

**NORTH CAROLINA DEPARTMENT OF  
STATE TREASURER EXTERNAL INVESTMENT POOL**

**FINANCIAL STATEMENTS  
WITH INDEPENDENT AUDITORS' REPORT**

**FISCAL YEAR ENDED JUNE 30, 2016**

North Carolina Department of State Treasurer External Investment Pool  
Fiscal Year Ended June 30, 2016

**Contents**

Independent Auditors' Report.....	1
Management's Discussion and Analysis .....	3
Financial Statements	
Statement of Fiduciary Net Position .....	9
Statement of Changes in Fiduciary Net Position .....	10
Notes to Financial Statements.....	11
Supplementary Information .....	37



## INDEPENDENT AUDITORS' REPORT

The Honorable Janet Cowell, State Treasurer  
North Carolina Department of State Treasurer and  
The Honorable Beth A. Wood, State Auditor

### **Report on the Financial Statements**

We have audited the financial statements of the North Carolina Department of State Treasurer External Investment Pool (the "Pool"), which comprise the statement of fiduciary net position as of June 30, 2016, and the related statement of changes in fiduciary net position for the year then ended, and the related notes to the basic financial statements, as listed in the table of contents.

### ***Management's Responsibility for the Financial Statements***

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### ***Auditors' Responsibility***

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Pool's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Pool's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### ***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the net position of the Pool as of June 30, 2016, and the respective changes in its net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

## **Other Matters**

### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, as listed in the table of contents, be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### *Other Information*

Our audit was conducted for the purpose of forming an opinion on the financial statements. The supplementary information is presented for purposes of additional analysis and is not a required part of the financial statements.

The supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary Information is fairly stated, in all material respects, in relation to the financial statements as a whole.

## **Other Reporting Required by Government Auditing Standards**

In accordance with *Government Auditing Standards*, we have also issued our report dated October 12, 2016 on our consideration of the internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the internal control over financial reporting and compliance.



**CliftonLarsonAllen LLP**

Baltimore, Maryland  
October 12, 2016

North Carolina Department of State Treasurer External Investment Pool  
Management's Discussion and Analysis  
Fiscal Year Ended June 30, 2016

**Introduction**

This section of the financial statements of the North Carolina Department of State Treasurer External Investment Pool (the "Pool") presents our discussion and analysis of the Pool's financial position as of June 30, 2016 and 2015. Since this discussion and analysis is designed to focus on current activities, it should be read in conjunction with the Pool's basic financial statements, which follow this section.

For the purposes of presenting the basic financial statements, investments are allocated to broad classifications that follow the North Carolina General Statutes definitions in Section 147-69.2(b). These "portfolios" are described in Note 3 and include the Short Term Investment Fund ("STIF"), Long Term Investment Fund ("LTIF"), Equity Investment portfolio, Real Estate Investment portfolio, Alternative Investment portfolio, Credit Investment portfolio, Inflation Protection Investment portfolio, and OPEB Equity Investment portfolio. Amounts associated with these portfolios are presented in the tables in Note 3. The classifications defined in the Investment Policy Statement of the Department of State Treasurer Investments are used for the purposes of Management's Discussion and Analysis of the economic and financial environment, investment performance, and risk management of the Pool. The Supplementary Information contains a mapping of the Investment Policy Statement's classifications to the statutory classifications which are used to prepare the basic financial statements as of June 30, 2016.

**Financial Statements**

The Pool's basic financial statements include the statement of fiduciary net position and statement of changes in fiduciary net position, which have been presented in accordance with accounting principles generally accepted in the United States as applicable to governmental entities.

The statement of fiduciary net position provides information on the financial position of the Pool for the fiscal year ended June 30, 2016. The statement of changes in fiduciary net position presents the results of the investing activities during the fiscal year ended June 30, 2016. The notes to the financial statements offer additional discussion that is essential to the full understanding of the data presented in the financial statements. The notes give more detail about accounting policies, significant account balances and activities, material risks, obligations, contingencies and subsequent events, if any.

North Carolina Department of State Treasurer External Investment Pool  
Management's Discussion and Analysis  
Fiscal Year Ended June 30, 2016

**Statements of Fiduciary Net Position**

The statements of fiduciary net position present the assets, liabilities and net position (assets minus liabilities) of the Pool as of the end of each of the respective fiscal years and are point in time financial statements.

**Statements of Fiduciary Net Position**

	<b>As of June 30</b>	
	<b>2016</b>	<b>2015</b>
	<i>(In Thousands)</i>	
<b>Assets</b>		
Cash and cash equivalents	\$ 399,043	\$ 482,906
Securities lending collateral	3,596,867	4,858,507
Investments, at fair value	103,625,981	103,557,628
Receivables	492,823	737,912
Total assets	\$ 108,114,714	\$ 109,636,953
<b>Liabilities</b>		
Other payables	199,056	479,451
Obligations under securities lending	3,596,867	5,048,143
Total liabilities	3,795,923	5,527,594
<b>Net Position</b>		
Net position held in trust	\$ 104,318,791	\$ 104,109,359

**Analysis of Statements of Fiduciary Net Position**

Total investments remained approximately the same at June 30, 2016 as compared to June 30, 2015, as the net increase in net position resulting from operations approximately equalled the distributions and redemptions from the Pool. Strategic movements between asset classes were undertaken to implement the revised Investment Policy Statement. Securities lending cash collateral declined \$1.3 billion (26%). The decrease in securities lending collateral resulted from a decrease in demand for lendable securities due to changing capital requirements for borrowers and the low interest rate environment.

North Carolina Department of State Treasurer External Investment Pool  
Management's Discussion and Analysis  
Fiscal Year Ended June 30, 2016

**Statements of Changes in Fiduciary Net Position**

Changes in net position are presented in the statements of changes in net position. The purpose of these statements is to present the net investment income earned by the Pool as well as expenses, net pension fund and other withdrawals.

**Statements of Changes in Fiduciary Net Position**

	Fiscal Years Ended June 30	
	2016	2015
	<i>(In Thousands)</i>	
<b>Additions</b>		
Investment income		
Interest and dividend income	\$ 1,688,550	\$ 2,179,135
Net appreciation (depreciation) in fair value of investments	(460,338)	362,255
Other investment income	218,612	134,442
Securities lending income	50,823	36,846
Total investment income	1,497,647	2,712,678
<b>Deductions</b>		
Investment management expenses	513,697	489,629
Administrative and other expenses	90,963	91,636
Securities lending expenses	11,634	6,360
Total deductions	616,294	587,625
Net increase in net position resulting from operations	881,353	2,125,053
<b>Distributions to participants</b>		
Distributions paid and payable	(881,353)	(2,125,053)
<b>Share transactions</b>		
Reinvestment of distributions	878,643	2,124,772
Net share redemptions	(669,211)	(1,779,512)
Changes in net position	209,432	345,260
Net position held in trust:		
Beginning of year	104,109,359	103,764,099
End of year	\$ 104,318,791	\$ 104,109,359

**Analysis of Changes in Fiduciary Net Position**

The Pool had net depreciation in fair value of \$460 million in fiscal year 2016 and net appreciation of \$362 million in fiscal year 2015, a decline of \$822 million. The decline was primarily due to unrealized losses on equities caused by general stock market declines. The interest and dividend income declined \$490 million from fiscal year 2015. The decline was primarily due to lower coupon rates within the LTIF, driven by the low interest rate environment. Net share redemptions from the Pool decreased \$1.1 billion (62%) due primarily to an increase in contributions to STIF while withdrawals to fund pension benefit payments remained approximately the same.

North Carolina Department of State Treasurer External Investment Pool  
Management's Discussion and Analysis  
Fiscal Year Ended June 30, 2016

**Economic and Portfolio Discussion**

Roughly seven years into its recovery, the U.S. economy continues to grow, albeit modestly, with falling unemployment rates and relatively low inflation. For the year ended June 30, 2016, Gross Domestic Product ("GDP") adjusted for inflation and seasonality increased at a moderated rate of 1.2%; the unemployment rate dropped further to 4.9%; consumer price inflation was a modest 1.0% year over year; and core consumer price inflation (i.e., removing the volatile food and energy sectors) was 2.3% year over year. In December 2015, the Federal Reserve increased the target federal funds rate from a range of 0.00-0.25% to a range of 0.25-0.50%, which served as the first change in the key interest rate since the "Great Recession" of 2007-2009. This move was widely expected by the financial markets, which since have continued to closely track and anticipate further moves from the Federal Reserve. Internationally, the Bank of Japan joined the European Central Bank in implementing negative short-term interest rates in January 2016. Also closely observed by the financial markets was the price of oil, which continued to exhibit volatility throughout the year. The price of Brent Crude fell from roughly \$60 per barrel in June 2015 to just under \$30 per barrel in January 2016, and then rebounded again to nearly \$50 per barrel to end the fiscal year. Further uncertainty was also introduced to the markets by an unexpected vote by the United Kingdom to leave the European Union on June 23, 2016. Given moderating economic growth, global uncertainty and limited inflation concerns, U.S. interest rates, with the exception of very short-term bill yields, ended the fiscal year lower. Specifically, the benchmark 10-year Treasury rate fell 86 basis points, from 2.35% to 1.49%. Both investment grade and high-yield corporate bonds (i.e., credit quality ratings) experienced volatility in their yield premiums compared to similar duration U.S. Treasury bonds during the year, with both ending the year slightly higher (wider yield spreads being negative for performance). For investment-grade bonds, falling interest rates across the yield curve acted as an offset to increasing spreads, and resulted in strong returns overall. High-yield bonds, however, struggled, given their lower duration and higher exposure to the energy market. Corporate default rates trended slightly higher throughout the year, driven largely by companies in the Energy sector and, to a lesser degree, by Metals and Mining.

The discussion below refers to classifications in the Investment Policy Statement. The Supplementary Information contains a mapping of the Investment Policy Statement's classifications to the statutory classifications.

The Investment Grade Fixed Income asset class returned 7.3% for the fiscal year versus a benchmark return of 8.2%. This relative underperformance was driven mainly by an underweight duration position, which caused performance to lag as interest rates fell across the curve. Given widening credit spreads and falling interest rates, the Opportunistic Fixed Income asset class struggled, returning -4.4% versus the benchmark return of -3.6%. Within the Opportunistic Fixed Income asset class, Special Situations (including private direct lending funds) and Distressed managers were able to generate positive returns overall, while long/short credit-oriented funds experienced disappointing absolute and relative performance. Several of the latter funds were terminated during the fiscal year.

North Carolina Department of State Treasurer External Investment Pool  
Management's Discussion and Analysis  
Fiscal Year Ended June 30, 2016

Global equity markets, as measured by the benchmark, returned -3.8% for the fiscal year. Stock returns were better in the U.S. than elsewhere in the world, with domestic Large Cap sectors faring the best. Overall, the Russell 3000 Index returned a positive 2.1%. Internationally, the MSCI ACWI ex-U.S. IMI index fell, with a return of -9.6%. The emerging markets were a particularly weak spot, as the MSCI Emerging Markets index posted an annual return of -12.1%. Several factors contributed to the underperformance of international equity market indices, including a lack of progress of the Japanese economy paired with a rallying Yen (pushing exporters' earnings even lower), growth concerns in Europe, and Chinese equities continuing to struggle throughout the year. In the emerging markets as a whole, slowing growth and fluctuating prices in the energy and materials sectors contributed to the volatility. Despite an environment that was generally difficult for active investing, the Public Equity Investment portfolio lagged its benchmark by just 5 basis points for the fiscal year, returning -3.9%. The U.S. Equity and Global Equity asset classes returned 0.6% and -4.5%, respectively, underperforming their benchmarks by 154 and 75 basis points. This was largely offset, however, by the Non-U.S. and Hedged Equity asset classes outperforming their benchmarks by 107 and 31 basis points, respectively. The Non-U.S. asset class returned -8.5% and the Hedged Equity asset class returned -1.3% for the fiscal year.

Commercial real estate fundamentals remained supportive throughout the year. Vacancy rates remained low as demand for space outpaced new supply and rents increased at a rate above inflation which provided healthy net operating income growth. Overall, property appreciation, while slowing, was additive to returns. Demographic trends, specifically population growth and the propensity of millennials to rent longer, also supported strong demand for multifamily housing units. The Non-Core Real Estate asset class had a 12.4% return for the fiscal year, handily beating the 6.5% return of the benchmark. The Core Real Estate asset class had an 8.5% annual return, lagging the 12.4% return of the benchmark, in part, due to a significant amount of new investments made over the past several years.

For the fiscal year, returns from Private Equity were somewhat muted after several strong years, with the strongest absolute results coming from the Buyout and Fund of Funds categories. While returns were not as robust as they had been over the past few years, managers were still able to add value through sector focused, distressed, and other specialized opportunities. Economy-wide private equity deal volume overall trended slightly downward over the course of the year, as companies faced both domestic and international headwinds. Reliance on leverage by Private Equity funds has continued to decline which is viewed positively from a risk standpoint, although potentially at the expense of higher future returns. For the fiscal year, the Private Equity asset class had a 4.3% annual return, which was roughly in line with the return of the benchmark.

Declines in commodity prices, notably energy, created a challenging environment for the Inflation Sensitive asset class. The asset class had a -5.8% return for the fiscal year, lagging the -3.1% return of its benchmark. The weakest subcomponents of the asset class were Private Energy with a return of -27.5% and Liquid Diversifiers with a return of -15.1%. The strongest subcomponents of the asset class were Infrastructure with a return of 7.9% and Real Assets with a return of 7.8%.

North Carolina Department of State Treasurer External Investment Pool  
Management's Discussion and Analysis  
Fiscal Year Ended June 30, 2016

The North Carolina Department of State Treasurer ("Treasurer") invests the STIF with the objectives of preservation of capital, liquidity, and competitive relative returns. The portfolio is managed with a laddering strategy out to one year that is designed to provide consistent liquidity for short-term cash needs, but allows the portfolio manager to take advantage of investing out the yield curve with a portion of the assets. The STIF return for the year ended June 30, 2016 was 0.75%.

Looking forward, the major initiatives of the Treasurer's investment programs for the next several years include: implementing a managed account platform to improve control, transparency, and cost of hedge funds; implementing an internally-managed equity index fund; codifying investment beliefs and updating related policies; restructuring/exiting certain fund of funds and legacy low-conviction funds; strategically reviewing the Core Real Estate asset class, and finalizing a custom risk system and related processes.

**Request for Information**

This financial report is designed to provide our citizens, taxpayers, customers, investors, and creditors with a general overview of the North Carolina Department of State Treasurer's investment finances and to demonstrate the accountability of the Department and State Treasurer for the money they receive. If you have questions about this report or need additional financial information, contact the North Carolina Department of State Treasurer, 3200 Atlantic Avenue, Raleigh, NC 27604, United States. The Department's website is [www.nctreasurer.com](http://www.nctreasurer.com) and investment reports are available on that site at that address.

North Carolina Department of State Treasurer External Investment Pool  
Statement of Fiduciary Net Position  
As of June 30, 2016  
(In Thousands)

**Statement of Fiduciary Net Position**

<b>Assets</b>	
Cash and cash equivalents	\$ 399,043
Securities lending collateral	3,596,867
Investments, at fair value	103,625,981
Receivables:	
Accrued interest and dividends	295,617
Investments sold, but not settled	110,056
Other receivables	87,150
Total receivables	<u>492,823</u>
Total assets	<u><u>\$ 108,114,714</u></u>
<b>Liabilities</b>	
Accounts payable and accrued liabilities	29,894
Investments purchased, but not settled	169,162
Obligations under securities lending	3,596,867
Total liabilities	<u>\$ 3,795,923</u>
<b>Net Position</b>	
Net position held in trust	<u><u>\$ 104,318,791</u></u>

*The accompanying notes are an integral part of these financial statements.*

North Carolina Department of State Treasurer External Investment Pool  
Statement of Changes in Fiduciary Net Position  
Fiscal Year Ended June 30, 2016  
(In Thousands)

**Statements of Changes in Fiduciary Net Position**

**Additions:**

Investment income:		
Interest and dividend income	\$	1,688,550
Net depreciation in fair value of investments		(460,338)
Other investment income		218,612
Securities lending income		50,823
Total investment income	<u>\$</u>	<u>1,497,647</u>

**Deductions**

Investment management expenses		513,697
Administrative and other expenses		90,963
Securities lending expense		11,634
Total deductions	<u>\$</u>	<u>616,294</u>
Net increase in net position resulting from operations		881,353

**Distributions to participants**

Distributions paid and payable		(881,353)
--------------------------------	--	-----------

**Share transactions**

Reinvestment of distributions		878,643
Net share redemptions		(669,211)

Change in net position		209,432
Net position held in trust:		
Beginning of year		104,109,359
End of year	<u>\$</u>	<u>104,318,791</u>

*The accompanying notes are an integral part of these financial statements.*

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

## **1. Financial Reporting Entity**

The North Carolina Department of State Treasurer External Investment Pool (the “Pool”) contains deposits from funds and component units of the State of North Carolina, except for the Public Hospitals, certain investments of the Escheat Fund, and the Bond Proceeds Investment Accounts. The participants of the Pool include Teachers’ and State Employees’ Retirement System, Consolidated Judicial Retirement System, Legislative Retirement System, Firefighters’ and Rescue Squad Workers’ Pension Fund, North Carolina National Guard Pension Fund, Local Governmental Employees’ Retirement System, Teachers and State Employees’ Benefit Trust, Retiree Health Benefit Fund, Disability Income Plan of N.C., and Register of Deeds’ Supplemental Pension Fund as well as component units of the State of North Carolina and other external entities. The deposits are commingled; therefore, the North Carolina Department of State Treasurer (the “Treasurer”) considers all investment portfolios to be part of the Pool. The Pool is not a legally separate entity within the State of North Carolina. Also, the Pool is not registered with the Securities and Exchange Commission and is not subject to any formal oversight other than that of the State of North Carolina.

The Pool, a governmental set of investments of the Treasurer, consists of the following individual investment portfolios: Short-term Investment Fund (“STIF”), Long-term Investment Fund (“LTIF”), External Fixed Income Portfolio, Equity Investment Portfolio, Real Estate Investment Portfolio, Alternative Investment Portfolio, Credit Investment Portfolio, Inflation Protection Investment Portfolio, and OPEB Equity Investment Portfolio. The Pool operates under General Statutes 147-69.1 to 147-69.3. The statutes address credit and other risks to which the Treasurer adheres in the management of the Pool.

The accompanying financial statements present only the net position of the Pool and do not purport to, and do not, present fairly the financial position of the State of North Carolina as of June 30, 2016, and the changes in its financial position for the year then ended in conformity with accounting principles generally accepted in the United States.

## **2. Summary of Significant Accounting Policies**

### **Basis of Presentation**

The accompanying financial statements were prepared in accordance with accounting principles generally accepted in the United States (“GAAP”) for governments as applicable to governmental units. The Governmental Accounting Standards Board (“GASB”) is the accepted standard-setting body for establishing governmental accounting and reporting principles.

### **Measurement Focus and Basis of Accounting**

The financial statements are reported using the economic resources measurement focus and the accrual basis of accounting. Under this method, additions are recorded when earned and deductions are recorded at the time liabilities are incurred, regardless of the timing of related cash flows.

# North Carolina Department of State Treasurer External Investment Pool

Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

## **New Accounting Standards**

In fiscal year 2016, the Pool implemented GASB Statement No. 72, *Fair Value Measurement and Application*, (“GASB 72”). This statement defines fair value and describes how state and local governments should define and measure fair value, what assets and liabilities should be measured at fair value, and what information about fair value should be disclosed in the notes to the financial statements. GASB 72 enhances transparency through new note disclosures as reflected in Note 4 Fair Value Measurement.

## **Cash and Cash Equivalents**

The Pool reports all cash on hand and deposits in banks, including demand deposits as cash and cash equivalents. Restricted cash represents the Pool’s cash held by counterparties as collateral against the Pool’s derivatives. Cash held by counterparties as collateral is not available to the Pool for general operating purposes, but may be applied against amounts due to derivative counterparties or returned to the Pool when the collateral requirements are exceeded or at the maturity of the derivatives. Cash equivalents are highly liquid investments with an original maturity of ninety days or less when purchased.

## **Securities Lending**

Cash received as collateral on securities lending transactions is used to purchase investments. These investments are reported as securities lending collateral in the accompanying financial statements and are generally measured at fair value with the exception of repurchase agreements, which are reported at cost. Additional investments priced at cost are time deposits and money market funds in the securities lending cash collateral pools. A corresponding liability is also reported as obligations under securities lending in the accompanying financial statements for the amount owed to the broker at the termination of the lending agreement. Income and expenses related to securities lending are reported at gross amount.

## **Valuation of Investments and Derivatives**

Investments and derivatives are reported at fair value with significant exceptions noted below. Repurchase agreements and non-negotiable certificates of deposit in the STIF are reported at cost which approximates fair value.

Fair values are determined daily for the LTIF, Equity Investment, and OPEB Equity Investment portfolios and quarterly for the Real Estate Investment and Alternative Investment portfolios. The Credit Investment portfolio is valued quarterly except for hedge fund investments which are valued monthly. The Inflation Protection Investment portfolio consists of limited partnerships which are valued quarterly and futures which are valued daily or monthly. In the LTIF portfolio, the fair value of fixed income securities is calculated by a third party pricing vendor based on future principal and interest payments discounted using market yields. For the Alternative Investment portfolio (private equity investment partnerships and hedge funds), the Real Estate Investment portfolio (limited partnerships and other investments), the Credit Investment and

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

**Valuation of Investments and Derivatives (Continued)**

Inflation Protection Investment portfolios (limited partnerships, hedge funds, and other non-publicly traded investments) the methodology for determining an estimated fair value is established by the general partner, which may utilize a third party pricing source or an independent real estate appraiser. Contracts with these partnerships, hedge funds, and other investments require an annual audit, except for certain older investments that are immaterial to the financial statements.

The general partners' estimated fair values are based on the partnership's and fund's respective net asset values ("NAV"). The most significant input into the NAV of such an entity is the fair value of its holdings. These non-publicly traded assets are valued at current fair value, taking into consideration the financial performance of the issuer, cash flow analysis, recent sales prices, market comparable transactions, a new round of financing, a change in economic conditions, and other pertinent information. The fair values of certain investments may require significant management judgment or estimation. Fair value is determined using the best information available for a hypothetical transaction at the measurement date, not using forced sale or fire sale pricing. Participants' shares sold and redeemed are determined in the same manner as is used to report investments, and the Treasurer does not provide or obtain legally binding guarantees to support share values. Net investment income earned by the Pool is generally distributed on a pro rata basis.

Forward foreign currency contracts and futures contracts are included in the Statement of Net Position as "Investments, at fair value." Investments, at fair value, incorporate unrealized gains or losses on outstanding forward foreign currency contracts and futures contracts. Gains or losses, incurred when forward foreign currency contracts and futures contracts entered into by the Pool mature or are closed out, are included in "Net appreciation (depreciation) in fair value of investments" in the Statement of Changes in Fiduciary Net Position.

**Accounts Payable and Accrued Liabilities**

Accounts payable and accrued liabilities include amounts due for administrative and investment management expenses.

**Income Recognition**

Investment transactions are accounted for on a trade (investment) date basis. Net appreciation (depreciation) in the fair value of investments consists of both the realized and unrealized gains or losses which include those resulting from the sale of assets during the year as well as changes in the fair market value of the investments held at fiscal year end. Interest and dividend income is recorded on the accrual basis, with dividends accruing on the ex-dividend date.

# North Carolina Department of State Treasurer External Investment Pool

Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

## **Investment Management Expenses**

The Investment Management Division (“IMD”) of the Treasurer hires external investment managers to invest a significant portion of the Pool’s investment assets. The Pool typically pays investment management fees based on individually negotiated investment management agreements. The fees, usually paid quarterly, may be based on a sliding scale of the portfolio’s net asset value at quarter-end, calculated by multiplying each level of net position by a specified basis point charge, or may be performance-related, typically associated with exceeding a market benchmark and/or hurdle rate. Fees are paid from the appropriate manager’s portfolio and are recognized as an expense over the time period for which the fees are applicable. Certain investment management fees, usually in private equity portfolios, are paid at the beginning of the period. These charges are reported on the Statement of Changes in Net Position as part of the Pool’s investment management expenses.

## **Administrative and Other Expenses**

Certain administrative expenses of the Pool are paid by the Treasurer. These expenses consist of charges to the individual funds administered by IMD and include custodial fees, bank charges, the Treasurer’s allocated costs of administering the plan, partnership expenses and other costs of administering the investment portfolios. These charges are reported on the Statement of Changes in Net Position as part of the Pool’s administrative and other expenses.

## **Use of Estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of income and expense during the reporting period. Actual results could differ from those estimates.

## **3. Deposits and Investments**

All deposits are cash and cash equivalents. As of June 30, 2016, the balance of the Pool’s deposits was \$340.7 million. Also at June 30, 2016, the amount of restricted cash held by the Pool was \$58.3 million.

Unless specifically exempt, every agency of the State and certain component units are required by General Statute 147-77 to deposit moneys received with the Treasurer or with a depository institution in the name of the Treasurer. Deposits to the Pool may be made in any bank, savings and loan association or trust company in the State as approved by the Treasurer. General Statute 147-79 requires depositories to collateralize all balances that are not FDIC insured. The depositories must maintain specified security types in a third party escrow account established by the Treasurer.

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

**3. Deposits and Investments (Continued)**

The Treasurer is directed by statute to establish, maintain, administer, manage and operate investment programs for the Pool's assets, pursuant to the applicable statutes. In doing so, the Treasurer has full powers as a fiduciary and, with IMD staff, manages the investment programs so assets may be readily converted into cash when needed.

In establishing the comprehensive management program, the Treasurer, utilizing a professional investment staff, has developed an investment strategy for each portfolio that recognizes the guidelines of the governing General Statutes. In addition to the Treasurer and IMD staff managing these programs, the Investment Advisory Committee ("IAC") provides opinions on policies and opinions on general strategy for the Pension Fund investments, including asset allocation, in consultation with IMD staff.

**Investment Portfolios**

The Pool invests in the following individual investment portfolios as of June 30, 2016:

<b>Statutory Asset Allocation</b>	
<i>(in Thousands)</i>	
Short Term Investment Fund	\$ 18,326,702
Long Term Investment Fund	23,279,132
Equity Investment	37,127,541
Real Estate Investment	8,355,396
Alternative Investment	5,991,418
Credit Investment	5,175,458
Inflation Protection Investment	5,213,868
OPEB Equity Investment	127,749
Cash Pool	28,717
<b>Total Investments</b>	<b>\$ 103,625,981</b>

STIF – This fixed-income investment portfolio is the primary cash management account and is managed in such a manner as to be readily convertible into cash. The primary participants of this portfolio are the General Fund and the Highway Funds. Other participants may include universities and various boards, commissions, community colleges, and school administrative units that make voluntary deposits with the Treasurer as well as the remaining portfolios listed below. The Teachers' and State Employees' Retirement System, Consolidated Judicial Retirement System, Legislative Retirement System, Firefighters' and Rescue Squad Workers' Pension Fund, North Carolina National Guard Pension Fund, Local Governmental Employees' Retirement System, and Retiree Health Benefit Fund (collectively the "North Carolina Retirement Systems") hold a cash allocation that is invested in STIF and provides liquidity for the Pool.

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

**Investment Portfolios (Continued)**

LTIF – This portfolio holds fixed-income investments, including Government National Mortgage Association (“GNMA”) certificates, corporate bonds, US Treasuries, and US agency obligations. Since the deposits in this fund are typically not needed for day-to-day operations, the investment vehicles used generally have a longer term and higher yield than those held in the STIF. The primary participants of the portfolio are the North Carolina Retirement Systems. Other participants in the LTIF during the 2015-16 fiscal year included the Escheat Fund, Disability Income Plan of NC, and other boards, commissions, community colleges, school administrative units, and public authorities of the State.

Equity Investment – This portfolio primarily holds an equity-based trust. The North Carolina Retirement Systems are the sole participants in the portfolio.

Real Estate Investment – This portfolio holds investments in real estate-based trust funds, limited partnerships and other limited liability investment vehicles, group annuity contracts, and accounts managed under contractual relationships giving an external investment manager discretion. The North Carolina Retirement Systems are the sole participants in the portfolio.

Alternative Investment – This portfolio holds investments in limited partnerships and other limited liability investment vehicles, hedge funds, US Treasuries, and equities received in the form of distributions from its primary investments. The North Carolina Retirement Systems are the sole participants in the portfolio.

Credit Investment – This portfolio holds investments in debt-related strategies made primarily through limited partnerships or other limited liability vehicles. The North Carolina Retirement Systems are the sole participants in the portfolio.

Inflation Protection Investment – This portfolio holds investments in assets that are acquired for the primary purpose of providing protection against risks associated with inflation made primarily through limited partnerships or other limited liability vehicles. The North Carolina Retirement Systems are the sole participants in the portfolio.

OPEB Equity Investment – This portfolio holds equity-based trusts. These trusts are established for local governments, public authorities, any entity eligible to participate in the State’s Local Governmental Employees’ Retirement System, and local school administrative units. Eligible participants make voluntary contributions to the trusts for the purpose of depositing and investing all or part of the contribution from their other postemployment benefit plans. As of June 30, 2016, there were seventeen participants. Each participant is responsible for making its own investment decision. However, through signed agreements with the Treasurer, most participants have delegated certain investment authority to the Treasurer.

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

**Investments by Type**

The following schedule discloses the investments, by investment type, as of June 30, 2016. Other Investment Portfolios in the following schedule consist of all portfolios previously defined in the Statutory Asset Allocation schedule, excluding STIF and LTIF.

<b>Investment Type</b>	<b>Total</b>
<b>STIF</b>	<i>(In Thousands)</i>
U.S. treasuries	\$ 7,347,150
U.S. agencies	8,063,962
Domestic corporate bonds	54,990
Certificates of deposit	10,600
Repurchase agreements	2,850,000
Subtotal	18,326,702
Securities purchased with cash collateral under securities lending program	
Time deposits	41,080
Repurchase agreements	405,355
Money market mutual fund	73,129
Commercial paper	10,408
Domestic corporate bonds	490,370
Subtotal securities lending	1,020,342
Total	\$ 19,347,044
<b>LTIF</b>	
U.S. treasuries	\$ 6,028,229
U.S. agencies	828,764
Mortgage pass-through	8,008,830
Domestic corporate bonds	8,387,148
Foreign government bonds	26,161
Subtotal	23,279,132
Securities purchased with cash collateral under securities lending program	
Time deposits	23,660
Repurchase agreements	556,822
Money market mutual fund	157,405
Commercial paper	39,350
Domestic corporate bonds	1,036,399
Subtotal securities lending	1,813,636
Total	\$ 25,092,768

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

**Investments by Type (Continued)**

<b>Investment Type</b>	<b>Total</b>
<b>Other investment portfolios</b>	
U.S. treasuries	\$ 576,191
Collateralized mortgage obligations	48,562
Commercial mortgage-based securities	16,991
Collective investment funds	1,247,895
Domestic corporate bonds	96,963
Equity securities	8,893
Futures contracts	12,912
Securities purchased with cash collateral under securities lending program	
Asset-backed securities	71,936
Negotiable certificates of deposit	90,026
Time deposits	64,929
Yankee certificate of deposit	263,003
Bank notes	40,004
Commercial paper	104,991
Repurchase agreements	128,000
Equity based trust-domestic	19,176,008
Equity based trust-international	16,910,774
OPEB equity based trust-domestic	97,431
OPEB equity based trust-international	30,318
Alternative investments	
Multi-strategy investments	1,617,324
Private equity investment partnerships	4,351,006
Real estate trust funds	8,333,645
Credit investments	5,175,458
Inflation protection investments	4,319,776
Subtotal	<u>62,783,036</u>
Total investments	<u>\$ 107,222,848</u>
Recon to Investments on Net Position	\$ 107,222,848
Sec Lending collateral	<u>(3,596,867)</u>
Investments on statement of net position	<u>\$ 103,625,981</u>

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

**Interest Rate Risk**

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of debt instruments. There is no formally adopted investment policy to manage interest rate risk. Fixed income assets of the STIF are invested in a laddered maturity approach that focuses on short maturity securities with ample liquidity. The STIF had a weighted average maturity of 1.5 years as of June 30, 2016. Most of the cash and cash equivalents of the major governmental and enterprise funds are invested in this portfolio.

The Pool maintained by the Treasurer had the following investments and maturities in the STIF as of June 30, 2016:

STIF	Investment Maturities (in Years)				
	Carry Amount	Less Than 1	1 to 5	6 to 10	More Than 10
	<i>(In Thousands)</i>				
<b>As of June 30, 2016</b>					
U.S. treasuries	\$ 7,347,150	\$ 7,147,116	\$ 200,034	\$ -	\$ -
U.S. agencies	8,063,962	250,000	7,813,962	-	-
Domestic corporate bonds	54,990	54,990	-	-	-
Securities purchased with cash collateral under securities lending program:					
Time deposits	41,080	41,080	-	-	-
Repurchase agreements	405,355	405,355	-	-	-
Money market mutual funds	73,129	73,129	-	-	-
Commercial paper	10,408	10,408	-	-	-
Domestic corporate bonds	490,370	490,370	-	-	-
Repurchase agreements	2,850,000	2,850,000	-	-	-
Total short-term investment fund assets	<u>\$ 19,336,444</u>	<u>\$ 11,322,448</u>	<u>\$ 8,013,996</u>	<u>\$ -</u>	<u>\$ -</u>

The assets of the LTIF are primarily invested in securities with maturities longer than five years. The longer maturity range is more sensitive to interest rate changes; however, the longer duration structure of the portfolio provides a better match to the long duration characteristics of the retirement systems' liabilities. The Treasurer considers the maturity for interest rate risk purposes to be the length of time to the next reset date rather than the stated maturity. The LTIF had a weighted average maturity of 17.9 years as of June 30, 2016.

The LTIF holds investments in GNMA mortgage pass-through funds. Critical to the pricing of these securities are the specific features of the cash flows from the interest and principal payments of the underlying mortgages. Therefore, these valuations are sensitive to the potential of principal prepayments by mortgagees in periods of changing interest rates. Also, included within the LTIF are U.S. government agencies and corporate bonds which may carry call options in which the issuer has the option to prepay the principal at certain dates over the life of the security. As such, these types of securities are more sensitive to the decline in long-term interest rates than similar securities without call options. In addition to the corporate bonds with call options, there are corporate bonds with variable coupon rates that reset on specific dates. Critical to the cash flows and pricing of these securities are the changes in interest rates.

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

**Interest Rate Risk (Continued)**

The Pool maintained by the Treasurer had the following investments and maturities in the LTIF as of June 30, 2016:

LTIF	Investment Maturities (in Years)				
	Carry Amount	Less Than 1	1 to 5	6 to 10	More Than 10
	<i>(In Thousands)</i>				
<b>As of June 30, 2016</b>					
U.S. treasuries	\$ 6,028,229	\$ -	\$ 99,754	\$ 2,825,441	\$ 3,103,034
U.S. agencies	828,764	-	-	31,775	796,989
Mortgage pass-through	8,008,830	78	223	19,419	7,989,110
Securities purchased with cash collateral under securities lending program:					
Asset-backed securities	-	-	-	-	-
Time deposits	23,660	23,660	-	-	-
Repurchase agreements	556,822	556,822	-	-	-
Commercial paper	39,350	39,350	-	-	-
Money market mutual funds	157,405	157,405	-	-	-
Domestic corporate bonds	1,036,399	1,036,399	-	-	-
Domestic corporate bonds	8,387,148	25,348	669,216	3,931,748	3,760,836
Foreign government bonds	26,161	-	-	26,161	-
Total long-term investment fund assets	<b>\$ 25,092,768</b>	<b>\$ 1,839,062</b>	<b>\$ 769,193</b>	<b>\$ 6,834,544</b>	<b>\$ 15,649,969</b>

The Other Investment Portfolios hold fixed income investments in U.S. treasuries and collective investment funds. The Pool maintained by the Treasurer had the following investments and maturities separated by Other Investment Portfolios as of June 30, 2016:

Other Investment Portfolios	Investment Maturities (in Years)				
	Carry Amount	Less Than 1	1 to 5	6 to 10	More Than 10
	<i>(In Thousands)</i>				
<b>As of June 30, 2016</b>					
U.S. treasuries	\$ 576,191	\$ 346,811	\$ 229,380	\$ -	\$ -
Commercial mortgage backed securities	16,991	-	-	527	16,464
Collateralized mortgage obligations	48,562	10,885	-	-	37,677
Collective investment funds	1,247,895	1,247,895	-	-	-
Domestic corporate bonds	96,963	23,262	17,489	40,868	15,344
Securities purchased with cash collateral under securities lending program:					
Asset-backed securities	71,936	71,936	-	-	-
Negotiable certificates of deposit	90,026	90,026	-	-	-
Time deposits	64,929	64,929	-	-	-
Yankee certificate of deposit	263,003	263,003	-	-	-
Bank notes	40,004	40,004	-	-	-
Commercial paper	104,991	104,991	-	-	-
Repurchase agreements	128,000	128,000	-	-	-
Total other investment portfolios assets	<b>\$ 2,749,491</b>	<b>\$ 2,391,742</b>	<b>\$ 246,869</b>	<b>\$ 41,395</b>	<b>\$ 69,485</b>

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

**Interest Rate Risk (Continued)**

The major investment classifications had the following attributes as of June 30, 2016:

<b>Investment Classification</b>	<b>Principal Amount</b>	<b>Range of Interest Rates</b>
	(In Thousands)	
<b>STIF</b>		
U.S. treasuries	\$ 7,350,000	0.38%-0.75%
U.S agencies	8,064,000	0.65%-1.63%
Domestic bonds	55,000	0.63%
Securities purchased with cash collateral under securities lending program:		
Time deposits	41,080	0.25%-0.28%
Repurchase agreements	405,355	0.39%-0.42%
Money market mutual funds	73,129	0.51%-0.53%
Commercial paper	10,410	0.35%
Domestic corporate bonds	490,265	0.62%-1.07%
Repurchase agreements	2,850,000	0.52%-0.75%
<b>LTIF</b>		
U.S. treasuries	4,616,795	1.63%-8.13%
U.S agencies	560,786	2.38%-7.13%
Mortgage Pass Throughs	7,434,021	3.00%-9.00%
Securities purchased with cash collateral under securities lending program:		
Time deposits	23,660	0.25%-0.30%
Repurchase agreements	556,822	0.38%-0.42%
Money market mutual funds	157,405	0.51%-0.53%
Commercial paper	39,356	0.35%
Domestic corporate bonds	1,036,141	0.62%-1.07%
Domestic corporate bonds	7,417,556	1.88%-10.50%
Foreign government bonds	25,000	2.45%
<b>Other investment portfolios</b>		
U.S. treasuries	569,679	0.00%-2.63%
Commerical mortgage-backed securities	38,279	1.31%-6.09%
Collateralized mortgage obligations	58,630	0.93%-6.00%
Collective investment funds	1,247,895	0.22%-0.46%
Domestic corporate bonds	102,635	0.00%-10.50%
Securities purchased with cash collateral under securities lending program:		
Asset-backed securities	75,617	0.58%-1.39%
Negotiable certificates of deposit	90,000	0.40%-0.91%
Time deposits	64,929	0.31%-0.37%
Yankee certificate of deposit	260,000	0.36%-0.95%
Bank notes	40,000	0.75%-0.78%
Commercial paper	105,000	0.00%
Repurchase agreements	128,000	0.40%-0.42%

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

**Credit Risk**

Credit risk is the risk an issuer or other counterparty to an investment will not fulfil its obligations such as the chance that a bond issuer will fail to pay interest or principal in a timely manner, or that negative perceptions of the issuer's ability to make these payments will cause security prices to decline. These circumstances may arise due to a variety of factors such as financial weakness, bankruptcy, litigation and/or adverse political developments. Certain fixed income securities, including obligations of the U.S. government or those explicitly guaranteed by the U.S. government, are not considered to have credit risk.

General Statute 147-69.1 limits credit risk by restricting the STIF's corporate obligations, asset-backed securities, and commercial paper to securities that bear the highest rating of at least one nationally recognized rating service and do not bear a rating below the highest by any nationally recognized rating service.

General Statute 147-86.58, effective October 1, 2015, requires the State Treasurer to develop a list of entities engaging in investment activities in Iran, refrain from making investments in companies on the list, and divest within 180 days any existing investment in companies on the list. Indirect investments through structures such as index funds, commingled funds, limited partnerships, or derivative instruments are excepted from the statute under G.S. 147-86.57(3).

The STIF had the following credit quality distribution for securities with credit exposure as of June 30, 2016:

STIF	Aaa/AAA	Aa/AA	A	Baa/BBB	Less than Investment Grade	Unrated
<i>(In Thousands)</i>						
<b>As of June 30, 2016</b>						
U.S. agencies	\$ -	\$ 8,063,962	\$ -	\$ -	\$ -	\$ -
Domestic corporate bonds	54,990	-	-	-	-	-
Securities purchased with cash collateral under securities lending program:						
Time deposits	-	-	41,080	-	-	-
Repurchase agreements	-	405,355	-	-	-	-
Money market mutual funds	73,129	-	-	-	-	-
Commercial paper	-	-	10,408	-	-	-
Domestic corporate bonds	-	167,310	323,060	-	-	-
Repurchase agreements	-	2,850,000	-	-	-	-
Total short-term investment fund assets	<u>\$ 128,119</u>	<u>\$ 11,486,627</u>	<u>\$ 374,548</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

General Statute 147-69.2 specifies the cash investment options for the LTIF and limits credit risk by restricting the LTIF's asset-backed securities and corporate obligations to securities that bear one of the four highest ratings of at least one nationally recognized rating service. In the LTIF, all holdings were rated BBB (or equivalent) or higher at the time of purchase by at least one of the nationally recognized rating agencies.

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

**Credit Risk (Continued)**

The LTIF had the following credit quality distribution for securities with credit exposure as of June 30, 2016:

LTIF	Aaa/AAA	Aa/AA	A	Baa/BBB	Less than Investment Grade	Unrated
(In Thousands)						
<b>As of June 30, 2016</b>						
U.S. agencies	\$ -	\$ 828,764	\$ -	\$ -	\$ -	\$ -
Domestic corporate bonds	54,866	500,806	3,829,528	3,599,344	402,604	-
Foreign government bonds	-	-	26,161	-	-	-
Securities purchased with cash collateral under securities lending program:						
Time deposits	-	-	23,660	-	-	-
Repurchase agreements	-	556,822	-	-	-	-
Money market mutual fund	157,405	-	-	-	-	-
Commercial paper	-	-	39,350	-	-	-
Domestic corporate bonds	-	317,210	719,189	-	-	-
Total long-term investment fund assets	<u>\$ 212,271</u>	<u>\$ 2,203,602</u>	<u>\$ 4,637,888</u>	<u>\$ 3,599,344</u>	<u>\$ 402,604</u>	<u>\$ -</u>

The Other Investment Portfolios of the Pool had the following credit quality distribution for securities with credit exposure as of June 30, 2016:

Other Investment Portfolios	Aaa/AAA	Aa/AA	A	Baa/BBB	Less than Investment Grade	Unrated
(In Thousands)						
<b>As of June 30, 2016</b>						
Commercial mortgage-backed securities	\$ 3,729	\$ 2,469	\$ -	\$ 3,298	\$ 7,495	\$ -
Collateralized mortgage obligations	-	6,126	-	-	42,436	-
Collective investment funds	144,150	-	-	-	-	1,103,745
Domestic corporate bonds	11,392	3,985	3,784	19,432	44,044	14,326
Securities purchased with cash collateral under securities lending program:						
Asset-backed securities	2,280	22,352	43,738	-	3,566	-
Negotiable certificates of deposit	-	45,015	45,011	-	-	-
Time deposits	-	-	64,929	-	-	-
Yankee certificate of deposit	-	-	263,003	-	-	-
Bank notes	-	40,004	-	-	-	-
Commercial paper	-	-	104,991	-	-	-
Repurchase agreements	-	-	128,000	-	-	-
Total other investment portfolios assets	<u>\$ 161,551</u>	<u>\$ 119,951</u>	<u>\$ 653,456</u>	<u>\$ 22,730</u>	<u>\$ 97,541</u>	<u>\$ 1,118,071</u>

# North Carolina Department of State Treasurer External Investment Pool

Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

## **Custodial Credit Risk**

Custodial credit risk for deposits is the risk that, in the event of a bank failure, the Pool's deposits may not be recovered. As of June 30, 2016, the Pool's deposits were exposed to custodial credit risk for non-negotiable certificates of deposit in the amount of \$10.6 million. The non-negotiable certificates of deposit were uninsured and were collateralized with securities not in the name of the Treasurer and held by an agent.

For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, the Treasurer will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. As of June 30, 2016, the investments purchased with cash collateral under the securities lending programs of \$3.6 billion were not exposed to custodial credit risk since the securities were held by the counterparty in separate accounts in the name of the Treasurer. All other investments of the Pool were not exposed to custodial credit risk at year-end. There is no formally adopted investment policy to manage custodial credit risk policy for these investment types.

The Treasurer's deposit policy for custodial credit risk is limited to complying with the collateralization rules of the North Carolina Administrative Code (Chapter 20 NCAC 7). The collateral securities must be governmental in origin (e.g., U.S. Treasury, U.S. agency, or state and local government obligations) or the highest grade commercial paper and bankers' acceptances. The market value of the collateral must not be less than the value of the uninsured deposits. The depositories may elect to collateralize deposits separately (dedicated method) or include deposits of the North Carolina local government units in a collateral pool with the State and certain component units (pooling method).

## **Concentration of Credit Risk**

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. Mutual funds, money market funds, and external pooled accounts are excluded from this disclosure requirement. Obligations explicitly guaranteed by the U.S. Government are not considered to have credit risk. However, more than 5% of the Pool's securities were invested in Federal Home Loan Mortgage Corporation. These investments totalled \$7.930 billion and comprised 7.65% of the Pool's total investments. These investments are held by the STIF and LTIF portfolios and are classified as U.S. Agencies. Effective June 30, 2016, there is no formal policy regarding concentration of credit risk.

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

### Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. There is no formally adopted investment policy to limit foreign currency exposure.

The Pool had the following exposure to foreign currency risk as of June 30, 2016:

Currency	Carrying Value As of June 30, 2016						Total
	Investment Type						
	Equity Based Trust - International	Alternative Investment- Private Equity Investment Partnerships	Real-Estate Trust Funds	OPEB Equity Based Trust- International	Credit Investment Partnership		
	<i>(In Thousands)</i>						
Euro	\$ 3,270,580	\$ 354,660	\$ 69,598	\$ 6,919	\$ 18,560	\$ 3,720,317	
British Pound Sterling	2,173,830	64,348	314,419	3,722	-	2,556,319	
Japanese Yen	2,330,532	-	27,922	4,781	-	2,363,235	
Swiss Franc	979,702	-	2,080	1,651	-	983,433	
Hong Kong Dollar	908,709	-	36,457	2,262	-	947,428	
Australian Dollar	539,785	-	15,093	1,886	-	556,764	
Swedish Krona	383,628	-	2,973	538	-	387,139	
South Korean Won	315,329	-	-	708	-	316,037	
New Taiwan Dollar	258,441	-	59	1,051	-	259,551	
Danish Krone	241,982	-	-	497	-	242,479	
Indian Rupee	220,088	-	573	680	-	221,341	
Canadian Dollar	210,846	-	7,139	1,795	-	219,780	
Singapore Dollar	172,441	-	8,658	247	-	181,346	
Brazil Cruzeiro Real	77,619	-	3,084	356	-	81,059	
Mexican Peso	61,437	-	3,493	183	-	65,113	
South African Rand	61,015	-	6,498	550	-	68,063	
Norwegian Krone	60,070	-	224	240	-	60,534	
Malaysian Ringgit	49,339	-	2,540	233	-	52,112	
Israeli Shekel	38,556	-	237	-	-	38,793	
Thai Baht	24,979	-	2,049	314	-	27,342	
Phillipines Peso	23,070	-	5,409	74	-	28,553	
Indonesian Rupiah	21,125	-	2,328	314	-	23,767	
New Zealand Dollar	17,837	-	216	3	-	18,056	
Turkish Lira	15,545	-	894	359	-	16,798	
Other Currencies	27,939	-	2,531	617	-	31,087	
Total investments subject to foreign currency risk	\$ 12,484,424	\$ 419,008	\$ 514,474	\$ 29,980	\$ 18,560	\$ 13,466,446	

The Pool recognized an aggregate foreign currency transaction loss of \$ 474.4 million for the fiscal year ended June 30, 2016 as part of the Pool's net depreciation in fair value of investments. Transaction gains or losses result from a change in exchange rates between the U.S. dollar and the currency in which a foreign currency transaction is denominated.

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

#### 4. Fair Value Measurement

The Pool categorizes fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The Pool had the following recurring fair value measurements as of June 30, 2016:

##### Investments and Derivative Instruments at Fair Value

	Fair Value Measurements Using			
	As of 6/30/2016	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
<b>Investments measured at fair value</b>				
<b>STIF</b>				
U.S. Treasuries	\$ 7,347,150	\$ -	\$ 7,347,150	\$ -
U.S. Agencies	8,063,962	-	8,063,962	-
Domestic corporate bonds	54,990	-	54,990	-
Securities purchased with cash collateral under securities lending program:	-	-	-	-
Commercial paper	10,408	-	10,408	-
Domestic corporate bonds	490,370	-	479,872	10,498
Subtotal	<u>\$ 15,966,880</u>	<u>\$ -</u>	<u>\$ 15,956,382</u>	<u>\$ 10,498</u>
<b>LTIF</b>				
U.S. Treasuries	\$ 6,028,229	\$ 404,891	\$ 5,623,338	\$ -
U.S. agencies	828,764	-	828,764	-
Mortgage pass-throughs	8,008,830	-	8,008,830	-
Securities purchased with cash collateral under fixed income securities lending program:	-	-	-	-
Commercial paper	39,350	-	39,350	-
Domestic corporate bonds	1,036,399	-	989,706	46,693
Domestic corporate bonds	8,387,148	-	8,387,148	-
Foreign government bonds	26,161	-	26,161	-
Subtotal	<u>\$ 24,354,881</u>	<u>\$ 404,891</u>	<u>\$ 23,903,297</u>	<u>\$ 46,693</u>
<b>Other investment portfolios</b>				
U.S. treasuries-inflation	\$ 576,191	\$ -	\$ 576,191	\$ -
Collateralized mortgage obligations	48,562	-	48,562	-
Commercial mortgage-backed securities	16,991	-	16,991	-
Securities purchased with cash collateral under equity securities lending program:	-	-	-	-
U.S. Treasuries	-	-	-	-
U.S. agencies	-	-	-	-
Asset-backed securities	71,936	-	71,936	-
Yankee certificates of deposit	263,003	-	263,003	-
Bank notes	40,004	-	40,004	-
Commercial paper	104,991	-	104,991	-
Equity securities - domestic	16,358,163	16,329,076	-	29,087
Equity securities - foreign	14,116,502	14,116,334	-	168
Domestic corporate bonds	96,963	239	83,374	13,350
Subtotal	<u>\$ 31,693,306</u>	<u>\$ 30,445,649</u>	<u>\$ 1,205,052</u>	<u>\$ 42,605</u>
<b>Investment derivative instruments</b>				
Futures contracts	\$ 22,480	\$ 22,480	\$ -	\$ -
Futures contracts (liability)	(9,568)	(9,568)	-	-
Total investment derivative instruments	<u>\$ 12,912</u>	<u>\$ 12,912</u>	<u>\$ -</u>	<u>\$ -</u>
Total investments by fair value level	<u>\$ 72,027,979</u>	<u>\$ 30,863,452</u>	<u>\$ 41,064,731</u>	<u>\$ 99,796</u>

#### 4. Fair Value Measurement (Continued)

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

**Investments measured at the Net Asset Value (NAV)**

		Unfunded commitments	(19)	Redemption frequency	Redemption notice
Commingled real estate funds <sup>(1)</sup>	\$ 1,536,591	\$ -		Daily, quarterly	1 - 60
Core real estate funds <sup>(2)</sup>	2,607,405	900,607		Illiquid	N/A
Hedge funds					
Opportunistic fixed income - hedged fixed income <sup>(3)</sup>	2,985,956	39,600		Monthly, quarterly, annually	15 - 90
Inflation sensitive - real assets and other diversifiers <sup>(4)</sup>	231,266	-		Quarterly	60
Multi-strategy funds <sup>(5)</sup>	1,522,042	-		Daily, quarterly	1 - 90
Global public equity - hedged <sup>(6)</sup>	2,618,597	-		Daily, annually	3 - 180
Global public equity - long-only <sup>(7)</sup>	344,782	-		Illiquid	N/A
Non-core real estate funds <sup>(8)</sup>	3,906,419	2,344,984		Illiquid	N/A
Private credit funds <sup>(9)</sup>	2,189,502	428,111		Illiquid	N/A
Private equity funds <sup>(10)</sup>	4,351,006	2,843,446		Illiquid	N/A
Private multi-strategy funds <sup>(11)</sup>	95,281	110,000		Illiquid	N/A
Private infrastructure funds <sup>(12)</sup>	541,901	70,890		Illiquid	N/A
Private natural resources funds <sup>(13)</sup>	1,669,292	1,043,972		Illiquid	N/A
Private real asset funds <sup>(14)</sup>	1,345,472	882,259		Illiquid	N/A
Publicly traded natural resources <sup>(15)</sup>	531,844	-		Monthly	35
Commingled international equity funds <sup>(16)</sup>	2,940,862	-		Daily	1 - 30
Commingled equity funds - OPEB <sup>(17)</sup>	127,750	-		Monthly	5
Collective investment funds <sup>(18)</sup>	1,247,895	-		Daily	1
Total investments at the NAV	<u>30,793,863</u>				
<b>Total investments at fair value</b>	<b><u>\$ 102,821,842</u></b>				
<b>Investments measured at cost</b>					
Certificates of deposit (non-negotiable)	10,600				
Negotiable certificates of deposit	90,026				
Time deposits	129,669				
Money market mutual funds	230,534				
Repurchase agreements	3,940,177				
<b>Total investments at cost</b>	<b>4,401,006</b>				
Securities lending collateral	(3,596,867)				
<b>Total investments</b>	<b><u>\$ 103,625,981</u></b>				

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

- (1) *Commingled Real Estate Funds* Five funds. Each is valued at the net asset value of units held at the end of the period based upon the fair value of the underlying investments.
- (2) *Core Real Estate Funds* Thirteen funds. These investments are valued at net asset value using the most recent available financial information. These investments include a mix of predominately U.S. domiciled equity and debt investments in core commercial real estate. These funds are not eligible for redemption. Distributions are received as underlying investments within the funds are liquidated, which on average can occur over the span of 5-10 years.
- (3) *Opportunistic Fixed Income - Hedged Fixed Income* Eight funds. These investments are valued at NAV per share. These investments include hedged implementations of market neutral strategies, relative value strategies, and multi-strategy (i.e., predominantly fixed income) utilizing non-investment grade instruments.
- (4) *Inflation Sensitive - Other Real Assets and Diversifiers* One fund. This investment is valued at NAV per share. This investment may include infrastructure, real assets (e.g. ships, airplanes, rail cars, mines, real estate, etc.), royalties, and combinations of any of this and other investments whose primary purpose is providing protection against risks associated with inflation. Currently, the strategy represented in this category is one which invests in a combination of equity and debt instruments of companies which derive at a minimum 50% of their revenues from energy infrastructure and natural resources.
- (5) *Multi-Strategy Funds* Six funds. These investments are valued at NAV per share. These investments have the flexibility to invest across markets, asset classes, commodities, and currencies, including hedging. Strategies may include opportunistic, event-driven, relative value, global macro, rebalancing, tail hedging and overlays.
- (6) *Global Public Equity - Hedged* Two funds. These investments are valued at NAV per share. These investments may include various equity-based hedge fund strategies. Currently, the strategies represented in this category include one which aims to target a specific beta relative to the MSCI ACWI Total Return Index, and one which seeks to profit by purchasing securities trading at a discount to their intrinsic value \* *One strategy was entered in February 2016, from which time \$125 million of the funds were subject to a 1-year lockup, and the remaining \$25 million to a 2-year lockup. After this time, the assets may be redeemed quarterly, with a 180 day notice.*
- (7) *Global Public Equity – Long Only* One fund. This investment is valued at NAV per share. This investment may include publicly traded U.S. equity, non-U.S. equity, and global equity securities held in long-only vehicles. Currently, the strategy represented in this category is one with a North American-focus, which takes an activist role in investing. As such, its portfolio will tend to be concentrated in its positioning. \*\* *The strategy was entered in December 2015, from which time the funds were subject to an initial 5-year lockup. Funds may be withdrawn as of the last day of each calendar year following the expiration of this initial lockup period, provided that 90 days written notice is given.*

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

- <sup>(8)</sup> *Non Core Real Estate Funds* 83 funds. These investments are valued at net asset value using the most recent available financial information. These investments include a mix of global equity and debt investments in commercial and residential real estate, and each strategy falls into one of three major categories: Value (with a target allocation of 50%), Opportunistic (with a target allocation of 50%) and Special Situations (with a target allocation of 0%). These funds are not eligible for redemption. Distributions are received as underlying investments within the funds are liquidated, which on average can occur over the span of 5-10 years.
- <sup>(9)</sup> *Private Credit Funds* 21 funds. These investments are valued at net asset value using the most recent available financial information. These investments include a mix of non-investment grade or unrated obligations, debt securities and asset-backed securities, including but not limited to bank loans, high yield, mortgage-backed securities, convertibles, whole loans, mezzanine debt, credit default swaps, collateralized debt obligations and sovereign debt. These funds are not eligible for redemption. Distributions are received as underlying investments within the funds are liquidated, which on average can occur over the span of 5-10 years.
- <sup>(10)</sup> *Private Equity Funds* 108 funds. These investments are valued at net asset value using the most recent available financial information. These investments include a mix of buyout, venture capital, growth equity, and private special situations vehicles. All investments fall into one of three major categories: Growth (with a target allocation of 20%), Buyout (with a target allocation of 50%) and Special Situations (with a target allocation of 30%). These funds are not eligible for redemption. Distributions are received as underlying investments within the funds are liquidated, which on average can occur over the span of 5-10 years.
- <sup>(11)</sup> *Private Multi-Strategy Funds* One fund. This investment is valued at net asset value using the most recent available financial information. This investment has the flexibility to invest across markets, asset classes, commodities, and currencies, including hedging. Strategies may include opportunistic, event-driven, relative value, global macro, rebalancing, tail hedging and overlays. Currently the strategy represented in this category is considered opportunistic, and will tactically invest across a broad range of investible assets. This fund is not eligible for redemption. Distributions are received as underlying investments within the fund are liquidated, which on average can occur over the span of 5-10 years.
- <sup>(12)</sup> *Private Infrastructure Funds* Four funds. These investments are valued at net asset value using the most recent available financial information. These strategies invest in various infrastructure-related markets including but not limited to utilities, transportation, energy and communication. These funds are not eligible for redemption. Distributions are received as underlying investments within the funds are liquidated, which on average can occur over the span of 5-10 years.

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

**Valuation Methodologies and Inputs**

On-the-run U.S. Treasuries, bonds, and equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Futures contracts are marked to market and settled on a daily basis in an actively traded market.

Level 2 U.S. Treasuries are evaluated by using data from several live feeds which include active market makers and inter-dealer brokers. Sources are reviewed on the basis of their historical accuracy for individual issues and maturity ranges.

Level 2 U.S. Agencies, which are primarily mortgage pass-through securities, use a dealer derived to-be-announced (TBA) security as a benchmark, plus a dollar (or pay up) adjustment which is based on market data for the underlying collateral. When the underlying TBA is not applicable or observable, a discounted cash flow is calculated using a spread to the treasury curve based on applicable market data and internally generated long-term speed.

Level 2 bonds are priced using both spread-based and priced-based evaluations. For spread-based evaluations, an option adjusted spread model is developed incorporating credit risk and based on the new issue market, secondary trading, and dealer quotes. For priced-based evaluations, evaluators use recently executed transactions of similar securities and dealer quotes to arrive at appropriate pricing. These methods also are used to value Canadian government bonds, which make up foreign government bonds classified as Level 2.

Level 2 certificates of deposit, commercial paper, bank notes, and asset-backed securities are priced using a model which considers days to final maturity to generate a yield based on the relevant curve for the security. Adjustments to the yield can be made as market conditions warrant. Days are counted from settlement to final maturity using the relevant settlement convention for each market. A bid evaluation is calculated from these inputs.

Level 2 collateralized mortgage obligations and commercial mortgage-backed securities are evaluated using predicted cash flows, adjusted by an applicable spread/yield/price adjustment incorporating benchmark yields, collateral performance, and prevailing market conditions.

Level 3 bonds and commercial paper are priced using broker quotes. Level 3 equity securities are priced using manager pricing.

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

## **5. Securities Lending**

Based on General Statute 147-69.3(e), the Treasurer lends securities from its Pool to broker-dealers and other entities (borrowers) for collateral that will be returned for the same securities in the future. The Treasurer's custodian manages the securities lending programs for the internally managed fixed income portfolios and a third party lending agent (together with the custodian, the "lending providers") manages the securities lending program for the equity based trust. During the year, the securities lending programs lent U.S. government and agency securities, corporate bonds, equity securities and notes for collateral. The programs are permitted to receive cash, U.S. government and agency securities as collateral for the securities lent. In addition, the securities lending program in the internally managed fixed income portfolios may receive irrevocable letters of credit.

The collateral is initially pledged at 102% of the market value of the domestic securities lent in both the fixed income portfolios and the equity based trust and 105% of the market value of foreign securities lent in the equity based trust program. Additional collateral is required if its value falls to less than 100% of the market value of the securities lent. There are no restrictions on the amount of loans that can be made. Substantially all security loans can be terminated on demand by either the Treasurer or the borrower. The Treasurer cannot pledge or sell the collateral securities received unless the borrower defaults.

The cash collateral received is invested by the lending provider and held in a separate account in the name of the Treasurer. The policies for investments purchased with cash collateral under the securities lending program are set forth in the contracts with the lending providers. The weighted average maturities of the cash collateral investments are more than the weighted average maturities of the securities loans.

As of June 30, 2016, the Treasurer had no credit risk exposure to borrowers because the amounts the Treasurer owed the borrowers exceeded the amounts the borrowers owed the Treasurer. The lending providers are contractually obligated to indemnify the Treasurer for certain conditions, the most important is default on the part of the borrowers.

### **Securities Lending - Internally Managed Fixed Income**

Under the prior securities lending guidelines for the internally managed fixed income portfolios, asset-backed securities must bear the highest rating of at least one nationally recognized rating service. The expected maturity shall not exceed five years and securities having a final maturity greater than two years will be in floating rate instruments with interest rate resets occurring at no greater than 90-day intervals to minimize the effect of interest rate fluctuations on their valuations. Corporate bonds and notes, including bank holding company obligations, rated AA must have a final maturity no greater than three years. Securities rated A must have a final maturity no greater than two years. No more than five percent of the cash collateral may be invested in a single issue.

# North Carolina Department of State Treasurer External Investment Pool

Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

## **Securities Lending - Internally Managed Fixed Income (Continued)**

During the market crisis of late 2008, there was a default in a Lehman Brothers floating rate note in which securities lending collateral had been invested in the fixed income securities lending program. Since that time, several other investments with potential losses were identified. The Treasurer directed that all securities lending revenues would be deposited into a separate account. In fiscal year 2016, these securities were sold and the funds in the separate account were used to offset the losses and the residual cash in the reserve accounts was moved to the internally managed fixed income portfolios. Securities purchased under the current securities lending program for the internally managed fixed income portfolios will not have a final maturity greater than 397 days. The custodian is not permitted to make investments where the weighted average maturity of all investments exceeds 60 days. As of June 30, 2016, the weighted average maturity of investments was approximately 13 days. The securities pledged as collateral for repurchase agreements are limited to securities issued or guaranteed by the U.S. government or its agencies. At the time of purchase, asset-backed securities are required to have an AAA rating by at least two of the rating agencies. All other eligible securities must have a minimum short-term rating of A-1/P-1 or a long-term rating of A/A2. No more than 5% of the collateral account's total assets may be invested in a corporate or bank obligation, or asset-backed securities of a single issuer or sponsor.

As of June 30, 2016, the fair value of loaned securities in the fixed income program was \$7.2 billion; the fair value of the associated collateral was \$7.3 billion of which \$2.8 billion was cash.

## **Securities Lending - Equity Based Trust**

Under the prior securities lending guidelines, cash collateral was invested by the lending provider in a variety of permitted investments including asset backed securities, U.S. Treasuries and commingled or mutual funds. These investments had certain credit and concentration restrictions and were managed such as to ensure that the average effective duration of the fund would not exceed 120 days. In 2010, when the current guidelines were adopted, the remaining balance of these assets was transferred in kind to a separate account in the name of the State Treasurer with the remainder in a legacy portfolio. As of June 30, 2016, the average duration of these investments was approximately 46 days and an average weighted final maturity of 2,291 days.

Under the current securities lending guidelines for the equity based trust adopted in 2010, all eligible investments must be rated at least A1, P1 or F1 by at least two nationally recognized rating organizations, except for repurchase agreements which require the counterparty to have a short-term rating of at least A2, P2 or F2 by at least one of the nationally recognized rating agencies. All eligible securities must be acquired with no more than 13 months remaining to legal final maturity. The dollar-weighted average maturity of the cash collateral account should not exceed 60 days and should not have a dollar-weighted average maturity to final in excess of 120 days. The average weighted duration of the investments was approximately 13 days and an

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

**Securities Lending - Equity Based Trust (Continued)**

average weighted final maturity of approximately 35 days. The securities pledged as collateral for repurchase agreements are limited to securities issued or guaranteed by the U.S. government or its agencies. No more than five percent of the cash collateral may be invested in a single issue.

As of June 30, 2016, the fair value of loaned securities in the equity based trust program was \$1.2 billion; the fair value of the associated collateral was \$1.2 billion, of which \$763 million was cash. As of June 30, 2016, noncash collateral of \$420 million was invested in U.S. government guaranteed securities and government agency securities which are not subject to credit risk.

**6. Derivatives**

Derivative instruments are securities that derive value from another asset and are in the form of a contract between two or more parties. Common derivatives are futures contracts, forward contracts, options and swaps.

The Pool maintained by the Treasurer has investments in equity and commodity futures, foreign currency forward and spot currency contracts. All of these derivative instruments are designated as investment derivatives; they are used to implement portfolio strategies, capture valuation opportunities, and to exploit market inefficiencies. The primary risks managed by using these derivative instruments include foreign exchange rate and market price risks.

Futures contracts are standardized, exchange-traded contracts to purchase or sell a specific financial instrument at a predetermined price. Gains and losses on futures contracts are settled daily based on underlying principal value and do not involve an actual transfer of the specific instrument. The exchange assumes the risk that the counterparty will not pay and generally requires margin payments to minimize such risk. Futures are generally used to achieve the desired market exposure of a security or index or to rebalance the total portfolio.

Forward currency contracts are agreements to exchange the currency of one country for the currency of another currency at an agreed-upon price and settlement date. These forward commitments are not standardized and carry credit risk due to the possible non-performance of one of the counterparties. The maximum potential loss is the aggregate face value in U.S. dollars at the time the contract was opened; however, the likelihood of such a loss is remote. In addition to forward currency contracts, the Pool also utilizes spot currency contracts. Spot currency contracts are used primarily for trade settlement and currency repatriation.

As of June 30, 2016, the counterparties' credit ratings for forward currency contracts that are subject to credit risk had a rating of no less than A by one of the nationally recognized ratings agencies or were not rated.

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

**6. Derivatives (Continued)**

The following table is a summary of derivative instrument activity during the fiscal year and balances at year-end, classified by type with notional amount for the year ending June 30, 2016:

Investment Derivatives	Increase (Decrease) in in Fair Value		Fair Value		Notional (In U.S. \$)
	Classification	Amount (In U.S. \$)	Classification	Amount (In U.S. \$)	
<i>(In Thousands)</i>					
US dollar equity futures	Investment Income	\$ 1,299	Investment	\$ 1,299	\$ 524,885
Foreign equity futures a)	Investment Income	972	Investment	972	243,351
Commodity futures b)	Investment Income	10,641	Investment	10,641	367,084
Forward currency contracts	Investment Income	(293)	Investment	(293)	526,767
Spot currency contracts	Investment Income	555	Investment	555	230,363

a) 5.1 billion Japanese Yen, 81.2 million Euro, 66 million Hong Kong Dollar

b) 773,000 barrels of brent crude oil; 334,000 barrels crude oil; 3,650,000 pounds copper;

3,320,000 bushels of corn; 2,385,000 bushels wheat; 18,600,000 pounds live cattle.

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

**6. Derivatives (Continued)**

Schedule of all foreign derivatives outstanding at June 30, 2016, are presented below by currency:

Fair value of foreign currency contracts, Assets (Liabilities)						
As of June 30, 2016						
Currency	Forwards Currency Contracts	Spot Currency Contracts	Foreign Equity Futures	Total		
(In Thousands)						
Australian Dollar	\$ 361	\$ 10	\$ 73	\$		444
Brazilian Real	27	3	-			30
British Pound Sterling	(2,414)	389	2,952			927
Canadian Dollar	(290)	(19)	192			(117)
Chinese Yuan	85	-	-			85
Euro	(247)	98	534			385
Hong Kong Dollar	(8)	-	352			344
Hungarian Forint	-	(1)	-			(1)
Indian Rupee	(2)	-	-			(2)
Indonesian Rupiah	(70)	(2)	-			(72)
Israeli Shekel	(5)	-	-			(5)
Japanese Yen	2,870	(53)	(3,131)			(314)
Malaysian Ringgit	30	(3)	-			27
Mexican Peso	6	-	-			6
New Taiwan Dollar	-	(1)	-			(1)
New Zealand Dollar	(597)	-	-			(597)
Norwegian Krone	17	-	-			17
Philippine Peso	33	-	-			33
Polish Zloty	10	-	-			10
Singapore Dollar	31	-	-			31
South African Rand	(84)	109	-			25
Swedish Krona	(35)	6	-			(29)
Swiss Franc	(21)	19	-			(2)
Thai Baht	10	-	-			10
<b>Total</b>	<b>\$ (293)</b>	<b>\$ 555</b>	<b>\$ 972</b>	<b>\$</b>		<b>1,234</b>

North Carolina Department of State Treasurer External Investment Pool  
Notes to Financial Statements  
Fiscal Year Ended June 30, 2016

**7. Commitments and Contingencies**

The Treasurer has entered into contracts with external fund managers of the Real Estate Investment, Alternative Investment, Inflation Protection Investment, and Credit Investment portfolios, where the Treasurer agrees to commit capital to these investments. The portfolios are part of the Treasurer's Pool as described in Note 3.

The Treasurer is a defendant in legal proceedings and claims arising out of the ordinary course of business. The Treasurer believes it has adequate legal defences and that the ultimate outcome of these actions will not have a material adverse effect on the Pool's financial position.

North Carolina Department of State Treasurer External Investment Pool  
Supplementary Information  
Fiscal Year Ended June 30, 2016

**Introduction**

The financial statements include investments managed by the Treasurer. The tradition of conservative fiscal management has served North Carolina's public workers and taxpayers well throughout the years. The Teachers' and State Employees' Retirement System, Consolidated Judicial Retirement System, Legislative Retirement System, Firefighters' and Rescue Squad Workers' Pension Fund, North Carolina National Guard Pension Fund, Local Governmental Employees' Retirement System, and Retiree Health Benefit Fund (collectively "NCRS") continue that tradition with a significant allocation in fixed income assets (bonds) combined with reasonable exposure to more volatile growth-oriented assets and an increasingly diversified portfolio. The result of this strategy is a fund that is a top performer in turbulent economic and financial market environments, but obtains lower returns than the typical large public fund peer in strong equity markets.

NCRS comprised 84% of the total net position of the Pool. Following is a discussion of the Investment Policy Statement, risk and returns relative to the benchmarks, management and incentive fees paid and peer cost comparison relative to NCRS.

*Investment Policy Statement*

In July 2013, the General Assembly passed Senate Bill 558. Under this bill, the Investment Management Division was granted greater authority and flexibility with respect to investments by increasing the percentage limitations on various individual alternative investment asset classes as well as in the aggregate. During the year ended June 30, 2014, the Investment Management Division continued to diversify the NCRS investments and conducted an asset liability study to develop a new investment policy statement ("IPS") that would utilize some of the additional investment flexibility created by Senate Bill 558. A new investment policy statement was finalized and became effective July 1, 2014. During the second half of fiscal year 2016, the Investment Management Division updated the asset liability study utilizing revised capital market assumptions. Based on the results of the updated study, it was determined that no changes to the target asset allocation were needed at this time. The table below maps the investment policy statement's classifications to the statutory classifications which are used to prepare the financial statements as of June 30, 2016. The numbers only reflect net position of the NCRS funds in the statutory asset classes excluding securities lending. The Investment Portfolios chart in Note 3 for these portfolios reflects gross investments for all of the State Treasurer Pool.

North Carolina Department of State Treasurer External Investment Pool  
 Supplementary Information  
 Fiscal Year Ended June 30, 2016

		Statutory Classification								Total	
		Public Equity <sup>1</sup>	Long Term <sup>2</sup>	Cash <sup>2</sup>	External Fixed Income <sup>2,8</sup>	Alternatives <sup>3</sup>	Real Estate <sup>4</sup>	Inflation Protection <sup>5</sup>	Credit <sup>6</sup>		Public Equity Limited Liability <sup>7</sup>
IPS Classification	Public Equity	\$34,292,718,744								\$2,963,379,264	\$37,256,098,008
	Private Equity					\$4,375,776,820					4,375,776,820
	Non-Core Real Estate						\$3,906,419,233				3,906,419,233
	Opportunistic Fixed Income								\$5,259,504,719		5,259,504,719
	IG Fixed Income		\$22,159,796,094		\$2,501,567,776						24,661,363,870
	Cash			\$854,436,277							854,436,277
	Inflation Sensitive							\$5,192,457,132			5,192,457,132
	Core Real Estate						4,446,703,171				4,446,703,171
	Multi-Strategy					1,617,323,452					1,617,323,452
	<b>Total</b>	<b>\$34,292,718,744</b>	<b>\$22,159,796,094</b>	<b>\$854,436,277</b>	<b>\$2,501,567,776</b>	<b>\$5,993,100,272</b>	<b>\$8,353,122,404</b>	<b>\$5,192,457,132</b>	<b>\$5,259,504,719</b>	<b>\$2,963,379,264</b>	<b>\$87,570,082,682</b>

<sup>1</sup> NCGS § 147-69.2(b)(8)(a),(c)

<sup>2</sup> NCGS § 147-69.1(c) and NCGS § 147-69.2(b)(1)-(6b)

<sup>3</sup> NCGS § 147-69.2(b)(9)

<sup>4</sup> NCGS § 147-69.2(b)(7)

<sup>5</sup> NCGS § 147-69.2(b)(9a)

<sup>6</sup> NCGS § 147-69.2(b)(6c)

<sup>7</sup> NCGS § 147-69.2(b)(8)(b)

<sup>8</sup> Consists solely of investments in STIF

North Carolina Department of State Treasurer External Investment Pool  
 Supplementary Information  
 Fiscal Year Ended June 30, 2016

*Investment Returns*

The following supplementary information includes a discussion of the retirement system's risk and returns compared to benchmarks, total management and incentive fees paid, and comparisons to peer cost benchmarks.

As of June 30, 2016 and June 30, 2015, the North Carolina Retirement System ("NCRS") had the following investment returns over applicable 1, 3, 5 and 10 year periods:

**Investment Returns as of June 30, 2016 (% , Net of Fees)**

<b>Asset Classification</b>	<b>1 YR</b>	<b>3 YR</b>	<b>5 YR</b>	<b>10 YR</b>
<b>Growth</b>	(2.14)	7.28	6.77	4.65
<b>Benchmark</b>	(2.30)	6.19	5.74	4.24
Public Equity	(3.89)	6.65	6.21	4.59
Benchmark	(3.84)	6.14	5.43	4.11
Private Equity	4.32	10.58	8.79	7.23
Benchmark	4.33	9.66	9.30	9.22
Non-Core Real Estate	12.39	15.73	13.56	3.76
Benchmark	6.48	9.66	9.52	2.84
Opportunistic Fixed Income	(4.40)	2.40	4.83	5.81
Benchmark	(3.59)	0.42	0.46	0.18
<b>Rates &amp; Liquidity</b>	6.97	4.97	5.09	6.61
<b>Benchmark</b>	7.88	5.42	5.33	6.38
IG Fixed Income	7.25	5.10	5.17	6.65
Benchmark	8.17	5.54	5.40	6.41
Cash	0.84	0.59	-	-
Benchmark	0.15	0.07	0.06	-
<b>Inflation Sensitive &amp; Diversifiers</b>	0.24	2.00	1.38	0.88
<b>Benchmark</b>	3.72	4.27	3.17	0.71
Inflation Sensitive	(5.75)	(2.67)	(3.60)	(0.98)
Benchmark	(3.13)	(1.71)	(3.05)	2.08
Core Real Estate	8.53	8.64	9.25	4.63
Benchmark	12.37	11.89	11.57	5.39
<b>Multi-Strategy</b>	(1.46)	5.92	8.53	4.98
<b>Benchmark</b>	(3.35)	4.73	6.60	5.69
<b>Total Pension Plan</b>	0.81	6.10	5.98	5.52
<b>Implementation Benchmark</b>	1.34	5.63	5.45	5.16
<b>Long-Term Policy Benchmark</b>	1.22	5.29	4.90	5.16

North Carolina Department of State Treasurer External Investment Pool  
Supplementary Information  
Fiscal Year Ended June 30, 2016

**Investment Returns (net of fees) as of June 30, 2015**

<b>Asset Classification</b>	<b>1 YR</b>	<b>3 YR</b>	<b>5YR</b>	<b>10 YR</b>
<b>Growth</b>	2.91%	13.80%	12.79%	6.16%
<b>Benchmark</b>	1.40%	12.03%	11.85%	5.76%
Public Equity	1.14%	14.46%	12.95%	6.26%
Benchmark	0.85%	13.32%	12.22%	5.71%
Private Equity	9.58%	11.08%	10.97%	8.86%
Benchmark	6.27%	11.71%	12.44%	11.33%
Non-Core Real Estate	19.60%	14.98%	14.63%	5.15%
Benchmark	8.80%	11.01%	11.86%	5.06%
Opportunistic Fixed Income	-0.52%	9.67%	8.92%	-
Benchmark	-2.85%	2.77%	3.08%	-
<b>Rates &amp; Liquidity</b>	2.07%	2.38%	4.76%	5.62%
<b>Benchmark</b>	2.24%	2.06%	4.60%	5.22%
Investment Grade Fixed Income	2.09%	2.42%	4.79%	5.63%
Benchmark	2.32%	2.15%	4.66%	5.25%
Cash	0.48%	-	-	-
Benchmark	0.03%	-	-	-
<b>Inflation Sensitive &amp; Diversifiers</b>	-1.98%	3.43%	2.17%	2.59%
<b>Benchmark</b>	-0.72%	4.14%	5.10%	2.15%
Inflation Sensitive	-8.01%	-1.05%	-4.75%	2.01%
Benchmark	-9.41%	-1.27%	-2.00%	4.28%
Core Real Estate	7.00%	10.31%	11.85%	5.55%
Benchmark	10.55%	11.32%	13.34%	6.03%
<b>Multi-Strategy</b>	1.48%	11.84%	10.30%	6.25%
<b>Benchmark</b>	0.30%	11.37%	8.65%	8.48%
<b>Total Plan</b>	2.25%	9.08%	9.46%	6.17%
<b>Implementation Benchmark</b>	1.46%	7.78%	8.83%	5.69%
<b>Long-Term Policy Benchmark</b>	0.32%	7.39%	8.52%	6.02%

The Public Equity benchmark is a dynamically weighted combination of the MSCI ACWI IMI Net (“Long-Only”) and a beta adjusted MSCI ACWI IMI Net (“Hedged Equity”). Private Equity’s 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% US Non-Core Real Estate (“Opportunistic and Value-Added”) and 20% Non-US Non-Core Real Estate (“Opportunistic and Value-Added”). Opportunistic Fixed Income’s benchmark is comprised of 50% HFRX Distressed Securities Index, 20% HFRX Relative Value Index, and 15% Credit Suisse Leveraged Loan Index, and 15% BOAML High Yield Index. The Growth benchmark used is a blend of the Public Equity, Private Equity, Non-Core Real Estate and Opportunistic Fixed Income benchmarks policy weights.

North Carolina Department of State Treasurer External Investment Pool  
Supplementary Information  
Fiscal Year Ended June 30, 2016

The benchmark used for IG Fixed Income is comprised of 10% iMoneyNet First Tier Institutional Money Market Funds Net Index and 90% custom BOAML Core Investment Grade Index. The Custom BOAML 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 used is the iMoneyNet First Tier Institutional Money Market Net Index. The overall Rates & Liquidity benchmark is a blend of the IG Fixed Income and Cash benchmarks at policy weights.

The Inflation Sensitive benchmark is a dynamically weighted combination of the Bank of America Merrill Lynch 1-3 Years US Inflation -Linked Treasury Index (“TIPS”), the Bloomberg Commodities Index Commodities, and a combination of benchmarks of investments classified within the Private Natural Resources or Other Real Assets and Diversifiers. The Core Real Estate Benchmark is comprised of 80% NCREIF ODCE Net and 20% FTSEEPRA NAREiT Global Index. The Inflation Sensitive & Diversifiers benchmark used is a blend of the Inflation Sensitive and Core Real Estate benchmarks at policy weights.

The Multi-Strategy benchmark is comprised of a dynamically weighted combination of the HFRX Multi-Strategy Hedge Fund Index, net of fees, and the market value weighted benchmarks for any other total fund strategies within the portfolio.

The Benchmarks used for the total plan are the Implementation, and Long-Term Policy Benchmarks. The Implementation Benchmark is a blend of the asset class benchmarks at policy weights. It is currently as follows: 58% growth, 29% Rates and Liquidity, 11% Inflation Sensitive & Diversifiers, and 2% Multi-Strategy. Lastly, the Long-Term Policy Benchmark is comprised of 57% MSCI ACWI IMI Net, 33% BOAML 5+ Years US Treasury Index, 6% Bloomberg Commodity Index, and 4% BOAML 1-3 Years US Inflation Linked Treasury Index.

North Carolina Department of State Treasurer External Investment Pool  
 Supplementary Information  
 Fiscal Year Ended June 30, 2016

**Peer Comparison of Returns and Risks**

The below chart outlines the one-, three-, five- and 10-year average returns and exposure to risk within the different percentiles of public funds in comparison to the performance and exposure to risk of the North Carolina Retirement System.

<b>National Peer Data on Gross of Fees Returns and Exposure to Risk as of June 30, 2016 (%)</b>				
	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>10 Year</b>
<b>Returns</b>				
25 <sup>th</sup> Percentile	1.37	7.19	7.08	6.00
Median	0.43	6.48	6.43	5.67
75 <sup>th</sup> Percentile	-0.58	5.69	5.74	5.18
<b>NCRS</b>	1.45	6.75	6.56	6.00
<b>Risk*</b>				
25 <sup>th</sup> Percentile	9.10	7.32	7.98	10.43
Median	7.76	6.17	7.36	9.78
75 <sup>th</sup> Percentile	6.71	5.76	6.58	9.03
<b>NCRS</b>	6.39	5.42	6.16	8.18

Source: BNY Mellon Total Funds - Public Funds \$1+ Billion (Gross of Fees)

\* Volatility of Returns (Standard Deviation)

**Cost**

The IMD utilizes external managers for a portion of the Retirement Systems. Over time, the department with advice and counsel of the Investment Advisory Committee has used a lower risk and lower cost approach to investing the Retirement Systems. While costs have risen somewhat over time as more diverse external investment strategies were pursued, the all-in cost of investing the North Carolina Retirement Systems remains modest and IMD continues to seek out cost-efficiencies in their operations.

North Carolina Department of State Treasurer External Investment Pool  
Supplementary Information  
Fiscal Year Ended June 30, 2016

### Management and Incentive Fees

The management and incentive fees incurred to external investment managers, by asset class, were as follows for the year ended June 30, 2016.

Total Investment Management Fees Incurred as of June 30, 2016

Asset Classification	Management Fees	Incentive Fees	Total Fees	Portfolio Market Value (1)	Ratio of Fees to Market Value
Global Equity	\$ 85,999,119	\$ 85,999,119	\$ 85,999,119	\$ 37,256,098,009	0.23%
Private Equity	51,923,362	40,934,608	92,857,970	4,375,776,820	2.12%
Real Estate	79,688,446	116,444,049	196,132,495	8,353,122,404	2.35%
Hedged Strategies	4,022,952	107,175	4,130,127	1,617,323,452	0.26%
External Fixed Income	1,283,356		1,283,356	2,501,567,775	0.05%
Credit	57,554,980	22,155,142	79,710,122	5,259,504,719	1.52%
Inflation	51,665,952	1,497,298	53,163,250	5,192,457,132	1.02%
Internally Managed			-	23,014,232,371	0.00%
<b>Total</b>	<b>\$ 332,138,167</b>	<b>\$ 181,138,272</b>	<b>\$ 513,276,439</b>	<b>\$ 87,570,082,682</b>	<b>0.59%</b>

(1) NCRS assets only

In addition to the fees shown in this table, internal administrative expenses of the Pool and (for the internally managed fixed income portfolio) trade transaction costs are paid by the Treasurer. These charges are reported on the Statement of Changes in Fiduciary Net Position.

### Peer Cost Comparison

For the years ended December 31, 2015 and 2014, the Treasurer's cost of investment can be compared to the median peer amount utilizing the following table.

#### Relative Cost of Investment Compared to Peers as of December 31

	Total (bps)	
	2015	2014
<b>Median Peer</b>	54.7	63.4
<b>North Carolina Retirement Systems</b>	47.4	49.9
<b>Percentile</b>	38%	36%

Source: CEM [Cost Effectiveness Measurement]. CEM benchmarking methodology excludes certain fees that are reported by the Pool, but not reported by most peers. See text below.

For the calendar year ended 2015 and 2014, the peer group consisted of 14 U.S. public pension funds managing \$42 billion to \$158 billion and 15 U.S. public pension funds managing \$42 billion to \$158 billion, respectively. The median peer managed \$69 billion versus North Carolina's \$89 billion and \$74 billion for the years ended December 31, 2015 and 2014, respectively. The CEM benchmarking 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. The CEM methodology differs from that used by the Department in preparing the data in the section titled "Management and Incentive Fees."