# NORTH CAROLINA 

OFFICE OF THE TREASURER
JANET COWELL, TREASURER
November 10, 2016
By Electronic Mail and U.S. Mail
Joint Legislative Commission
on Governmental Operations
North Carolina General Assembly
Raleigh, North Carolina 27601

RE: Quarterly Investment Report for the Period Ended September 30, 2016

Dear Colleagues:
This quarterly report provides the information required under 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 September 30,2016 . This report addresses the following topics:
I. Investment Performance [147-69.12(a)(6)(g)]
A. Market Environment Context
B. Retirement Systems [147-69.12(a)(5)(a,b)]
i. Total Fund (Investment Program) Performance
ii. Investment Policy Statement (IPS) Asset Class Performance
C. Cash Management Programs [147-69.12(a)(4)]
i. Performance of Short-Term Investment Fund (STIF)
ii. Bank Balances [147-69.12(a)(3)]
D. Other Investment Programs - Ancillary Governmental Participant Investment Programs [14769.12(a)(6),(7)]
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 [147-69.12(a)(6)]
II. North Carolina Retirement System Financial Information
A. Introduction to Differences between the IPS and Statute
B. Concordance of IPS and Statute
C. Statutory Compliance - Statutory Asset Classes [147-69.12(a)(5)(c)], [147-69.12(a)(1)]
D. Fees - Statutory Asset Classes [147-69.12(a)(1)]
E. Green Managers and Funds [147-69.12(a)(2)]
F. Locations on Website [147-69.12(a)(6)(f,i,j)]

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

## Appendix 2: References

A. Implementation versus Long-Term Policy Benchmark
B. Other Benchmark Definitions


Janet Cowell
cc: Kevin SigRist, Chief Investment Officer Fran Lawrence, Chief Financial Officer

## Quarterly Investment Report for the Period ending September 30, 2016

## I. Investment Performance [147-69.12(a)(6)(g)]

## A. Market Environment Context

For the quarter ended September 30, 2016, the Gross Domestic Product (GDP) adjusted for inflation, and seasonality increased at a moderated rate of $2.9 \%$, the highest since the same period in 2014 . The unemployment rate, however, increased slightly to $5.0 \%$. Consumer price inflation saw some gains, increasing at a rate of $1.5 \%$ year over year, while core consumer price inflation (i.e., removing the volatile food and energy sectors) remained relatively flat at $2.2 \%$ year over year. While equity markets were briefly shaken by the British referendum vote in late June, this fear was short lived. While both generated strong returns, global equities turned to outperform U.S. equities during the quarter. After a weak start to the year, emerging market equities also outperformed, supported in part by stabilizing currencies. Also stabilizing was the price of commodities, especially oil, which provided support for the energy sector and equity markets overall. In addition, continued accommodative policies from central banks around the world helped to support asset prices. While at the start of the year, the Federal Reserve projected four additional hikes to short-term interest rates during 2016, as of the end of the quarter, none had occurred. The Federal Open Market Committee again lowered its economic projections in September, which helped to remove some of the upward pressure on U.S. Treasury yields. Overall, the quarter ended with short- and intermediate-term interest rates slightly higher, while 30-year rates remained roughly unchanged. This resulted in a slight flattening of the yield curve, and modest returns for investment-grade fixed income. Lower-rated corporate bonds outperformed their investment-grade counterparts, benefitting from the same factors which supported equity markets. In addition, muted volatility helped to support the prices of these assets.

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

i. Total Fund (Investment Program) Performance for periods ending September 30, 2016


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 Perform | mance |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Market Value (\$000) | $\begin{gathered} 3 \\ \text { Month } \end{gathered}$ | 1 Yr | 3 Yr | 5 Yr | 10 Yr | 15 Yr |
| Growth | 52,391,145 | 5.0 | 10.0 | 6.4 | 11.1 | 4.8 | 6.5 |
| Benchmark |  | 4.6 | 9.5 | 5.4 | 9.8 | 4.2 | 5.9 |
| Public Equity | 38,833,287 | 5.7 | 11.8 | 5.5 | 11.7 | 4.8 | 6.5 |
| Benchmark |  | 5.3 | 11.7 | 5.2 | 10.8 | 4.2 | 5.8 |
| Private Equity | 4,435,697 | 2.5 | 3.0 | 10.6 | 8.9 | 7.3 | 5.6 |
| Benchmark |  | 1.3 | 1.6 | 9.0 | 8.7 | 8.8 | 9.3 |
| Non-Core Real Estate | 3,890,464 | 3.2 | 12.6 | 16.0 | 13.1 | 3.7 | 5.3 |
| Benchmark |  | 0.5 | 3.8 | 8.7 | 8.8 | 2.4 | 6.7 |
| Opportunistic Fixed Income | 5,231,697 | 3.7 | 1.8 | 2.8 | 6.5 | 6.2 | - |
| Benchmark |  | 4.5 | 5.2 | 1.3 | 2.8 | 0.5 | - |
| Rates \& Liquidity | 25,869,110 | 0.6 | 6.3 | 5.0 | 4.1 | 6.2 | 6.1 |
| Benchmark |  | 0.6 | 6.8 | 5.5 | 4.0 | 5.9 | 5.9 |
| IG Fixed Income | 24,815,111 | 0.6 | 6.5 | 5.1 | 4.2 | 6.2 | 6.1 |
| Benchmark |  | 0.6 | 7.0 | 5.7 | 4.1 | 6.0 | 5.9 |
| Cash | 1,054,000 | 0.2 | 0.9 | 0.6 | - | - | - |
| Benchmark |  | 0.1 | 0.2 | 0.1 | 0.1 | - | - |
| Inflation Sensitive \& Diversifiers | 9,977,673 | 3.5 | 4.8 | 2.4 | 3.4 | 1.0 | 3.5 |
| Benchmark |  | 1.1 | 6.2 | 3.9 | 4.3 | 0.5 | 3.7 |
| Inflation Sensitive | 5,522,926 | 4.3 | 1.8 | (1.9) | (1.2) | (0.8) | 2.7 |
| Benchmark |  | 0.4 | 1.5 | (2.1) | (1.5) | 1.8 | 3.7 |
| Core Real Estate | 4,454,747 | 2.6 | 8.7 | 8.4 | 10.4 | 4.6 | 6.0 |
| Benchmark |  | 2.0 | 12.1 | 11.4 | 12.0 | 5.2 | 7.0 |
| Multi-Strategy | 1,586,151 | 3.8 | 8.8 | 4.9 | 11.0 | 5.3 | - |
| Benchmark |  | 3.9 | 7.7 | 3.7 | 9.3 | 5.9 | - |
| Total Pension Plan | 89,824,079 | 3.5 | 8.4 | 5.6 | 8.1 | 5.5 | 6.5 |
| Implementation Benchmark |  | 3.0 | 8.4 | 5.2 | 7.3 | 5.0 | 6.1 |
| Long-Term Policy Benchmark |  | 2.8 | 9.8 | 4.6 | 7.1 | 5.1 | 6.7 |

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

## C. Cash Management Programs

## i. Performance of STIF [147-69.12(a)(4)]

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 C(ii) below for information about the quarter-end bank balances.

As of September 30, 2016, STIF held a total of $\$ 19.4$ billion, with a duration of 0.79 years.
During the quarter ended September 30,2016 , STIF returned $0.23 \%$ versus a benchmark return of $0.07 \%$. 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" is the iMoneyNet First Tier Institutional Money Market Funds Net Index.

For comparison purposes, the crediting rate of STIF is shown below, over time, versus the yields of other short-term benchmarks. As of September 30, 2016, the crediting rate of STIF was $0.89 \%$.


## ii. Bank Balances [147-69.12(a)(3)]

The State's total Bank Balance as of September 30, 2016 is $\$ 194.8$ million. For a list of each bank and other qualified depository 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

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 the provision of N.C.G.S. 147-69.1 and N.C.G.S. 147-69.2, the Ancillary Governmental Participant Investment Program (AGPI Program). The AGPI program can include assets for, among others, the Escheat Fund, public hospitals, Local Government Other Post-Employment Benefits Trusts, Local Government Law Enforcement Special Separation Allowance Trusts, 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 Ancillary Governmental Participant 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 participants are eligible for STIF as referenced in Part C(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. Fund fees are 2.5 basis points up to $\$ 750$ million total fund assets and 2.0 basis points once total fund assets are above $\$ 750$ million. No administrative fees are charged to participants.

As of September 30, 2016, the BIF held a total of $\$ 1.6$ billion with a duration of 5.25 years. For a list of the entities invested in the BIF at quarter end please see the Ancillary Governmental Participant Investment Programs statement in Appendix 1, Part B.

BIF was created in August 2016. During the month ended September 30, 2016, BIF returned $-0.07 \%$, versus a benchmark return of $-0.06 \%$.

## 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 (MSCI ACWI). Fund fees are 2 basis points.

As of September 30, 2016, the EIF had $\$ 354.4$ million in total assets. For a list of the entities invested in the EIF at quarter end please see the Ancillary Governmental Participant Investment Programs statement in Appendix 1, Part B.

EIF was created in August 2016. During the month ended September 30, 2016, the EIF returned $0.63 \%$, versus a benchmark return of $0.61 \%$.

## iii. Escheat Fund [147-69.12(a)(6)]

As of September 30, 2016, the Escheat Fund had $\$ 518.3$ million in total assets. $\$ 362.5$ million of this was invested in STIF and $\$ 122.0$ million was invested in BIF.

Pursuant to G.S. 147-69.2(b)(12), up to $20 \%$ of the Escheat Fund's assets can be invested in authorized Public Equity, Real Estate, and Alternative Investments. For the quarter ending September 30, 2016, the Escheat Fund's held \$33.9 million in Alternatives. Performance data for these assets are shown below:

|  | Market <br> Value <br> $(\$ 000)$ | 3 <br> Month | 1 Yr | 3 Yr | 5 Yr | 10 Yr |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Escheats Alternatives | 33,885 | 6.4 | $\mathbf{( 0 . 0 )}$ | 5.3 | 6.4 | - |
| Benchmark |  | 1.2 | 3.1 | 11.9 | 10.3 | 10.1 |

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

## 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)]

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 Ancillary Governmental Participant Investment Programs statement in Appendix 1, Part B.

## II. North Carolina Retirement System Financial Information

## A. Introduction to Differences between Investment Policy Statement (IPS) and Statute

North Carolina General Statute § 147-69.2 proscribes 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 on individual asset classes and in the aggregate.

During the year ended 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 was updated in 2013. The IPS describing the asset class structure was finalized and became effective July 1, 2014. The table below compares 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 NCGS § 147-69.2 [147-69.12(a)(5)(c)]

|  | Statutory Classification (\$ Millions) |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Public Equity ${ }^{1}$ | Long Term ${ }^{2}$ | Cash ${ }^{2}$ | External <br> Fixed Income ${ }^{2}$ | Alternatives <br> 3 | Real Estate | Inflation <br> Protection ${ }^{5}$ | Other Fixed Income ${ }^{6}$ | Public Equity Limited Liability ${ }^{7}$ |  |
| Public Equity | \$35,761 |  |  |  |  |  |  |  | \$3,072 | \$38,833 |
| 5 Private Equity |  |  |  |  | \$4,436 |  |  |  |  | 4,436 |
| ${ }_{\bar{\prime}}$ Non-Core Real Estate |  |  |  |  |  | \$3,890 |  |  |  | 3,890 |
| v. Opportunistic Fixed Income |  |  |  |  |  |  |  | \$5,232 |  | 5,232 |
| $\stackrel{\text { col }}{+}$ IG Fixed Income |  | \$22,308 |  | \$2,507 |  |  |  |  |  | 24,815 |
| Cash |  |  | \$1,054 |  |  |  |  |  |  | 1,054 |
| $\stackrel{\sim}{6}$ Inflation Sensitive |  |  |  |  |  |  | \$5,523 |  |  | 5,523 |
| $\cong$ Core Real Estate |  |  |  |  |  | 4,455 |  |  |  | 4,455 |
| Multi-Strategy |  |  |  |  | 1,586 |  |  |  |  | 1,586 |
| Total | \$35,761 | \$22,308 | \$1,054 | \$2,507 | \$6,022 | \$8,345 | \$5,523 | \$5,232 | \$3,072 | \$89,824 |

${ }^{1}$ NCGS § 147-69.2(b)(8)(a),(c) ; ${ }^{2}$ NCGS § 147-69.1(c) and NCGS § 147-69.2(b)(1)-(6b) ; ${ }^{3}$ NCGS § 147-69.2(b)(9) ; ${ }^{4}$ NCGS § 147-69.2(b)(7) ; ${ }^{5}$ NCGS § 147-69.2(b)(9a) ;
${ }^{6}$ NCGS § 147-69.2(b)(6c) ; ${ }^{7}$ NCGS § 147-69.2(b)(8)(b)
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 NCGS § 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 NCGS § 147-69.2(b)(8)(b.) 8.5\%. However, ValueAct Capital Management has a different investment strategy than the other assets invested with managers through limited liability structures.

## 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 as of 09/30/16 | Compliant |
| :---: | :---: | :---: | :---: |
| NCGS § 147-69.1(c) and 147-69.2(b)(1)-(6b) for fixed income and cash | At least 20\% | 28.8\% | $\checkmark$ |
| NCGS § 147-69.2(b)(8) for public equity | No more than 65\% | 43.2\% | $\checkmark$ |
| NCGS § 147-69.2(b)(8)(b.) for public equity limited liability investment vehicles | No more than 8.5\% | 3.4\% | $\checkmark$ |
| NCGS § 147-69.2(b)(6c) for other fixed income | No more than 7.5\% | 5.8\% | $\checkmark$ |
| NCGS § 147-69.2(b)(7) for real estate | No more than 10\% | 9.3\% | $\checkmark$ |
| NCGS § 147-69.2(b)(9) for private equity and other alternatives | No more than 8.75\% | 6.7\% | $\checkmark$ |
| NCGS § 147-69.2(b)(9a) for inflation protection | No more than 7.5\% | 6.1\% | $\checkmark$ |
| NCGS § 147-69.2(b)(10a) for the 35\% aggregate portfolio limit | The sum of rows 3 to 7; No more than $35 \%$ | 31.4\% | $\checkmark$ |

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 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, 2016.

## 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 fixed income portfolio) 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 2015, the Department engaged CEM Benchmarking, a leading independent cost and performance analysis firm, to review the cost structure of the funds. The report showed that the funds' cost structure was below that of most institutional peers. This leads to savings of roughly 7.3 basis points compared to the median peer. Importantly, after deducting all fees, incentives, and expenses, the trust fund exceeded its performance benchmarks. This outperformance is a positive for plan beneficiaries, employers, and taxpayers. At the same time, the Department continues to proactively target improvements in cost-efficiency, transparency, risk management, and compliance.

## Calendar Year 2015 NCRS Costs of Investment Operations Compared to Peers

(Expressed in basis points where 50 basis points equals 0.50\%)
Total (Basis Points)

| Median Peer | 54.7 |
| :--- | :--- |
| North Carolina Retirement Systems | 47.4 |
| Percentile | $38 \%$ |

Source: CEM [Cost Effectiveness Measurement] Benchmarking Inc., The peer group consists of 14 U.S. public pension funds managing from $\$ 42$ billion to $\$ 157.7$ billion. The median peer managed $\$ 68.6$ billion versus NCRS' $\$ 89$ billion. CEM Benchmarking's methodology excludes carry/performance fees for private investments because most peers do not provide such data. All such fees and expenses have been deducted from all reported investment returns.

## 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.

However, the Treasurer has adopted "Long Term Stewardship Practices" on September 23, 2016 which includes evaluation of material long term economic, environmental, geopolitical, societal, and technological risks for asset management.

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

The current Investment Policy may be accessed at the following link:
https://www.nctreasurer.com/inv/Policies/InvestmentPolicyForNCRetirementSystems.pdf
A list of new commitments to external investment managers may be accessed at the following link:

## https://www.nctreasurer.com/inv/Pages/IAC-Reports.aspx

Information on the use of placement agents by investment managers may be accessed at the following link:
https://www.nctreasurer.com/inside-the-department/OpenGovernment/Pages/Placement-Agent-Disclosures.aspx
The "Long Term Stewardship Practices" can be accessed at the following link:
https://www.nctreasurer.com/inside-the-department/News-Room/press-releases/Pages/Treasurer-Cowell-Announces-Investment-Long-term-Stewardship-Policy.aspx

## Appendix 1: Financial Information

Part A: Department of State Treasurer Bank Balances

## DEPARTMENT OF STATE TREASURER <br> BANK BALANCES

AS OF SEPTEMBER 30, 2016
(dollars in thousands)

| Summary of Bank Balances |  |  |
| ---: | :--- | ---: |
| Balance as of 06/30/2016 | \$ |  |
| Total Receipts |  | $\mathbf{3 0 1 , 5 0 6}$ |
| Total Payments | $46,976,496$ |  |
| Balance as of 09/30/2016 | $\mathbf{\$}$ | $47,083,193$ |


| Bank Balances as of September 30, 2016 |  |
| :--- | ---: |
| Wells Fargo | \$ |
| Bank of America | 37,767 |
| SunTrust | 51,399 |
| PNC | 10,569 |
| First Citizens | 1,532 |
| BB\&T | 5,916 |
| Asheville Savings Bank | 9,824 |
| Bank of North Carolina | 750 |
| Bank of Tennessee | 100 |
| Bank of the Ozarks | 1 |
| Capital Bank | 1,500 |
| CommunityOne Bank | 3,391 |
| Fidelity Bank | 1,870 |
| First Bank | 9,250 |
| First Federal Savings Bank | 12,535 |
| Four Oaks Bank | 939 |
| High Point Bank | 100 |
| HomeTrust Bank | 1,000 |
| KS Bank | 1,000 |
| Lumbee Guaranty Bank | 100 |
| Entegra Bank (formerly Macon Bank) | 3,000 |
| M\&F Bank | 2,000 |
| Peoples Bank | 2,750 |
| South State Bank | 1,000 |
| Southern Bank \& Trust | 194,809 |
| Surrey Bank | 1,078 |
| TD Bank | 13,159 |
| The Little Bank | 750 |
| Townebank | 1,500 |
| Union Bank | 181 |
| United Community Bank | 2,000 |
| Uwharrie Bank | 750 |
| Yadkin Bank | 4,986 |
| Total* | 2,000 |
|  | 102 |

*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

- Combined Statement of Net Position
- Combining Statement of Net Position - Pension Trust Funds Investment Program
- Ancillary Governmental Participant Investment Programs
- Combined Statement of Operations
- Combining Statement of Operations - Pension Trust Funds Investment Program

DEPARTMENT OF STATE TREASURER

SEPTEMBER 30, 2016
(dollars in thousands)

|  | Short-term Investment Fund |  | *Pension Trust Funds Investment Program Subtotal |  | Intrafund <br> Eliminations |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net Assets: |  |  |  |  |  |  |  |  |
| Investment Securities: |  |  |  |  |  |  |  |  |
| Cash Equivalents | \$ | - | \$ | - | \$ | - | \$ | - |
| Certificates of Deposit |  | 10,600 |  | - |  | - |  | 10,600 |
| Repurchase Agreements |  | 1,940,000 |  | - |  | - |  | 1,940,000 |
| U.S. Treasury Bills/ Notes/ Bonds |  | 7,548,398 |  | 5,784,382 |  | - |  | 13,332,780 |
| U.S. Government Agency Notes/ Bonds |  | 9,654,904 |  | 828,596 |  | - |  | 10,483,500 |
| GNMA Certificates |  | - |  | 7,692,539 |  | - |  | 7,692,539 |
| Corporate Obligations |  | 54,998 |  | 8,505,076 |  | - |  | 8,560,074 |
| Other Investments |  | - |  | 287,074 |  | - |  | 287,074 |
| Investments in Equity Securities |  | - |  | 31,312 |  | - |  | 31,312 |
| Investments in Equity Trusts \& Limited Liability Entities* |  | - |  | 38,833,287 |  | - |  | 38,833,287 |
| Investments in Real Estate Trust Funds \& Partnerships |  | - |  | 8,345,211 |  | - |  | 8,345,211 |
| Investments in Alternative Partnerships |  | - |  | 5,990,536 |  | - |  | 5,990,536 |
| Investments in Credit Partnerships |  | - |  | 5,231,697 |  | - |  | 5,231,697 |
| Investments in Inflation Partnerships and Other Invest. |  | - |  | 4,658,251 |  | - |  | 4,658,251 |
| Total Investment Securities | \$ | 19,208,900 | \$ | 86,187,961 | \$ | - | \$ | 105,396,861 |
| Cash in Bank |  | 194,809 |  | - |  | - |  | 194,809 |
| Deposits in Short-term Investment Fund |  | - |  | 3,456,779 |  | $(3,456,779)$ |  | - |
| Other Assets, Net of Liabilities |  | 34,977 |  | 179,339 |  | - |  | 214,316 |
| Total Net Assets | \$ | 19,438,686 | \$ | 89,824,079 | \$ | $(3,456,779)$ | \$ | 105,805,986 |
| Participant Equity: |  |  |  |  |  |  |  |  |
| General Fund | \$ | 4,518,960 | \$ | - | \$ | - | \$ | 4,518,960 |
| Other Funds Which Earn Interest for General Fund |  | 1,669,103 |  | - |  | - |  | 1,669,103 |
| Highway Fund |  | 473,797 |  | - |  | - |  | 473,797 |
| Highway Trust Fund |  | 1,418,618 |  | - |  | - |  | 1,418,618 |
| University Trust Funds |  | 2,642,969 |  | - |  | - |  | 2,642,969 |
| Pension Trust Funds |  | 420,649 |  | 89,824,079 |  | - |  | 90,244,728 |
| Other Independent Trust Funds |  | 4,020,271 |  | - |  | - |  | 4,020,271 |
| Local Political Subdivisions |  | 773,483 |  | - |  | - |  | 773,483 |
| Licensing Boards |  | 44,057 |  | - |  | - |  | 44,057 |
| Other Investment Funds |  | 3,456,779 |  | - |  | $(3,456,779)$ |  | - |
| Total Participant Equity | \$ | 19,438,686 | \$ | 89,824,079 | \$ | $(3,456,779)$ | \$ | 105,805,986 |
| Percent of Total |  | 18.37\% |  | 84.90\% |  | -3.27\% |  | 100.00\% |

[^0]

* 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.
 included in the "Public Equity Limited Liability" category, not the "Public Equity" category. The "Public Equity" category includes all assets invested in long strategies.


# DEPARTMENT OF STATE TREASURER <br> <br> ANCILLARY GOVERNMENTAL PARTICIPANT INVESTMENT PROGRAMS <br> <br> ANCILLARY GOVERNMENTAL PARTICIPANT INVESTMENT PROGRAMS <br> SEPTEMBER 30, 2016 

(dollars in thousands)

|  |  | Bond <br> Index <br> Fund | Equity <br> Index <br> Fund | Escheats <br> Alternative Investments | General <br> Obligation Bond Proceeds | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STATEMENT OF NET POSITION |  |  |  |  |  |  |
| Net Assets: |  |  |  |  |  |  |
| Deposits in Equity Index Fund | \$ | - | 354,438 | - | - | 354,438 |
| Deposits in Bond Index Fund |  | 1,608,140 | - | - | - | 1,608,140 |
| Deposits in Alternative Investment Fund |  | - | - | 33,885 | - | 33,885 |
| Other Assets |  | - | - | - | 411,390 | 411,390 |
| Total Net Assets | \$ | 1,608,140 | 354,438 \$ | 33,885 | 411,390 | 2,407,853 |
| STATEMENT OF OPERATIONS |  |  |  |  |  |  |
| Revenues: |  |  |  |  |  |  |
| Investment Income: |  |  |  |  |  |  |
| Investment Earnings | \$ | 19,696 | 67,593 | 78 | 229 | 87,596 |
| Other Income |  | - | - | - | - | - |
| Subtotal |  | 19,696 | 67,593 | 78 | 229 | 87,596 |
| Net Unrealized Appreciation/Depreciation |  | $(6,157)$ | $(48,240)$ | 2,015 | - | $(52,382)$ |
| Total Investment Income |  | 13,539 | 19,353 | 2,093 | 229 | 35,214 |
| Expenditures: |  |  |  |  |  | - |
| Treasurer's Allocated Cost |  | - | - | - | - | - |
| Management Fees |  | - | (290) | (4) | - | (294) |
| Other Cost |  | (12) | - | (39) | - | (51) |
| Total Expenditures |  | (12) | (290) | (43) | - | (345) |
| Net Investment Income (Loss) | \$ | 13,527 \$ | 19,063 \$ | 2,050 | 229 | 34,869 |
|  |  | Bond Index | Equity |  |  |  |
|  |  |  | Index |  |  |  |
| Participants: |  | Fund | Fund |  |  |  |
| Buncombe County |  | - | - |  |  |  |
| City of Asheville |  | - | - |  |  |  |
| City of Concord |  | - |  |  |  |  |
| City of Greensboro |  | - | - |  |  |  |
| City of Greenville |  | - | - |  |  |  |
| City of Sanford |  | - | - |  |  |  |
| Clean Water - Department of Environmental Quality |  | - |  |  |  |  |
| Columbus Regional Healthcare System |  |  | - |  |  |  |
| Community Colleges |  | - |  |  |  |  |
| County of Dare |  | - | - |  |  |  |
| County of Guilford |  | - | - |  |  |  |
| County of Union |  | - | - |  |  |  |
| Disability Income Plan of Noth Carolina |  | - |  |  |  |  |
| Drinking Water - Department of Environmental Quality |  | - |  |  |  |  |
| Ecosystem Enhancement Program Wetlands Trust |  | - |  |  |  |  |
| Escheats Fund |  | - |  |  |  |  |
| Forsyth County |  | - | - |  |  |  |
| Greenville Utilities Commission |  | - | - |  |  |  |
| Housing Authority of the City of Raleigh |  | - | - |  |  |  |
| Isothermal Planning and Development Commission |  | - | - |  |  |  |
| Margaret R. Pardee Hospital |  |  | - |  |  |  |
| Mecklenburg County |  | - | - |  |  |  |
| NC Conservation Easement Endowment |  | - | - |  |  |  |
| NC Employee Benefit Trust |  | - |  |  |  |  |
| NC Student Loan Fund |  | - |  |  |  |  |
| New Hanover Memorial Hospital, Inc. |  |  | - |  |  |  |
| Orange County Government |  | - | - |  |  |  |
| Public Schools |  | - |  |  |  |  |
| Register of Deeds |  | - |  |  |  |  |
| Rowan-Cabarrus Community College |  | - |  |  |  |  |
| State Property Fire Insurance |  | - |  |  |  |  |
| Swain County |  | - |  |  |  |  |
| Town of Williamston |  | - | - |  |  |  |
| Trillium Health Resources |  | - | - |  |  |  |
| UNC SEAA Student Loan |  | - |  |  |  |  |
| Watauga Medical Center, Inc. |  | - | - |  |  |  |
| Wildlife Endowment |  | $\bullet$ |  |  |  |  |

## DEPARTMENT OF STATE TREASURER FOR THE PERIOD ENDED SEPTEMBER 30, 2016

(dollars in thousands)

|  | Short-term Investment Fund |  | Pension Trust Funds Investment Program Subtotal* |  | Intrafund <br> Eliminations |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenues: |  |  |  |  |  |  |  |
| Investment Income: |  |  |  |  |  |  |  |
| Investment Earnings | \$ | 44,116 | \$ | 1,411,056 | \$ | \$ | 1,455,172 |
| Intra-Pool Interest Earnings |  | - |  | 8,411 |  | $(8,411)$ | - |
| Income from Securities Lending |  | 985 |  | 2,904 |  | - | 3,889 |
| Commission Recapture |  | - |  | 17 |  | - | 17 |
| Other Income |  | - |  | 800 |  | - | 800 |
| Subtotal |  | 45,101 |  | 1,423,188 |  | $(8,411)$ | 1,459,878 |
| Net Unrealized Appreciation/Depreciation |  |  |  | 1,704,295 |  | - | 1,704,295 |
| Total Investment Income |  | 45,101 |  | 3,127,483 |  | $(8,411)$ | 3,164,173 |
| Expenditures: |  |  |  |  |  |  |  |
| Treasurer's Allocated Cost |  | (741) |  | (128) |  | - | (869) |
| Management Fees |  | - |  | $(25,772)$ |  | - | $(25,772)$ |
| Placement Fees** |  | - |  | - |  | - | - |
| Incentive Fees |  | - |  | - |  | - | - |
| Dividend Withholding Tax |  | - |  | $(3,622)$ |  | - | $(3,622)$ |
| Other Cost |  | (853) |  | $(10,792)$ |  | - | $(11,645)$ |
| Total Expenditures |  | $(1,594)$ |  | $(40,314)$ |  | - | $(41,908)$ |
| Net Investment Income (Loss) | \$ | 43,507 \$ | \$ | 3,087,169 | \$ | $(8,411)$ \$ | 3,122,265 |
| Total Investment Income Allocated: |  |  |  |  |  |  |  |
| General Fund | \$ | 12,089 | \$ | - | \$ | \$ | 12,089 |
| Highway Fund |  | 950 |  | - |  | - | 950 |
| Highway Trust Fund |  | 3,358 |  | - |  | - | 3,358 |
| University Trust Funds |  | 5,761 |  | - |  | - | 5,761 |
| Pension Trust Funds |  | 1,508 |  | 3,087,169 |  | - | 3,088,677 |
| Other Independent Trust Funds |  | 9,553 |  | - |  | - | 9,553 |
| Local Political Subdivisions |  | 1,770 |  | - |  | - | 1,770 |
| Licensing Boards |  | 107 |  | - |  | - | 107 |
| Other Investment Funds |  | 8,411 |  | - |  | $(8,411)$ | - |
| Total Investment Income Allocated | \$ | 43,507 \$ | \$ | 3,087,169 | \$ | $(8,411)$ \$ | 3,122,265 |

## Cash Return, Fiscal Year-to-Date (Annualized) 0.91\%

[^1]|  | 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenues: |  |  |  |  |  |  |  |  |  |  |  |
| Investment Income: |  |  |  |  |  |  |  |  |  |  |  |
| Investment Earnings \$ | \$ 170 | \$ | 351,453 \$ | \$ | \$ 452,885 | \$ $(2,457)$ \$ | \$ 322,299 \$ | \$ 234,821 | 38,783 | \$ 13,102 \$ | \$ 1,411,056 |
| Intra-Pool Interest Earnings | 1,992 |  | 519 | 5,900 | - | - | - | - | - | - | 8,411 |
| Income from Securities Lending | - |  | 1,810 | - | 1,094 | - | - | - | - | - | 2,904 |
| Commission Recapture | - |  | - | - | 17 | - | - | - | - | - | 17 |
| Other Income | - |  | - | - | 800 | - | - | - | - | - | 800 |
| Subtotal | 2,162 |  | 353,782 | 5,900 | 454,796 | $(2,457)$ | 322,299 | 234,821 | 38,783 | 13,102 | 1,423,188 |
| Net Unrealized Appreciation/Depreciation | n |  | $(205,354)$ | - | 1,603,569 | 63,137 | $(71,969)$ | $(51,642)$ | 151,055 | 215,499 | 1,704,295 |
| Total Investment Income | 2,162 |  | 148,428 | 5,900 | 2,058,365 | 60,680 | 250,330 | 183,179 | 189,838 | 228,601 | 3,127,483 |
| Expenditures: |  |  |  |  |  |  |  |  |  |  |  |
| Treasurer's Allocated Cost | - |  | (34) | - | (57) | - | (12) | (9) | (8) | (8) | (128) |
| Management Fees | - |  | - | - | 929 | - | $(11,083)$ | $(9,807)$ | $(1,997)$ | $(3,814)$ | $(25,772)$ |
| Incentive Fees | - |  | - | - | - | - | - | - | - | - | - |
| Placement Fees* | - |  | - | - | - | - | - | - | - | - | - |
| Dividend Withholding Tax | - |  | - | - | $(3,562)$ | - | (60) | - | - | - | $(3,622)$ |
| Other Cost | (7) |  | (547) | (205) | $(1,358)$ | - | $(1,141)$ | $(4,010)$ | $(1,840)$ | $(1,684)$ | $(10,792)$ |
| Total Expenditures | (7) |  | (581) | (205) | $(4,048)$ | 0 | $(12,296)$ | $(13,826)$ | $(3,845)$ | $(5,506)$ | $(40,314)$ |
| Net Investment Income \$ | \$ 2,155 \$ |  | 147,847 \$ | \$ 5,695 \$ | 2,054,317 \$ | \$ 60,680 \$ | \$ 238,034 \$ | 169,353 \$ | \$ 185,993 \$ | \$ 223,095 \$ | \$ 3,087,169 |
| Total Investment Income Allocated: |  |  |  |  |  |  |  |  |  |  |  |
| General Fund \$ | \$ - \$ |  | - \$ | \$ - \$ | \$ - \$ | \$ - \$ | \$ - \$ | \$ - \$ | \$ - \$ | \$ - \$ | \$ |
| Highway Fund | - |  | - | - | - | - | - | - | - | - | - |
| Highway Trust Fund | - |  | - | - | - | - | - | - | - | - | - |
| University Trust Funds | - |  | - | - | - | - | - | - | - | - | - |
| Pension Trust Funds | 2,155 |  | 147,847 | 5,695 | 2,054,317 | 60,680 | 238,034 | 169,353 | 185,993 | 223,095 | 3,087,169 |
| Other Independent Trust Funds | - |  | - | - | - | - | - | - | - | - | - |
| Local Political Subdivisions | - |  | - | - | - | - | - | - | - | - | - |
| Licensing Boards | - |  | - | - | - | - | - | - | - | - | - |
| Other Investment Funds | - - |  | - | - - | - - | - - | - | - - | - - | - - | - |
| Total Investment Income Allocated \$ | \$ 2,155 \$ |  | 147,847 \$ | \$ 5,695 \$ | \$ 2,054,317 \$ | \$ 60,680 \$ | \$ 238,034 \$ | 169,353 \$ | \$ 185,993 \$ | \$ 223,095 \$ | \$ 3,087,169 |
| Total Return, 12, 24, and 36 and 60 months: |  |  |  |  |  |  |  |  |  |  |  |
| 12 months | 0.91\% |  | 7.20\% | 0.68\% | 12.40\% | 5.12\% | 10.54\% | 4.52\% | 1.84\% | 1.81\% | 8.37\% |
| 24 months | 0.72\% |  | 5.24\% | 0.67\% | 2.92\% | N/A | 12.05\% | 5.98\% | -0.42\% | -4.30\% | 3.83\% |
| 36 months | 0.63\% |  | 5.46\% | 1.87\% | 5.51\% | N/A | 12.32\% | 9.05\% | 2.85\% | -1.63\% | 5.64\% |
| 60 months | N/A |  | 4.28\% | 4.95\% | 11.72\% | N/A | 11.18\% | 7.89\% | 6.51\% | -1.28\% | 8.12\% |

*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 versus Long-Term Policy Benchmark

The Implementation Benchmark is a blend of the Asset Class Benchmarks at policy weights. It is currently weighted as follows: 58\% Growth Benchmark, 29\% Rates \& Liquidity Benchmark, 11\% Inflation Sensitive \& Diversifiers Benchmark, and 2\% Multi-Strategy Benchmark.

The Long-Term Policy Benchmark is comprised of 57\% MSCI ACWI IMI Net, 33\% BOAML 5+ Years U.S. Treasury Index, 6\% Bloomberg Commodity Index, and 4\% 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, \& 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: 50\% Buyout, 20\% Venture Capital, and 30\% Special Situations and Distressed Securities.

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 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 $80 \%$ 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.


[^0]:    *The Trust Funds Investment Program is presented at market value. Trust Funds detail is included on Combining Statement of Net Position.
    **See description of Equity Investment Fund in note on following pages

[^1]:    * 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.

