



February 10, 2023

To: Governor Roy Cooper
Council of State
Joint Legislative Commission on Government Operations
Commission on Governmental Operations
House Appropriations Committee
Senate Appropriations Committee
House Finance Committee
Senate Finance Committee
Fiscal Research Division
Office of State Budget Management

RE: Quarterly Investment Report for the Period Ended December 31, 2022

Dear Colleagues:

Attached is the Quarterly Investment Report for the state pension fund (Fund) for the period ending December 31, 2022. We continue to intently focus on reducing costs and complexity, increasing transparency and accountability, and building value across the divisions of the N.C. Department of State Treasurer.

The attached report provides detailed information I hope you will find valuable. I am aware of your time constraints, so I want to provide you with some highlights from the prior quarter that you may find helpful.

Specifically:

• Investment Performance – 4th Quarter 2022

The Fund, comprised of the retirement plans the N.C. Department of State Treasurer manages, reported a gain of 3.88% percent for the quarter. Pension fund assets were valued at \$109.26 billion on Dec. 31, 2022, up from \$105.74 billion at the end of the 3rd quarter of 2022. These figures, and all the following performance figures, are reported net of all fees and expenses.

• Higher Interest Rates Advantageous for Pension Plans

While higher interest rates make it more costly for the average American to borrow money, they can be very advantageous for the pension plans on a go forward basis. For the past few years, interest rates have been hovering around historical lows that approach zero. This forced many pension plans to consider investing more assets into areas other than bonds to target higher returns. The rapid increase in rates during 2022 allows the plan to reinvest in lower risk fixed income securities with much higher expected returns than just one year ago. The change in the markets has allowed us to make new investments in high quality bonds yielding 4.5-5.5%. The ability to earn higher returns in a lower risk asset class is a big positive for the plan and its beneficiaries.





Thank you all for your support of the N.C. Department of State Treasurer. We will continue to look for opportunities to reduce complexity, increase value, and protect the futures of the more than 900,000 members who rely on our retirement systems.

Warmest Regards,

Dale R. Folwell, CPA

State Treasurer of North Carolina

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Outline

This quarterly report provides the information required under North Carolina General Statute (N.C.G.S.) § 147-69.12 and provides information on the overall performance of the State Treasurer's investment programs. The information in this report is as of December 31, 2022. This report addresses the following topics:

- I. Investment Performance
 - A. Market Environment Context
 - B. Retirement Systems
 - i. Total Fund (Investment Program) Performance
 - ii. Investment Policy Statement (IPS) Asset Class Performance
 - C. Cash Management Programs
 - i. Short-Term Investment Fund (STIF)
 - ii. Bank Balances
 - D. Other Investment Programs Ancillary Governmental Participant Investment Programs
 - i. Bond Index Fund (BIF)
 - ii. Equity Index Fund (EIF)
 - iii. Escheat Fund
 - E. Other Investments with or on behalf of the State, its Agencies, or Institutions
 - i. Bond Proceeds Fund
- II. North Carolina Retirement System Financial Information
 - A. Introduction to Differences between the IPS and Statute
 - B. Concordance of IPS and N.C.G.S. § 147-69.2
 - C. Statutory Compliance Statutory Asset Classes
 - D. Fees Statutory Asset Classes
 - E. Green Managers and Funds
 - F. Locations on Website

Additionally, there are explanatory tables, financial data, and other information included as appendices to this report:

Appendix 1: Financial Information

- A. Department of State Treasurer Bank Balances
- B. Combined Statement of Net Positions (Fiscal Year to Date)

Appendix 2: References

- A. Implementation vs. Long-Term Policy Benchmark
- B. Other Benchmark Definitions
- C. Definitions and Procedures

Quarterly Investment Report for the Period Ending December 31, 2022

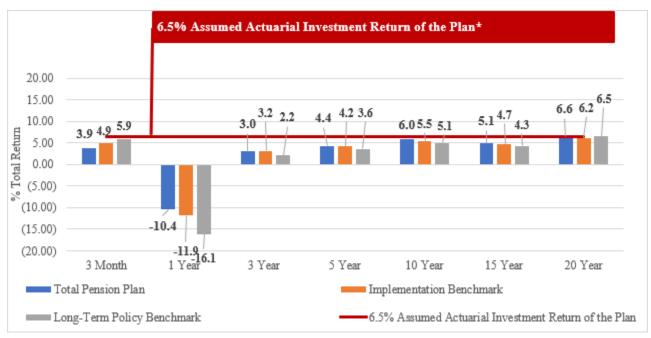
I. Investment Performance $\sqrt{\$} 147-69.12(a)(6)(g)$

A. Market Environment Context

For the 4th quarter of 2022, the U.S. economy grew at an annualized rate of 2.9% on an inflation-adjusted basis. Inflation measures continued to show elevated and sustained price increases over the quarter, with the December CPI reading coming in at 6.5% on a year-over-year basis. The unemployment rate ended the quarter at 3.5%. In December, the Federal Reserve raised its key short-term rate to a range of 4.25% to 4.50%, its highest level since 2008. U.S. equity markets returned S&P 7.55% for the quarter, as measured by the S&P 500 index. The ten-year U.S. Treasury bond's yield ended the quarter at 3.87%, up 5 basis points over the quarter. Investment grade corporate bond credit spreads decreased 29 basis points to end the quarter at 138 basis points. The total return on the broad U.S. corporate bond index was 3.53% over the quarter, as the fall in credit spreads more than offset the slight rise in Treasury yields over the quarter.

B. Retirement Systems [§ 147-69.12(a)(5)(a,b)]

i.Total Fund (Investment Program) Performance for Periods Ending December 31, 2022 (%; Periods Greater than 1 Year are Annualized)



^{*}The assumed actuarial investment return of the plan is the discount rate used to calculate the total pension liability as measured in the annual actuarial valuation. In January of 2021, this return was lowered from 7.0% to 6.5%. Prior to this, the return was lowered from 7.2% to 7.0% in April of 2018. For definitions of the Implementation Benchmark and the Long-Term Policy Benchmarks, and a comparison of the two, please see Appendix 2, Part A.

ii.IPS Asset Class Performance

	Market Value (\$000)	3 Mo	1 Yr	3 Yr	5 Yr	10 Yr	15 Yr	20 Yr
Growth	52,300,626	6.47	(15.47)	5.72	6.66	8.86	5.72	8.11
Benchmark		7.55	(13.11)	5.81	6.04	7.92	5.05	7.58
Public Equity	36,695,596	10.10	(20.50)	3.62	5.24	8.34	5.50	7.92
Benchmark		9.84	(18.40)	3.85	4.90	7.76	4.95	7.37
Private Equity	6,240,949	(1.38)	(5.81)	18.34	16.22	13.35	9.42	9.63
Benchmark		(1.24)	(1.16)	15.38	13.17	11.77	9.16	12.03
Non-Core Real Estate	2,443,960	(2.15)	6.60	7.73	9.26	11.72	4.80	7.30
Benchmark		(0.87)	7.22	7.99	7.73	8.38	2.56	7.26
Opportunistic Fixed Income	6,920,121	(0.58)	(1.91)	5.82	5.35	5.73	6.19	-
Benchmark		4.75	0.02	5.40	3.54	3.33	1.45	-
Rates & Liquidity	42,985,231	1.74	(8.50)	(1.05)	1.07	1.73	3.92	4.18
Benchmark		2.05	(14.69)	(3.15)	(0.08)	1.23	3.37	3.76
IG Fixed Income & Cash	29,111,792	2.26	(12.74)	(2.16)	0.54	1.52	3.78	4.07
Benchmark		2.24	(15.82)	(3.51)	(0.27)	1.17	3.33	3.73
Pension Cash	13,873,439	0.68	1.22	0.81	1.31	-	-	-
Benchmark		0.90	1.57	0.69	1.20	0.72	-	-
Inflation Sensitive & Diversifiers	11,748,283	0.86	7.41	6.09	6.15	5.13	2.58	4.58
Benchmark		1.45	3.49	6.13	5.20	4.57	1.41	4.23
Inflation Sensitive	5,223,404	1.55	9.43	5.74	5.23	2.86	0.84	3.65
Benchmark		1.16	2.63	4.55	3.57	1.35	1.55	4.17
Core Real Estate	6,524,879	0.30	5.76	6.54	7.19	8.26	5.40	6.74
Benchmark		1.79	4.46	7.96	7.12	8.57	5.36	7.26
Multi-Strategy	2,223,048	3.52	(4.48)	(0.45)	1.52	5.13	4.28	5.17
Benchmark		2.69	(6.95)	(0.73)	0.89	4.43	3.33	6.02
Total Pension Plan	109,257,188	3.88	(10.39)	3.05	4.37	5.98	5.09	6.57
Implementation Benchmark		4.86	(11.87)	3.18	4.18	5.50	4.66	6.24
Long-Term Policy Benchmark		5.89	(16.07)	2.15	3.58	5.06	4.29	6.53
Assumed Actuarial Investment Return ¹		1.59	6.50	6.50	6.50	6.50	6.50	6.50

¹ The Assumed Actuarial Investment Return was decreased from 7.0% to 6.5% in January 2021.

For definitions of the Benchmarks, please see Appendix 2, Part B.

C. Cash Management Programs

i. STIF [§ 147-69.12(a)(4), § 147-86.11(c)]

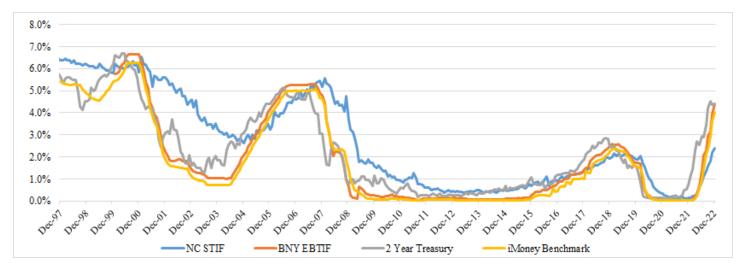
The STIF is responsible for managing the operating funds of the State. Investors include the State's General Fund, Highway Trust Fund, certain Retirement Systems funds, and other investors. The STIF is also where any bank balances are held for the State; please see part (ii) below for information about the quarter-end bank balances.

As of December 31, 2022, the STIF had the following characteristics:

Total Assets	Duration	3-Month Return	Benchmark 3- Month Return	1-Month Annualized Cash Return	Fees
\$49.9 billion	0.75	0.53%	0.90%	2.39%	N/A

The benchmark for the cash management program, as outlined in the "Department of State Treasurer Investment Management Division Investment Policy Statement for North Carolina Retirement Systems" (IPS), is the iMoneyNet First Tier Institutional Money Market Funds Net Index.

For comparison purposes, the 1-month annualized cash return of the STIF is shown below, over time, versus the yields of other short-term benchmarks.



Notes: The BNY EBTIF is the Bank of New York Mellon Employee Benefit Temporary Investment Fund, a diversified institutional money market sweep vehicle. The iMoney Benchmark is the iMoneyNet First Tier Institutional Money Market Funds Net Index.

ii. Bank Balances [§ 147-69.12(a)(3)]

The State's total Bank Balance as of December 31, 2022, was \$182.1 million. For a list of each bank and other qualified depository institutions utilized by the State Treasurer and the current quarter-end cash balances, please see Appendix 1, Part A.

D. Other Investment Programs – Ancillary Governmental Participant Investment Programs [§ 147-86.11(c)]

Pursuant to N.C.G.S. § 147-69.3, the Treasurer is responsible for one or more investment programs for the deposit and investment of assets pursuant to §§ 147-69.1 and 147-69.2, namely, the Ancillary Governmental Participant Investment Program (AGPI Program). The AGPI Program includes assets for, among others, the Escheat Fund, public hospitals, Local Government Other Post-Employment Benefits Trusts, Local Government Law Enforcement Special Separation Allowance Trusts, and the North Carolina Conservation Grant Fund, as well as entities such as the State Health Plan, the Disability Income Plan, and the State Educational Assistance Authority. For a complete listing of the AGPI Program participants, see the Other Investment Programs Statement in Appendix 1, Part B. While each of the AGPI Program participants has its particular investment authority as to how it may invest, all AGPI Program participants are eligible for the STIF as referenced in part B (i) above. The following are other investment options maintained by the Treasurer for the AGPI Program.

i. BIF [§ 147-69.12(a)(6)]

The BIF invests in high quality debt securities, under N.C.G.S. § 147-69.2(b)(1)–(6). The BIF maintains a low-cost approach to investing in investment grade fixed income assets through a passive index strategy. The BIF is designed to produce a return consistent with its Barclays U.S. Aggregate Bond Index benchmark.

As of December 31, 2022, the BIF had the following characteristics:

Total Assets	Duration	3-Month Return	Benchmark 3- Month Return	Crediting Rate	Fees
\$1.4 billion	6.3	1.84%	1.87%	N/A	2.5 bps on first \$750 million; 2.0 thereafter

For a list of the entities invested in the BIF at quarter-end, please see the Other Investment Programs Statement in Appendix 1, Part B.

ii. EIF [§ 147-69.12(a)(6)]

The EIF invests primarily in U.S. and non-U.S. equity securities eligible under N.C.G.S. § 147-69.2(b)(8) with the objective of closely approximating the capitalization weighted total return of the markets for global publicly traded equity securities while maintaining a low-cost approach. The EIF is designed to produce a return consistent with its Morgan Stanley Capital International All Country World Index benchmark.

As of December 31, 2022, the EIF had the following characteristics:

Total Assets	Duration	3-Month Return	Benchmark 3- Month Return	Crediting Rate	Fees
\$620.3 million	N/A	9.86%	9.76%	N/A	2.0 bps

For a list of the entities invested in the EIF at quarter–end, please see the Other Investment Programs Statement in Appendix 1, Part B.

iii. Escheat Fund [§§ 147-69.12(a)(6), 147-69.2A(b)]

As of December 31, 2022, the Escheat Fund had \$1,190.0 million in total invested assets. Of that total, \$1,014.4 million was in STIF and \$122.4 million in BIF.

Pursuant to N.C.G.S. § 147-69.2(b)(12), up to 20% of the Escheat Fund's assets may be invested in authorized Public Equity, Real Estate, and Alternative Investments. For the quarter ending December 31, 2022, the Escheat Fund held \$53.3 million in these types of investments. Performance data for these assets are shown below:

	Market Value (\$000)	3 Month	1 Yr	3 Yr	5 Yr	10 Yr
Escheat Alternatives	53,261	-0.71	-3.06	8.00	4.68	5.48
Benchmark		-1.70	-2.55	17.332	15.16	13.61

Additional financial information on the Escheat Fund is available in the Other Investment Programs statement in Appendix 1, Part B. Information on the Escheats Alternatives Benchmark is available in Appendix 2, Part B.

Within the Escheat Alternatives portfolio, pursuant to N.C.G.S. §§ 147-69.2A and 147-69.2(b)(12)(c), the State Treasurer is required to invest 10% of the Escheat Fund through the Venture Capital Multiplier Fund. This is included in the 20% limit laid out in N.C.G.S. § 147-69.2(b)(12). The Venture Capital Multiplier Fund is administered by a third-party professional investment management firm selected through a public procurement process by designees from the Governor's Office, the Department of State Treasurer, the Speaker of the House of Representatives, and the President Pro Tempore of the Senate. This fund was created in November 2016. Performance and investment information through the most recent quarter-end are as follows:

	Market Value	Commitment	Unfunded	IRR ¹	TVPI ²	Distributions	DPI ³
Venture Capital Multiplier Fund	40,314,883	60,000,000	10,752,010	5.09	1.18	22,436,000	0.42

¹ Internal rate of return; ² Total value to paid in capital, or the sum of (distributions + ending value) divided by the total paid in or funded capital; ³ Distributions to paid in capital, or distributions divided by the total paid in or funded capital Note: Returns may reflect higher costs and lower returns in earlier years.

E. Other Investments with or on behalf of the State, Its Agencies, or Institutions

i. General Obligation Bond Proceeds Fund [§ 147-69.12(a)(6), § 147-86.11(c)]

The General Obligation Bond Proceeds Fund is managed by a private investment company under contract with the Department of State Treasurer. The investments are valued at amortized cost, which approximates fair value. The General Obligation Bond Proceeds Fund has a separate investment account for each state bond issue to comply with Internal Revenue Service regulations on bond arbitrage. Additional information on the fund may be found in the Other Investment Programs statement in Appendix 1, Part B.

II. North Carolina Retirement System Financial Information

A. Introduction to Differences Between IPS and Statute

N.C.G.S. § 147-69.2 prescribes limits on different kinds of investments the Treasurer is authorized to make with the assets of the Retirement Systems. The limits are expressed in terms of percentages of the overall assets invested and there are limits both on individual asset classes and in the aggregate.

During the fiscal year ending June 30, 2014, the Investment Management Division conducted an asset liability study to develop a new IPS that would utilize some of the additional investment flexibility created by this statute, which had been updated in 2013. The IPS describing the asset class structure was finalized and became effective July 1, 2014. The tables below compare the investment policy statement's classifications to the statutory classifications. The numbers reflect net assets owned only by the NCRS funds in the statutory asset classes excluding securities lending, as of the quarter-end date for this report.

B. Concordance of IPS and N.C.G.S. § 147-69.2 [§ 147-69.12(a)(5)(c)]

The following connects statutory guidelines to those in the IPS:

Gene	eral Statute § 147-69.2	Statutory Asset Classifications	IPS
		STIF	Cash
1-(1)-(6)1	At least 20%	Bank Balances	Casii
$b(1)-(6)^1$	At least 2076	External Fixed Income	Investment Grade Fixed Income
		Long-Term Fixed Income	Investment Grade Fixed income
b(6c)	No more than 7.5%	Other Fixed Income	Opportunistic Fixed Income
b(7)	No more than 10%	Real Estate	Core Real Estate
0(7)	No more than 1076	Real Estate	Non-Core Real Estate
b(8)	No more than 65%	Public Equity	Public Equity
b(8)(b)	No more than 8.5%	Public Equity Limited Liability	Public Equity
b(9)	No more than 8.75%	Alternatives	Private Equity
0(9)	No more than 8.7376	Atternatives	Multi-Strategy
b(9a)	No more than 7.5%	Inflation Protection	Inflation Sensitive

Guide to IPS "segment" groups: Green = Rates and Liquidity; Blue = Growth; Purple = Inflation Sensitive & Diversifiers; Orange = Multi-Strategy

¹ Per § 147-69.2(b)(6a), investments authorized by these sections (fixed income) and those authorized by § 147-69.1(c)(1)-(7) (cash management) are combined in calculating the 20% limit.

The following maps the market value balances of the retirement system at quarter-end to the respective statutory and IPS classifications:

					Statutory (Classification	(\$ Millions)				
		Public Equity ¹	Long-Term	Cash ²	External Fixed Income ²	Alternatives 3	Real Estate	Inflation Protection ⁵	Other Fixed Income ⁶	Public Equity Limited Liability ⁷	Total
	Public Equity	\$35,465								\$1,231	\$36,696
Millions)	Private Equity					\$6,241					6,241
Mill	Non-Core Real Estate						\$2,444				2,444
s) u	Opportunistic Fixed Income								\$6,920		6,920
Classification	IG Fixed Income		\$25,417		\$3,695						29,112
ifica	Cash			\$13,873							13,873
Jase	Inflation Sensitive							\$5,223			5,223
IPS (Core Real Estate	•		•			6,525				6,525
П	Multi-Strategy	•		•		2,223					2,223
	Total	\$35,465	\$25,417	\$13,873	\$3,695	\$8,464	\$8,969	\$5,223	\$6,920	\$1,231	\$109,257

Note: For statutory compliance purposes, all public equity investments made through funds with limited liability structures are included in the category of investments authorized by N.C.G.S. § 147-69.2(b)(8)(b.). This kind of investment structure is limited to a maximum of 8.5% of the total fund. One external manager, ValueAct Capital Management LP, is a limited liability partnership, and thus assets invested with this manager are included in the N.C.G.S. § 147-69.2(b)(8)(b.) limit of 8.5%. ValueAct Capital Management, however, has a different investment strategy than the other assets invested with managers through limited liability structures.

The following provides a summary of the investment vehicles in which the various trusts and clients are invested:

			Veh	icles	
		Short Term Investment Fund	Bond Index Fund	Equity Index Fund	Long-Term Investment Fund (QIB)
ts	Retirement Systems	•			•
& Clients	Cash Management Programs	•			
Trusts &	Ancillary Governmental Participant Investment Program	•	•	•	
T	Escheats Fund	•	•		

C. Statutory Compliance – Statutory Asset Classes [§ 147-69.12(a)(5)(c); § 147-69.12(a)(1)]

The table below lists the maximum or minimum percentages of the total assets allowed and actual percentages as of the quarter-end.

Statutory Citation	Minimum or Maximum Percentage of Fund	Percentage of Total Assets Invested	Compliant
N.C.G.S. §§ 147-69.1(c) and 147-69.2(b)(1)-(6b) for fixed income and cash	At least 20%	39.3%	✓
N.C.G.S. § 147-69.2(b)(8) for public equity	No more than 65%	33.6%	✓
N.C.G.S. § 147-69.2(b)(8)(b.) for public equity limited liability investment vehicles	No more than 8.5%	1.1%	✓
N.C.G.S. § 147-69.2(b)(6c) for other fixed income	No more than 7.5%	6.3%	✓
N.C.G.S. § 147-69.2(b)(7) for real estate	No more than 10%	8.0%	✓
N.C.G.S. § 147-69.2(b)(9) for private equity and other alternatives	No more than 8.75%	7.7%	✓
N.C.G.S. § 147-69.2(b)(9a) for inflation protection	No more than 7.5%	4.8%	✓
N.C.G.S. § 147-69.2(b)(10a) for the 35% aggregate portfolio limit	The sum of rows 3 to 7; No more than 35%	28.0%	✓

Note: Percentage of Total Assets Invested is based on market values as of the most recent quarter-end. Undrawn capital commitments are not included in the calculations until they are called and invested.

In the event that the market value of any of subdivision (6c) or (7), sub-subdivision b. of subdivision (8), or subdivision (9) or (9a) of N.C.G.S. § 147-69.2 increases during a fiscal year by an amount greater than three percent (3%) of the market value of all invested assets of the Retirement Systems as of the prior fiscal year end, then that event will be noted in this report along with the expected impact on the risk profile of the assets. No such change occurred during the fiscal year ending June 30, 2022.

D. Fees – Statutory Asset Classes [§ 147-69.12(a)(1)]

The Investment Management Division utilizes external managers for a portion of the Retirement Systems. Over time, the Department of State Treasurer, with the advice and counsel of the Investment Advisory Committee, has used a relatively lower risk and lower cost approach to investing the North Carolina Retirement System trust funds. While costs have risen somewhat over time as more diverse external investment strategies were pursued, the all-in costs of investing the retirement trust fund remain modest.

The fees incurred to external investment managers, by asset class, are outlined in the Combining Statement of Operations – Pension Trust Funds Investment Program in Appendix 1, Part B. In addition to the fees shown in this statement, internal administrative expenses of the Funds and (for the internally managed portfolios) trade transaction costs are paid by the Treasurer. These charges are reported on the Combined Statement of Operations in Appendix 1, Part B.

During the calendar year 2022, the Department engaged CEM Benchmarking, a leading independent cost and performance analysis firm, to review the cost structure of the funds for the calendar year 2021. The report showed that the funds' cost structure was below that of institutional peers. This leads to savings of roughly 24.7 basis points compared to the median peer. The Department continues to proactively target improvements in cost-efficiency, transparency, risk management, and compliance.

Calendar Year 2021 NCRS Costs of Investment Operations Compared to Peers

(Expressed in basis points where 50 basis points equals 0.50%)

Total (Basis Points)

Median Peer 53.0

North Carolina Retirement Systems 28.3

Percentile 0%

Source: CEM [Cost Effectiveness Measurement] Benchmarking Inc. The peer group consists of 14 U.S. public pension funds managing from \$70.6 billion to \$335.8 billion. The median peer managed an average of \$119.1 billion throughout the year versus NCRS' \$119.9 billion. In CEM's methodology, total cost excludes carry / performance fees for real estate, infrastructure, natural resources, and private equity funds. Performance fees are included for public market asset classes and hedge funds. All such fees and expenses have been deducted from all investment returns reported by NCRS.

E. Green Managers and Funds [§ 147-69.12(a)(2)]

There is no consensus on a validation group or process to certify green managers for investments, and the statute provides no definition of the term "sustainable practices" that would enable the Treasurer to determine which companies and funds would fall under this provision. Thus, it is not possible to report any relevant data at this time.

F. Locations on Website $[\S 147-69.12(a)(6)(f,i,j)]$

The current Investment Policy Statement may be accessed at the following link:

<u>https://www.nctreasurer.com/media/1501/open</u>A list of new commitments to external investment managers may be found within the periodic IAC Performance Review presentations at the following link (mid-page under Performance and Fee Reports):

https://www.nctreasurer.com/divisions/investment-management/reports/investment-performance-and-fee-reportsThe current Placement Agent, Political Contribution, and Connection Disclosure Policy may be accessed at the following link:

https://www.nctreasurer.com/media/1508/open/Additional information on the use of placement agents by investment managers is available on request.

Appendix 1: Financial Information

Part A: Department of State Treasurer Bank Balances

DEPARTMENT OF STATE TREASURER BANK BALANCES AS OF December 31, 2022

(dollars in thousands)

Summary of Bank Balances							
Balance as of 09/30/2022	\$	232,853					
Total Receipts	\$	55,611,801					
Total Payments	\$	55,662,590					
Balance as of 12/31/2022	\$	182,064					
Bank Balances as of Decer	mber 31,	2022					
Bank	Bank Ba	lance					
Wells Fargo	\$	37,072					
Bank of America	\$	32,218					
Truist	Ş	7,457					
PNC	\$	211					
First Citizens	\$	10,422					
Atlantic Union	\$	1,000					
Bank of Tennessee	\$	4					
Bank OZK	\$	2,500					
First Horizon Bank	\$	15,003					
Fidelity Bank	\$	6,973					
First Bank	\$	15,438					
First Federal Savings Bank	\$	750					
First National Bank	\$	12,453					
HomeTrust Bank	\$	1,000					
Lumbee Guaranty Bank	\$	2,750					
M&F Bank	\$	1,760					
Peoples Bank	\$	2,120					
Pinnacle Bank	\$	2,500					
South State Bank	\$	1,100					
Southern Bank & Trust	\$	15,252					
Surrey Bank	\$	1,000					
TD Bank	\$	1,750					
Townebank	\$	2,731					
United Community Bank	\$	6,600					
Uwharrie Bank	\$	2,000					
Total*	\$	182,064					

^{*}This number reflects the balance in the State treasury credited to all State funds, including not only the General Fund but also other funds.

Part B: Combined Statement of Net Positions (Fiscal Year to Date)

- Combined Statement of Net Position
- Combining Statement of Net Position Pension Trust Funds Investment Program
- Other Investment Programs
- Combined Statement of Operations
- Combining Statement of Operations Pension Trust Funds Investment Program

Unaudited

DEPARTMENT OF STATE TREASURER COMBINED STATEMENT OF NET POSITION DECEMBER 31, 2022

(dollars in thousands)

	Short-term Investment Fund	*Pension Trust Funds Investment Program Subtotal	Intrafund Eliminations		Total
Net Assets:					
Investment Securities:					
Cash Equivalents	-	\$	5	\$	-
Certificates of Deposit		-	-		
Repurchase Agreements	615,000		-		615,000
U.S. Treasury Bills/ Notes/ Bonds	30,142,022	6,276,797	-		36,418,819
U.S. Government Agency Notes/Bonds	18,850,000	610,155	-		19,460,155
GNMA Certificates		8,980,879			8,980,879
Corporate Obligations		11,084,667			11,084,667
Other Investments		7,075,058			7,075,058
Investments in Equity Securities		36,708,901			36,708,901
Investments in Equity Trusts & Limited Liability Entities		2,039			2,039
Investments in Real Estate Trust Funds & Partnerships		8,968,839			8,968,839
Investments in Alternative Partnerships		8,448,653			8,448,653
Investments in Credit Partnerships		6,920,121			6,920,121
Investments in Inflation Partnerships and Other Invest.		3,606,060		_	3,606,060
Total Investment Securities	49,607,022	\$ 98,682,169	\$	\$	148,289,191
Cash in Bank	182,064	-			182,064
Payable for securities not settled	-				-
Deposits in Short-term Investment Fund		10,358,491	(10,358,491)		-
Other Assets	84,245	216,528			300,773
Other Liabilities	25,773			_	25,773
Total Net Assets	49,899,104	\$ 109,257,188	\$ (10,358,491)	\$	148,797,801
Participant Equity:					
General Fund	12,344,301	\$	\$	\$	12,344,301
Other Funds Which Earn Interest					
for General Fund	7,950,511				7,950,511
Highway Fund	1,344,672	-			1,344,672
Highway Trust Fund	943,021	-			943,021
University Trust Funds	3,733,465	-			3,733,465
Pension Trust Funds	1,606,975	109,257,188			110,864,163
Other Independent Trust Funds	10,493,854	-	-		10,493,854
Local Political Subdivisions	1,062,382	-	-		1,062,382
Licensing Boards	61,432	-	-		61,432
Other Investment Funds	10,358,491		(10,358,491)		-
Total Participant Equity	49,899,104	\$ 109,257,188	\$ (10,358,491)	\$	148,797,801
Percent of Total	33.53%	73.43%	-6.96%		100.00%

^{*}The Trust Funds Investment Program is presented at market value. Trust Funds detail is included on Combining Statement of Net Position.

•	DEPARTMENT OF STATE TREASURER COMBINING STATEMENT OF NET POSITION - PENSION TRUST FUNDS INVESTMENT PROGRAM DECEMBER 31, 2022 (dollars in thousands)	DE TEMENT OF NI	PARTMENT OF ET POSITION - P DECEMB (dollars in	DEPARTMENT OF STATE TREASURER F NET POSITION - PENSION TRUST FUN DECEMBER 31, 2022 (dollars in thousands)	RER FUNDS INVESTI	MENT PROGRA!	W			Unaudited
	Cash Investment Find	Long-term Investment Find	External Fixed Inc. Investment Finnd	Long-Only Public Equity Investment Fund	Hedged Public Equity Investment Fund *	Real Estate Investment Find	Alternatives Investment Find	Other Fixed Income Investment Finnd	Other Fixed Income Inflation Protection Investment Investment Find Find	Totals
Net Assets: Investment Securities:					200	7177				
Casn and Casn Equivalents U.S. Treasury Bills / Notes / Bonds		5,916,033			. .				360,764	6,276,797
U.S. Government Agency Notes/Bonds		610,155								610,155
GNMA Certificates		8,980,879								8,980,879
Corporate Obligations		9,535,548	880,041						820,699	11,084,667
Other Investments	6,363,723		137,679						573,656	7,075,058
Investments in Equity Securities				36,693,557			15,344			36,708,901
Investments in Equity Trusts & Limited Liability Entities					2,039					2,039
Investments in Real Estate Trust Funds & Partnerships						8,968,839				8,968,839
Investments in Alternative Partnerships							8,448,653			8,448,653
Investments in Credit Partnerships	•			•				6,920,121		6,920,121
Investments in Inflation Partnerships and Other Invest.									3,606,060	3,606,060
Total Investment Securities	\$ 6,363,723	25,042,615	1,017,720	36,693,557	2,039	8,968,839	8,463,997	6,920,121	5,209,558 \$	98,682,169
Cash in Bank		•					•			•
Deposits in Short-tern Investment Fund	7,509,716	171,729	2,677,046							10,358,491
Other Assets		202,682					•	•	13,846	216,528
Other Liabilities										
Total Net Assets	\$ 13,873,439 \$	25,417,026	3,694,766	\$ 36,693,557 \$	2,039 \$	8,968,839 \$	8,463,997	\$ 6,920,121 \$	\$ 5,223,404 \$	109,257,188
Participant Equity.	4	2000	2000	122 000 20		~ ~		***	0000	000
Pension Irust Funds	\$ 15,8/5,439	020,/14,020	5,094,/00	10,095,07	2,039	8,908,839	8,405,99/	0,920,121	3,225,404	109,22/,188
Total Participant Equity	\$ 13,873,439 \$	25,417,026	3,694,766 \$	\$ 36,693,557 \$	2,039 \$	8,968,839 \$	8,463,997	\$ 6,920,121	5,223,404 \$	109,257,188
Percent of Total	12.70%	23.26%	3.38%	33.59%	0.00%	8.21%	7.75%	6.33%	4.78%	100.00%

* In terms of calculating performance, all public equity investments with long strategies are grouped together, and all public equity investments with hedged strategies are grouped together.

Note: One external manager, ValueAct Capital Management I.P is included in the Long-Only Public Equity, rategory in the Tond group on this combining statement; however, on the "Concordance of IPS and NCGS § 147.69.2" table in Part II, Section B of this report, the assets invested with Value Act are included in the "Public Equity," category, not the "Public Equity," category. The "Public Equity," category includes all assets invested in long strategies.

Unaudited

DEPARTMENT OF STATE TREASURER OTHER INVESTMENT PROGRAMS DECEMBER 31, 2022

(dollars in thousands)

	(doll	ars in thousands)			
		Bond Index	Equity Index	Escheats Alternative	General Obligation	
		Fund	Fund	Investments	Bond Proceeds	Totals
STATEMENT OF NET POSITION						
Net Assets:						
Deposits in Equity Index Fund	\$	-	620,311	_	-	620,311
Deposits in Bond Index Fund		1,424,897	-	-	-	1,424,897
Deposits in Alternative Investment Fund		-	-	53,261	-	53,261
Other Assets		-	-	-	136,420	136,420
Total Net Assets	\$	1,424,897 \$	620,311 \$	53,261	136,420	2,234,889
STATEMENT OF OPERATIONS (for the Fiscal Year ended December 31, 2022) Revenues: Investment Income:						
Investment Earnings	\$	14,784	107	4,417	1,430	20,738
Other Income	_		-	-		
Subtotal		14,784	107	4,417	1,430	20,738
Net Unrealized Appreciation/Depreciation	_	(60,960)	12,739	(5,995)		(54,216)
Total Investment Income		(46,176)	12,846	(1,578)	1,430	(33,478)
Expenditures:						
Management Fees		(165)	(55)	(222)	(37)	(479)
Other Cost	_	<u> </u>	-	(16)		(16)
Total Expenditures	_	(165)	(55)	(238)	(37)	(495)
Net Investment Income (Loss)	\$_	(46,341) \$	12,791 \$	(1,816)	1,393	(33,973)
Participants:			Bond Index Fund		Equity Index Fund	Escheats Alternatives

Net Investment Income (Loss)	§ <u>(46,341)</u> \$	12,791 \$(1	1,393	(33,973)
		Bond	Equity	
		Index	Index	Escheats Alternatives
Participants:		Fund	Fund	Atternatives
Albemarle and Tideland MHRHIT		×	×	
Albemarle RH OPEB		X	×	
Apex OPEB Trust Appalachian DHD OPEB		×	×	
Archdale LEOSSA		×	×	
Buncombe County		×	×	
Cabarrus County OPEB				
City of Asheville		×	×	
City of Concord		×	×	
City of Greensboro		×	×	
City of Greenville		×	×	
City of Sanford		×	×	
Clean Water		×		
Columbus Regional			×	
Community College Systems		×		
Conservation Easement Endowment Fund				
Conservation EE II		×	×	
Conservation Grant Endowment Cornelius LEOSSA		×	×	
Cornelius CEOSSA Cornelius OPEB			×	
County of Currituck LEOSSA			^	
County of Currituck OPEB				
County of Dare		×	×	
County of Dare LEOSSA		×	×	
County of Guilford		×	×	
County of Harnett OPEB		×	×	
Cumberland OPEB Trust				
Disability Income		×		
Drinking Water		×		
Ecosystem Restoration Fund		×	×	
ElectriCities OPEB		×	×	
Employee Benefit Trust		×		
Forsyth County		×	×	
Greensboro LEOSSA		×	×	
Greenville Utilities Commission OPEB		x	×	
Guilford County LEOSSA		×	×	
Harnett LEOSSA Trust Holly Springs OPEB		^	×	
Isothermal Planning & Development OPEB		×	×	
Kill Devil Hills OPEB			×	
Lake Norman Charter School				
Margaret Pardee Hospital		×	×	
Martin County OPEB		×	×	
Mecklenburg County		×	×	
NC Muni Power Catawba Unit 1 DTF		×	×	
NC Muni Power Catawba Unit 2 DTF		×	×	
NC Student Loan Fund				
NCACC NC Association of County Commissioners	OPEB Trust	×	×	
Orange County OPEB		×		
Partners Behavioral				
Pine Lake Preparatory Charter School				
Pinnacle Classical Academy Charter School				
Raleigh Housing Authority		×	×	
Register of Deeds		×	×	
Riparian Buffer Restoration Fund		×	^	
Rowan Cabarrus Community College State Property Fire Insurance		×		
State Public Education Property Insurance Fund		×		
State Treasurer Escheats		×		×
Swain County				
Town of Cornelius (General Fund)			X.	
Town of Morganton		×		
Town of Williamston		×	×	
Trillium Health OPEB		×	×	
Trillum ECBH				
UNC SEAA Student Loan				
Union County		×	×	
Wake County OPEB Trust		×	×	
		× × ×	× × ×	

Unaudited

DEPARTMENT OF STATE TREASURER COMBINED STATEMENT OF OPERATIONS FOR THE QUARTER ENDED DECEMBER 31, 2022

(dollars in thousands)

	_	Short-term Investment Fund		sion Trust Funds restment Program Subtotal*	_1	Intrafund Eliminations	Total
Revenues:							
Investment Income:							
Investment Earnings	\$	446,880	\$	4,918,600	\$	- \$	5,365,480
Intra-Pool Interest Earnings		-		82,791		(82,791)	
Income from Securities Lending		5,409		1,062		-	6,471
Commission Recapture		-		-		-	
Other Income	_			510			510
Subtotal		452,289		5,002,963		(82,791)	5,372,461
Net Unrealized Depreciation	_			(5,242,915)			(5,242,915)
Total Investment Income (Loss)		452,289		(239,952)		(82,791)	129,546
Expenditures:							
Treasurer's Allocated Cost		(1,912)		(23)		-	(1,935)
Management Fees		-		(119,608)		-	(119,608)
Placement Fees**		-		-		-	-
Incentive Fees		-		(146,036)		-	(146,036)
Dividend Withholding Tax		-		(7,665)		-	(7,665)
Other Cost		(1,869)		(14,970)		-	(16,839)
Total Expenditures		(3,781)		(288,302)		-	(292,083)
Net Investment Income (Loss)	\$	448,508 \$	\$	(528,254)	\$	(82,791) \$	(162,537)
Total Investment Income (Loss) Allocated:							
General Fund	\$	215,769	\$	_	\$	- \$	215,769
Highway Fund		10,202		-		-	10,202
Highway Trust Fund		7,371		-		-	7,371
University Trust Funds		29,180		-		-	29,180
Pension Trust Funds		13,456		(528,254)		-	(514,798)
Other Independent Trust Funds		77,465		-		-	77,465
Local Political Subdivisions		7,565		-		-	7,565
Licensing Boards		442		-		-	442
Other Investment Funds		87,058		-		(82,791)	4,267
Total Investment Income (Loss) Allocated	\$	448,508 \$	s	(528,254)	\$	(82,791) \$	(162,537)

Cash Return, Fiscal Year-to-Date (Annualized)

1.74%

^{*}Pension Trust Funds detail is included on the Combining Statement of Operations-Pension Trust Funds Investment Program.

^{**}By policy and practice, neither the Department of State Treasurer nor the funds bear the cost of placement agent fees.

Could Long-turn Long-tur				NEDADTMEN	T OF CTATE TD	CACIDED					Handitad
Freed		COMBINING	STATEMENT FO	OF OPERATION R THE QUARTE	NS - PENSION TI IR ENDED DECK	RUST FUNDS IN	VESTMENT PI	ROGRAM			
\$ 90,478		Cash Investment Fund	Long-term Investment Fund	External Fixed Inc. Investment Fund	Long-Only Public Equity Investment Fund	Hedged Public Equity Investment Fund	Real Estate Investment Fund	Alternative Investment Fund	Other Fixed Income Investment Fund	Inflation Protection Investment Fund	Totals
1,000 1,00	Revenues:										
\$ 90,478	Investment Income:			;							
18,538 457,689 27,500 1,000	Investment Earnings		426,306	7,840	3,636,729	/05/1	44,641	302,123	708,807		4,918,600
14,538 45,1689 25,168 1,107 44,641 30,135 115,596 1,107 14,641 30,135 115,596 1,107 14,641 30,135 115,596 1,107 14,641 30,135 115,596 1,107	Intra-Pool Interest Earnings	58,060	321	24,410	•						82,791
148,538	Income from Securities Lending	•	1,062	•		•	•			•	1,062
145.58	Commission Recapture										
H4538	Other Income			510							510
144,538	Subtotal	148.538	457.689	27.760	3.636.729	1.057	44.641	302.123	268.857	115.569	5.002.963
146,338	Net Unrealized Appreciation (Depreciation)		(1.362.813)	925	(2.797.464)	(1.055)	(35,189)	(708.857)	(330,751)	(1.711)	(5.242.915)
CSA CONTROL CONTROL	Total Investment Income (Loss)	148.538	(905.124)	28.685	839,265	2	9,452	(406,734)	(61.894)	107.858	(239,952)
Colored Colo	Expenditures:					•					
Column C	Treasurer's Allocated Cost		0	•	6)		(2)	(2)	(2)	(1)	(23)
Colored Colo	Management Fees				(13,635)		(30,484)	(35,347)	(29,453)	(10,689)	(119,608)
CS49	Incentive Fees						(64,073)	(27,500)	(18,242)	(36,221)	(146,036)
Colored Colo	Placement Fees*	•									
Color	Dividend Withholding Tax	•			(5,368)		3	(171)		(2,123)	(7,665)
\$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c	Other Cost	(54)	(1,296)	(113)	(1,254)		(2,679)	(3,898)	(2,085)	(3,591)	(14,970)
\$ 148,484 \$ (906,427) \$ 28,572 \$ 818,999 \$ 2 \$ (87,785) \$ (473,658) \$ (111,676) \$ 55,233 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Total Expenditures	(54)	(1,303)	(113)	(20,266)		(97,235)	(66,924)	(49,782)	(52,625)	(288,302)
S S	Net Investment Income (Loss)			28,572		\$ 2 \$	\$ (87,783) \$			\$ 55,233 \$	(528,254)
S - - - -	Total Investment Income (Loss) Allocated:						•				
148,484 (906,427) 28,572 818,999 2 (87,783) (473,658) (111,676) 55,233 id \$ 148,484 \$ (906,427) 28,572 \$ 818,999 \$ 2 (87,783) (473,658) (111,676) 55,233 id \$ 148,484 \$ (906,427) \$ 28,572 \$ 818,999 \$ 2 (87,783) \$ (473,658) \$ (111,676) \$ 55,233 \$ id \$ 148,484 \$ (906,427) \$ 28,572 \$ 818,999 \$ 2 \$ (473,658) \$ (111,676) \$ 55,233 \$ id \$ 144,796 0.59% -20.59% -1.85% 6.04% -5.40% -1.91% 9.43% -10. id \$ 4.45% 0.56% 4.45% 0.76% 4.45% 0.76% 3.62% 0.76% 0.76% 0.76% 0.76% 0.76% 0.76% 0.76% </td <td>General Fund</td> <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>•</td>	General Fund				•						•
148,484 (906,427) 28,572 818,999 2 (87,783) (473,658) (111,676) 55,233	Highway Fund	•									
148,484 (906,427) 28,572 818,999 2 (87,783) (473,658) (111,676) 55,233 i.d \$ 148,484 \$ (906,427) \$ 28,572 \$ 818,999 \$ (87,783) \$ (473,658) \$ (111,676) \$ 55,233 \$ 55,233 i.d \$ 148,484 \$ (906,427) \$ 28,572 \$ 818,999 \$ (87,783) \$ (473,658) \$ (111,676) \$ 55,233 \$ 55,239 \$ 55,239 \$ 55,239 \$ 55,239 \$ 55,239 \$ 55,239 \$ 55,239 \$ 55,239 \$ 55,239 \$ 55,239 \$ 5	Highway Trust Fund	•	•								
148,484 (906,427) 28,572 818,999 2 (87,783) (473,658) (111,676) 55,233 id \$ 148,484 \$ (906,427) \$ 28,572 \$ 818,999 \$ (87,783) \$ (473,658) \$ (111,676) 55,233 \$ (112,676) \$ 55,233 \$ (112,676) \$ 55,233 \$ (112,676) \$ 55,233 \$ (112,676) \$ 55,233 \$ (112,676) \$ 55,233 \$ (112,676) \$ 55,233 \$ (112,676) \$ 55,233 \$ (112,676) \$ 55,233 \$ (112,676) \$ 55,233 \$ (112,676) \$ 55,233 \$ (112,676) \$ 55,233 \$ (112,676) \$ 55,233 \$ (112,676) \$ 55,233 \$ (112,676) \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,233 \$ 55,239 \$ 5,239 \$ 5,239 \$ 5,239 \$ 5,239 \$ 5,239 \$ 5,239 \$ 5,239 \$ 5,239 \$ 5,239 \$ 5,239 \$ 5,239 \$	University Trust Funds										
122% -14.17% 0.55% -20.50% -1.85% 6.04% -5.40% -1.91% 9.43% -10. 0.88% -2.65% 0.76% 3.52% 9.04% 6.62% 13.85% 13.85% 13.85% 13.85% 13.85% 1.19% 9.43% -10. 1.31% 0.37% 1.19% 5.24% 6.62% 7.34% 5.24% 5.24% 5.24% 5.33% 5.33% 4.33%	Pension Trust Funds	148,484	(906,427)	28,572	818,999	2	(87,783)	(473,658)	(111,676)	55,233	(528,254)
id S 148,484 S 28,572 S 818,999 S 2 S (87,783) S (473,638) S (111,676) S 55,233 S 11,22% -14,47% 0,95% -20,50% -1,85% 6,04% -5,40% -1,91% 9,43% -10. 0,68% -8,46% 0,56% 4,59% 17,32% 10,58% 13,85% 7,34% 10,69% -0,8 0,81% -2,65% 0,76% 3,62% 9,04% 6,96% 13,23% 5,82% 5,74% 4,3 1,31% 0,37% 1,19% 5,24% 6,62% 7,98% 12,22% 5,33% 4,3	Other Independent Trust Funds										
122% -1447% 0.95% -20.50% -1.85% 6.04% -5.40% -1.91% 5.82% -1.91%	Local Political Subdivisions	•									
Id S 148,484 S 28,572 S 818,999 S C S C	Licensing Boards	•	•		•						•
id S 148,484 S (906,427) S 28,572 S 818,999 S 2 S (87,783) S (473,658) S (111,676) S 55,233 S 11,22% -14,47% 0.959% -20,50% -1,859% 6,04% -5,40% -1,91% 9,43% -10. 0,689% -8,46% 0.56% 4,59% 17,32% 10,58% 13,85% 734% 10,69% -0,8 0,81% -2,65% 0.76% 3,62% 9,04% 6,56% 13,23% 5,82% 5,74% 3,0 1,31% 0.37% 1,19% 5,24% 6,62% 7,98% 12,22% 5,33% 4,3	Other Investment Funds		•	•							•
1.22% -14.47% 0.95% -20.50% -1.85% 6.04% -5.40% -1.91% 9.43% 0.68% -8.46% 0.56% 4.59% 17.32% 10.58% 7.34% 10.69% 0.81% -2.65% 0.76% 3.62% 9.04% 6.96% 13.23% 5.82% 5.74% 1.31% 0.37% 1.19% 5.24% 6.62% 7.98% 12.22% 5.35% 5.33%	Total Investment Income (Loss) Allocated		(906,427)	28,572		\$ 2 \$	\$ (87,783) \$			\$ 55,233 \$	(528,254)
1.22% -14,47% 0.95% -20,50% -1.85% 6.04% -5,40% -1,91% 9,43% 0.68% -8,46% 0.56% -4,59% 17,32% 10,58% 13,83% 7,34% 10,69% 0.81% -2,65% 0.76% 3,62% 9,04% 6,96% 13,23% 5,82% 5,74% 1.31% 0.37% 1.19% 5,24% 6,62% 7,98% 12,22% 5,35% 5,33%	Total Return, 12, 24, and 36 and 60 months:										
0.68% -8.46% 0.56% -4.59% 17.32% 10.58% 13.85% 7.34% 10.69% 0.81% -2.65% 0.76% 3.62% 9.04% 6.96% 13.23% 5.82% 5.74% 1.31% 0.37% 1.19% 5.24% 6.62% 7.98% 12.22% 5.35% 5.23%	12 months	1.22%	-14.47%	0.95%	-20.50%	-1.85%	6.04%	-5.40%	-1.91%	9.43%	-10.39%
0.81% -2.65% 0.76% 3.62% 9.04% 6.96% 13.23% 5.82% 5.74% 5.74% 1.31% 0.37% 5.25% 5.24% 6.62% 7.98% 12.22% 5.35% 5.35%	24 months	0.68%	-8.46%	0.56%	4.59%	17.32%	10.58%	13.85%	7.34%	10.69%	-0.85%
1.31% 0.37% 1.19% 5.24% 6.62% 7.98% 12.22% 5.35% 5.35%	36 months	0.81%	-2.65%	0.76%	3.62%	9.04%	%96'9	13.23%	5.82%	5.74%	3.05%
	60 months	1.31%	0.37%	1.19%	5.24%	6.62%	7.98%	12.22%	5.35%	5.23%	4.37%

*By policy and practice, neither the Department of State Treasurer nor the funds bear the cost of placement agent fees.

Appendix 2: References

Part A: Implementation vs. Long-Term Policy Benchmark

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.

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

The Implementation Benchmark represents the Retirement System's current strategic policy allocations, and thus allows for the evaluation of (1) the impact of manager selection and (2) the impact of tactical variations away from the strategic policy allocations. The Long-Term Policy Benchmark represents the Retirement System's passively managed equivalent and allows for evaluation of the active asset allocation decisions made across the Retirement System. Taken together, these two benchmarks may provide insights as to how the Retirement System is performing versus reasonably comparable hypothetical portfolios.

Part B: Other Benchmark Definitions

The Growth Benchmark is a blend of the Public Equity Benchmark, Private Equity Benchmark, Non-Core Real Estate Benchmark, and Opportunistic FI Benchmark at policy weights.

The Public Equity Benchmark is the dynamically weighted combination of the MSCI ACWI IMI Net (Long-Only) and a beta adjusted MSCI ACWI IMI Net (Hedged Equity).

The Private Equity Benchmark is comprised of the following Burgiss Group Private iQ indices: 45% Buyout, 25% Venture Capital, and 30% Distressed.

The Non-Core Real Estate Benchmark is comprised of the following Burgiss Group Private iQ 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).

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% BOAML High Yield Index.

The Rates & Liquidity Benchmark is a blend of the IG Fixed Income Benchmark and the Cash Benchmark at policy weights.

The IG Fixed Income Benchmark is comprised 10% iMoneyNet First Tier Institutional Money Market Funds Net Index and 90% custom BOAML Core Investment Grade Index. The custom BOAML core index is comprised of the following weightings: 30% BOAML 5+ Years Governments, 35% BOAML 5+ Years Investment Grade Corporates, and 35% BOAML Mortgage Master.

The Cash Benchmark is the iMoneyNet First Tier Institutional Money Market Funds Net Index.

The Inflation Sensitive & Diversifiers Benchmark is a blend of the Inflation Sensitive Benchmark and the Core Real Estate Benchmark at policy weights.

The Inflation Sensitive Benchmark is the dynamically weighted combination of the Bank of America Merrill Lynch 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.

The Core Real Estate Benchmark is comprised of 80% Custom NCREIF ODCE Net and 20% FTSE EPRA NAREIT Global Index.

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.

The Escheat Alternatives Benchmark is the total blended Burgiss Private iQ Private Equity index.

Part C: Definitions and Procedures

The following is information that the Department of State Treasurer provides regarding its internal procedures for submitting statutorily required reports, as well as definitions of terms used within this report.

REQUIRED INVESTMENT REPORTS

- (a) The State Treasurer shall issue all the reports required by N.C.G.S. § 147-69.12(e) concerning the State Treasurer's investment programs on or before the dates required by law. The State Treasurer may also issue voluntary reports or include in mandatory reports additional information that is not required by the statute.
- (b) Reports required by different statutory provisions may be combined, so long as the combined report provides all the information required by each statutory provision.
- (c) Failure by any Department of State Treasurer employee to comply with any provision of this Section may result in disciplinary action up to and including dismissal.

TRANSMISSION OF REPORTS

- (a) The State Treasurer will issue reports directly or through a deputy authorized under N.C.G.S. § 147-75.
- (b) To fulfill the report delivery requirements set out in N.C.G.S. § 147-69.12(d):
 - (1) E-mail delivery shall be used to send reports to the Joint Legislative Commission on Government Operations, chairs of the House of Representatives and Senate Appropriations Committees, chairs of the House of Representative and Senate Finance Committees, Fiscal Research Division, Governor, Council of State, and State Auditor.
 - (2) A paper copy shall also be sent to the Joint Legislative Commission on Government Operations, unless the Commission indicates that a paper copy is not necessary.
 - (3) The website of the State Treasurer shall have a publicly accessible page that collects recent reports required by the North Carolina General Statutes concerning the State Treasurer's investment programs. Reports shall be collected for at least ten years.
 - (4) E-mail delivery or website portal delivery, at the State Treasurer's discretion, shall be used to send reports, where required by N.C.G.S. § 147-69.12(d), to other officials, institutions, boards, commissions, or agencies investing in a State Treasurer investment program, including but not limited to the State Treasurer's Ancillary Governmental Participant Investment Programs (AGPIPs).

SCOPE OF REPORTING; LEVEL OF DETAIL

- (a) Each statutory investment report shall include all State Treasurer investments, unless the statute specifically requests only certain types of investments.
- (b) For internally managed portfolios, the State Treasurer may make aggregated reports for each strategy that describe performance and assets at the portfolio level, rather than listing each asset within the internally managed portfolio.
- (c) Unless otherwise specified by the Department of State Treasurer in the report, all reports shall use generally accepted accounting principles and performance measurement methodologies as adopted by the State Treasurer in its policies and procedures. The State Treasurer shall periodically review and update such policies and procedures and make them available upon request.

DEFINITIONS OF TERMS

In the State Treasurer's required investment reports, the following words and phrases shall have the meanings defined below:

(1) "Bank balance" means money held by the State Treasurer in a bank or savings institution.

- (2) "Cash management programs" means the Short-Term Investment Fund, bank balances, and any other future investment fund or strategy designed primarily to preserve capital and maintain a strong liquidity profile, as well as achieve competitive relative returns.
- (3) "Duration" of an investment refers to the sensitivity of an investment's price to changes in interest rates. The calculation involves the present value of the investment, its yield, coupon payment, maturity date and other features, and is measured in terms of years. A higher figure suggests higher interest rate sensitivity. The duration of a portfolio is calculated as the weighted average of all of the underlying securities' duration.
- (4) "Fee" means a charge against the State Treasurer or a State Treasurer investment. The State Treasurer's reports shall include under "fees" all of the following types of charges:
 - (i) Management fees;
 - (ii) Incentive compensation, carried interest, incentive fees, or performance fees; and
 - (iii) Placement fees.
- (5) "Expense" means the Department of State Treasurer's administrative costs attributable to and charged to the investment portfolio. The State Treasurer's reports shall include under "expenses" all of the following types of charges, as communicated to the State Treasurer:
 - (i) Administrative expenses;
 - (ii) Commissions, asset fees, or custody fees;
 - (iii) Partnership or organizational expenses;
 - (iv) Pass-through expenses; and
 - (v) The portion of the Department of State Treasurer's administrative costs attributable to and charged to the investment portfolio or investment fund.
- (6) "Investment manager" means a person or entity, other than Department of State Treasurer employees, given authority or discretion by the State Treasurer to make decisions concerning State Treasurer investments.
- (7) "Placement fee" or "placement agent fee" means a net fee, after any offsets, (i) to a placement agent or (ii) to any other entity, other than the investment manager itself or one of its employees or affiliates, that an investment manager directly or indirectly engaged in order to obtain investment from the State Treasurer.
- (8) "Rate of return" refers to the time-weighted return of each period shown, with adjustments made for cash inflows and outflows to limit distorting effects. Periods of greater than one year are annualized. All returns shown are net of all investment manager fees and all related State Treasurer expenses.
- (9) "State Treasurer investments" shall mean all investments of any kind by the Treasurer of the State of North Carolina or Department of State Treasurer, including but not limited to securities held directly, securities held in separate accounts pursuant to third-party investment management agreements, interests in limited liability investment vehicles or other investment companies as defined under generally accepted United States accounting principles as promulgated by the Financial Accounting Standards Board.
- (10) "Website portal delivery" means a secure method of accessing messages on a website portal set up by the Department of State Treasurer.