

NOTES TO THE FINANCIAL STATEMENTS**NOTE 3: DEPOSITS AND INVESTMENTS****A. Deposits and Investments with State Treasurer**

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 State Treasurer or with a depository institution in the name of the State Treasurer. Certain local governmental units that are not part of the reporting entity are also allowed to invest money with the State Treasurer. Expenditures for the primary government and certain component units are made by wire transfers, ACH transactions, and warrants issued by the agencies and drawn on the State Treasurer. The State Treasurer processes these transactions each day. General Statute 147-69.1 authorizes the State Treasurer to invest all deposits in obligations of or fully guaranteed by the United States; obligations of certain federal agencies; specified repurchase agreements; obligations of the State of North Carolina; time deposits with specified financial institutions; prime quality commercial paper with specified ratings; specified bills of exchange or time drafts; asset-backed securities with specified ratings; and corporate bonds and notes with specified ratings.

General Statute 147-69.2 authorizes the State Treasurer to invest the deposits of certain special funds, including the Teachers' and State Employees' Retirement System, the Consolidated Judicial Retirement System, the Firefighters' and Rescue Squad Workers' Pension Fund, the Local Governmental Employees' Retirement System, the Legislative Retirement System, the North Carolina National Guard Pension Fund, and the Retiree Health Benefit Fund (collectively referred to as the pension and OPEB trust funds in this note), the Register of Deeds' Supplemental Pension Fund, the Disability Income Plan of N.C., the Escheat Fund, the State Public Education Property Insurance Fund, the Local Government Other Post-Employment Benefits (OPEB) Trust, public hospitals, local government Law Enforcement Officer Special Separation Allowance (LEOSSA) trusts, and deposits of certain component units including trust funds of the University of North Carolina System, and funds of the State Health Plan and State Education Assistance Authority in the investments authorized in General Statute 147-69.1; general obligations of other states; general obligations of North Carolina local governments; asset-backed securities bearing specific ratings; and obligations of any company incorporated within or outside the United States bearing specific ratings. The deposits of the pension and OPEB trust funds may be invested in all of the above plus certain insurance contracts; group trusts; individual, common or collective trusts of banks and trust companies; real estate investment trusts; limited partnership interest in limited liability partnerships or limited liability companies; and certain stocks and mutual funds.

North Carolina Department of State Treasurer External Investment Pool (External Investment Pool)

To ensure that these and other legal and regulatory limitations are met, all cash deposited with the State Treasurer, except for other investment programs, is maintained in the External Investment Pool. Other investment programs may include the public hospitals, certain investments of the Escheat Fund, certain investments of other funds and component units of the reporting entity, the Local Government OPEB Trust, local government LEOSSA trusts, and bond proceeds investment accounts. This pool, a government sponsored external investment pool, consists of the following individual investment portfolios:

Short-term Investment – This portfolio may hold any of the investments authorized by General Statute 147-69.1. The Short-term Investment portfolio is the primary cash management account for the State and is managed in such a manner as to be readily convertible into cash. The primary participants of this portfolio are the General Fund, Highway Fund, Highway Trust Fund, and the remaining portfolios listed below. Other participants include universities and various boards, commissions, community colleges, the Local Government OPEB Trust, and school administrative units that make voluntary deposits with the State Treasurer.

Long-term Investment – This portfolio may hold the fixed-income investments authorized by General Statutes 147-69.1 and 147-69.2. 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 Short-term Investment portfolio. The State's pension and OPEB trust funds are the sole participants in this portfolio.

Fixed Income Investment – This portfolio holds a portion of the Short-term Investment portfolio pursuant to General Statute 147-69.2. The State's pension and OPEB trust funds are the sole participants in this portfolio.

Equity Investment – This portfolio is managed pursuant to General Statute 147-69.2(b)(8) and primarily holds an equity-based trust. The State's pension and OPEB trust funds are the sole participants in this portfolio.

Real Estate Investment – This portfolio holds investments in real estate-based trust funds, limited partnerships and other limited liability investment vehicles, and group annuity contracts, which is managed pursuant to General Statute 147-69.2(b)(7). The State's pension and OPEB trust funds are the sole participants in this portfolio.

Alternative Investment – This portfolio holds investments in various limited partnerships and limited liability companies, hedge funds, U.S. Treasuries, and equities, which is managed pursuant to General Statute 147-69.2(b)(9). The State's pension and OPEB trust funds are the sole participants in this portfolio.

NOTES TO THE FINANCIAL STATEMENTS

Opportunistic Fixed Income Investment – This portfolio may hold investments in debt-related strategies made primarily through limited partnerships or other limited liability vehicles as defined by General Statute 147-69.2(b)(6c). The State’s pension and OPEB trust funds are the sole participants in this portfolio.

Inflation Sensitive Investment – This portfolio may hold investments in assets that are acquired for the primary purpose of providing protection against risks associated with inflation made primarily through limited partnerships, other limited liability vehicles, or fixed income securities managed pursuant to General Statute 147-69.2(b)(9a). The State’s pension and OPEB trust funds are the sole participants in this portfolio.

All of the preceding investment portfolios operate like individual investment pools, except that an investment portfolio may hold shares in other investment portfolios at the discretion of the State Treasurer and subject to the legal limitations discussed previously. To this extent, the deposits are commingled; and therefore, the State Treasurer considers all investment portfolios to be part of a single pool, the External Investment Pool. The External Investment Pool contains deposits from funds and component units of the reporting entity (internal portion) as well as deposits from certain legally separate organizations outside the reporting entity (external portion). This pool is not registered with the Securities and Exchange Commission and is not subject to any formal oversight other than that of the legislative body.

The external portion of the External Investment Pool is presented in the State’s financial statements as a custodial fund. Each fund and component unit’s share of the internal equity in the External Investment Pool is reported in the State’s financial statements as an asset of those funds or component units. Equity in the Short-term Investment portfolio is reported as cash and cash equivalents while equity in the Long-term Investment, Equity Investment, Real Estate Investment, Fixed Income Investment, Opportunistic Fixed Income Investment, Inflation Sensitive Investment, and Alternative Investment portfolios is reported as investments. The internal equity of the pool differs from the amount of assets reported by the funds and component units due to the typical banker/customer outstanding and in-transit items. Additionally, each fund reports its share of the assets and liabilities arising from securities lending transactions.

Net investment income earned by the External Investment Pool is generally distributed on a pro rata basis. However, in accordance with legal requirements, the General Fund receives all investment income earned by funds created for purposes of meeting appropriations. For the fiscal year ended June 30, 2022, \$45.14 million of investment income associated with other funds was credited to the General Fund.

The External Investment Pool is included in the North Carolina Department of State Treasurer Investment Programs (“State Treasurer Investments”) separate report. This separately issued report can be obtained from the Department of State Treasurer, 3200 Atlantic Avenue, Raleigh, NC 27604 or can be accessed from the Department of State Treasurer – Investment Management Division internet page at <https://www.nctreasurer.com/investment-management-division/imd-reports> in the Audited Financial Statements section.

Bond Index External Investment Pool (BIF)

The North Carolina Department of State Treasurer operates a government sponsored bond index external investment pool (BIF) in which the State Treasurer is authorized to invest funds for governmental entities that are outside the State’s pension and OPEB trust funds as defined in this note. The BIF invests in high quality debt securities eligible under General Statute 147-69.2(b) (1 through 6).

Participants in the BIF may include public hospitals, the Local Government OPEB Trust, local government LEOSA trusts, the Death Benefit Plan of N.C., the Disability Income Plan of N.C., the Register of Deeds’ Supplemental Pension Fund, and other funds and component units of the reporting entity with investment authority under General Statute 147-69.2. Participation in the BIF is voluntary.

The deposits are commingled; and therefore, the State Treasurer considers all funds to be part of a single pool. The BIF contains deposits from funds and component units of the reporting entity (internal portion) as well as deposits from certain legally separate organizations outside the reporting entity (external portion). The BIF is not registered with the Securities and Exchange Commission and is not subject to any formal oversight other than that of the legislative body.

The external portion of the BIF is presented in the State’s financial statements as a custodial fund. Each fund and component unit’s share of the internal equity in the BIF is reported in the State’s financial statements as an investment asset of those funds or component units. Net investment income earned by the BIF is distributed on a pro rata basis.

The BIF is included in the State Treasurer Investments separate report. This separately issued report can be obtained from the Department of State Treasurer, 3200 Atlantic Avenue, Raleigh, NC 27604 or can be accessed from the Department of State Treasurer – Investment Management Division internet page at <https://www.nctreasurer.com/investment-management-division/imd-reports> in the Audited Financial Statements section.

NOTES TO THE FINANCIAL STATEMENTS**Bond Proceeds Investment Accounts**

The State Treasurer has established separate investment accounts for each State bond issue to comply with Internal Revenue Service regulations on bond arbitrage. A private investment company under contract with the State Treasurer manages these separate accounts. In the State's financial statements, each fund's equity in these accounts is reported as investments.

At year-end, the bond proceeds investment accounts had the following investments and maturities (dollars in thousands):

<u>Investment Type</u>	<u>Carrying Amount</u>	<u>Weighted Average Maturity (Days)</u>
Debt investments:		
U.S. Treasuries	\$182,319	31

Interest Rate Risk and Credit Risk. As established in the contract with the private investment company, all bond proceeds are managed in compliance with General Statute 147-69.1 and are invested in short-term maturities and/or 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.

Custodial Credit Risk. Investments purchased with bond proceeds were exposed to custodial credit risk since the securities were held by the counterparty and were not registered in the name of the State Treasurer. There is no custodial credit risk policy related to these investments.

U.S. Treasuries are valued at fair value at June 30, 2022 (\$182.32 million) and are classified as Level 2 in the fair value hierarchy. The valuation technique for these securities is the market approach where the pricing vendor gathers real-time market data and uses direct observations to compute an independent price.

Equity Index Investment Account (EIF)

The State Treasurer has contracted with an external party (Trustee) to create the equity index investment account (EIF). The primary participants of this equity index investment account are public hospitals and the Local Government OPEB Trust (OPEB) funds. Other participants include local government LEOSSA trusts and certain funds of the reporting entity. These funds are part of a commingled equity index investment trust (Trust). The Trustee manages the assets in the Trust, primarily in equity and equity-based securities in accordance with the General Statutes. The Trustee maintains custody of the underlying securities in the name of the Trust, services the securities, and maintains all related accounting records.

Pursuant to General Statute 159-30.1, the State Treasurer manages the OPEB trusts' assets. 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 post-employment benefit plans. As of June 30, 2022, there were twenty-six OPEB trust participants in the EIF. Each participant is responsible for making its own investment decision.

The State Treasurer also manages the public hospitals' assets. As of June 30, 2022, there were three participants consisting of the Margaret R. Pardee Hospital, Columbus Regional Healthcare, and Watauga Medical Center. Two public hospitals also participate in the BIF. Each participant is responsible for making its own decision.

The Equity Index Investment Account is included in the State Treasurer Investments separate report. This separately issued report can be obtained from the Department of State Treasurer, 3200 Atlantic Avenue, Raleigh, NC 27604 or can be accessed from the Department of State Treasurer – Investment Management Division internet page at <https://www.nctreasurer.com/investment-management-division/imd-reports> in the Audited Financial Statements section.

NOTES TO THE FINANCIAL STATEMENTS**Escheat Investment Account**

Pursuant to General Statute 147-69.2(b)(12), the State Treasurer has established a separate investment account on behalf of the Escheat Fund. At year-end, the Escheat investment account maintained by the State Treasurer had the following investments and recurring fair value measurements (dollars in thousands):

Investments Measured at the NAV	Fair Value 6/30/2022	Unfunded Commitments
Private credit limited partnership	\$ 10,817	\$ 309
Private equity investment partnerships	<u>49,496</u>	9,651
Total investments measured at the NAV	<u>\$ 60,313</u>	

Private Credit Limited Partnership. This type includes two private credit funds. These investments are valued using net assets valued as of the previous quarter-end, plus current quarter cash flows. 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.

Private Equity Investment Partnership. This type includes four private equity funds. These investments are valued using net assets valued as of the previous quarter-end, plus current quarter cash flows. These investments include a mix of buyout, venture capital, growth equity, and private special situations vehicles. 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.

B. Deposits Outside the State Treasurer

In addition to the pooled deposits maintained by the State Treasurer, other deposits are maintained outside the State Treasurer by the primary government and certain component units. As a general rule, these deposits are not covered by the rules in Chapter 20 NCAC 7 requiring collateralization of uninsured deposits.

Primary Government

The majority of the uninsured and uncollateralized deposits held outside the State Treasurer were maintained by the USS N.C. Battleship Commission. The USS N.C. Battleship Commission does not have a deposit policy for custodial credit risk. At year-end, the bank balances maintained outside the State Treasurer by the primary government were exposed to custodial credit risk as follows (dollars in thousands):

Uninsured and Uncollateralized	<u>\$ 5,197</u>
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Component Units

The University of North Carolina (UNC) System does not have a deposit policy for custodial credit risk. At year-end, the bank balances maintained outside the State Treasurer by the UNC System were exposed to custodial credit risk as follows (dollars in thousands):

Uninsured and Uncollateralized	\$ 350,511
Uninsured and collateral held by pledging bank's trust department or agent but not in the entity's name	<u>1,995</u>
Total	<u>\$ 352,506</u>

NOTES TO THE FINANCIAL STATEMENTS**C. Investments Outside the State Treasurer****Primary Government**

At year-end, 92% of investments held outside the State Treasurer were maintained by the Supplemental Retirement Income Plan of North Carolina and the North Carolina Public Employee Deferred Compensation Plan.

Supplemental Retirement Income Plan of North Carolina and North Carolina Public Employee Deferred Compensation Plan

The Iran Divestment Act (North Carolina General Statutes Sections 147-86.55 through 147-86.63) places investment restrictions on the Supplemental Retirement Income Plan of North Carolina (the 401(k) Plan) and the North Carolina Public Employee Deferred Compensation Plan (the 457 Plan). Specifically, pursuant to the North Carolina Department of State Treasurer's "Iran Divestment Policy", adopted in compliance with the statute, the Department of State Treasurer, including the Supplemental Retirement Plans, shall refrain from making investments in companies on the State Treasurer's list of entities engaging in certain investment activities in Iran.

The Divestment from Companies Boycotting Israel Act (North Carolina General Statutes Sections 147-86.80 through 147-86.84) places investment restrictions on the 401(k) Plan and the 457 Plan. Specifically, pursuant to the North Carolina Department of State Treasurer's "Boycott Israel Divestment Policy," adopted in compliance with the statute, the Department of State Treasurer, including the Supplemental Retirement Plans, shall refrain from making investments in companies on the State Treasurer's list of entities engaging in certain boycotting activities against Israel.

In addition, the State Treasurer is required to comply with certain restrictions issued by the United States government, including Executive Order 14032, which restricts investment activity in certain Chinese entities as identified by the Secretary of Treasury (generally military-related companies), as well as restrictions issued by the Office of Foreign Assets Control.

The form of governance over the investments is the prudent-person or prudent-expert rule. These rules are broad statements of intent, generally requiring investment selection and management to be made with prudent and intelligent judgment and care.

At December 31, 2021, the 401(k) and 457 Plans of North Carolina had the following investments and maturities that were maintained outside the State Treasurer (dollars in thousands). Investments in the Pooled Account totaled \$13.9 billion. The 401(k) and 457 Plans' investments are held in a group trust established as of January 4, 2016. Their Board authorized the establishment of the North Carolina Supplemental Retirement Plans Group Trust (the "Group Trust") for the purpose of commingling the corpus of the separate trusts of the Plans; and the Board adopted the Declaration of Trust establishing the Group Trust. The Pooled Account offers six equity funds, an inflation responsive fund, an inflation protected securities fund and two fixed income funds. The actively managed separate account funds have multiple investment managers, and the passively managed separate accounts each have a single investment manager. The remainder of the investments is the Stable Value Fund, which consists of four synthetic guaranteed investment contracts, a separate account guaranteed investment contract, and a short-term investment fund.

Investment Type	Carrying Amount	Investment Maturities (in Years)			
		Less Than 1	1 to 5	6 to 10	More Than 10
Debt investments:					
U.S. Treasuries	\$ 1,636,816	\$ 202,008	\$ 1,066,062	\$ 277,321	\$ 91,425
U.S. agencies	74,876	804	46,672	17,350	10,050
Mortgage pass-throughs	670,238	229,082	21,361	24,594	395,201
Collateralized mortgage obligations	58,408	27,958	497	-	29,953
State and local government	96,777	12,835	36,235	32,745	14,962
Asset-backed securities	369,236	54,530	156,336	36,987	121,383
Fixed income collective investment funds	99,209	-	-	99,209	-
Debt mutual funds	37,127	-	37,127	-	-
Pooled debt funds	1,136,399	-	-	1,136,399	-
Domestic corporate bonds	706,899	45,332	337,613	214,186	109,768
Foreign corporate bonds	179,541	12,892	109,703	39,091	17,855
Foreign government bonds	25,960	12,924	4,348	8,207	481
	<u>5,091,486</u>	<u>\$ 598,365</u>	<u>\$ 1,815,954</u>	<u>\$ 1,886,089</u>	<u>\$ 791,078</u>
Other investments:					
Equity collective investment trusts	5,059,653				
Unallocated insurance contracts	248,085				
Domestic stocks	3,101,507				
Foreign stocks	2,188,549				
Short-term investment collective trust	147,760				
Hedge/commodity/debt collective investment trust	569,808				
Total investments	<u>\$ 16,406,848</u>				

NOTES TO THE FINANCIAL STATEMENTS

In the above table, the underlying investments of fully benefit-responsive synthetic guaranteed investment contracts (SGICs) are disclosed at fair value. On the Statement of Net Position, SGICs are reported at contract value. At year-end, the fair value of the underlying investments of fully benefit-responsive SGICs exceeded the contract value by \$39.09 million.

Interest Rate Risk. The 401(k) and 457 Plans do not have a formal investment policy that limits duration as a means of managing their exposure to fair value losses arising from increasing interest rates. The managers within the NC Fixed Income Fund and the NC TIPS Fund have duration targets relative to a specified benchmark. Asset-backed securities are securities that are primarily serviced by the cash flows of a discrete pool of receivables or other financial assets, either fixed or revolving, that by their terms convert into cash within a finite time period, plus any rights or other assets designed to assure the servicing or timely distribution of proceeds to the security holders. Collective investment funds include units in the various funds. The interest rate risk in each of the funds is dependent upon the weighted average maturity of each of the collective investment funds which holds securities with maturities ranging from short to intermediate in duration. As a result, the collective investment funds are sensitive to changes in interest rates. Collateralized mortgage obligations generate a return based upon either the payment of interest or principal on mortgages in an underlying pool. The relationship between interest rates and prepayments make the fair value sensitive to changes in interest rates. Investments consist of units in various commingled funds, each with an investment objective relative to maturity and liquidity with interest rate risk dependent upon the weighted average maturity of each of the funds.

Credit Risk. The 401(k) and 457 Plans do not have a formal investment policy on credit risk. The investment guidelines applicable to the NC Fixed Income Fund places restrictions on the total risk exposure of the fund and specifically the concentration of the debt securities in which the fund invests. The investment guidelines for the NC TIPS Fund limit non-cash sweep investments to U.S. Treasury Inflation Protected Securities (TIPS) and TIPS futures. At December 31, 2021, the 401(k) and 457 Plan investments maintained outside the State Treasurer had the following credit quality distribution for securities with credit exposure (dollars in thousands):

Investment Type	Carrying Amount by Credit Rating - Moody's/S&P/Fitch					
	Aaa/AAA	Aa/AA	A	Baa/BBB	Less than Investment Grade	Unrated
U.S. agencies	\$ -	\$ 74,876	\$ -	\$ -	\$ -	\$ -
Mortgage pass-throughs	-	602,850	-	-	-	-
Collateralized mortgage obligations	13,960	13,104	71	1,787	24,901	4,585
State and local government	21,318	69,332	5,614	513	-	-
Asset-backed securities	315,927	20,434	2,769	-	30,106	-
Fixed income collective investment funds	-	-	-	-	-	99,209
Debt mutual funds	-	-	-	-	-	37,127
Pooled debt funds	-	-	-	-	-	1,136,399
Domestic corporate bonds	27,556	25,630	183,438	436,416	31,978	1,881
Foreign corporate bonds	4,590	11,984	75,628	77,062	10,229	48
Foreign government bonds	-	4,935	16,397	2,470	2,158	-
	<u>\$ 383,351</u>	<u>\$ 823,145</u>	<u>\$ 283,917</u>	<u>\$ 518,248</u>	<u>\$ 99,372</u>	<u>\$ 1,279,249</u>

Custodial Credit Risk. The 401(k) and 457 Plans do not have formal investment policies that address custodial credit risk.

NOTES TO THE FINANCIAL STATEMENTS

Foreign Currency Risk. Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. The 401(k) and 457 Plans do not have formal investment policies that address foreign currency risk. Investment manager guidelines describe how and if foreign currency hedging can be utilized in the portfolio. At December 31, 2021, the Plans' exposure to foreign currency risk was as follows (dollars in thousands):

Currency	Carrying Amount Foreign stocks
Euro	\$ 519,605
Japanese Yen	389,421
Pound Sterling	321,663
Hong Kong Dollar	218,326
Swiss Franc	120,776
New Taiwan Dollar	115,240
Swedish Krona	83,974
Indian Rupee	71,194
South Korean Won	64,489
Canadian Dollar	59,298
Danish Krone	58,324
Australian Dollar	42,089
Singapore Dollar	29,586
Chinese Yuan Renminbi	20,279
Brazilian Real	18,875
South African Rand	18,447
Norwegian Krone	13,401
Indonesian Rupiah	9,274
Polish Zloty	4,044
Mexican Peso	3,793
Israeli Shekel	2,543
Malaysian Ringgit	1,431
Thai Baht	1,406
UAE Dirham	526
Turkish Lira	443
Egyptian Pound	102
Total	\$ 2,188,549

The fair value measurements of the 401(k) and 457 Plans' investments are categorized within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

NOTES TO THE FINANCIAL STATEMENTS

At December 31, 2021, the investments of these Plans maintained outside the State Treasurer had the following recurring fair value measurements (dollars in thousands):

	6/30/2022	Fair Value Measurements Using	
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
Investments by fair value level			
U.S. Treasuries	\$ 1,636,816	\$ -	\$ 1,636,816
U.S. agencies	74,876	-	74,876
Mortgage pass-throughs	670,238	-	670,238
Collateralized mortgage obligations	58,408	-	58,408
State and local government	96,777	-	96,777
Asset-backed securities	369,236	-	369,236
Domestic corporate bonds	706,899	-	706,899
Foreign corporate bonds	179,541	-	179,541
Foreign government bonds	25,960	-	25,960
Domestic stocks	3,101,507	3,101,507	-
Foreign stocks	2,188,549	2,188,549	-
Total investments by fair value level	9,108,807	\$ 5,290,056	\$ 3,818,751
Investments measured at the net asset value (NAV)			
Short-term investment collective trust	147,760		
Hedge/commodity/debt collective investment trust	569,808		
Fixed income collective investment funds	99,209		
Debt mutual funds	37,127		
Pooled mutual funds	1,136,399		
Equity collective investment trusts	5,059,653		
Total investments measured at the NAV	7,049,956		
Total investments measured at fair value	\$ 16,158,763		

U.S. Treasuries, U.S. agencies, mortgage pass-throughs, collateralized mortgage obligations, and state and local government securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Asset-backed securities, domestic corporate bonds, foreign corporate bonds, and foreign government bonds classified in Level 2 of the fair value hierarchy are valued using discounted cash flow techniques.

Investments measured at the net asset value (NAV) per share are presented on the following table (dollars in thousand):

Investments Measured at the NAV	Fair Value 6/30/2022	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Short-term investment collective trust	\$ 147,760	Daily	1 day
Hedge/commodity/debt collective investment trust	569,808	Daily	1 day
Fixed income collective investment funds	99,209	Daily	1 day
Debt mutual funds	37,127	Daily	1 day
Pooled debt funds	1,136,399	Daily	1 day
Equity collective investment trusts	5,059,653	Daily	1 day
Total investments measured at the NAV	\$ 7,049,956		

Short-term Investment Collective Trust - This type includes 2 funds, the BNY Mellon EB Temporary Investment Fund and the Wells Fargo/BlackRock Short-term Investment Fund. The BNY Mellon EB Temporary Investment Fund primarily invests in instruments issued by the U.S. Government and federal agencies, short-term corporate obligations, commercial paper, and certificates of deposit. The Wells Fargo/BlackRock Short-term Investment Fund is invested in a diversified portfolio of money market instruments. The average weighted maturities of the funds do not exceed 60 days. The funds are valued with a NAV at \$1/unit.

NOTES TO THE FINANCIAL STATEMENTS

Hedge/Commodity/Debt Collective Investment Trust – This type includes one fund, the NC Inflation Response Fund. The Fund invests wholly in shares of a collective investment trust, the BlackRock Strategic Completion Non-Lendable Fund, managed by BlackRock. This Fund seeks returns that provide a hedge to inflation over the medium to long-term. The Strategic Completion Fund currently allocates to three underlying asset classes: U.S. Treasury Inflation Protected Securities (TIPS), commodities and global real estate investment trusts (REITs). The Fund's net asset value is based on the fair value of the Fund's assets on the valuation date minus the Fund's liabilities on the valuation date. The Fund's unit value is calculated by dividing the Fund's net asset value on the valuation date by the number of units of the Fund that are outstanding on the valuation date.

Fixed Income Collective Investment Funds – This type includes one fund, the Commingled BlackRock Fixed Income Index Fund. The Commingled BlackRock Fixed Income Index Fund seeks to replicate the composition and performance of the Bloomberg U.S. Aggregate Index. The Commingled BlackRock Fixed Income Index Fund 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.

Debt Mutual Funds – This type includes two funds in Fixed Income. The MetWest High Yield Bond Fund invests primarily in high yield bonds with the investment objective of maximizing long-term total return. The MetWest Floating Rate Income Fund invests primarily in floating rate securities and seeks to maximize current income. The net asset value is determined by dividing the total value of the fund's portfolio investments and other assets attributable to the fund, less liabilities, by the total number of shares outstanding. The value is determined at the end of each day the New York Stock Exchange is open.

Pooled Debt Funds – This type includes one fund, the Prudential Core Plus Bond Fund in Fixed Income. The fund is an actively managed bond fund that seeks an excess return over the Bloomberg U.S. Aggregate Bond Index. The fund invests in a diversified portfolio of fixed income securities including corporate obligations, structured products, and U.S. Treasuries. The fund actively allocates to both benchmark and non-benchmark sectors, with heavy emphasis on the credit-oriented sectors. The fund 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.

Equity Collective Investment Trusts – This type includes five equity index funds. The BlackRock Large Cap Index Fund seeks to replicate the composition and performance of the S&P 500 Index. The BlackRock Small Mid Cap Index Fund seeks to replicate the composition and performance of the Russell 2500 Index. The BlackRock International Index Fund seeks to replicate the composition and performance of the MSCI ACWI Ex-USA Index. Included in the NC Large Cap Core Fund and the NC Small Mid Cap Fund are investments in the Russell 1000 Index Fund and the Russell 2500 Index Fund, respectively. Each are valued at the net asset value of units held at the end of the period, based upon the fair value of the underlying investments.

Other Primary Government Investments

The other primary government investments held outside the State Treasurer consisted almost entirely of separate investment accounts held by trustees for special obligation and revenue debt issues to comply with IRS regulations on bond arbitrage, and escheated securities held for owners.

At year-end, the other primary government investments maintained outside the State Treasurer had the following investments and maturities (dollars in thousands):

Investment Type	Carrying Amount	Investment Maturities (in Years)			
		Less Than 1	1 to 5	6 to 10	More Than 10
Debt investments:					
U.S. Treasuries	\$ 771,615	\$ 679,604	\$ 92,011	\$ -	\$ -
State and local government	514	-	514	-	-
Repurchase agreements	189,635	189,635	-	-	-
Commercial paper	1,993	-	1,993	-	-
Annuity contracts	81,016	7,621	30,484	30,484	12,427
Money market mutual funds	128,702	128,702	-	-	-
Pooled debt funds	114,598	114,598	-	-	-
	1,288,073	<u>\$ 1,120,160</u>	<u>\$ 125,002</u>	<u>\$ 30,484</u>	<u>\$ 12,427</u>
Other investments:					
Domestic stocks	134,676				
Total investment securities	<u>\$ 1,422,749</u>				

NOTES TO THE FINANCIAL STATEMENTS

Interest Rate Risk and Credit Risk. The special obligation debt proceeds are invested in repurchase agreements and U.S. Treasuries. As established in the debt covenants for certain issues, repurchase agreements with respect to government obligations can only be entered into with 1) a dealer recognized as a primary dealer by a Federal Reserve Bank; or 2) any commercial bank, trust company, or national banking association reporting to the Federal Reserve. There are no formally adopted investment policies or debt covenants that address interest rate or credit risk.

At year-end, the other primary government investments maintained outside the State Treasurer had the following credit quality distribution for securities with credit exposure (dollars in thousands):

Investment Type	Carrying Amount by Credit Rating - Moody's/S&P/Fitch			
	Aaa/AAA	Aa/AA	A	Unrated
State and local government	\$ 514	\$ -	\$ -	\$ -
Commercial paper	-	-	1,993	-
Annuity contracts	-	81,016	-	-
Money market mutual funds	128,702	-	-	-
Pooled debt funds	-	-	-	114,598
Total	<u>\$ 129,216</u>	<u>\$ 81,016</u>	<u>\$ 1,993</u>	<u>\$ 114,598</u>

Custodial Credit Risk. There were no formally adopted policies that address custodial credit risk of other primary government investments outside the State Treasurer.

Foreign Currency Risk. Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. At year-end, there were no formally adopted policies that address foreign currency risk of other primary government investments outside the State Treasurer.

The fair value measurements of the other primary government investments are categorized within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

At year-end, the other primary government investments maintained outside the State Treasurer had the following recurring fair value measurements (dollars in thousands):

	6/30/2022	Fair Value Measurements Using	
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
Investments by fair value level			
U.S. Treasuries	\$ 771,615	\$ 751,673	\$ 19,942
State and local government	514	514	-
Commercial paper	1,993	-	1,993
Annuity contracts	81,016	81,016	-
Domestic stocks	<u>134,676</u>	<u>134,676</u>	-
Total investments by fair value level	989,814	<u>\$ 967,879</u>	<u>\$ 21,935</u>
Investments as a position in an External Investment Pool			
Pooled debt funds	<u>114,598</u>		
Total investments measured at fair value	<u>\$ 1,104,412</u>		

Note: The total in this table does not agree to the total disclosed in the previous investment maturities table because this table does not include investments reported at cost. See Note 1E for additional information.

U.S. Treasuries classified in Level 2 of the fair value hierarchy are valued using discounted cash flow techniques. Commercial paper valuation is provided by an independent third-party pricing vendor. Pooled debt funds are valued based on the ownership interest of the

NOTES TO THE FINANCIAL STATEMENTS

External Investment Pool Short Term Investment Fund (STIF), which is determined on a fair value basis as of fiscal year-end in accordance with the STIF operating procedures. Valuation of the underlying assets is performed by the custodian.

Component Units**University of North Carolina System**

The General Statutes place no specific investment restrictions on the University of North Carolina System (the UNC System). However, in the absence of specific legislation, the form of governance over these investments would be the prudent-person or prudent-expert rule. These rules are broad statements of intent, generally requiring investment selection and management to be made with prudent, discreet, and intelligent judgment and care. The University of North Carolina at Chapel Hill (the University) operates the UNC Investment Fund, LLC (Investment Fund), which is a governmental external investment pool. The University operates the Investment Fund for charitable, nonprofit foundations, associations, trusts, endowments and funds that are organized and operated primarily to support the University and other institutions within the UNC System. Separate financial statements for the Investment Fund may be obtained from the UNC Management Company, Inc., 1400 Environ Way, Chapel Hill, NC 27517.

At year-end, the UNC System had the following investments and maturities that were maintained outside the State Treasurer (dollars in thousands):

Investment Type	Carrying Amount	Investment Maturities (in Years)			
		Less Than 1	1 to 5	6 to 10	More Than 10
Debt investments:					
U.S. Treasuries	\$ 175,099	\$ 45,156	\$ 107,870	\$ 6,170	\$ 15,903
U.S. agencies	95,021	4,602	12,735	6,644	71,040
Mortgage pass-throughs	5,240	-	-	-	5,240
Collateralized mortgage obligations	67,532	1,877	2,899	1,585	61,171
Asset-backed securities	182,595	1,222	13,629	47,134	120,610
Collective investment funds	146,889	120,818	5,971	20,100	-
Annuity contracts	162	162	-	-	-
Debt mutual funds	626,735	929	443,944	172,081	9,781
Money market mutual funds	317,938	317,938	-	-	-
Domestic corporate bonds	9,698	-	1,290	4,917	3,491
Foreign corporate bonds	10,856	-	859	6,000	3,997
Foreign government bonds	26	-	26	-	-
Other	33	20	-	-	13
	<u>1,637,824</u>	<u>\$ 492,724</u>	<u>\$ 589,223</u>	<u>\$ 264,631</u>	<u>\$ 291,246</u>
Other investments:					
Balanced mutual funds	2,706				
International mutual funds	32,102				
Equity mutual funds	106,929				
Investments in real estate	98,392				
Real estate investment trust	114,318				
Hedge funds	4,309,775				
Private equity limited partnerships	4,509,663				
Real assets limited partnerships	639,373				
Other limited partnerships	371,033				
Domestic stocks	553,147				
Foreign stocks	24,237				
Other	3,472				
Total investments	<u>\$ 12,402,971</u>				

NOTES TO THE FINANCIAL STATEMENTS

Interest Rate Risk and Credit Risk. The constituent institutions of the UNC System generally do not have formal investment policies that address interest rate risk or credit risk. At year-end, the UNC System's investments maintained outside the State Treasurer had the following credit quality distribution for securities with credit exposure (dollars in thousands):

Investment Type	Carrying Amount by Credit Rating - Moody's/S&P/Fitch					
	Aaa/AAA	Aa/AA	A	Baa/BBB	Less than Investment Grade	Unrated
U.S. agencies	\$ 113	\$ 84,774	\$ -	\$ -	\$ -	\$ 10,134
Mortgage pass-throughs	-	618	3,405	1,217	-	-
Collateralized mortgage obligations	154	3,801	1,053	5,255	30,619	26,650
Asset-backed securities	1,326	1,553	2,708	32,484	114,990	29,534
Collective investment funds	5,971	19,356	-	-	744	120,818
Annuity contracts	-	-	-	-	-	162
Debt mutual funds	20,209	2,683	389,001	166,476	14,780	33,586
Money market mutual funds	316,155	-	-	-	-	1,783
Domestic corporate bonds	383	342	677	1,006	5,547	1,743
Foreign corporate bonds	205	200	493	4,271	5,542	145
Foreign government bonds	-	-	-	-	26	-
Other	20	-	-	-	-	13
Total	\$ 344,536	\$ 113,327	\$ 397,337	\$ 210,709	\$ 172,248	\$ 224,568

Custodial Credit Risk. The constituent institutions of the UNC System generally do not have formal investment policies that address custodial credit risk. At year-end, the UNC System's investments maintained outside the State Treasurer were exposed to custodial credit risk as follows (dollars in thousands):

Investment Type	Carrying Amount	
	Held by Counterparty	Held by Counterparty's Trust Dept. or Agent but not in the entity's name
Domestic stocks	\$ 25,574	\$ 270
Foreign stocks	29	-
Total	\$ 25,603	\$ 270

Foreign Currency Risk. The constituent institutions of the UNC System do not have formal investment policies that address foreign currency risk. At year-end, the UNC System's investments maintained outside the State Treasurer were exposed to foreign currency risk as follows (dollars in thousands):

Currency	Carrying Amount		
	Hedge funds	Private equity limited partnerships	Real assets limited partnerships
Euro	\$ 22,896	\$ 165,142	\$ 740
British Pound Sterling	-	60,629	24
Swedish Krona	-	2,564	-
Canadian Dollar	-	4,912	-
Australian Dollar	-	8	-
Total	\$ 22,896	\$ 233,255	\$ 764

The fair value measurements of the UNC System's investments maintained outside the State Treasurer are categorized within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

NOTES TO THE FINANCIAL STATEMENTS

At year-end, the UNC System's investments maintained outside the State Treasurer had the following recurring fair value measurements (dollars in thousands):

	6/30/2022	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by fair value level				
U.S. Treasuries	\$ 175,099	\$ 174,899	\$ 200	\$ -
U.S. agencies	95,021	74	94,947	-
Mortgage pass-throughs	5,240	-	5,240	-
Collateralized mortgage obligations	67,532	-	67,532	-
Asset-backed securities	182,595	-	182,595	-
Collective investment funds	146,889	146,889	-	-
Annuity contracts	162	-	162	-
Debt mutual funds	626,735	626,735	-	-
Money market mutual funds	310,242	310,242	-	-
Balanced mutual funds	2,706	2,706	-	-
International mutual funds	32,102	32,102	-	-
Equity mutual funds	106,929	106,929	-	-
Domestic corporate bonds	9,698	334	9,364	-
Foreign corporate bonds	10,856	-	10,856	-
Foreign government bonds	26	-	26	-
Domestic stocks	553,147	525,758	1,122	26,267
Foreign stocks	24,237	24,061	176	-
Investments in real estate	98,392	796	89,320	8,276
Real estate investment trust	114,231	114,231	-	-
Other	3,151	171	-	2,980
Total investments by fair value level	2,564,990	\$ 2,065,927	\$ 461,540	\$ 37,523
Investments measured at the net asset value (NAV)				
Real estate investment trust	87			
Hedge funds	4,309,775			
Private equity limited partnerships	4,509,663			
Real assets limited partnerships	639,373			
Other limited partnerships	371,033			
Other	354			
Total investments measured at the NAV	9,830,285			
Total investments measured at fair value	\$ 12,395,275			

The majority of debt securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique. Matrix pricing relies on the securities' relationship to other benchmark quoted securities. In general, domestic stocks classified in Level 3 of the fair value hierarchy are valued based on recent company stock valuation. Investments in real estate classified in Level 2 of the fair value hierarchy are valued using a market multiples technique. The market multiples technique uses multiples or ratios derived from identical or similar assets, liabilities, or groups of assets and liabilities to determine the fair value of an asset or liability. The majority of investments in real estate classified in Level 3 of the fair value hierarchy are valued using a combination of recent sales or historical appraisals.

NOTES TO THE FINANCIAL STATEMENTS

The University of North Carolina at Chapel Hill holds the majority of the investments measured at net asset value in the previous table. Below are additional disclosures for these investments.

Investments Measured at the NAV	Fair Value 6/30/2022	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
UNC at Chapel Hill:				
Hedge funds	\$ 4,305,146	\$ 30,795	Ranges from 30 days to 3+ years with certain notices	30-180 days
Private equity limited partnerships	4,358,233	1,481,095	Not currently eligible	These funds do not have redemption rights, but have terms of 10 years and make periodic distributions.
Real assets limited partnerships	639,108	648,104	Not currently eligible	These funds do not have redemption rights, but have terms of 10 years and make periodic distributions.
Total investments measured at the NAV	\$ 9,302,487			

Hedge Funds. UNC at Chapel Hill reports a combination of the following asset strategies for its hedge funds: long biased equity, long/short equity, diversifying, fixed income, and hedge funds in liquidation. The long biased equity strategy is characterized by primarily holding long positions in publicly listed securities to gain equity market exposure globally. The long/short equity strategy is characterized by buying and/or selling short individual securities that fund managers believe the market has mispriced. The long and short positions are generally independent of one another and typically result in an overall net long exposure to equities. Both long biased equity and long/short equity hedge fund managers occasionally invest in equity index futures, options on equity index futures, and specific risk options. The diversifying strategy is characterized by its lack of correlation with major equity indices. These managers may use derivatives such as fixed income and equity futures both as hedging tools and to gain exposure to specific markets. They may also enter into various swap agreements to manage exposure to specific securities and markets. The fixed income strategy includes credit-based commingled hedge funds and is characterized by a focus on income generation and portfolio diversification. These managers may use futures and options on global fixed income and currency markets and enter into swap agreements to hedge or gain exposure to certain markets. The hedge funds in liquidation strategy is characterized by investment in hedge funds that are either in the process of being terminated or have received notice of termination.

Private Equity Limited Partnerships. Private equity managers typically invest in equity investments and transactions in private companies. These investments are typically illiquid and are expected to control volatility and provide higher returns over the long term than public equity investments. The energy subsection of the private equity strategy, including direct energy investments, energy security investments, and limited partnerships, is primarily used to hedge against unanticipated inflation. The principal attraction of these investments is the lack of correlation with the balance of the portfolio.

Real Assets Limited Partnerships. Real estate managers invest in private portfolio investments focusing on specific niche markets within the real estate sector. Such sectors may include investments in public real estate investment trusts that provide a more liquid means of gaining exposure to this asset class. These investments primarily serve as a hedge against unanticipated general price inflation but are also a source of current income.