemption Effective
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		



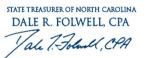


# NCRS Top 20 Investment Managers As of June 30, 2024

	Manager	Market Value (\$)	Uncalled (\$)	% MV	% MV Cum.
1	Internal Fixed Income	43,271,892,655	-	35.2%	35.2%
2	Internal Equity	23,594,595,368	-	19.2%	54.3%
3	BlackRock, Inc.	10,188,476,754	-	8.3%	62.6%
4	Wellington Management	3,948,237,512	-	3.2%	65.8%
5	Baillie Gifford	3,679,452,441	-	3.0%	68.8%
6	Mondrian Investment Partners Limited	3,156,502,127	-	2.6%	71.4%
7	Walter Scott & Partners	2,705,482,342	-	2.2%	73.6%
8	Rockwood Capital	2,474,932,697	149,428,004	2.0%	75.6%
9	Ares Management	2,454,866,032	1,788,713,781	2.0%	77.6%
10	Blackstone Group	2,296,708,961	1,002,541,604	1.9%	79.5%
11	Gladius Capital Management LP	2,196,122,464	-	1.8%	81.2%
12	ValueAct Capital	1,870,382,129	-	1.5%	82.8%
13	Angelo, Gordon & Co.	1,731,404,840	25,278,793	1.4%	84.2%
14	HPS Investment Partners, LLC	1,395,690,315	55,387,626	1.1%	85.3%
<b>15</b>	LBA Realty	1,334,239,430	32,673,267	1.1%	86.4%
16	DoubleLine Capital LP	921,568,364	-	0.7%	87.1%
<b>17</b>	Earnest Partners	917,432,513	-	0.7%	87.9%
18	Campbell Group LLC, The	856,627,735	-	0.7%	88.6%
19	Monarch Alternative Capital	796,900,000	-	0.6%	89.2%
20	Marathon Asset Management	755,520,186	2,793,465	0.6%	89.8%
	75 Remaining Managers*	12,497,283,658	3,716,650,862	10.2%	100.0%
To	tal	123,044,318,521	6,773,467,401	100.0%	100.0%

<sup>\*</sup>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 June 30, 2024

	Market Value (\$MM)	3 Month	1 Year	3 Years	5 Years	10 Years
Public Equity	\$49,367	2.34	17.66	3.11	10.30	8.37
Benchmark <sup>2</sup>		2.38	18.40	4.70	10.31	8.00
Domestic Portfolio	\$28,874	2.90	23.06	7.71	14.16	12.13
Russell 3000		3.22	23.13	8.05	14.14	12.15
Non-US Portfolio	\$20,491	1.58	10.77	(2.11)	5.91	4.65
Custom Benchmark		0.92	11.57	0.19	5.62	3.92

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



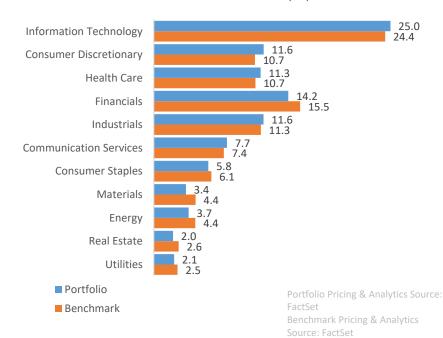


## NCRS Public Equity Portfolio Characteristics

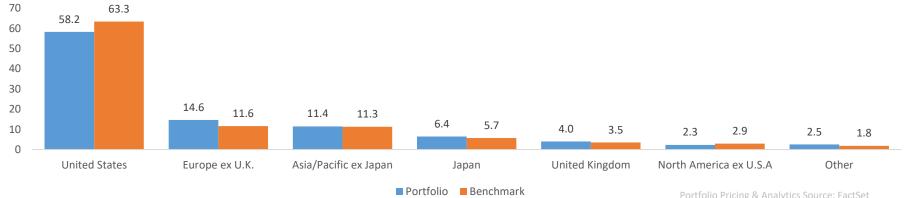
As of June 30, 2024

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%								

#### Sector Allocation (%)



### **Total Equity Regional Allocation (%)**







# NCRS Private Equity Portfolio

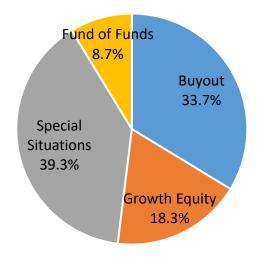
As of June 30, 2024

Net of Fees Performance (%)

	Market Value (\$MM)	3 Month	1 Year	3 Years	5 Years	10 Years
Private Equity	\$6,100	1.15	4.11	3.80	12.66	11.49
Benchmark <sup>3</sup>		1.49	5.22	6.05	11.52	9.95
Buyout	\$2,055	1.55	1.65	9.22	14.38	12.03
Growth	\$1,114	2.52	5.46	(7.38)	9.27	11.36
Special Situations	\$2,399	0.54	7.96	9.89	13.46	9.25
Fund of Funds	\$531	(0.53)	(3.63)	(0.85)	10.52	11.19

IRR	by Vi	ntage	Year	(%)
-----	-------	-------	------	-----

	Pre-2010	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
NCRS	7.29	19.57	8.48	13.38	11.23	14.44	17.46	20.83	18.35	15.35	N/A	8.86	9.93	1.33	N/A	0.00	9.88
# of Funds	98	1	6	6	9	4	9	6	7	3	N/A	1	4	2	N/A	2	158



<sup>\*</sup>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

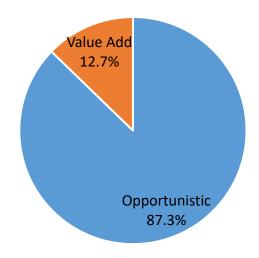
As of June 30, 2024

#### Net of Fees Performance (%)

	Market Value (\$MM)	3 Month	1 Year	3 Years	5 Years	10 Years
Non-Core Real Estate	\$2,126	(2.00)	(14.14)	(1.74)	0.70	6.83
Benchmark <sup>4</sup>		(1.05)	(6.10)	3.26	3.99	5.56
Opportunistic	\$1,855	(1.10)	(12.02)	(0.06)	1.63	7.03
Value Add	\$271	(8.18)	(28.03)	(10.83)	(4.77)	4.27

#### IRR by Vintage Year (%)

	Pre-2010	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	<u>Total</u>
NCRS	3.10	15.90	17.11	13.90	11.03	0.55	7.04	6.85	N/A	12.98	14.35	N/A	N/A	-6.85	-15.69	6.05
# of Funds	s 61	6	7	5	7	7	6	7	N/A	1	1	N/A	N/A	4	1	113





# NCRS Opportunistic Fixed Income Portfolio

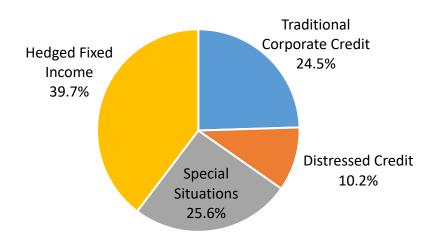
As of June 30, 2024

#### Net of Fees Performance (%)

Market Value (\$MM)	3 Month	1 Year	0.33		Via Million
- 1		T Leal	3 Years	5 Years	10 Years
\$7,708	2.44	11.67	6.06	6.72	5.01
	1.13	8.00	5.19	6.23	3.61
\$1,889	3.49	14.94	6.02	6.88	5.36
\$788	2.57	11.56	7.70	9.54	7.97
\$1,971	2.61	11.01	8.33	7.18	8.16
\$3,059	1.69	10.32	4.31	6.17	3.58
	\$1,889 \$788 \$1,971	\$1,889 3.49 \$788 2.57 \$1,971 2.61	\$1,889 3.49 14.94 \$788 2.57 11.56 \$1,971 2.61 11.01	\$1,889 3.49 14.94 6.02 \$788 2.57 11.56 7.70 \$1,971 2.61 11.01 8.33	1.13     8.00     5.19     6.23       \$1,889     3.49     14.94     6.02     6.88       \$788     2.57     11.56     7.70     9.54       \$1,971     2.61     11.01     8.33     7.18

#### IRR by Vintage Year (%)

									( /							
	Pre 2010	<u>2010</u>	<u>2011</u>	2012	<u>2013</u>	<u>2014</u>	<u>2015</u>	2016	<u>2017</u>	2018	2019	2020	2021	2022	2023	<u>Total</u>
NCRS	8.88	5.20	5.09	3.44	5.07	4.15	8.36	7.90	9.74	N/A	7.67	13.86	10.20	9.49	14.77	6.35
# of Funds	6	4	9	2	7	3	1	8	2	N/A	1	2	1	2	1	49







# NCRS Rates & Liquidity Portfolio

As of June 30, 2024

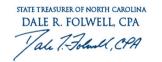
#### Net of Fees Performance (%)

	Market Value (\$MM)	3 Month	1 Year	3 Years	5 Years	10 Years
Rates & Liquidity	\$43,272	0.26	3.22	(1.14)	0.92	2.09
Benchmark <sup>6</sup>		0.05	2.46	(3.39)	(0.32)	1.59
IG Fixed Income	\$33,630	(0.03)	2.48	(2.86)	0.21	1.81
Core Fixed Income	\$30,278	(0.16)	2.19	(3.56)	(0.09)	1.80
IG Fixed Income Cash	\$1,720	1.18	4.49	2.34	1.87	1.48
IG Short Credit	\$1,632	1.13	5.74	-	-	-
Pension Cash	\$9,642	1.26	5.07	2.74	2.09	1.64

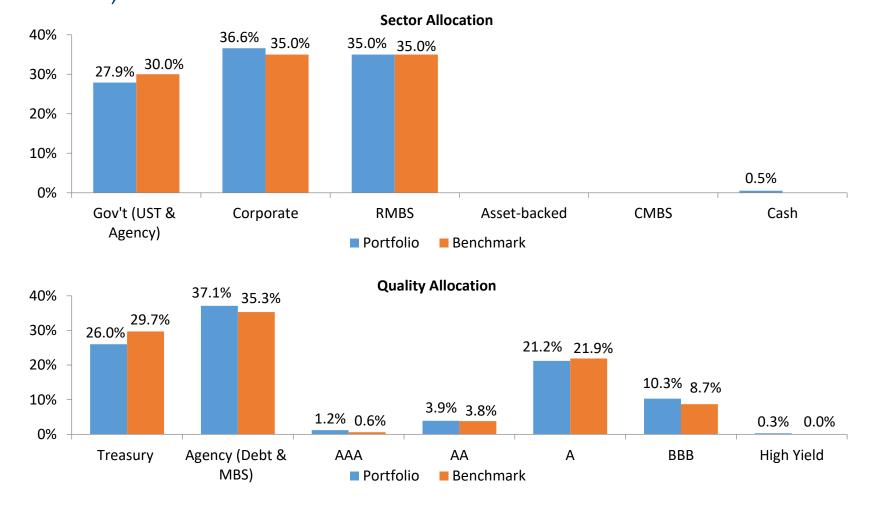
#### **Core Fixed Income Portfolio Characteristics**

	Avg. Coupon	Yield to Worst	Effective Duration
Government (Treasury & Agency)	3.3%	4.5%	10.6
Corporate	4.3%	5.4%	8.7
Mortgage	3.7%	5.2%	5.4
Total	3.8%	5.1%	8.1





# NCRS Core Fixed Income Portfolio Characteristics As of June 30, 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

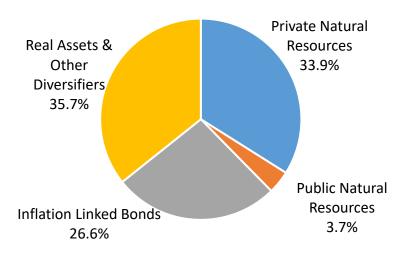
As of June 30, 2024

#### Net of Fees Performance (%)

	Market Value (\$MM)	3 Month	1 Year	3 Years	5 Years	10 Years
Inflation Sensitive	\$5,636	2.03	5.27	8.52	5.80	3.63
Benchmark <sup>10</sup>		1.70	5.53	5.40	4.34	1.75
Private Natural Resources	\$1,913	1.73	7.29	12.14	6.54	4.12
Public Natural Resources	\$208	1.97	5.41	5.55	7.52	(1.29)
Inflation Linked Bonds	\$1,501	2.02	9.67	3.16	3.57	-
Real Assets & Other Diversifiers	\$2,013	2.33	0.06	8.86	6.65	7.83

#### IRR by Vintage Year (%)

	Pre-2010	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
NCRS	1.86	-5.27	-5.87	5.44	6.90	7.16	8.43	3.82	8.09	20.44	28.57	N/A	27.44	N/A	2.56	2.71
# of Funds	8	3	9	7	11	12	4	3	1	3	2	N/A	5	N/A	2	70





# NCRS Core Real Estate Portfolio

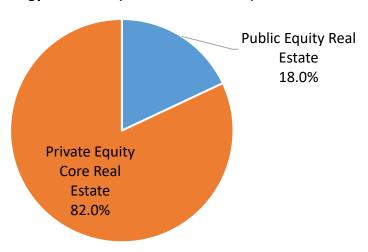
As of June 30, 2024

#### **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 <sup>11</sup>		(4.23)	(8.72)	2.74	2.81	5.80
	44.450	(4.20)	44.00	(4.05)	4.44	4.50
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 b	y Vintage	Year (%)	
-------	-----------	----------	--

	Pre-2010	<u>2010</u>	<u>2011</u>	2012	2013	2014	<u>2015</u>	<u>2016</u>	<u>2017</u>	2018	2019	2020	<u>2021</u>	2022	2023	<u>Total</u>
NCRS	6.57	23.62	N/A	N/A	4.07	3.50	2.37	5.94	N/A	15.77	N/A	N/A	2.88	N/A	N/A	5.82
# of Fund:	s 13	1	N/A	N/A	2	6	2	9	N/A	1	N/A	N/A	3	N/A	N/A	37



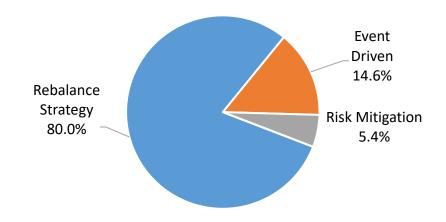


# NCRS Multi-Strategy Portfolio

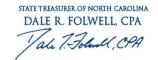
As of June 30, 2024

#### Net of Fees Performance (%)

Tree or Food errormance (70)											
	Market Value	2 Manth	1 V	2 V	F. V	10 V					
	(\$MM)	3 Month	1 Year	3 Years	5 Years	10 Years					
Multi-Strategy	\$2,571	0.84	9.24	4.24	3.75	4.10					
Benchmark <sup>12</sup>		0.42	6.34	1.00	2.36	2.87					
Rebalance Strategy	\$2,058	0.75	8.96	4.20	4.62	5.10					
Event Driven	\$375	1.88	15.50	5.44	7.37	-					
Risk Mitigation	\$138	(0.65)	(1.30)	1.73	0.34	-					
Volatility Trading	-	-	-	-	-	-					





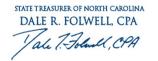


## Notes:

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.





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## INVESTMENT MANAGEMENT DIVISION