NORTH DAKOTA RETIREMENT
AND INVESTMENT OFFICE
Bismarck, ND

FINANCIAL STATEMENTS
June 30, 2022 and 2021

PAGE

INDEPENDENT AUDITORS' REPORT

Governor Doug Burgum
The Legislative Assembly
Janilyn Murtha, Executive Director
State Investment Board
Teachers' Fund for Retirement Board
North Dakota Retirement and Investment Office

Report on the Audit of the Financial Statements

Opinions

We have audited the accompanying financial statements of the North Dakota Retirement and Investment Office (RIO), a department of the State of North Dakota, which comprise the statement of net position – fiduciary funds as of June 30, 2022 and 2021, and the related statement of changes in net position – fiduciary funds for the years then ended, and the related notes to the financial statements, which collectively comprise RIO's basic financial statements, and the combining and individual fund financial statements as of and for the years ended June 30, 2022 and 2021, as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of RIO as of June 30, 2022 and 2021, and the respective changes in financial position for the years then ended in accordance with accounting principles generally accepted in the United States of America. Also, in our opinion, the combining and individual fund financial statements referred to above present fairly, in all material respects, the respective financial position of each of the individual funds of RIO as of June 30, 2022 and 2021, and the changes in financial position of such funds for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 1, the financial statements of RIO are intended to present the financial position and the changes in financial position of only that portion of the State of North Dakota that is attributable to the transactions of RIO. They do not purport to, and do not, present fairly the financial position of the State of North Dakota as of June 30, 2022 and 2021, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Basis for Opinions

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of RIO and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about RIO's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditors' Responsibilities for the Audit of the Financial Statements
Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.

- Obtain an understanding of internal control relevant to the audit 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 RIO's internal control. Accordingly, no such opinion is expressed.

- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about RIO's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

Required Supplementary Information
Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the schedules of changes in NPL and related ratios - ND Teachers' Fund for Retirement and employer contributions - ND Teachers' Fund for Retirement, investment returns - ND Teachers' Fund for Retirement, employer's share of NPL and NOL – ND Public Employees Retirement System and employer contributions – ND Public Employees Retirement System and related notes, as listed in the table of contents, be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with GAAS, 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 basic financial statements, and other knowledge we obtained during our audit of the basic 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.

Supplementary Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise RIO's basic financial statements and the combining and individual fund financial statements. The schedules of administrative expenses, consultant expenses, investment expenses, and appropriations – budget basis – fiduciary funds (schedules), as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements. The schedules are the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with GAAS. In our opinion, the schedules are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Audit Standards*, we have also issued our report dated November 2, 2022, on our consideration of RIO's 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 solely 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 the effectiveness of RIO's 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 RIO's internal control over financial reporting and compliance.

CliftonLarsonAllen LLP

CliftonLarsonAllen LLP

Baltimore, Maryland
November 2, 2022

CliftonLarsonAllen LLP
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INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

Governor Doug Burgum
The Legislative Assembly
Janilyn Murtha, Executive Director
State Investment Board
Teachers' Fund for Retirement Board
North Dakota Retirement and Investment Office

We have audited, in accordance with the 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, the financial statements of the North Dakota Retirement and Investment Office (RIO), a department of the State of North Dakota, as of and for year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise RIO's basic financial statements, and the combining and individual fund financial statements, and have issued our report thereon dated November 2, 2022.

Report on Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered RIO's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of RIO's internal control. Accordingly, we do not express an opinion on the effectiveness of RIO's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether RIO's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of RIO's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering RIO's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

CliftonLarsonAllen LLP

CliftonLarsonAllen LLP

Baltimore, Maryland
November 2, 2022

Our discussion and analysis of the ND Retirement and Investment Office's (RIO) financial performance provides an overview of RIO's financial activities for the fiscal years ended June 30, 2022 and 2021. Please read this in conjunction with the basic financial statements, which follow this discussion.

RIO administers two fiduciary funds, a pension trust fund for the ND Teachers' Fund for Retirement (TFFR) and an investment trust fund for the ND State Investment Board (SIB) consisting of 26 investment clients (noting that TFFR is one of the 26 investment clients) in two investment pools and four individual investment accounts.

Financial Highlights

Total net position decreased in fiscal year 2022 from the previous fiscal year in the fiduciary funds by $1.12 billion (5.8%). Fiscal year 2021 net position had increased $2.86 billion (17.5%) from fiscal year 2020. The decrease in FY2022 is primarily due to low investment returns due to weak financial markets during the year. Approximately 39% of the FY2021 increase is due to the growth of the Legacy Fund. The Legacy Fund was created by a constitutional amendment in 2010. The amendment provides that 30% of oil and gas gross production and oil extraction taxes on oil produced after June 30, 2011, be transferred to the Legacy Fund. Transfers into the Legacy Fund totaled $707.3 million and $380.6 million in FY2022 and FY2021, respectively. Meanwhile, net investment income for the Legacy Fund was negative $875 million in FY2022 and exceeded $1.6 billion in FY2021.

Total additions to the fiduciary funds was negative $531 million in FY2022 and a positive $4.4 billion in FY2021. A large portion of this swing was driven by fluctuations in net investment income. Due to weak financial markets throughout the year, net investment income was negative $1.6 billion in FY2022. This was after posting net investment income of $3.5 billion in FY2021 due to the exceptionally strong financial markets that followed the pull back that occurred near the end of FY2020. Changes in purchases of units each year are highly dependent on Legacy Fund deposits and thus on oil and gas production. There was an increase in purchases of units in the investment program in FY2022 as the price of oil rose steeply throughout the year and a decrease in purchases of units in the investment program in FY2021 as oil and gas production activity pulled back due to the global pandemic. Total fiduciary fund purchases of units increased $283.5 million (44.6%) in FY2022 and decreased $811.4 million (56.1%) in FY2021.

Deductions in the fiduciary funds decreased in FY2022 by $927.4 million (61.3%) and increased in FY2021 by $901.8 million (147.6%). The vast majority of the changes in deductions are driven by redemptions of units due to the constitutionally mandated earnings transfers from the Legacy Fund to the State's general fund every two years. The State Constitution requires that all earnings accrued after June 30, 2017, be transferred to the general fund at the end of each biennium. A transfer of $871.7 million was made in July 2021 and accrued as of the end of FY2021.

Payments to TFFR members in the form of benefits and refunds increased by $10.7 million (4.5%) and $10.3 million (4.5%) in FY2022 and FY2021, respectively. These increases represented a rise in the total number of retirees drawing retirement benefits from the pension fund as well as an increase in the retirement salaries on which the benefits of new retirees are based.

As of June 30, 2022 and 2021, the TFFR pension plan had a Net Pension Liability (NPL) of $1.46 billion and of $1.05 billion, and Plan Fiduciary Net Position as a percent of Total Pension Liability (TPL) of 67.5% and 75.7%, respectively.

Overview of the Financial Statements

This report consists of four parts – management's discussion and analysis (this section), the basic financial statements, required supplementary information, and additional supplementary information that presents combining statements for the investment trust funds. The basic financial statements include fund financial statements that focus on individual parts of RIO's activities (fiduciary funds).

The financial statements also include notes that explain some of the information in the financial statements and provide more detailed data. The statements are followed by a section of required supplementary information that further explains and supports the information in the financial statements. In addition to these required elements, we have included additional supplementary information, including combining statements that provide details about our investment trust funds, each of which are added together and presented in single columns in the basic financial statements.

Fund Financial Statements

The fund financial statements provide detailed information about RIO's activities. Funds are accounting devices that RIO uses to keep track of specific sources of funding and spending for particular purposes.

RIO uses fiduciary funds as RIO is the trustee, or fiduciary, for TFFR (a pension plan) and SIB (investment trust funds). RIO is responsible for ensuring that the assets reported in these funds are used for their intended purposes. All of RIO's fiduciary activities are reported in a statement of net position and a statement of changes in net position.

Financial Analysis

RIO's fiduciary fund total assets as of June 30, 2022 and 2021, were $18.22 billion and $20.15 billion, respectively, and were comprised mainly of investments. Total assets decreased by $1.94 billion (9.6%) in fiscal year 2022 primarily due to the required distribution from the Legacy Fund in July of 2021, as previously discussed, coupled with the weak financial markets. The increase of $3.8 billion (23.0%) in fiscal year 2021 was primarily due to on-going deposits to the Legacy Fund and Budget Stabilization Fund as well as extremely strong financial markets in FY2021.

Total liabilities as of June 30, 2022 and 2021, were $157.5 million and $980.5 million. Nearly 89% of the liabilities ($871.7 million) as of June 30, 2021, were the Legacy Fund's earnings that were due to be transferred to the State's general fund at the end of the biennium. Current year-end liabilities were comprised mainly of the securities lending collateral payable.

RIO's fiduciary fund total net position was $18.1 billion and $19.2 billion at the close of fiscal years 2022 and 2021, respectively.

North Dakota Retirement and Investment Office
Net Position – Fiduciary Funds
(In Millions)

	2022	2021	Total % Change
Assets			
Investments	$ 17,948.5	$ 19,948.0	-10.0%
Securities Lending Collateral	147.7	88.9	66.1%
Receivables	95.3	89.4	6.7%
Cash & Other	24.4	26.1	-9.0%
Total Assets	18,215.9	20,152.4	-9.6%
Deferred Outflows of Resources			
Deferred outflows related to pensions	1.8	2.7	-32.4%
Liabilities			
Obligations under Securities Lending	147.7	88.9	66.1%
Accounts Payable & Accrued Expenses	9.8	891.6	-98.9%
Total Liabilities	157.5	980.5	-83.9%
Deferred Inflows of Resources			
Deferred inflows related to pensions	3.0	0.8	285.3%
Total Net Position	$ 18,057.2	$ 19,173.8	-5.8%

	2021	2020	Total % Change
Assets			
Investments	$ 19,948.0	$ 16,220.7	23.0%
Sec Lending Collateral	88.9	58.8	51.2%
Receivables	89.4	85.3	4.7%
Cash & Other	26.1	21.4	21.9%
Total Assets	20,152.4	16,386.2	23.0%
Deferred Outflows of Resources			
Deferred outflows related to pensions	2.7	0.9	201.6%
Liabilities			
Obligations under Securities Lending	88.9	58.8	51.2%
Accounts Payable & Accrued Expenses	891.6	13.8	6344.4%
Total Liabilities	980.5	72.6	1250.1%
Deferred Inflows of Resources			
Deferred inflows related to pensions	0.8	0.9	-18.2%
Total Net Position	$ 19,173.8	$ 16,313.6	17.5%

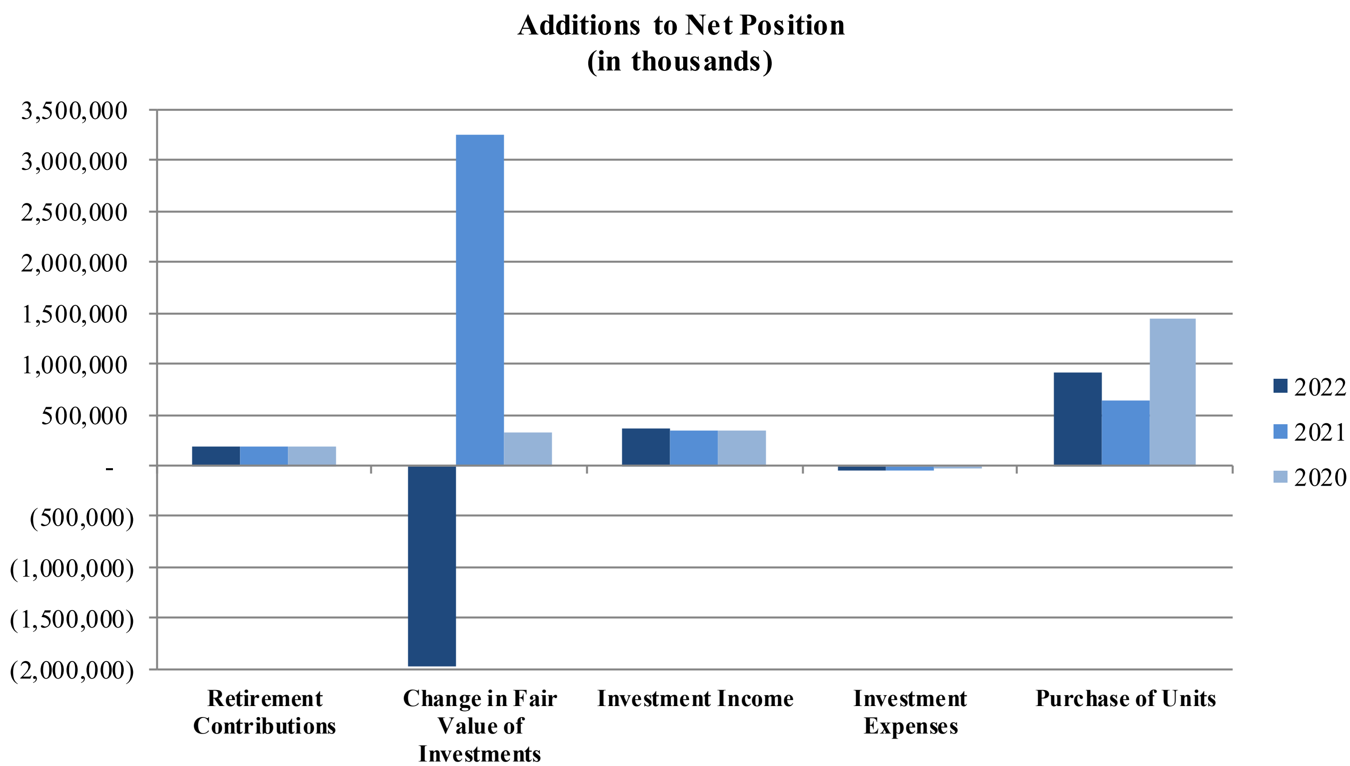
North Dakota Retirement and Investment Office
Changes in Net Position – Fiduciary Funds
(In Millions)

	2022	2021	Total % Change
Additions			
Contributions	$ 194.8	$ 191.5	1.7%
Net Investment Income	(1,645.7)	3,545.0	-146.4%
Net Securities Lending Income	0.8	1.0	-23.2%
Purchase of Units	918.7	635.2	44.6%
Total Additions	(531.4)	4,372.7	-112.2%
Deductions			
Payments to TFFR members	251.8	241.1	4.4%
Administrative Expenses	4.6	4.8	-5.4%
Redemption of Units	328.7	1,266.6	-74.0%
Total Deductions	585.1	1,512.5	-61.3%
Total Change in Net Position	$ (1,116.5)	$ 2,860.2	-139.0%

	2021	2020	Total % Change
Additions			
Contributions	$ 191.5	$ 181.1	5.7%
Net Investment Income	3,545.0	622.9	469.2%
Net Securities Lending Income	1.0	0.9	5.9%
Purchase of Units	635.2	1,446.6	-56.1%
Total Additions	4,372.7	2,251.5	94.2%
Deductions			
Payments to TFFR members	241.1	230.8	4.5%
Administrative Expenses	4.8	3.9	24.8%
Redemption of Units	1,266.6	376.1	236.8%
Total Deductions	1,512.5	610.8	147.6%
Total Change in Net Position	$ 2,860.2	$ 1,640.7	74.3%

Statement of Changes in Net Position – Additions

Contributions collected by the pension trust fund increased by $3.3 million (1.74%) in FY2022 and $10.4 million (5.7%) in FY2021 over the previous fiscal years due to both an increase in the number of active members contributing to the fund and an increase in the average salary of active members. Net investment income (including net securities lending income and net of investment expenses) decreased by $5.2 billion (146.4%) in FY2022 and increased by $2.9 billion (468.4%) in FY2021. The decrease in FY2022 was the result of weak financial markets during the fiscal year after markets had recovered substantially in FY2021 after the pull back in FY2020. Deposits of funds into the investment trust fund (purchase of units) increased by $283.5 million in FY2022 but decreased by $811.4 million in FY2021, mainly due to changes in amounts available for deposits to the Legacy Fund and Budget Stabilization Fund.



Statement of Changes in Net Position – Deductions

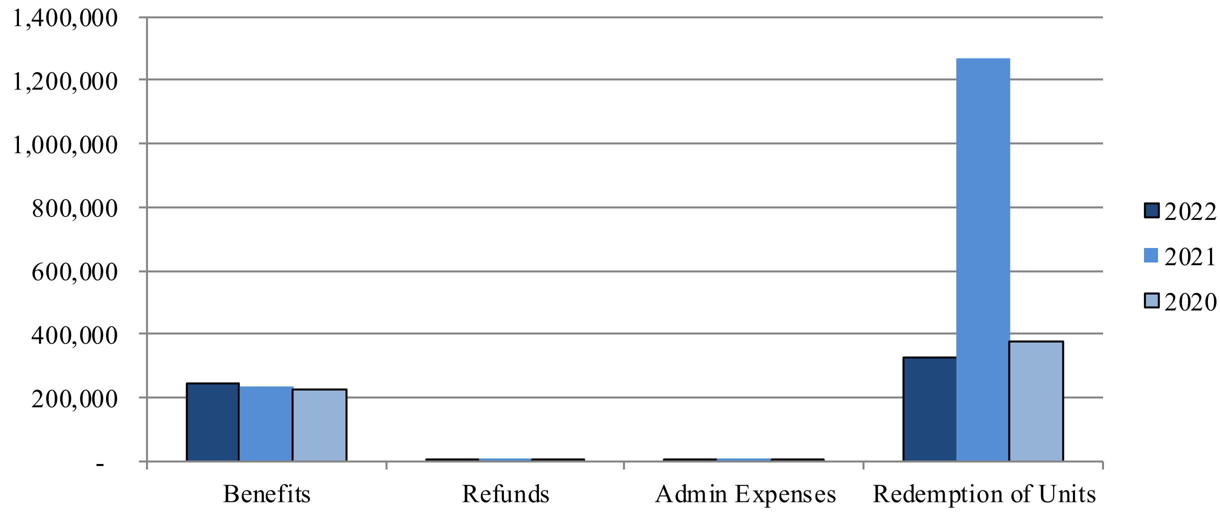
Benefits paid to TFFR plan participants, including partial lump-sum distributions, increased by $9.5 million (4.0%) and $10.8 million (4.8%) in FY2022 and FY2021, respectively. The increases are due to an increase in the total number of retirees in the plan as well as an increased retirement salary on which the benefits are based. Refunds increased by $1.2 million (20.6%) after decreasing by $566,000 (8.7%) in FY2021.

Administrative expenses decreased by $262,000 in FY2022 after increasing by $960,000 in FY2021. The FY2022 change is due to two different factors. The first factor is an increase due to the continuation of the Pension Administration System (PAS) modernization project that began in FY2020. The total budget for this multi-year PAS project is $9.3 million, with approximately $1.6 expended through June 30, 2022. This project will continue through FY2023 and FY2024. The second factor which offset this increase was a large decrease in the agency's portion of the pension expense from the ND Public Employees Retirement System pension plan for the State of ND. This change was caused by the increase in the ND Public Employees Retirement System discount rate.

Approximately half of the increase in FY2021 was due mainly to an increase in the agency's portion of the pension expense from the ND Public Employees Retirement System pension plan for the State of ND. That increase was driven by a change in actuarial assumptions, specifically a decrease in the discount rate. An additional portion of that increase relates to the Pension Administration System (PAS) modernization project that began at the end of FY2020 and ramped up during FY2021.

The redemption of units in the investment trust funds decreased by $937.8 million in FY2022 after increasing by $890.5 million in FY2021. Biennial swings will continue in this line item due to the biennial earnings transfers from the Legacy Fund required under the State Constitution.

Deductions from Net Position
(in thousands)



Conclusion

The global economic and market conditions remain very challenging. Although US inflation has come off its high reached in June 2022, the inflation outlook remains very uncertain from a tight US labor market, a war in Ukraine, and Chinese supply chain concerns from a strict COVID policy. The Federal Reserve, signaling continued monetary tightening, has undertaken strong measures of raising rates and reducing its balance sheet, intending to bring inflation back to a normal targeted range. Tightening of US monetary conditions, a reduction of US post pandemic fiscal spending, and similar measures occurring globally, have led to a slowing of global economic growth. The result of the sharp increase in US interest rates, lower global growth expectations and a corresponding increase in the US dollar are lower global stock and bond market valuations. Although the markets have been extremely challenging throughout 2022, the lower valuations potentially provide a foundation for higher returns in the future.

For the fiscal year ended June 30, 2022, the pension investment pool (which includes the TFFR pension plan), the Legacy Fund, and the insurance investment pool experienced net time weighted investment returns of (6.51%), (10.12%), and (8.18%), respectively. Investment returns were below long-term expectations in FY2022 largely due to the challenges mentioned above. Public equity and fixed income were down significantly as opposed to prior years. Global public equities for pension, insurance, and legacy were down (12.59%), (15.71%), and (16.32%), respectively. Total fixed income was also down for pension, insurance, and legacy at (8.23%), (11.31%), and (9.8%), respectively. Alternatively, real asset and private equity performance was positive for FY2022. The pension pool's real asset allocation was up 18.52%, while the Legacy Fund and insurance pool's real asset portfolios were up 9.29% and 5.92%, respectively, driven by strong returns from infrastructure assets. Private equity in the pension pool returned 11.73% for the fiscal year, largely attributable to their ability to handle market news and smooth returns for investors.

For the fiscal year ended June 30, 2021, the pension investment pool (which includes the TFFR pension plan), the Legacy Fund and the insurance investment pool generated net time weighted investment returns of 26.74%, 22.68% and 9.74%, respectively, outperforming their corresponding policy benchmarks. Investment returns for global equities exceeded long-term expectations in fiscal year 2021 driven by the economic and financial asset recovery that followed global lockdowns. The MSCI World Index, S&P 500 Index and Russell 2000 index were up 39.04%, 40.79% and 62.02% for fiscal year 2021. Positive performance in equity markets were driven by positive news on vaccine progress as well as a deluge of fiscal and monetary stimulus. In the second and third fiscal quarters, nearly $3 trillion in COVID-relief funds were infused into the economy. Not surprisingly, equity returns for the pension pool, Legacy Fund and insurance pool were all strong. The pension pool's public equity allocation was up 41.79%, while the Legacy Fund and insurance pool's public equity allocations were up 42.35% and 43.06%, respectively. Fixed income returns across the pension pool, Legacy Fund and insurance pool were all positive despite rising interest rates in the U.S. The pension pool's fixed income allocation was up 4.92%, while the Legacy Fund and insurance pool's public fixed income allocations were up 3.29% and 2.88%, respectively. Real asset performance was solid, driven by strong returns from infrastructure assets. The pension pool's real asset allocation was up 9.98%, while the Legacy Fund and insurance pool's real asset portfolios were up 9.04% and 6.47%, respectively. Lastly, private equity in the pension pool returned 48.81% for the fiscal year.

The State Investment Board will continue to evaluate the ever-evolving markets and research investment strategies to prudently manage its investment portfolios.

TFFR's funding objective is to meet long-term pension benefit obligations through contributions and investment income. To address TFFR's funding shortfall, the ND State Legislature took action in 2011 and approved legislation to increase contributions (4% member and 4% employer) and modify certain benefits for non-grandfathered members. Increased contribution rates will be in effect until TFFR reaches 100% funding on an actuarial basis. This comprehensive funding recovery plan, along with solid investment performance in the future, is expected to improve TFFR's funding level over the long term. However, the Board is continuing to closely assess plan risks and monitor funding progress.

As reported by the valuation report provided by the plan's actuary Segal, TFFR's funding level increased from 68.6% to 69.9% on an actuarial basis from July 1, 2021 to July 1, 2022. Based on the fair value of assets rather than the actuarial value of assets, the funded ratio decreased to 67.5% compared to 75.7% last year. The Plan has a net investment loss of $109.1 million from previous years that has not yet been recognized in the actuarial value of assets due to the five-year smoothing. This unrecognized asset loss is primarily due to the investment losses during FY 2022, 2020, and 2019, largely offset by the investment gain during FY 2021. As this loss is recognized over the next four years, the funded ratio is expected to increase despite the loss being recognized, the plan's funding level is expected to improve, if all actuarial assumptions are met in the future, including the 7.25% investment return assumption.

Protecting the long term solvency of the pension plan is the TFFR Board's fiduciary responsibility. The Board will continue to proactively address TFFR funding issues so the plan will be financially strong and sustainable for past, present, and future ND educators.

Contacting RIO Financial Management

This financial report is designed to provide our Boards, our membership, our clients and the general public with a general overview of RIO's finances and to demonstrate RIO's accountability for the money we receive. If you have any questions about this report or need additional information, contact the North Dakota Retirement and Investment Office, PO Box 7100, Bismarck, ND 58507-7100.

	Pension Trust		Investment Trust		Total	
	2022	2021	2022	2021	2022	2021
Assets:						
Investments, at fair value						
Global equities	$ 1,584,149,652	$ 1,843,851,776	$ 6,377,122,880	$ 7,923,977,037	$ 7,961,272,532	$ 9,767,828,813
Global fixed income	787,437,048	859,935,213	5,971,871,760	6,287,302,991	6,759,308,808	7,147,238,204
Global real assets	557,108,366	480,647,867	2,524,055,925	2,261,103,560	3,081,164,291	2,741,751,427
Cash equivalents	32,514,380	38,081,928	114,203,723	253,103,896	146,718,103	291,185,824
Total investments	2,961,209,446	3,222,516,784	14,987,254,288	16,725,487,484	17,948,463,734	19,948,004,268
Invested securities lending collateral	20,080,497	13,508,350	127,624,822	75,402,097	147,705,319	88,910,447
Receivables:						
Investment income	11,279,712	11,296,690	52,010,441	50,014,693	63,290,153	61,311,383
Contributions	31,982,043	28,014,669	-	-	31,982,043	28,014,669
Miscellaneous	12,783	5,566	26,616	24,181	39,399	29,747
Total receivables	43,274,538	39,316,925	52,037,057	50,038,874	95,311,595	89,355,799
Due from other state agency	824	-	457	-	1,281	-
Cash and cash equivalents	23,308,382	25,620,714	426,172	463,338	23,734,554	26,084,052
Equipment (net of depreciation)	-	1,349	-	-	-	1,349
Software (not in production)	680,999	-	-	-	680,999	-
Total assets	3,048,554,686	3,300,964,122	15,167,342,796	16,851,391,793	18,215,897,482	20,152,355,915
Deferred outflows of resources						
Related to pensions	1,113,188	1,547,047	726,471	1,172,782	1,839,659	2,719,829
Liabilities:						
Accounts payable	840,496	151,625	245,515	269,770	1,086,011	421,395
Investment expenses payable	1,318,222	2,537,244	4,862,595	11,428,225	6,180,817	13,965,469
Securities lending collateral	20,080,497	13,508,350	127,624,822	75,402,097	147,705,319	88,910,447
Accrued expenses	1,981,945	3,455,406	524,250	2,061,222	2,506,195	5,516,628
Miscellaneous payable	-	-	32,737	28,999	32,737	28,999
Due to other state funds	-	-	-	871,687,384	-	871,687,384
Due to other state agencies	28,184	10,974	6,698	3,917	34,882	14,891
Total liabilities	24,249,344	19,663,599	133,296,617	960,881,614	157,545,961	980,545,213
Deferred inflows of resources						
Related to pensions	1,498,287	442,740	1,465,298	326,334	2,963,585	769,074
Fiduciary net position:						
Restricted for pensions	3,023,920,243	3,282,404,830	-	-	3,023,920,243	3,282,404,830
Held in trust for investment pool participants:						
Pension pool	-	-	3,945,900,809	4,293,189,642	3,945,900,809	4,293,189,642
Insurance pool	-	-	2,902,957,219	3,206,265,290	2,902,957,219	3,206,265,290
Held in trust for individual investment accounts	-	-	8,184,449,324	8,391,901,695	8,184,449,324	8,391,901,695
Total fiduciary net position	$ 3,023,920,243	$ 3,282,404,830	$ 15,033,307,352	$ 15,891,356,627	$ 18,057,227,595	$ 19,173,761,457
Each participant unit is valued at $1.00						
Participant units outstanding			15,033,307,352	15,891,356,627		

The accompanying notes are an integral part of the financial statements.

	Pension Trust		Investment Trust		Total	
	2022	2021	2022	2021	2022	2021
Additions:						
Contributions:						
Employer contributions	$ 100,331,347	$ 98,264,202	$ -	$ -	$ 100,331,347	$ 98,264,202
Member contributions	92,462,223	90,557,210	-	-	92,462,223	90,557,210
Purchased service credit	2,017,055	2,559,121	-	-	2,017,055	2,559,121
Interest, penalties and other	25,166	126,112	-	-	25,166	126,112
Total contributions	194,835,791	191,506,645	-	-	194,835,791	191,506,645
Investment income:						
Net change in fair value of investments	(248,369,374)	640,469,814	(1,722,081,517)	2,618,257,668	(1,970,450,891)	3,258,727,482
Interest, dividends and other income	56,305,952	51,912,318	307,545,995	282,043,704	363,851,947	333,956,022
	(192,063,422)	692,382,132	(1,414,535,522)	2,900,301,372	(1,606,598,944)	3,592,683,504
Less investment expenses	6,924,716	8,388,601	32,154,613	39,305,773	39,079,329	47,694,374
Net investment income	(198,988,138)	683,993,531	(1,446,690,135)	2,860,995,599	(1,645,678,273)	3,544,989,130
Securities lending activity:						
Securities lending income	134,425	223,739	806,990	1,002,370	941,415	1,226,109
Less securities lending expenses	(26,870)	(44,740)	(161,310)	(200,426)	(188,180)	(245,166)
Net securities lending income	107,555	178,999	645,680	801,944	753,235	980,943
Purchase of units ($1 per unit)	-	-	918,708,674	635,230,202	918,708,674	635,230,202
Total additions	(4,044,792)	875,679,175	(527,335,781)	3,497,027,745	(531,380,573)	4,372,706,920
Deductions:						
Benefits paid to participants	244,069,172	234,211,585	-	-	244,069,172	234,211,585
Partial lump-sum distributions	635,924	993,499	-	-	635,924	993,499
Refunds	7,142,359	5,923,187	-	-	7,142,359	5,923,187
Administrative expenses	2,592,340	2,678,375	1,983,025	2,158,611	4,575,365	4,836,986
Redemption of units ($1 per unit)	-	-	328,730,469	1,266,579,693	328,730,469	1,266,579,693
Total deductions	254,439,795	243,806,646	330,713,494	1,268,738,304	585,153,289	1,512,544,950
Change in fiduciary net position	(258,484,587)	631,872,529	(858,049,275)	2,228,289,441	(1,116,533,862)	2,860,161,970
Fiduciary net position:						
Beginning of year	$ 3,282,404,830	$ 2,650,532,301	$ 15,891,356,627	$ 13,663,067,186	$ 19,173,761,457	$ 16,313,599,487
End of Year	$ 3,023,920,243	$ 3,282,404,830	$ 15,033,307,352	$ 15,891,356,627	$ 18,057,227,595	$ 19,173,761,457

The accompanying notes are an integral part of the financial statements.

Note 1 - Summary of Significant Accounting Policies

RIO is an agency of the State of North Dakota operating through the legislative authority of North Dakota Century Code (NDCC) Chapter 54-52.5 and is considered part of the State of North Dakota financial reporting entity and included in the State of North Dakota's Annual Comprehensive Financial Report.

For financial reporting purposes, RIO has included all funds, and has considered all potential component units for which RIO is financially accountable, and other organizations for which the nature and significance of their relationship with RIO are such that exclusion would cause RIO's financial statements to be misleading or incomplete. The Governmental Accounting Standards Board has set forth criteria to be considered in determining financial accountability. These criteria include appointing a voting majority of an organization's governing body and (1) the ability of RIO to impose its will on that organization or (2) the potential for the organization to provide specific financial benefits to or impose specific financial burdens on RIO.

Based upon these criteria, there are no component units to be included within RIO as a reporting entity and RIO is part of the State of North Dakota as a reporting entity.

Fund Financial Statement

All activities of RIO are accounted for within the pension and investment trust funds and are shown, by fund, in the fiduciary fund financial statements.

Measurement Focus, Basis of Accounting and Financial Statement Presentation

The financial statements of RIO are reported using the economic resources measurement focus and the accrual basis of accounting.

This measurement focus includes all assets and liabilities associated with the operations of the fiduciary funds on the statements of net position. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows.

Fiduciary Fund

A pension trust fund and investment trust funds have been established to account for the assets held by RIO in a trustee capacity for TFFR and as an agent for other governmental units or funds which have placed certain investment assets under the management of the SIB. The SIB manages two external investment pools and four individual investment accounts. The two external investment pools consist of a pension pool and insurance pool. The SIB manages the investments of the North Dakota Public Employees Retirement System, Bismarck City Employees and Police, City of Grand Forks Employees and City of Grand Forks Park District Employees pension plans in the pension pool. The investments of Workforce Safety & Insurance, State Fire and Tornado, State Bonding, Petroleum Tank Release Compensation Fund, Insurance Regulatory Trust, North Dakota Association of Counties Fund, Risk Management, Risk Management Workers Comp, PERS Group Insurance, City of Bismarck Deferred Sick Leave, City of Fargo FargoDome Permanent Fund, Cultural Endowment Fund, ND State Board of Medicine, Lewis and Clark Interpretive Center Endowment Fund, Attorney General Settlement Fund, Veterans' Cemetery Trust Fund, ND University System Capital Building Fund and Budget Stabilization Fund are managed in the insurance pool. The Legacy Fund, Job Service of North Dakota, Tobacco Prevention and Control Fund (which was fully liquidated in FY22), and PERS Retiree Health investments are managed by the SIB in individual investment accounts.

RIO has no statutory authority over, nor responsibility for, these investment trust funds other than the investment responsibility provided for by statute or through contracts with the individual agencies. The funds that are required to participate according to statute are: Public Employees Retirement System, Workforce Safety & Insurance, State Fire and Tornado, State Bonding, Petroleum Tank Release Compensation Fund, Insurance Regulatory Trust, Risk Management, Risk Management Workers Comp, Cultural Endowment Fund, Legacy Fund and Budget Stabilization Fund.

RIO follows the pronouncements of the Governmental Accounting Standards Board (GASB), which is the nationally accepted standard setting body for establishing accounting principles generally accepted in the United States of America for governmental entities.

Pension and Investment Trust Funds are accounted for using the accrual basis of accounting. Member contributions are recognized in the period in which they are due. Employer contributions are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the NDCC.

Use of Estimates

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

RIO utilizes various investment instruments. Investment securities, in general, are exposed to various risks, such as interest rate, credit, and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such change could materially affect the amounts reported in the statements of net position.

Budgetary Process

RIO operates through a biennial appropriation, which represents appropriations recommended by the Governor and presented to the General Assembly (the Assembly) at the beginning of each legislative session. The Assembly enacts RIO’s budget through passage of a specific appropriation bill. The State of North Dakota’s budget is prepared principally on a modified accrual basis. The Governor has line-item veto power over all legislation, subject to legislative override.

Once passed and signed, the appropriation bill becomes RIO’s financial plan for the next two years. Changes to the appropriation are limited to Emergency Commission authorization, initiative, or referendum action. The Emergency Commission can authorize receipt of federal or other moneys not appropriated by the Assembly if the Assembly did not indicate intent to reject the money. The Emergency Commission may authorize pass-through federal funds from one state agency to another. The Emergency Commission may authorize the transfer of expenditure authority between appropriated line items; however, RIO has specific authority as a special fund to transfer between the contingency line item and other line items. Unexpended appropriations lapse at the end of each biennium, except certain capital expenditures covered under NDCC section 54-44.1-11.

RIO does not use encumbrance accounting. The legal level of budgetary control is at the agency, appropriation and expenditure line-item level. RIO does not formally budget revenues and does not budget by fund. The statement of revenues, expenditures and changes in fund balances - budget and actual is not prepared because revenues are not budgeted.

Capital Assets and Depreciation

Capital asset expenditures greater than $5,000 are capitalized at cost in accordance with Section 54-27-21 of the NDCC. Depreciation is computed using the straight-line method over the estimated useful lives of the assets. The estimated useful lives are as follows:

	Years
Office equipment	5
Furniture and fixtures	5

Investments

NDCC Section 21-10-07 states that the SIB shall apply the prudent investor rule when investing funds under its supervision. The prudent investor rule means that in making investments, the fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation, but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income.

The pension fund belonging to TFFR and investment trust funds attributable to the City of Bismarck Employee Pension Plan, the City of Bismarck Police Pension Plan, Job Service of North Dakota, City of Grand Forks Employee Pension Plan, City of Grand Forks Park District Pension Plan and the Public Employees Retirement System (PERS) must be invested exclusively for the benefit of their members. All investments are made in accordance with the respective fund's long-term investment objectives and performance goals.

Pooled Investments

Many funds whose investments are under the supervision of the SIB participate in pooled investments. The agencies transfer money into the investment pools and receive an appropriate percentage ownership of the pooled portfolio based upon fair value. All activities of the investment pools are allocated to the agencies based upon their respective ownership percentages. Each participant unit is valued at $1.00 per unit.

Investment Valuation and Income Recognition

Investments are reported at fair value. Quoted market prices, when available, have been used to value investments. The fair values for securities that have no quoted market price represent estimated fair value. International securities are valued based upon quoted foreign market prices and translated into US dollars at the exchange rate in effect at June 30. In general, corporate debt securities have been valued at quoted market prices or, if not available, values are based on yields currently available on comparable securities of issuers with similar credit ratings. Mortgages have been valued on the basis of their future principal and interest payments discounted at prevailing interest rates for similar instruments. The fair value of real estate investments, including timberland, is based on appraisals plus fiscal year-to-date capital transactions. Publicly traded alternative investments are valued based on quoted market prices. When not readily available, alternative investment securities are valued using current estimates of fair value from the investment manager. Such valuations consider variables such as financial performance of the issuer, comparison of comparable companies' earnings multiples, cash flow analysis, recent sales prices of investments, withdrawal restrictions, and other pertinent information. Because of the inherent uncertainty of the valuation for these other alternative investments, the estimated fair value may differ from the values that would have been used had a ready market existed.

The net change in fair value of investments consists of the realized gains or losses and the unrealized increase or decrease in fair value of investments during the year. Realized gains and losses on sales of investments are computed based on the difference between the sales price and the original cost of the investment sold. Realized gains and losses on investments that had been held in more than one fiscal year and sold in the current fiscal year were included as a change in the fair value of investments reported in the prior year(s) and the current year.

Unrealized gains and losses are computed based on changes in the fair value of investments between years. Security transactions are accounted for on a trade date basis. Interest income is recognized when earned. Dividend income is recorded on the ex-dividend date.

Pensions and Other Postemployment Benefits (OPEB)

For purposes of measuring the net pension and OPEB liabilities, deferred outflows of resources and deferred inflows of resources related to pensions and OPEB, and pension and OPEB expenses, information about the fiduciary net position of the ND Public Employees Retirement System (NDPERS) defined benefit pension and OPEB plans, and additions to/deductions from NDPERS' fiduciary net position have been determined on the same basis as they are reported by NDPERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Note 2 - Cash and Cash Equivalents

Custodial Credit Risk

State law generally requires that all state funds be deposited in the Bank of North Dakota. NDCC 21-04-01 provides that public funds belonging to or in the custody of the state shall be deposited in the Bank of North Dakota. Also, NDCC 6-09-07 states, "[a]ll state funds … must be deposited in the Bank of North Dakota" or must be deposited in accordance with constitutional and statutory provisions.

Pension Trust Fund

Deposits held by the Pension Trust Fund at June 30, 2022 were deposited in the Bank of North Dakota. At June 30, 2022 and 2021, the carrying amount of TFFR's deposits was $23,308,382 and $25,620,714, respectively, and the bank balance was $23,347,141 and $25,635,028, respectively. The difference results from checks outstanding or deposits not yet processed by the bank. These deposits are exposed to custodial credit risk as uninsured and uncollateralized. However, these deposits at the Bank of North Dakota are guaranteed by the State of North Dakota through NDCC Section 6-09-10.

Investment Trust Funds

Certificates of deposit, an insurance pool cash account, a pension pool cash account and a Legacy Fund cash account are recorded as investments and have a cost and carrying value of $239,796,384 and $88,921,637 at June 30, 2022 and 2021, respectively. In addition, these funds carry cash and cash equivalents totaling $426,172 and $463,338 at June 30, 2022 and 2021, respectively. These deposits are exposed to custodial credit risk as uninsured and uncollateralized. However, these deposits held at the Bank of North Dakota are guaranteed by the State of North Dakota through NDCC Section 6-09-10.

Note 3 - Investments

The investment policy of the SIB is governed by NDCC 21-10. The SIB shall apply the prudent investor rule in investing for funds under its supervision. The "prudent investor rule" means that in making investments, the fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income. The retirement funds belonging to the teachers' fund for retirement and the public employees' retirement system must be invested exclusively for the benefit of their members and in accordance with the respective funds' investment goals and objectives.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates of debt securities will adversely affect the fair value of an investment. The price of a debt security typically moves in the opposite direction of the change in interest rates. The SIB does not have a formal investment policy that limits investment maturities as a means of managing its exposure to potential fair value losses arising from future changes in interest rates.

At June 30, 2022 and 2021, the following tables show the investments by investment type and maturity (expressed in thousands).

2022	Total Fair Value	Less than 1 Year	1-6 Years	6-10 Years	More than 10 Years
Asset Backed Securities	$ 469,733	$ 183	$ 119,979	$ 189,285	$ 160,286
Bank Loans	15,007	17	13,470	1,520	-
Collateralized Bonds	2,446	-	-	2,446	-
Commercial Mortgage-Backed	362,729	176	5,125	12,587	344,841
Commercial Paper	27,977	27,977	-	-	-
Corporate Bonds	2,076,494	62,357	1,124,124	445,072	444,941
Corporate Convertible Bonds	19,220	-	9,084	-	10,136
Government Agencies	35,569	2,379	23,136	6,197	3,857
Government Bonds	735,584	3,232	309,087	70,159	353,106
Gov't Mortgage Backed	688,660	646	6,414	8,504	673,096
Gov't-issued CMB	13,960	1	3,398	9,465	1,096
Index Linked Government Bonds	650,572	25,351	358,250	142,972	123,999
Municipal/Provincial Bonds	26,577	1,709	5,036	3,397	16,435
Non-Government Backed CMOs	144,864	1,368	4,681	19,448	119,367
Repurchase Agreements	37,100	37,100	-	-	-
Short Term Bills and Notes	34,128	34,128	-	-	-
Sukuk	2,530	-	1,300	1,230	-
Funds/Pooled Investments	1,576,573	-	1,015,783	288,608	272,182
Total Debt Securities	$ 6,919,723	$ 196,624	$ 2,998,867	$ 1,200,890	$ 2,523,342

2021	Total Fair Value	One Year or Less	1+ to 6Years	6+ to 10Years	More than 10 Years
Asset Backed Securities	$ 466,600	$ 507	$ 111,066	$ 132,450	$ 222,577
Bank Loans	16,123	-	13,652	2,471	-
Collateralized Bonds	2,930	-	-	2,930	
Commercial Mortgage-Backed	328,792	5	8,119	3,573	317,095
Commercial Paper	12,998	12,998	-	-	-
Corporate Bonds	2,426,220	83,417	1,237,811	584,494	520,498
Corporate Convertible Bonds	17,733	-	11,058	159	6,516
Government Agencies	41,889	1,306	24,488	6,734	9,361
Government Bonds	858,389	44,235	182,055	224,661	407,438
Gov't Mortgage Backed	599,911	3	5,230	26,101	568,577
Gov't-issued CMB	30,923	16	5,421	21,953	3,533
Index Linked Government Bonds	683,160	77,720	283,042	120,897	201,501
Municipal/Provincial Bonds	39,237	3,380	7,538	6,055	22,264
Non-Government Backed CMOs	159,803	10,844	9,798	21,006	118,155
Repurchase Agreements	25,300	25,300	-	-	-
Short Term Bills and Notes	73,606	73,606	-	-	-
Sukuk	2,787	-	1,442	1,345	-
Funds/Pooled Investments	1,726,778	28,585	928,703	414,962	354,528
Total Debt Securities	$ 7,513,179	$ 361,922	$ 2,829,423	$ 1,569,791	$ 2,752,043

In the tables above, the fair values of inflation indexed bonds are reflected in the columns based on their stated maturity dates. The principal balances of these bonds are adjusted every six months based on the inflation index for that period.

Some investments are more sensitive to interest rate changes than others. Variable and floating rate collateralized mortgage obligations (CMOs), asset-backed securities (ABS), interest-only and principal-only securities are examples of investments whose fair values may be highly sensitive to interest rate changes.

Interest-only (IO) and principal-only (PO) strips are transactions which involve the separation of the interest and principal components of a security. They are highly sensitive to prepayments by mortgagors, which may result from a decline in interest rates. The SIB held POs valued at $4.9 million and $6.5 million and IOs valued at $21.4 million and $26.4 million at June 30, 2022 and 2021, respectively. The SIB has no policy regarding IO or PO strips.

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The State Investment Board maintains a highly diversified portfolio of debt securities encompassing a wide range of credit ratings. Although the SIB has no overall policy regarding credit risk, each debt securities manager is given a specific set of guidelines to invest within based on the mandate for which it was hired. The guidelines specify in which range of credit the manager may invest. These ranges include investment grade and below investment grade categories. The following tables present the SIB's ratings as of June 30, 2022 and 2021, (expressed in thousands).

2022	Total Fair Value	Credit Rating*										
		AAA	AA	A	BBB	BB	B	CCC	CC	C	D	NR
Asset Backed Securities	$ 469,733	$ 250,460	$ 65,209	$ 44,886	$ 34,041	$ 3,615	$ 1,396	$ 2,589	$ 1,336	$ -	$ 690	$ 65,511
Bank Loans	15,007	-	-	-	120	3,840	8,268	2,762	-	-	-	17
Collateralized Bond	2,446	2,446	-	-	-	-	-	-	-	-	-	-
Commercial Mortgage Backed	362,729	265,816	14,871	10,267	7,395	12,384	4,054	1,727	86	11	-	46,118
Commercial Paper	27,977	-	-	-	-	-	-	-	-	-	-	27,977
Corporate Bonds	2,076,494	10,432	62,912	476,167	1,150,129	254,728	92,050	19,580	248	178	201	9,869
Corporate Convertible Bonds	19,220	-	-	-	2,441	4,583	5,773	2,584	-	-	-	3,839
Gov't Agencies	34,793	3,524	5,031	7,068	11,824	1,708	-	336	-	-	-	5,302
Gov't Bonds	668,660	604,042	5,187	2,496	34,422	14,473	2,120	2,700	-	-	-	3,220
Gov't Mortgage Backed	629,454	-	590,051	10,212	17,357	7,178	4,570	-	-	-	-	86
Gov't Issued CMB	13,865	1,762	11,252	-	851	-	-	-	-	-	-	-
Municipal/Provincial Bonds	26,577	2,440	12,963	6,404	3,486	868	-	416	-	-	-	-
Non-Gov't Backed CMOs	144,864	42,071	9,160	18,205	17,844	7,379	1,606	481	906	35	-	47,177
Repurchase Agreements	37,100	37,100	-	-	-	-	-	-	-	-	-	-
Short Term Bills & Notes	9,626	-	1,809	7,817	-	-	-	-	-	-	-	-
Sukuk	2,530	-	-	-	2,530	-	-	-	-	-	-	-
Funds/Pooled Investments	1,576,573	461,824	271,148	682,937	82,142	17,553	30,030	-	-	-	-	30,939
Total Credit Risk of Debt Securities	6,117,648	$ 1,681,917	$ 1,049,593	$ 1,266,459	$ 1,364,582	$ 328,309	$ 149,867	$ 33,175	$ 2,576	$ 224	$ 891	$ 240,055
US Gov't & Agencies **	802,075											
Total Debt Securities	$ 6,919,723											

2021	Total Fair Value	Credit Rating*										
		AAA	AA	A	BBB	BB	B	CCC	CC	C	D	NR
Asset Backed Securities	$ 466,600	$ 239,151	$ 52,850	$ 56,092	$ 45,809	$ 3,515	$ 2,927	$ 3,872	$ 1,909	$ -	$ 889	$ 59,586
Bank Loans	16,123	-	-	-	296	4,237	9,990	1,002	-	-	-	598
Collateralized Bond	2,930	2,930	-	-	-	-	-	-	-	-	-	-
Commercial Mortgage Backed	328,792	245,667	10,311	14,175	7,286	5,090	4,316	1,885	160	27	-	39,875
Commercial Paper	12,998	-	-	-	-	-	-	-	-	-	-	12,998
Corporate Bonds	2,426,220	13,056	54,478	495,678	1,412,446	299,862	103,885	35,737	97	-	-	10,981
Corporate Convertible Bonds	17,733	-	-	-	2,608	4,515	1,712	3,139	-	-	-	5,759
Gov't Agencies	40,129	3,867	8,797	10,239	13,697	1,712	-	422	-	-	-	1,395
Gov't Bonds	110,973	-	9,351	4,605	47,664	33,811	9,234	2,026	-	-	-	4,282
Gov't Mortgage Backed	535,414	-	516,452	-	4,390	7,821	6,394	-	-	-	-	357
Gov't Issued CMB	30,698	1,813	27,945	-	940	-	-	-	-	-	-	-
Index Linked Government Bonds	19,224	19,224	-	-	-	-	-	-	-	-	-	-
Municipal/Provincial Bonds	39,237	2,412	20,081	9,321	4,366	1,583	-	-	218	-	800	456
Non-Gov't Backed CMOs	159,803	37,221	12,681	17,201	20,972	7,293	2,034	798	1,116	-	47	60,440
Repurchase Agreements	25,300	-	25,300	-	-	-	-	-	-	-	-	-
Short Term Bills & Notes	10,817	-	9,339	1,478	-	-	-	-	-	-	-	-
Sukuk	2,787	-	-	-	2,787	-	-	-	-	-	-	-
Funds/Pooled Investments	1,726,778	504,809	300,285	613,389	214,815	12,949	41,080	-	-	-	-	39,451
Total Credit Risk of Debt Securities	5,972,556	$ 1,070,150	$ 1,047,870	$ 1,222,178	$ 1,778,076	$ 382,388	$ 181,572	$ 48,881	$ 3,500	$ 27	$ 1,736	$ 236,178
US Gov't & Agencies **	1,540,623											
Total Debt Securities	$ 7,513,179											

* Ratings are determined in the following order:
1. S&P rating
2. Moody's rating
3. Fitch rating
4. Manager-determined rating (internal rating)

If no ratings available using steps 1-4, then shown as not rated.

** US government agency securities explicitly guaranteed by the US government are categorized here. Credit ratings of US government agency securities that are only implicitly guaranteed by the US government are categorized accordingly in the main body of these tables. Implicitly guaranteed agency securities included in the *Gov't Agencies, Gov't Bonds, Gov't Mortgage Backed, Gov't Issued CMB, Index Linked Gov't Bonds, and Short Term Bills and Notes* categories are issued by FNMA, FHLB, FHLMC, and SLMA.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss that may be attributed to the magnitude of an investment in a single issuer. As of June 30, 2022 and 2021, the SIB's portfolio has no single issuer exposure that comprises 5% or more of the overall portfolio, excluding investments issued or explicitly guaranteed by the US government and investments in mutual funds, external investment pools, and other pooled investments. Therefore, there is no concentration of credit risk.

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. Although the SIB does not have a formal investment policy governing foreign currency risk, the SIB manages its exposure to fair value loss by requiring their international securities investment managers to maintain diversified portfolios to limit foreign currency and security risk. The SIB's exposure to foreign currency risk is presented in the following tables as of June 30, 2022 and 2021 (expressed in thousands).

2022

Currency	Short-Term	Debt	Equity	Real Estate	Total
Argentine peso	$ 176	$ 177	$ -	$ -	$ 353
Australian dollar	(5,078)	-	49,149	-	44,071
Brazilian real	204	524	8,083	-	8,811
British pound sterling	(43,460)	44,164	192,397	-	193,101
Canadian dollar	(283)	301	50,088	-	50,106
Chilean peso	(254)	-	-	-	(254)
Danish krone	(99)	379	52,240	-	52,520
Euro	(5,557)	4,565	360,595	533	360,136
Hong Kong Off-Shore-Chinese yuan renminbi	(4,700)	-	-	-	(4,700)
Hong Kong dollar	1,369	-	43,948	-	45,317
Hungarian forint	(365)	-	2,161	-	1,796
Indonesian rupiah	50	-	1,370	-	1,420
Japanese yen	18,329	(15,315)	169,453	-	172,467
Mexican peso	(682)	1,368	1,451	-	2,137
New Israeli shekel	391	-	2,805	-	3,196
New Taiwan dollar	177	-	8,398	-	8,575
New Zealand dollar	(145)	-	3,309	-	3,164
Norwegian krone	184	-	11,402	-	11,586
Peruvian nuevo sol	(1,016)	793	-	-	(223)
Polish zloty	(439)	-	-	-	(439)
Singapore dollar	142	-	8,667	-	8,809
South African rand	(2)	-	783	-	781
South Korean won	(59)	-	8,298	-	8,239
Swedish krona	175	-	53,615	-	53,790
Swiss franc	525	-	83,962	-	84,487
Thai baht	102	-	2,908	-	3,010
Turkish lira	20	-	1,143	-	1,163
International commingled funds (various currencies)	-	-	1,433,227	33,273	1,466,500
Total international investment securities	$ (40,295)	$ 36,956	$ 2,549,452	$ 33,806	$ 2,579,919

2021

Currency	Short-Term	Debt	Equity	Real Estate	Total
Argentine peso	$ 65	$ 364	$ -	$ -	$ 429
Australian dollar	1,305	133	85,215	-	86,653
Brazilian real	(10,006)	13,514	4,080	-	7,588
British pound sterling	(45,730)	47,308	262,384	-	263,962
Canadian dollar	(624)	561	36,173	-	36,110
Chilean peso	822	-	-	-	822
Colombian peso	(508)	-	-	-	(508)
Danish krone	575	-	87,460	-	88,035
Euro	(35,762)	37,980	609,331	651	612,200
Hong Kong Off-Shore-Chinese yuan renminbi	427	-	23,707	-	24,134
Hong Kong dollar	816	-	155,260	-	156,076
Hungarian forint	(335)	-	2,875	-	2,540
Indian rupee	-	427	-	-	427
Japanese yen	1,604	-	294,524	-	296,128
Mexican peso	(825)	952	1,440	-	1,567
New Israeli shekel	(492)	491	3,605	-	3,604
New Taiwan dollar	334	-	7,660	-	7,994
New Zealand dollar	(245)	-	8,445	-	8,200
Norwegian krone	232	-	23,304	-	23,536
Peruvian nuevo sol	(2,183)	2,065	-	-	(118)
Polish zloty	(224)	-	-	-	(224)
Russian ruble	7	-	-	-	7
Singapore dollar	303	-	10,712	-	11,015
South African rand	638	-	1,168	-	1,806
South Korean won	-	-	12,253	-	12,253
Swedish krona	237	-	105,046	-	105,283
Swiss franc	4	-	179,514	-	179,518
Thai baht	-	-	3,296	-	3,296
Turkish lira	-	-	1,321	-	1,321
International commingled funds (various currencies)	-	-	1,353,624	34,534	1,388,158
Total international investment securities	$ (89,565)	$ 103,795	$ 3,272,397	$ 35,185	$ 3,321,812

Negative amounts represent short positions.

Derivative Securities

Derivatives are financial arrangements between two parties whose payments are based on, or "derived" from, the performance of some agreed upon benchmark. The investment policies of the SIB's clients allow the use of derivative securities to hedge or replicate underlying exposures but not for speculation. All derivatives are considered investment derivative instruments. The fair value of all derivative securities is reported in the statement of net position. At June 30, 2022 and 2021, the SIB had four types of derivative securities: futures, options, swaps and currency forwards.

Futures

Futures represent commitments to purchase (asset) or sell (liability) securities at a future date and at a specific price. Futures contracts are traded on organized exchanges (exchange traded) thereby minimizing the SIB's counterparty risk. The net change in the futures contracts' value is settled daily in cash with the exchanges. Net gains or losses resulting from the daily settlements are included in net change in fair value of investments in the statement of changes in net position and totaled $(68.4) and $232.5 million for fiscal years 2022 and 2021, respectively. At June 30, 2022 and 2021, the SIB investment portfolio had the notional futures balances shown below (expressed in thousands).

Futures	Notional Value	
	June 30, 2022	June 30, 2021
Cash & Cash Equivalent Derivative Futures		
Long	$ 590,720	$ 172,043
Short	(83,089)	(653,875)
Commodity Derivative Futures		
Short	(12,092)	(31,463)
Equity Derivative Futures		
Long	501,730	662,160
Fixed Income Derivative Futures		
Long	1,050,219	771,100
Short	(915,728)	(1,213,556)
Total Futures	$ 1,131,760	$ (293,591)

Options

Options represent or give buyers the right, but not the obligation, to buy (call) or sell (put) an asset at a preset price over a specified period. Options are traded on organized exchanges (exchange traded) thereby minimizing the SIB's counterparty credit risk. The option's price is usually a small percentage of the underlying asset's value. As a seller of a financial option, the SIB, through its investment manager, receives a premium at the beginning of the agreement and bears the risk of an unfavorable change in the price of the financial instrument underlying the option. As a buyer of a financial option, the SIB, through its investment manager, pays a premium at the beginning of the agreement and the counterparty bears the risk of an unfavorable change in the price of the financial instrument underlying the option. Gains and losses on options are determined based on fair values and recorded with the net change in fair value of investments in the statement of changes in net position and totaled $0.6 million in both fiscal years 2022 and 2021, respectively. At June 30, 2022 and 2021, the SIB investment portfolio had the following option balances (expressed in thousands).

Options	Fair Value June 30, 2022	Fair Value June 30, 2021
Cash & Other Options		
Call	$ (1,033)	$ 99
Put	(2,834)	767
Equity Options		
Call	1,074	-
Fixed Income Options		
Call	(325)	(220)
Put	(269)	(170)
Total Options	$ (3,387)	$ 476

Swaps

A swap is a derivative in which counterparties exchange certain benefits of one party's financial instrument for those of the other party's financial instrument. Specifically, the two counterparties agree to exchange one stream of cash flows for another stream. The SIB, through its investment managers, has entered into various swap agreements in an attempt to manage its exposure to interest rate, inflation, credit and total return risk.

Gains and losses on swaps are determined based on fair values and are recorded with the net change in fair value of investments in the statement of changes in net position and totaled $(19.5) and $(3.0) million for fiscal years 2022 and 2021, respectively. The maximum loss that would be recognized at June 30, 2022 and 2021, if all counterparties failed to perform as contracted is $3 million and $2.3 million, respectively. Swap fair values are determined by a third-party pricing source. At June 30, 2022 and 2021, the SIB's investment portfolio had the swap fair value balances as shown below (expressed in thousands).

Credit Default Swaps

Credit risk represents the exposure to fair value losses arising from a credit event such as default, failure to pay, restructuring or bankruptcy. In a credit default swap (CDS) contract, the protection buyer of the CDS makes a series of payments to the protection seller and, in exchange, receives a payoff if the credit instrument experiences a credit event. CDS contracts are also used to establish exposure to a desired credit instrument.

	Notional Amount			Fair Value	
Counterparty/Moody's Rating	June 30, 2022	June 30, 2021	Expiration Date Range	June 30, 2022	June 30, 2021
Bank of America/Aa2 (2 contracts)	$ (1,105)	$ -	2022	$ 2	$ -
Bank of America/Aa2 (3 contracts)		(3,400)	2021		10
Barclays Capital Inc/A1 (2 contracts)	(10,659)		2027	(262)	
BNP Paribas Sa Paris/Aa3 (1 contract)	(100)		2027	(8)	
Citibank/Aa3 (24 contracts)	130		2023	(22)	
Citibank/Aa3 (27 contracts)		(3,000)	2023 - 2024		(12)
Citibank/A1 (2 contract)	(400)		2024 - 2027	(27)	
Citigroup Global Markets/A1 (15 contracts)	2,160		2022 - 2028	(143)	
Citigroup Global Markets/A1 (5 contracts)		(6,804)	2024 - 2026		623
Credit Suisse Intnl London/A1 (1 contracts)	(775)		2023	(24)	
Credit Suisse First Boston/A1 (12 contracts)		(18,361)	2022 - 2026		1,505
Credit Suisse New York/A1 (4 contracts)			2023		
Goldman Sachs/A2 (6 contracts)	(2,400)		2023 - 2027	(143)	
Goldman Sachs/A2 (4 contracts)		(1,700)	2023 - 2024		8
JP Morgan Chase/Aa2 (1 contract)		26,110	2026		(667)
Morgan Stanley/A1 (2 contracts)	(800)		2024 - 2027	(58)	1
Morgan Stanley/A1 (1 contract)		(100)	2024		
Wells Fargo Bank/Aa2 (13 contracts)	18,733		2022 - 2028	(14)	
Total Credit Default Swaps	$ 4,784	$ (7,255)		$ (699)	$ 1,468

The notional amount may be positive or negative, depending on whether the position is long or short, respectively.

Interest Rate Swaps

Interest rate risk represents the exposure to fair value losses arising from future changes in prevailing market interest rates. In the most common type of interest rate swap arrangement, one party agrees to pay fixed interest payments on designated dates to a counterparty, who in turn agrees to make return interest payments that float with some reference rate.

	Notional Amount			Fair Value	
Counterparty/Moody's Rating	June 30, 2022	June 30, 2021	Expiration Date Range	June 30, 2022	June 30, 2021
Citigroup Global Markets/A1 (58 contracts)	$ 175,583	$ -	2022 - 2052	$ 470	$ -
Citigroup Global Markets/A1 (17 contracts)		55,438	2022 - 2051		(41)
Credit Suisse First Boston/A1 (4 contracts)	7,026		2027 - 2029		
Credit Suisse First Boston/A1 (13 contracts)		132,778	2023 - 2051		1,145
JP Morgan Chase/Aa2 (14 contracts)	13,445		2023 - 2034	794	
JP Morgan Chase/Aa2 (129 contracts)		160,807	2023 - 2034		(4,026)
Morgan Stanley/A1 (2 contracts)	82,500		2024 - 2025	(3,419)	
Wells Fargo Bank/ (23 contracts)	369,345		2023 - 2052	(414)	
Total Interest Rate Swaps	$ 647,899	$ 349,023		$ (2,569)	$ (2,922)

The notional amount may be positive or negative, depending on whether the position is long (fixed rate payer) or short (floating rate payer), respectively.

Inflation Swaps

Inflation risk represents the exposure to fair value losses arising from future changes in prevailing market inflation. In an inflation swap, one party pays a fixed rate on a notional principal amount, while the other party pays a floating rate linked to an inflation index, such as the Consumer Price Index (CPI).

	Notional Amount			Fair Value	
Counterparty/Moody's Rating	June 30, 2022	June 30, 2021	Expiration Date Range	June 30, 2022	June 30, 2021
Citigroup Global Markets/A1 (4 contracts)	$ -	$ 13,240	2026	$ -	$ (402)
JP Morgan Chase/Aa2 (21 contracts)		17,220	2026 - 2031		(369)
Total Inflation Swaps	$ -	$ 30,460		$ -	$ (771)

The notional amount may be positive or negative, depending on whether the position is long (fixed rate payer) or short (floating rate payer), respectively.

Total Return Swaps

A total return swap is an agreement in which one party makes payments based on a set rate, either fixed or variable, while the other party makes payments based on the return of an underlying asset (income and capital gains). The underlying asset, or reference asset, is owned by the party receiving the set rate payment.

	Notional Amount			Fair Value	
Counterparty/Moody's Rating	June 30, 2022	June 30, 2021	Expiration Date Range	June 30, 2022	June 30, 2021
Credit Suisse International/Aa3 (2 contracts)	$ -	$ 2,764	2041	$ -	$ 7
Total Total Return Swaps	$ -	$ 2,764		$ -	$ 7

The notional amount may be positive or negative, depending on whether the position is long (fixed rate payer) or short (floating rate payer), respectively.

Currency Forwards

Currency forwards represent forward exchange contracts that are entered into in order to manage the exposure to changes in currency exchange rates on the currency denominated portfolio holdings. A forward exchange contract is a commitment to purchase (positive) or sell (negative) a currency at a future date at a negotiated forward rate. The gain or loss arising from the difference between the original contracts and the closing of such contracts is included in the net change in fair value of investments in the statements of changes in net position and totaled $17.9 million and $(3.2) million for fiscal years 2022 and 2021, respectively. At June 30, 2022 and 2021, the SIB's investment portfolio included the currency forwards balances shown below (expressed in thousands).

Currency	Cost	Purchases	Sales	Fair Value 6/30/2022	Fair Value 6/30/2021
Australian dollar	$ (5,270)	$ 9,464	$ (14,734)	$ (5,364)	$ (128)
Brazilian real	(66)	4,909	(4,975)	(165)	(9,541)
British pound sterling	(47,093)	39,399	(86,492)	(45,640)	(64,811)
Canadian dollar	(322)	-	(322)	(316)	(404)
Chilean peso	(285)	12	(297)	(253)	1,702
Chinese offshore	(9,047)	-	(9,047)	(9,050)	-
Danish Krone	(629)	318	(947)	(601)	-
Euro	(90,433)	91,483	(181,916)	(88,167)	(131,704)
Hungarian Forint	603	603	-	555	-
Japanese yen	(8,687)	1,053	(9,740)	(8,206)	(516)
Mexican peso	471	775	(304)	463	-
New Israeli shekel	(3,520)	-	(3,520)	(3,315)	(1,970)
New Zealand dollar	710	710	-	653	-
Norwegian Krone	631	9,973	(9,342)	399	-
Peruvian nuevo sol	(908)	1,095	(2,003)	(1,016)	(2,183)
Poland Zloty	689	689	-	665	-
Russian ruble	-	-	-	-	7
South African rand	(906)	-	(906)	(861)	(986)
South Korean won	(352)	-	(352)	(346)	-
United States dollar	164,414	324,897	(160,483)	164,414	214,023
Total forwards subject to currency risk				$ 3,849	$ 3,489

Derivative Interest Rate Risk

Derivative interest rate risk is the risk that changes in interest rates will adversely affect the value of an interest rate-based derivative investment. The SIB does not have a formal investment policy regarding such derivative investments. At June 30, 2022 and 2021, the tables below show the SIB's derivative investments subject to interest rate risk (expressed in thousands).

2022

	Total Notional Value	3 months or less	3 to 6 months	6 to 12 months	1-5 years	5-10 years	Greater than 10 years
Futures-interest rate contracts	$ 642,122	$ (681,760)	$ 1,065,168	$ 151,913	$ 106,801	$ -	$ -
Futures-commodity contracts	(12,092)	-	(12,092)	-	-	-	-
Total	$ 630,030	$ (681,760)	$ 1,053,076	$ 151,913	$ 106,801	$ -	$ -

	Total Fair Value	3 months or less	3 to 6 months	6 to 12 months	1-5 years	5-10 years	Greater than 10 years
Options - interest rate contracts	$ (466)	$ (357)	$ -	$ -	$ (109)	$ -	$ -
Options on futures	(3,853)	(570)	(2,687)	(295)	(301)	-	-
Options - Foreign Exchange Contracts	(142)	(142)					
Swaps - interest rate contracts	(2,569)	-	-	13	(4,471)	(4,701)	6,590
Swaps - credit contracts	(699)	2	3	(52)	(483)	(169)	-
Total	$ (7,729)	$ (1,067)	$ (2,684)	$ (334)	$ (5,364)	$ (4,870)	$ 6,590

2021

	Total Notional Value	3 months or less	3 to 6 months	6 to 12 months	1-5 years	5-10 years	Greater than 10 years
Futures-interest rate contracts	$ (924,288)	$ (675,150)	$ (403,466)	$ (17,715)	$ 172,043	$ -	$ -
Total	$ (924,288)	$ (675,150)	$ (403,466)	$ (17,715)	$ 172,043	$ -	$ -

	Total Fair Value	3 months or less	3 to 6 months	6 to 12 months	1-5 years	5-10 years	Greater than 10 years
Options - interest rate contracts	$ 818	$ (20)	$ -	$ -	$ -	$ -	$ 838
Options on futures	(342)	(371)	-	29	-	-	-
Swaps - interest rate contracts	(3,693)	-	-	-	(760)	(3,095)	162
Swaps - credit contracts	1,468	-	10	-	1,458	-	-
Total	$ (1,749)	$ (391)	$ 10	$ 29	$ 698	$ (3,095)	$ 1,000

Fair Value Measurement

The SIB categorizes its fair value measurements 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 and give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements).

Level 1 Unadjusted quoted prices for identical instruments in active markets.

Level 2 Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.

Level 3 Valuations derived from valuation techniques in which significant inputs are unobservable.

Investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

The following tables show the fair value leveling of the SIB's investment portfolio at June 30, 2022 and 2021 (expressed in thousands).

2022	Fair Value 6/30/22	Quoted Prices in Active Markets for Indentical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	Dollars in (000)			
		Fair Value Measures Using		
Investments by Fair Value Level				
Short Term Securities				
Commercial Paper	$ 27,977	$ -	$ 27,977	$ -
Short Term Bills and Notes	34,128	-	34,128	-
Total Short Term Securities	**62,105**	**-**	**62,105**	**-**
Fixed Income Investments				
Asset Backed Securities	469,733	-	469,733	-
Bank Loans	15,007	-	15,007	-
Collateralized Bonds	2,446	-	2,446	-
Commercial Mortgage-Backed	362,729	-	362,729	-
Corporate Bonds	2,075,973	-	2,074,660	1,313
Corporate Convertible Bonds	19,220	-	19,220	-
Funds - Fixed Income ETF	16,829	16,829	-	-
Government Agencies	35,569	-	35,569	-
Government Bonds	735,584	-	735,584	-
Government Mortgage Backed Securities	688,660	-	688,660	-
Gov't-issued Commercial Mortgage-Backed	13,960	-	13,960	-
Index Linked Government Bonds	650,572	-	650,572	-
Municipal/Provincial Bonds	26,577	-	26,577	-
Non-Government Backed C.M.O.s	140,879	-	140,879	-
Sukuk	2,530	-	2,530	-
Total Fixed Income Investments	**5,256,268**	**16,829**	**5,238,126**	**1,313**
Equity Investments				
Common Stock	4,727,266	4,726,869	-	397
Convertible Equity	5,574	5,574	-	-
Funds - Equities ETF	122,419	122,419	-	-
Preferred Stock	5,431	3,130	2,301	-
Stapled Securities	1,311	1,311	-	-
Total Equity Investments	**4,862,001**	**4,859,303**	**2,301**	**397**
Derivative Investments				
Exchange Cleared Swaps	(2,988)	-	(2,988)	-
Options	(3,387)	(2,921)	(466)	-
Swaps	(280)	-	(280)	-
Total Derivative Investments	**(6,655)**	**(2,921)**	**(3,734)**	**-**
Total Investments by Fair Value Level	**$ 10,173,719**	**$ 4,873,211**	**$ 5,298,798**	**$ 1,710**

	Dollars in (000)			
Investments Measured at the Net Asset Value (NAV)		Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Commingled Funds-Debt	$ 1,559,743	$ -	Daily, monthly	1-15 days
Commingled Funds-Equities	1,547,266	-	Daily, monthly	1-15 days
Distressed Debt	211,353	-	Quarterly, Not eligible	60 days
Long/Short	284,678	-	Monthly	15 days
Mezzanine Debt	169	8,499	Not eligible	Not eligible
Private Credit	567,890	130,700	Not eligible	Not eligible
Private Equity	761,808	768,744	Not eligible	Not eligible
Real Assets	2,408,855	662,888	Quarterly, Not eligible	30-90 days
Total Investments Measured at the NAV	**$ 7,341,762**	**$ 1,570,831**		
Investments at Other Than Fair Value				
Cash and adjustments to cash	$ 199,035			
Bank Certificates of Deposit	192,033			
Other miscellaneous securities	4,815			
Repurchase Agreements	37,100			
Total Investments at Other Than Fair Value	**$ 432,983**			
Total Investments	**$ 17,948,464**			

2021	Fair Value 6/30/21	Quoted Prices in Active Markets for Indentical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	Dollars in (000)			
		Fair Value Measures Using		
Investments by Fair Value Level				
Short Term Securities				
Commercial Paper	$ 12,998	$ -	$ 12,998	$ -
Short Term Bills and Notes	73,606	-	73,606	-
Total Short Term Securities	**86,604**	**-**	**86,604**	**-**
Fixed Income Investments				
Asset Backed Securities	464,720	-	464,720	-
Bank Loans	16,123	-	16,123	-
Collateralized Bonds	2,930	-	2,930	-
Commercial Mortgage-Backed	328,792	-	328,792	-
Corporate Bonds	2,425,355	-	2,424,932	423
Corporate Convertible Bonds	17,733	-	17,733	-
Funds - Fixed Income ETF	18,501	18,501	-	-
Government Agencies	36,772	-	36,772	-
Government Bonds	858,389	-	858,389	-
Government Mortgage Backed Securities	599,911	-	599,911	-
Gov't-issued Commercial Mortgage-Backed	30,923	-	30,923	-
Index Linked Government Bonds	683,160	-	683,160	-
Municipal/Provincial Bonds	39,237	-	34,000	5,237
Non-Government Backed C.M.O.s	157,823	-	156,720	1,103
Sukuk	2,787	-	2,787	-
Total Fixed Income Investments	**5,683,156**	**18,501**	**5,657,892**	**6,763**
Equity Investments				
Common Stock	6,297,043	6,296,895	148	-
Convertible Equity	11,586	11,586	-	-
Funds - Equities ETF	107,225	107,225	-	-
Preferred Stock	3,900	2,001	1,899	-
Rights/Warrants	87	87	-	-
Stapled Securities	3,360	3,360	-	-
Total Equity Investments	**6,423,201**	**6,421,154**	**2,047**	**-**
Derivative Investments				
Exchange Cleared Swaps	(1,441)	-	(1,441)	-
Options	476	(341)	817	-
Swaps	(777)	-	(777)	-
Total Derivative Investments	**(1,742)**	**(341)**	**(1,401)**	**-**
Total Investments by Fair Value Level	**$ 12,191,219**	**$ 6,439,314**	**$ 5,745,142**	**$ 6,763**

	Dollars in (000)			
Investments Measured at the Net Asset Value (NAV)		Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Commingled Funds-Debt	$ 1,708,277	$ -	Daily, monthly	1-15 days
Commingled Funds-Equities	1,491,014	-	Daily, monthly	1-15 days
Distressed Debt	225,536	75,000	Quarterly, Not eligible	60 days
Long/Short	365,032	-	Monthly	15 days
Mezzanine Debt	205	8,499	Not eligible	Not eligible
Private Credit	476,410	181,200	Not eligible	Not eligible
Private Equity	551,014	861,976	Not eligible	Not eligible
Real Assets	2,036,389	430,427	Quarterly, Not eligible	30-90 days
Total Investments Measured at the NAV	**$ 6,853,877**	**$ 1,557,102**		
Investments at Other Than Fair Value				
Cash and adjustments to cash	$ 824,404			
Bank Certificates of Deposit	42,900			
Other miscellaneous securities	10,304			
Repurchase Agreements	25,300			
Total Investments at Other Than Fair Value	**$ 902,908**			
Total Investments	**$ 19,948,004**			

Securities classified in Level 1 are valued using quoted prices in active markets for those securities. Securities classified in Level 2 and Level 3 are valued using methodologies such as various bid evaluations, market averages and other matrix pricing techniques as well as values derived from associated traded securities or last trade data. In instances where inputs used to measure fair value fall into different levels, the fair value is categorized based on the lowest level input that is significant to the valuation.

Investments valued at the net asset value (NAV) per share (or its equivalent) have been classified separately in the tables above and include investments considered to be *alternative investments* as defined by the AICPA. The definition includes investments for which a readily determinable fair value does not exist (that is, investments not listed on national exchanges or over-the-counter markets, or for which quoted market prices are not available from sources such as financial publications, the exchanges, or NASDAQ). These types of investments can be held within any of the asset classes used by the SIB based on underlying portfolio holdings and analysis of risk and return relationships. These investments can be structured in different ways, including limited partnerships, limited liability companies, common trusts and mutual funds. Some are closed-ended with a specific life and capital commitment while others are open-ended with opportunity for ad hoc contributions or withdrawals and termination upon proper notice.

Commingled/Mutual Funds — These types of funds are open-ended funds and may be utilized in equity or fixed income asset classes. They are funds made up of underlying securities that have readily available fair values (publicly traded stocks or bonds). The SIB owns units of these funds rather than the individual securities. Contributions or withdrawals from these funds can be made as needed, generally with daily or monthly liquidity, with a notice period of one to fifteen days. Because they are liquid funds, there are no unfunded commitments for these types of investments.

Distressed Debt — these include investments in the debt instruments of companies which may be publicly traded or privately held that are financially distressed and are either in bankruptcy or likely candidates for bankruptcy. Typical holdings are senior and subordinated debt instruments, mortgages and bank loans. The SIB is including these types of investments in its global fixed income allocations. As of June 30, 2022, all unfunded commitments in the SIB distressed debt portfolios had been released; but as of June 30, 2021, there remained an unfunded commitment in one fund totaling $75.0 million. One of the funds in this category is not eligible for redemptions, while the other fund is eligible for redemptions with quarterly liquidity and 60 days notice.

Equity Long/Short — This strategy is a combination of long and short positions, primarily in publicly traded equities. The SIB utilizes this strategy, through a limited partnership structure, within its global equity allocations. This is an open-ended fund with monthly liquidity with a notice period of 15 days. There was no unfunded commitment as of June 30, 2022 and 2021.

Mezzanine Debt — This strategy is a hybrid of debt and equity financing. It is essentially debt capital that gives the lender the rights to convert to an ownership or equity interest in the company if the loan is not paid back in time and in full. It is generally subordinated to senior debt. The SIB utilizes this strategy, through a limited partnership structure, in its global fixed income allocation. The two funds in this category are not eligible for redemptions, have remaining lives of 1-2 years, and unfunded commitments of $8.5 million as of both June 30, 2022 and 2021.

Private Credit — These investments include loans to private companies, privately placed debt of public companies, or loans backed by real assets. Loan repayment can be derived from either cash flows from an operating company or cash flows generated by a physical or esoteric asset. Private debt is typically secured and has various protections/covenants in place. The debt is customized to the borrower's requirement, thus rendering it illiquid. The SIB includes these strategies within its global fixed income allocation through limited partnership-type structures. Private credit issuers may be investment grade but are typically below-investment grade and similar in some respect to the syndicated bank loan and high yield markets. The SIB participates in two senior private credit funds, commonly referred to as direct lenders, which are structured as custom managed accounts and are not eligible for redemptions during their investment lives. Due to the perpetual nature of the funds, the remaining investment lives fluctuate based on timing of new commitments, and the unfunded commitments totaled $130.7 million and $181.2 million as of June 30, 2022 and 2021, respectively.

Private Equity — Private Equity investments are typically private interests in corporations across different areas of the capital structure and in different stages of the corporations' development via limited partnership vehicles. Private Equity investments are illiquid and long term in nature (10-12 years), typically held until maturity. Private Equity portfolios generally have a "J-Curve Effect" whereby there are low to negative returns in the initial years due to the payment of investment management fees and initial funding of investments made by the General Partner during a period when investments are typically carried at cost and returns have not been realized. To diversify the program, Private Equity investments are made across business cycles, vintage years, and different strategies. The SIB has a dedicated sub-asset class for private equity investments within its global equity allocation in the pension pool and Legacy Fund. The SIB does not have the option to request redemptions from its private equity funds. The General Partner distributes earnings and proceeds from the sale of the underlying investments as transactions occur. The SIB has $768.7 million and $862.0 million in unfunded private equity commitments as of June 30, 2022 and 2021, respectively.

Venture Capital — these include investments in companies in a range of stages of development from start-up/seed stage, early stage, and later/expansion stage. Investments are typically made in years one through six and returns typically occur in years four through ten.

Buyouts — these include investments in funds that seek out and purchase underperforming or undervalued companies in order to improve them and sell them or take them public many years later. These funds are also often involved in management buyouts, which are buyouts conducted by the management of the company being purchased, and they often play key roles in leveraged buyouts, which are buyouts that are funded with borrowed money.

Real Assets — These investments are intended to provide allocations to tangible assets that are expected to be inflation protected and provide performance above the inflation rate as indicated by the CPI. Investments are generally structured as limited partnerships or limited liability companies. Investments in Real Assets include:

Real Estate — includes investments in private vehicles through limited partnerships or commingled vehicles that have an ownership interest in direct real estate properties. The investment strategies may include "value added" strategies, which derive their return from both income and appreciation, "opportunistic", which derive their return primarily through appreciation, and "alternative" which invest in less traditional types of property. Both domestic and international real estate funds are utilized. The SIB has a dedicated sub-asset class for these types of investments within global real assets. There are currently 11 real estate funds in the portfolio. Five of those funds are open-ended vehicles that accept redemption requests quarterly with a 30-90 day notification period. There were no unfunded commitments in the open-ended funds as of June 30, 2022 and 2021. The remaining six funds are closed-ended limited partnerships that are not eligible for redemptions. Those six funds have a combined unfunded commitment of $250.5 million and $263.3 million as of June 30, 2022 and 2021, respectively.

Timberland — includes investments in limited liability companies that have an ownership interest in properties where the value of the property is derived mainly from income-producing timber but also from the "higher and better use" value of the underlying land. The SIB includes these assets within its global real assets allocations. There are three funds in the portfolio, and they have no unfunded commitments. The funds are not eligible for redemption other than distributions of income and/or proceeds as determined by the investment manager. The funds have remaining lives of 1-4 years.

Infrastructure — includes investments in limited partnerships that have an ownership interest in transportation assets such as toll roads, tunnels and bridges; and regulated assets such as electricity transmission, gas and oil distribution and wastewater collection. Other possible investments would include communication assets and social infrastructure. The SIB includes these assets within its global real assets allocations. The infrastructure investments in the portfolio as of June 30, 2022 and 2021, include both open and closed-ended funds. The three open-ended funds have no unfunded commitments and are eligible for redemptions quarterly with 90 days notice. There may be a 3-12 month queue for receiving redemptions. The 17 closed-ended funds have unfunded commitments of $412.4 million and $167.1 million at June 30, 2022 and 2021, respectively, and are not eligible for redemptions.

Securities Lending

State statutes permit and the SIB has authorized the use of securities lending – loans of securities to broker-dealers and other entities for collateral with a simultaneous agreement to return the collateral for the same securities in the future. Northern Trust is the securities lending agent for the SIB. Securities are loaned versus collateral that may include cash, US government securities and irrevocable letters of credit. US securities are loaned versus collateral valued at 102% of the fair value of the securities plus any accrued interest. Non-US securities are loaned versus collateral valued at 105% of the fair value of the securities plus any accrued interest.

Non-cash collateral cannot be pledged or sold unless the borrower defaults. All securities loans can be terminated on demand by either the lender or the borrower, although the average term of SIB loans was approximately 70 and 130 days as of June 30, 2022 and 2021, respectively. Cash open collateral is invested in a short-term investment pool, which had an interest sensitivity of 1 day as of both June 30, 2022 and 2021. This pool is valued based on amortized cost. There were no violations of legal or contractual provisions, no borrower or lending agent default losses known to the securities lending agent. There are no dividends or coupon payments owing on the securities lent. Securities lending earnings are credited to participating clients on approximately the fifteenth day of the following month.

Indemnification deals with the situation in which a client's securities are not returned due to the insolvency of a borrower and Northern Trust has failed to live up to its contractual responsibilities relating to the lending of those securities. Northern Trust's responsibilities include performing appropriate borrower and collateral investment credit analyses, demanding adequate types and levels of collateral, and complying with applicable Department of Labor and Federal Financial Institutions Examination Council regulations concerning securities lending.

For securities loaned at fiscal year end, the SIB has no credit risk exposure to borrowers because the amounts the SIB owes the borrowers exceeds the amounts the borrowers owe the SIB.

The following represents the balances relating to the securities lending transactions at June 30, 2022 and 2021 (expressed in thousands).

2022	**Securities Lent**	**Non-Cash Collateral Value**	**Cash Collateral Investment Value**
Lent for cash collateral:			
US agency securities	$ 996	$ -	$ 1,037
US government securities	3,867	-	3,977
US corporate fixed income securities	82,501	-	85,182
Global agency securities	187	-	197
Global government securities	2,214	-	2,346
Global corporate fixed income securities	8,052	-	8,554
US equities	39,907	-	41,241
Global equities	4,547	-	5,171
Lent for non-cash collateral:			
US agency securities	777	804	-
US government securities	3,751	3,881	-
US corporate fixed income securities	85,783	88,643	-
US equities	53,980	55,731	-
Global equities	7,679	8,310	-
Total	$ 294,241	$ 157,369	$ 147,705

2021	Securities Lent	Non-Cash Collateral Value	Cash Collateral Investment Value
Lent for cash collateral:			
US agency securities	$ 937	$ -	$ 957
US government securities	1,483	-	1,540
US corporate fixed income securities	32,989	-	33,846
Global government securities	1,137	-	1,207
Global corporate fixed income securities	3,551	-	3,781
US equities	29,346	-	30,361
Global equities	16,043	-	17,218
Lent for non-cash collateral:			
US agency securities	1,160	1,198	-
US government securities	2,186	2,242	-
US corporate fixed income securities	38,039	39,396	-
US equities	153,604	158,573	-
Global equities	14,377	15,433	-
Total	$ 294,852	$ 216,842	$ 88,910

Note 4 - Capital Assets

	June 30, 2020	Additions	Retirements	June 30, 2021	Additions	Retirements	June 30, 2022
Office equipment	$16,879	$ -	$ -	$16,879	$ -	$ -	$16,879
Less accumulated depreciation on office equipment	(13,730)	(1,800)	-	(15,530)	(1,349)	-	(16,879)
Software	1,213,500	-	-	1,213,500	680,999	-	1,894,499
Less accumulated depreciation on software	(1,213,500)	-	-	(1,213,500)	-	-	(1,213,500)
	$ 3,149	$ (1,800)	$ -	$ 1,349	$ 679,650	$ -	$ 680,999

Note 5 - State Agency Transactions

Due To/From Other State Agencies and Other State Funds

Amounts due from/to other state agencies and other state funds are as follows as of June 30, 2022 and 2021:

	2022	2021
Due To Other State Agencies		
Information Technology Department	$ 33,736	$ 10,976
Health Department	225	-
Department of Transportation	78	-
Office of Attorney General	505	3,884
Office of Management and Budget	338	31
Total due to other state agencies	$ 34,882	$ 14,891
Due From Other State Agencies		
Public Employees Retirement System	$ 1,281	$ -
Total due from other state agencies	$ 1,281	$ -
Due To Other State Funds		
General Fund	$ -	$ 871,687,384

Due to other state agencies balances are a result of a time lag between the dates that services are provided, the payments are made, and the transactions are entered into the accounting system. Due to other state funds represents the statutorily defined earnings of the Legacy Fund for the 2019-21 biennium that is required by the State Constitution to be transferred to the general fund at the end of the biennium.

Note 6 - Changes in Noncurrent Liabilities

Changes in noncurrent liabilities are included in accrued expenses in the statements of changes in net position. The changes for the years ended June 30, 2022 and 2021 are summarized as follows:

	Beginning Balance 7/1/2021	Additions	Reductions	Ending Balance 6/30/2022	Amounts Due Within One Year
Accrued Leave	$211,403	$126,018	($178,433)	$158,988	$149,765

	Beginning Balance 7/1/2020	Additions	Reductions	Ending Balance 6/30/2021	Amounts Due Within One Year
Accrued Leave	$205,830	$160,655	($155,082)	$211,403	$141,891

Pension and Investment Trust Funds liquidate the accrued annual leave.

Note 7 - North Dakota Teachers' Fund for Retirement

Administration

The following brief description of TFFR is provided for general information purposes only. Participants should refer to NDCC Chapter 15-39.1 for more complete information.

TFFR is a cost-sharing multiple-employer defined benefit pension plan covering all North Dakota public teachers and certain other teachers who meet various membership requirements. TFFR provides for pension, death and disability benefits. The cost to administer the TFFR plan is financed by investment income and contributions.

Responsibility for administration of the TFFR benefits program is assigned to a seven-member Board of Trustees (Board). The Board consists of the State Treasurer, the Superintendent of Public Instruction, and five members appointed by the Governor. The appointed members serve five-year terms which end on June 30 of alternate years. The appointed Board members must include two active teachers, one active school administrator, and two retired members. The TFFR Board submits any necessary or desirable changes in statutes relating to the administration of the fund, including benefit terms, to the Legislative Assembly for consideration. The Legislative Assembly has final authority for changes to benefit terms and contribution rates.

Membership

As of June 30, 2022 and 2021, the number of participating employer units was 207 and 210, respectively, consisting of the following:

	June 30, 2022	June 30, 2021
Public School Districts	171	173
County Superintendents	4	4
Special Education Units	19	20
Vocational Education Units	4	4
Other	9	9
Total	207	210

TFFR's membership consisted of the following:

TFFR Membership

	2022	2021
Retirees and beneficiaries currently receiving benefits	9,438	9,262
Terminated employees - vested	1,827	1,754
Terminated employees - nonvested	1,423	1,213
Total	12,688	12,229
Current employees		
Vested	8,326	8,306
Nonvested	3,476	3,321
Total	11,802	11,627

Member and Employer Contributions

Member and employer contributions paid to TFFR are set by NDCC Section 15-39.1-09. Every eligible teacher in the State of North Dakota is required to be a member of TFFR and is assessed at a rate of 11.75% of salary as defined by NDCC Section 15-39.1-04. Every governmental body employing a teacher must also pay into TFFR a sum equal to 12.75% of the teacher's salary. Member and employer contributions will be reduced to 7.75% each when the fund reaches 100% funded ratio on an actuarial basis.

A vested member who terminates covered employment may elect a refund of contributions paid plus 6% interest or defer payment until eligible for pension benefits. A non-vested member who terminates covered employment must claim a refund of contributions paid before age 70½. Refunded members forfeit all service credits under TFFR. These service credits may be repurchased upon return to covered employment under certain circumstances, as defined by the NDCC.

Pension Benefits

For purposes of determining pension benefits, members are classified within one of three categories. Tier 1 grandfathered and Tier 1 non-grandfathered members are those with service credit on file as of July 1, 2008. Tier 2 members are those newly employed and returning refunded members on or after July 1, 2008.

Tier 1 Grandfathered

A Tier 1 grandfathered member is entitled to receive unreduced benefits when three or more years of credited service as a teacher in North Dakota have accumulated, the member is no longer employed as a teacher and the member has reached age 65, or the sum of age and years of service credit equals or exceeds 85. TFFR permits early retirement from ages 55 to 64, with benefits actuarially reduced by 6% per year for every year the member's retirement age is less than 65 years or the date as of which age plus service equal 85. In either case, benefits may not exceed the maximum benefits specified in Section 415 of the Internal Revenue Code.

Pension benefits paid by TFFR are determined by NDCC Section 15-39.1-10. Monthly benefits under TFFR are equal to the three highest annual salaries earned divided by 36 months and multiplied by 2.00% times the number of service credits earned. Retirees may elect payment of benefits in the form of a single life annuity, 100% or 50% joint and survivor annuity, ten or twenty-year term certain annuity, partial lump-sum option or level income with Social Security benefits. Members may also qualify for benefits calculated under other formulas.

Tier 1 Non-grandfathered

A Tier 1 non-grandfathered member is entitled to receive unreduced benefits when three or more years of credited service as a teacher in North Dakota have accumulated, the member is no longer employed as a teacher and the member has reached age 65, or has reached age 60 and the sum of age and years of service credit equals or exceeds 90. TFFR permits early retirement from ages 55 to 64, with benefits actuarially reduced by 8% per year from the earlier of age 60/Rule of 90 or age 65. In either case, benefits may not exceed the maximum benefits specified in Section 415 of the Internal Revenue Code.

Pension benefits paid by TFFR are determined by NDCC Section 15-39.1-10. Monthly benefits under TFFR are equal to the three highest annual salaries earned divided by 36 months and multiplied by 2.00% times the number of service credits earned. Retirees may elect payment of benefits in the form of a single life annuity, 100% or 50% joint and survivor annuity, ten or twenty-year term certain annuity, partial lump-sum option or level income with Social Security benefits. Members may also qualify for benefits calculated under other formulas.

Tier 2

A Tier 2 member is entitled to receive unreduced benefits when five or more years of credited service as a teacher in North Dakota have accumulated, the member is no longer employed as a teacher and the member has reached age 65, or has reached age 60 and the sum of age and years of service credit equals or exceeds 90. TFFR permits early retirement from ages 55 to 64, with benefits actuarially reduced by 8% per year from the earlier of age 60/Rule of 90 or age 65. In either case, benefits may not exceed the maximum benefits specified in Section 415 of the Internal Revenue Code.

Pension benefits paid by TFFR are determined by NDCC Section 15-39.1-10. Monthly benefits under TFFR are equal to the five highest annual salaries earned divided by 60 months and multiplied by 2.00% times the number of service credits earned. Retirees may elect payment of benefits in the form of a single life annuity, 100% or 50% joint and survivor annuity, ten or twenty-year term certain annuity, partial lump-sum option or level income with Social Security benefits. Members may also qualify for benefits calculated under other formulas.

Death and Disability Benefits

Death benefits may be paid to a member's designated beneficiary. If a member's death occurs before retirement, the benefit options available are determined by the member's vesting status prior to death. If a member's death occurs after retirement, the death benefit received by the beneficiary (if any) is based on the retirement plan the member selected at retirement.

An active member is eligible to receive disability benefits when: (a) a total disability lasting 12 months or more does not allow the continuation of teaching, (b) the member has accumulated five years of credited service in North Dakota, and (c) the Board of Trustees of TFFR has determined eligibility based upon medical evidence. The amount of the disability benefit is computed by the retirement formula in NDCC Section 15-39.1-10 without consideration of age and uses the member's actual years of credited service.

There is no actuarial reduction for reason of disability retirement.

Investment Rate of Return

The annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was -6.17% and 26.36% for the years ended June 30, 2022 and 2021, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Realized Gains and Losses

Realized gains and losses on sales of investments are components of net change in fair value of investments and are computed as described in Note 1. For the years ended June 30, 2022 and 2021, TFFR had net realized gains of $127,985,911 and $236,376,522, respectively.

Net Pension Liability

The components of the net pension liability of TFFR at June 30, 2022 and 2021 (expressed in thousands), were as follows:

	June 30, 2022	June 30, 2021
Total pension liability	$ 4,479,973	$ 4,336,060
Plan fiduciary net position	(3,023,920)	(3,282,405)
Net pension liability (NPL)	$ 1,456,053	$ 1,053,655
Plan fiduciary net position as a percentage of the total pension liability	67.5%	75.7%

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of July 1, 2022 and 2021, using the following actuarial assumptions:

Valuation date	July 1, 2022	July 1, 2021
Inflation	2.30%	2.30%
Salary increases	3.80% to 14.80%; varying by service, including inflation and productivity	3.80% to 14.80%; varying by service, including inflation and productivity
Cost of living adjustments	None	None
Investment rate of return	7.25% net of investment expenses, including inflation	7.25% net of investment expenses, including inflation

For the July 1, 2022 and 2021, valuations, the post-retirement healthy mortality table was 104% of the PubT-2010 Retiree table for retirees and to 95% of the PubT-2010 Contingent Survivor table for beneficiaries, both projected with generational improvement using Scale MP-2019. The disabled mortality table was the PubNS-2010 Non-Safety Disabled Mortality table projected with generational improvement using Scale MP-2019.

The pre-retirement mortality table was the Pub T-2010 Employee table projected with generational improvement using Scale MP-2019. The actuarial assumptions used were based on the results of an experience study dated March 19, 2020.

The TFFR Board is responsible for establishing investment policy for the fund assets under NDCC 15-39.1-05.2. Benefit payments are projected to occur over a long period of time. This allows TFFR to adopt a long-term investment horizon and asset allocation policy for the management of fund assets. Asset allocation policy is critical because it defines the basic risk and return characteristics of the investment portfolio. Asset allocation targets are established using an asset-liability analysis designed to assist the Board in determining an acceptable volatility target for the fund and an optimal asset allocation policy mix. This asset-liability analysis considers both sides of the plan balance sheet, utilizing both quantitative and qualitative inputs, in order to estimate the potential impact of various asset class mixes on key measures of total plan risk, including the resulting estimated impact of funded status and contribution rates.

The long-term expected rate of return on TFFR investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the TFFR target asset allocation as of July 1, 2022 and 2021 are summarized in the following tables:

2022	Target Allocation	Long-Term Expected Real Rate of Return
Global Equity	55.0%	6.6%
Global Fixed Income	26.0%	0.4%
Global Real Assets	18.0%	4.6%
Cash Equivalents	1.0%	-1.1%

2021	Target Allocation	Long-Term Expected Real Rate of Return
Global Equity	55.0%	6.9%
Global Fixed Income	26.0%	0.7%
Global Real Assets	18.0%	4.8%
Cash Equivalents	1.0%	-1.0%

As part of the most recent asset/liability study, the total fund real rate of return was upwardly adjusted by 0.50% to reflect a longer investment time horizon than is assumed in the investment consultant's expected returns and to account for above benchmark returns achieved through active management. In order to estimate the nominal rate of return, the real rate of return was adjusted upward by 2.25% for expected inflation.

Discount Rate

The discount rate used to measure the total pension liability was 7.25% as of June 30, 2022 and 2021. The projection of cash flows used to determine the discount rate assumed that member and employer contributions will be made at rates equal to those based on the July 1, 2022 and 2021 Actuarial Valuation Report. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, TFFR's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members as of July 1, 2022 and 2021. Therefore, the long-term expected rate of return on TFFR investments was applied to all periods of projected benefit payments to determine the total pension liability as of June 30, 2022 and 2021.

Sensitivity of Net Pension Liability

The following presents the net pension liability of the TFFR employers calculated using the discount rate of 7.25% as of June 30, 2022 and 2021, as well as what the employers' net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate (expressed in thousands):

2022	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
Employers' net pension liability	$ 2,000,483	$ 1,456,053	$ 1,004,517

2021	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
Employers' net pension liability	$ 1,582,103	$ 1,053,655	$ 614,833

Note 8 - ND Public Employees Retirement System (NDPERS)

Permanent employees of RIO participate in the pension and other post-employment benefit (OPEB) plans of NDPERS, which is also an agency of the State of North Dakota financial reporting entity and is included in the State of North Dakota's Annual Comprehensive Financial Report. The following brief description of NDPERS is provided for general information purposes only. Participants should refer to NDCC Chapter 54-52 for more complete information.

NDPERS pension (Main System) and OPEB plans are cost-sharing multiple-employer defined benefit plans that cover employees/retirees of the State of North Dakota, its agencies and various participating political subdivisions. NDPERS pension plan provides for pension, death and disability benefits. NDPERS OPEB plan provides a credit toward the monthly health insurance premium of members receiving retirement benefits from the PERS, HPRS and Judges retirement under Chapter 27-17 of the North Dakota Century Code. Effective July 1, 2015, the credit is also available to apply towards monthly premiums under the state dental, vision and long-term care plan and any other health insurance plan. Effective August 1, 2019, the credit is expanded to also include any eligible health, prescription drug plan, dental, vision, and long-term care plan premium expense. The cost to administer the pension plan is financed through the contributions and investment earnings of the plan. The Retiree Health Insurance Credit Fund is advance-funded on an actuarially determined basis.

Responsibility for administration of the NDPERS defined benefit pension plan is assigned to a Board comprised of nine members. The Board consists of a Chairman, who is appointed by the Governor; one member appointed by the Attorney General; one member appointed by the State Health Officer; three members elected by the active membership of the NDPERS system, one member elected by the retired public employees and two members of the legislative assembly appointed by the chairman of the legislative management.

Pension Benefits

Benefits are set by statute. NDPERS has no provisions or policies with respect to automatic and ad hoc post-retirement benefit increases. Members of the Main System are entitled to unreduced monthly pension benefits beginning when the sum of age and years of credited service equal or exceed 85 (Rule of 85), or at normal retirement age (65). For members hired on or after January 1, 2016 the Rule of 85 is replaced with the Rule of 90 with a minimum age of 60. The monthly pension benefit is equal to 2.00% of their average monthly salary, using the highest 36 months out of the last 180 months of service, for each year of service. For members hired on or after January 1, 2020 the 2.00% multiplier was replaced with a 1.75% multiplier. The plan permits early retirement at ages 55-64 with three or more years of service.

Members may elect to receive the pension benefits in the form of a single life, joint and survivor, term-certain annuity, or partial lump sum with ongoing annuity. Members may elect to receive the value of their accumulated contributions, plus interest, as a lump sum distribution upon retirement or termination, or they may elect to receive their benefits in the form of an annuity. For each member electing an annuity, total payment will not be less than the members' accumulated contributions plus interest.

Death and Disability Benefits

Death and disability benefits are set by statute. If an active member dies with less than three years of service, a death benefit equal to the value of the member's accumulated contributions, plus interest, is paid to the member's beneficiary. If the member has earned more than three years of credited service, the surviving spouse will be entitled to a single payment refund, life-time monthly payment in an amount equal to 50% of the member's accrued normal retirement benefit, or monthly payments in an amount equal to the member's accrued 100% Joint and Survivor retirement benefit if the member had reached normal retirement age prior to date of death. If the surviving spouse dies before the member's accumulated pension benefits are paid, the balance will be payable to the surviving spouse's beneficiary.

Eligible members, who become totally disabled after a minimum of 180 days of service, receive monthly disability benefits equal to 25% of their final average salary with a minimum benefit of $100. To qualify under this section, the member has to become disabled during the period of eligible employment and apply for benefits within one year of termination. The definition for disabled is set by the NDPERS in the North Dakota Administrative Code.

Refunds of Member Contributions

Upon termination, if a member is not vested (is not 65 or does not have three years of service credited for the NDPERS) they will receive the accumulated member contributions plus interest, or may elect to receive this amount at a later date. If a member has vested, they have the option of applying for a refund or can remain as a terminated vested participant. If a member terminated and withdrew their accumulated member contributions and is subsequently reemployed, they have the option of repurchasing their previous service.

Member and Employer Contributions

Member and employer contributions paid to NDPERS are set by statute and are established as a percent of salaries and wages. During the 1983-1985 biennium the State of North Dakota implemented the employer pickup provision of the IRS code whereby a portion or all of the required member contributions are made by the employer. RIO, as the employer, is paying 4% of the member contribution. Employer contributions are set by statute.

Contribution rates are established as a percent of covered compensation as follows:

	Member	Employer
Members first enrolled prior to January 1, 2020	7.00%	7.12%
Members first enrolled after January 1, 2020	7.00%	8.26%
Members returning to the DB Plan as a result of Senate Bill 2015	9.00%	7.12%

The member's account balance includes the vested employer contributions equal to the member's contributions to an eligible deferred compensation plan. The minimum member contribution is $25 and the maximum may not exceed the following:

1 to 12 months of service – Greater of one percent of monthly salary or $25
13 to 24 months of service – Greater of two percent of monthly salary or $25
25 to 36 months of service – Greater of three percent of monthly salary or $25
Longer than 36 months of service – Greater of four percent of monthly salary or $25

OPEB Benefits

The employer contribution is set by statute at 1.14% of covered compensation. Employees participating in the retirement plan as part-time/temporary members are required to contribute 1.14% of their covered compensation to the Retiree Health Insurance Credit Fund. Employees purchasing previous service credit are also required to make an employee contribution to the Fund. The benefit amount applied each year is shown as "prefunded credit applied" on the Statement of Changes in Plan Net Position for the OPEB trust funds. Beginning January 1, 2020 members first enrolled in the NDPERS main system and the Defined Contribution Plan on or after that date will not be eligible to participate in RHIC. Therefore, RHIC will become for the part a closed plan.

Retiree health insurance credit benefits and death and disability benefits are set by statute. There are no provisions or policies with respect to automatic and ad hoc post-retirement benefit increases. Employees who are receiving monthly retirement benefits, or the spouse of a deceased annuitant receiving a surviving spouse benefit or if the member selected a joint and survivor option are eligible to receive a credit toward their monthly health insurance premium under the state health plan.

The benefits are equal to $5.00 for each of the employee's, or deceased employee's years of credited service not to exceed the premium in effect for selected coverage. The retiree health insurance credit is also available for early retirement with reduced benefits.

Pension & OPEB Liabilities, Pension & OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions & OPEB

At June 30, 2022 and 2021, RIO reported a liability of $1,549,271 and $4,531,009, respectively, for its proportionate share of the net pension and OPEB liability. These amounts are included in the accrued liabilities in the statements of net position. The net pension and OPEB liability were measured as of June 30, 2021 and 2020, and the total pension and OPEB liability used to calculate the net pension and OPEB liability was determined by an actuarial valuation as of that date. RIO's proportion of the net pension liability was based on RIO's share of covered payroll in the pension and OPEB plans relative to the covered payroll of all participating NDPERS Main System and OPEB employers. At June 30, 2021, RIO's pension plan proportion was 0.141582 percent and as of June 30, 2020, was 0.140747 percent. RIO's OPEB plan proportion was 0.132262 percent as of June 30, 2021 and was 0.122537 percent as of June 30, 2020.

RIO recognized pension and OPEB expense of $92,402 and $652,402 for the years ended June 30, 2022 and 2021, respectively. At June 30, 2022 and 2021, RIO reported deferred outflows of resources and deferred inflows of resources related to pensions and OPEB from the following sources:

	Deferred Outflows of Resources		Deferred Inflows of Resources	
	2022	2021	2022	2021
Differences between expected and actual experience	$ 29,704	$ 19,520	$ 152,633	$ 226,838
Changes in assumptions	1,644,715	2,387,471	2,129,514	392,424
Net differences between projected and actual earnings on plan investments	-	146,456	572,522	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	32,684	14,114	108,916	149,812
Employer contributions subsequent to the measurement date	132,556	152,268	-	-
Total	$ 1,839,659	$ 2,719,829	$ 2,963,585	$ 769,074

Deferred outflows of resources related to pensions and OPEB resulting from employer contributions subsequent to the measurement date in the amount of $132,556 will be recognized as a reduction of the net pension liability in the year ended June 30, 2023.

Other amounts reported as deferred outflows of resources and (deferred inflows of resources) related to pensions and OPEB will be recognized in pension expense as follows:

Year Ended June 30		
2023	$	(199,839)
2024		(291,642)
2025		(233,080)
2026		(532,643)
2027		722
2028		-
	$	(1,256,482)

Actuarial assumptions

The total pension and OPEB liabilities in the July 1, 2021 and 2020 actuarial valuation were determined using the following actuarial assumptions, applied to all periods included in the measurement:

2021 & 2020 – Pension Plan

Inflation	2.25%
Salary Increase (Payroll Growth)	3.5% to 17.75%, including inflation
Investment Rate of Return	7.00%, net of investment expense
Cost-of-living Adjustments	None
Mortality Rates	Sex-distinct Pub-2010 tables for General Employees, with scaling based on actual experience. Respective corresponding tables were used for healthy retirees, disabled retirees, and active members. Mortality rates are projected from 2010 using the MP-2019 scale.

The actuarial assumptions used in the actuarial valuation as of July 1, 2021 were based on an experience review for the period from July 1, 2014 to July 1, 2019, and were adopted for first use commencing with the actuarial valuation as of July 1, 2020.

2021 & 2020 – OPEB Plan

Inflation	2.25%
Salary Increase (Payroll Growth)	Not applicable.
Investment Rate of Return	6.50%, net of investment expense
Cost of Living Adjustments	None

Mortality Rates	Pub-2010 Healthy Retiree Mortality table (for General Employees), sex-distinct, with rates multiplied by 103% for males and 101% for females. Pub-2010 Disabled Retiree Mortality table (for General Employees), sex-distinct, with rates multiplied by 117% for males and 112% for females. Pub-2010 Employee Mortality table (for General Employees), sex-distinct, with rates multiplied by 92% for both males and females. Mortality rates are projected from 2010 using the MP-2019 scale.

Beginning January 1, 2020, members first enrolled in the NDPERS Main System and the Defined Contribution Plan on or after that date are no longer eligible to participate in the OPEB Plan. Therefore, the OPEB Plan is, for the most part, a closed plan. There were no other benefit changes during 2020. The economic assumptions (excluding salary increases) and the asset smoothing method were updated beginning with the actuarial valuation as of July 1, 2017, based on a review performed by the actuary. The investment return assumption was decreased from 7.5% to 7.25% beginning with the actuarial valuation as of July 1, 2019, and further to 6.50% beginning with the actuarial valuation as of July 1, 2020. All other actuarial assumptions were adopted by the PERS Board based on an experience study covering the period July 1, 2009, through June 30, 2014. The employer rate to the System is the statutory contribution rate of 1.14% of payroll.

The long-term expected rate of return on pension and OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the plans' target asset allocations are summarized in the following table:

2021 - Pension Plan

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global Equity	58%	6.7%
Global Fixed Income	23%	0.7%
Global Real Assets	19%	4.8%

2020 - Pension Plan

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global Equity	58%	6.9%
Global Fixed Income	23%	1.3%
Global Real Assets	19%	5.0%

2021 - OPEB Plan

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Large Cap Domestic Equity	33%	5.9%
Small Cap Domestic Equity	6%	6.8%
International Equity	26%	6.3%
Core-Plus Fixed Income	35%	0.5%

2020 - OPEB Plan

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Large Cap Domestic Equity	33%	6.1%
Small Cap Domestic Equity	6%	7.0%
International Equity	21%	6.5%
Core-Plus Fixed Income	40%	1.2%

Discount rate

For pension plans, GASB Statement No. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the System to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The current employer and employee fixed rate contributions are assumed to be made in each future year. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years.

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate (SDR) that reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) a tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For 2021, the expected rate of return on pension plan investments is 7.00%; the municipal bond rate is 1.92% (based on the most recent date available on or before the measurement date of the "20-year Municipal GO Index" from Fidelity); and the resulting Single Discount Rate is 7.00%.

For 2020, the expected rate of return on pension plan investments is 7.00%; the municipal bond rate is 2.45% (based on the most recent date available on or before the measurement date of the "20-year Municipal GO Index" from Fidelity); and the resulting Single Discount Rate is 4.64%.

The discount rate used to measure the total OPEB liability for 2021 was 6.50% and for 2020 was 6.50%. The projection of cash flows used to determine the discount rate assumed plan member and statutory/Board approved employer contributions will be made at rates equal to those based on the July 1, 2021 and 2020 OPEB actuarial valuation reports. For this purpose, only employer contributions that are intended to fund benefits of current OPEB members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries are not included. Based on those assumptions, the OPEB fiduciary net position was projected to be sufficient to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB investments was applied to all periods of projected benefit payments to determine the total OPEB liability for both years.

Sensitivity of the Employer's proportionate share of the net pension and OPEB liability to changes in the discount rate

The following presents RIO's proportionate share of the net pension and OPEB liability calculated using the current discount rate, as well as what the RIO's proportionate share of the net pension and OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

2022

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
RIO's net pension liability	$ 2,346,875	$ 1,475,710	$ 750,328

	1% Decrease (5.50%)	Current Discount Rate (6.50%)	1% Increase (7.50%)
RIO's net OPEB liability	109,100	73,561	43,489

2021

	1% Decrease (3.64%)	Current Discount Rate (4.64%)	1% Increase (5.64%)
RIO's net pension liability	$ 5,744,908	$ 4,427,931	$ 3,350,323

	1% Decrease (5.50%)	Current Discount Rate (6.50%)	1% Increase (7.50%)
RIO's net OPEB liability	135,189	103,078	75,924

Sensitivity for Healthcare Cost Trend Rates

The benefit provided by the North Dakota retiree health insurance credit fund is a fixed dollar subsidy and is not affected by the healthcare cost trend. Therefore, a sensitivity analysis was not performed.

Pension and OPEB plan fiduciary net position

Detailed information about the pension and OPEB plans' fiduciary net position is available in the separately issued NDPERS Annual Comprehensive Financial Report. This report can be accessed on the NDPERS website at https://www.ndpers.nd.gov/about/financial-actuarial-reports/annual-report-archive

Note 9 - Related Parties

As stated in Note 1, RIO is an agency of the State of North Dakota; as such, other agencies of the state are related parties.

Note 10 - Contingencies/Litigation

The State Investment Board was named as a defendant in a case arising out of the Tribune bankruptcy proceedings, relating to securities that were purchased by external investment managers in one or more portfolios held by the SIB on behalf of its investment client funds. Outside counsel was retained, in addition to assistance received from the ND Office of Attorney General. On July 15, 2019, the Litigation Trustee filed a Notice of Appeal to the Second Circuit, appealing the various judgments of the US District Court that dismissed his claims against defendants in the Action and denying leave to amend his complaint to add a constructive fraudulent transfer claim. The Second Circuit held oral argument on August 24, 2020, and on August 20, 2021, upheld the dismissal. The Litigation Trustee then filed a petition for an *en banc* rehearing by the full Second Circuit of the Court's August 20, 2021, decision which was denied on October 7, 2021. On February 22, 2022, the U.S. Supreme Court declined to review the Second Circuit's latest decision leaving all action dismissed in favor of the SIB and co-defendants. No further activity is expected in the case.

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in Net Pension Liability and Related Ratios
North Dakota Teachers' Fund for Retirement
Last 10 Fiscal Years*
(Dollars in thousands)

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability									
Service cost	$ 92,336	$ 87,088	$ 80,591	$ 77,756	$ 78,041	$ 75,476	$ 68,239	$ 60,618	$ 56,752
Interest	311,929	300,698	306,791	296,876	287,375	276,412	265,440	249,064	237,821
Changes of benefit terms	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	(8,505)	8,366	(20,732)	(23,495)	(27,939)	(10,749)	(8,093)	2,209	9,347
Changes of assumptions	-	-	51,813	-	-	-	-	171,325	-
Benefit payments, including refunds of member contributions	(251,847)	(241,128)	(230,851)	(221,228)	(207,979)	(196,516)	(185,969)	(172,239)	(162,259)
Net change in total pension liability	143,913	155,024	187,612	129,909	129,498	144,623	139,617	310,977	141,661
Total pension liability - beginning	4,336,060	4,181,036	3,993,424	3,863,515	3,734,017	3,589,394	3,449,777	3,138,800	2,997,139
Total pension liability - ending (a)	$ 4,479,973	$ 4,336,060	$ 4,181,036	$3,993,424	$3,863,515	$3,734,017	$3,589,394	$ 3,449,777	$ 3,138,800
Plan fiduciary net position									
Contributions - employer	$ 100,331	$ 98,264	$ 93,032	$ 89,445	$ 86,676	$ 86,059	$ 82,840	$ 78,422	$ 62,355
Contributions - member	92,462	90,557	85,735	82,429	79,878	79,309	76,343	72,268	56,555
Contributions - purchased service credit	2,017	2,559	2,175	1,917	2,181	2,553	2,768	1,601	2,034
Contributions - other	25	126	159	159	194	236	45	172	48
Net investment income	(198,881)	684,173	86,206	135,043	211,345	266,688	8,239	73,205	294,246
Benefit payments, including refunds of member contributions	(251,847)	(241,128)	(230,851)	(221,228)	(207,979)	(196,516)	(185,969)	(172,239)	(162,259)
Administrative expenses	(2,592)	(2,678)	(2,095)	(2,251)	(2,129)	(2,173)	(1,852)	(1,923)	(1,586)
Net change in plan fiduciary net position	(258,485)	631,873	34,361	85,514	170,166	236,156	(17,586)	51,506	251,393
Plan fiduciary net position - beginning **	3,282,405	2,650,532	2,616,171	2,530,657	2,360,491	2,124,335	2,141,921	2,090,415	1,839,584
Plan fiduciary net position - ending (b)	$ 3,023,920	$ 3,282,405	$ 2,650,532	$2,616,171	$2,530,657	$2,360,491	$2,124,335	$ 2,141,921	$ 2,090,977
Plan's net pension liability - ending (a) - (b)	$ 1,456,053	$ 1,053,655	$ 1,530,504	$1,377,253	$1,332,858	$1,373,526	$1,465,059	$ 1,307,856	$ 1,047,823
Plan fiduciary net position as a percentage of the total pension liability	67.5%	75.7%	63.4%	65.5%	65.5%	63.2%	59.2%	62.1%	66.6%
Covered payroll	786,912	770,700	729,661	701,528	679,809	674,971	649,725	615,105	580,053
Plan's net pension liability as a percentage of covered payroll	185.0%	136.7%	209.8%	196.3%	196.1%	203.5%	225.5%	212.6%	180.6%

Notes to Schedule:

* *Complete data for this schedule is not available prior to 2014.*

** *Restated in 2015 due to GASB 68 implementation.*

Changes of assumptions:

In 2020, amounts reported as changes of assumptions resulted primarily from a decrease in the investment return assumption from 7.75% to 7.25%, the inflation assumption lowered from 2.75% to 2.30%, lower individual salary increases, and an updated mortality improvement scale.

In 2015, amounts reported as changes of assumptions resulted primarily from a decrease in the investment return assumption from 8% to 7.75% and an updated mortality improvement scale.

Schedule of Employer Contributions
North Dakota Teachers' Fund for Retirement
Last 10 Fiscal Years
(Dollars in thousands)

Fiscal Year	Actuarially determined contribution	Contributions in relation to the actuarially determined contribution	Contribution deficiency (excess)	Covered payroll	Contributions as a percentage of covered payroll
2013	52,396	59,301	(6,905)	551,656	10.75%
2014	59,513	62,355	(2,842)	580,053	10.75%
2015	71,168	78,422	(7,254)	615,105	12.75%
2016	84,724	82,840	1,884	649,725	12.75%
2017	89,231	86,059	3,172	674,971	12.75%
2018	88,307	86,676	1,631	679,809	12.75%
2019	90,778	89,445	1,333	701,528	12.75%
2020	93,688	93,032	656	729,661	12.75%
2021	101,655	98,264	3,391	770,700	12.75%
2022	97,341	100,331	(2,990)	786,912	12.75%

Notes to Schedule

Valuation Date: Actuarially determined contributions for each fiscal year are based on the actuarial valuation as of the beginning of the year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age
Amortization method	Level percentage of payroll, closed
Remaining amortization period	22 years
Asset valuation method	5-year smoothed market
Inflation	2.30%; decreased from 2.75% prior to 7/1/2020 and from 3% prior to 7/1/2015.
Salary increases	3.80% - 14.80% including inflation and productivity; 4.25% - 14.5% prior to 7/1/2020; 4.5% - 14.75% prior to 7/1/2015.
Investment rate of return	7.25%, net of investment expenses, including inflation; rate was decreased from 7.75% beginning 7/1/2020 and decreased from 8% beginning 7/1/2015.
Retirement age	In the 2020 and 2015 valuations, rates of retirement were changed to better reflect anticipated future experience.
Mortality	In the 2020 valuation, the PubT-2010 pre-retirement, retiree and contingent survivor tables were adopted and for disabled members, PubNS-2010 tables were adopted; all with generational improvement. In the 2015 valuation, assumed life expectancies were adjusted as a result of adopting the RP-2014 mortality tables with generational improvement. In prior years, those assumptions were based on percentages of GRS post termination non-disabled tables and RP-2000 disabled-life tables.

Schedule of Investment Returns
North Dakota Teachers' Fund for Retirement
Last 10 Fiscal Years

ANNUAL MONEY-WEIGHTED RATE OF RETURN, NET OF INVESTMENT EXPENSES

2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
-6.17%	26.36%	3.37%	5.46%	9.15%	12.81%	0.39%	3.56%	16.35%	13.60%

Schedule of Employer's Share of Net Pension and OPEB Liability
ND Public Employees Retirement System
Last 10 Fiscal Years*
(Dollars in thousands)

	2022	2021	2020	2019	2018	2017	2016	2015
RIO's proportion of NDPERS net pension liability (asset)	0.141582%	0.140747%	0.151523%	0.153507%	0.156317%	0.152969%	0.145546%	0.121849%
RIO's proportion of NDPERS net OPEB liability (asset)	0.132262%	0.122537%	0.141245%	0.144121%	0.147503%			
RIO's proportionate share of NDPERS net pension liability (asset)	$ 1,476	$ 4,428	$ 1,776	$ 2,591	$ 2,513	$ 1,491	$ 990	$ 773
RIO's proportionate share of NDPERS net OPEB liability (asset)	74	103	113	114	117			
RIO's covered payroll	$ 1,843	$ 1,631	$ 1,584	$ 1,567	$ 1,596	$ 1,507	$ 1,377	$ 1,026
RIO's proportionate share of NDPERS net pension liability (asset) as a percentage of its covered payroll	80.07%	271.49%	112.12%	165.35%	157.46%	98.94%	71.90%	75.34%
RIO's proportionate share of NDPERS net OPEB liability (asset) as a percentage of its covered payroll	3.99%	6.32%	7.16%	7.28%	7.31%			
NDPERS Plan fiduciary net position as a percentage of the total pension liability	78.26%	48.91%	71.66%	62.80%	61.98%	70.46%	77.15%	77.70%
NDPERS Plan fiduciary net position as a percentage of the total OPEB liability	76.63%	63.38%	63.13%	61.89%	59.78%			

*Complete data for this schedule is not available prior to 2015 for pension liability and prior to 2018 for OPEB liability. Amounts presented for each fiscal year have a measurement date of the previous fiscal year end.

Schedule of Employer Pension and OPEB Contributions
ND Public Employees Retirement System
Last 10 Years*
(Dollars in thousands)

	2022	2021	2020	2019	2018	2017	2016	2015	2014
RIO's Statutorily required pension contributions	$ 119	$ 131	$ 116	$ 113	$ 112	$ 114	$ 107	$ 98	$ 73
RIO's Statutorily required OPEB contributions	14	21	19	18	18	18			
RIO's pension contributions in relation to the statutory required contribution	119	131	116	113	112	114	107	98	73
RIO's OPEB contributions in relation to the statutory required contribution	14	21	19	18	18	18			
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
RIO's Covered payroll	$ 1,605	$ 1,843	$ 1,631	$ 1,584	$ 1,567	$ 1,596	$ 1,507	$ 1,377	$ 1,026
RIO's pension contributions as a percentage of covered payroll	7.40%	7.12%	7.12%	7.12%	7.12%	7.12%	7.12%	7.12%	7.12%
RIO's OPEB contributions as a percentage of covered payroll	0.86%	1.14%	1.14%	1.14%	1.14%	1.14%			

*Complete data for this schedule is not available prior to 2014 for pension contributions and 2017 for OPEB contributions.

	Pension Pool Participants					Insurance Pool Participants							
	Public Employees Retirement System	Bismarck City Employee Pension Plan	Bismarck City Police Pension Plan	City of Grand Forks Employee Pension Plan	City of Grand Forks Park District	Workforce Safety & Insurance	State Fire & Tornado	State Bonding	Petroleum Tank Release Comp. Fund	Insurance Regulatory Trust Fund	Cultural Endowment Fund	Risk Mgmt	Risk Mgmt Workers' Comp
Assets:													
Investments													
Global equities	$ 2,044,581,165	$ 54,068,002	$ 24,335,393	$ 43,438,740	$ 4,651,783	$ 359,575,291	$ 6,658,365	$ -	$ -	$ 1,992,041	$ 286,172	$ 1,198,102	$ 1,210,608
Global fixed income	868,738,258	39,810,797	13,776,796	17,459,588	2,162,240	1,285,439,321	10,322,911	1,953,494	2,891,608	2,297,999	191,731	2,534,023	1,949,701
Global real assets	757,923,432	24,126,885	9,808,915	11,125,247	1,759,010	382,377,020	-	-	-	-	27,252	-	-
Cash equivalents	19,927,319	328,054	135,700	749,456	27,274	18,018,760	1,912,242	1,631,998	2,971,279	2,323,270	15,191	199,087	96,868
Total investments	3,691,170,174	118,333,738	48,056,804	72,773,031	8,600,307	2,045,410,392	18,893,518	3,585,492	5,862,887	6,613,310	520,346	3,931,212	3,257,177
Invested sec lending collateral	23,611,778	607,376	234,184	451,062	109,769	16,670,350	154,226	22,829	33,533	38,078	3,885	36,368	29,282
Investment income receivable	8,576,476	249,978	97,275	105,566	16,084	9,954,019	138,890	24,060	52,847	7,983	218	48,718	4,490
Operating Cash	103,993	-	-	-	-	69,575	1,513	1,231	1,290	914	306	1,269	1,196
Miscellaneous receivable	6,957	-	-	-	-	3,790	38	7	11	6	1	8	6
Due from other state agencies	120	-	-	-	-	65	-	-	-	-	-	-	-
Total assets	3,723,469,498	119,191,092	48,388,263	73,329,659	8,726,160	2,072,108,191	19,188,185	3,633,619	5,950,568	6,660,291	524,756	4,017,575	3,292,151
Deferred outflows of resources													
Related to pensions	194,755	-	-	-	-	127,321	1,482	220	415	123	31	331	335
Liabilities:													
Investment expenses payable	1,642,440	54,744	20,882	27,377	4,013	701,857	5,170	1,114	1,675	1,038	52	834	536
Securities lending collateral	23,611,778	607,376	234,184	451,062	109,769	16,670,350	154,226	22,829	33,533	38,078	3,885	36,368	29,282
Accounts payable	64,182	-	-	-	-	34,959	343	59	96	52	9	69	56
Accrued expenses	174,730	-	-	-	-	143,917	2,336	268	613	75	32	541	544
Miscellaneous payable	-	6,442	2,627	3,969	477	-	-	-	-	-	-	-	-
Due to other state funds	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to other state agencies	1,751	-	-	-	-	954	9	2	3	1	-	2	2
Total liabilities	25,494,881	668,562	257,693	482,408	114,259	17,552,037	162,084	24,272	35,920	39,244	3,978	37,814	30,420
Deferred inflows of resources													
Related to pensions	$ 380,815	$ -	$ -	$ -	$ -	$ 220,986	$ 2,248	$ 385	$ 639	$ 278	$ 55	$ 461	$ 416
Fiduciary net position held in trust for external investment pool participants	$ 3,697,788,557	$ 118,522,530	$ 48,130,570	$ 72,847,251	$ 8,611,901	$ 2,054,462,489	$ 19,025,335	$ 3,609,182	$ 5,914,424	$ 6,620,892	$ 520,754	$ 3,979,631	$ 3,261,650
Each participant unit is valued at $ 1.00													
Participant units outstanding	3,697,788,557	118,522,530	48,130,570	72,847,251	8,611,901	2,054,462,489	19,025,335	3,609,182	5,914,424	6,620,892	520,754	3,979,631	3,261,650

Insurance Pool Participants										Individual Investment Accounts					
ND Veterans' Cemetery Trust Fund	ND Ass'n. of Counties Fund	PERS Group Insurance	Budget Stabilization Fund	City of Bismarck Deferred Sick Leave	City of Fargo FargoDome Fund	State Board of Medicine	Lewis & Clark Interpretive Center Endowment	Attorney General Settlement Fund	ND University System Capital Building Fund	Legacy Fund	Job Service of North Dakota	Tobacco Prevention and Control Fund	PERS Retiree Health Credit Fund	Totals 2022	Totals 2021
$210,764	$2,385,056	$ -	$ -	$223,841	$20,061,206	$742,835	$279,262	$ -	$ -	$3,697,184,218	$17,152,361	$ -	$96,887,675	$ 6,377,122,880	$ 7,923,977,037
145,915	4,205,797	30,368,921	708,843,835	482,692	15,520,887	1,828,932	508,769	2,923,408	1,587,036	2,832,397,072	68,585,665	-	54,944,364	5,971,871,760	6,287,302,991
64,286	-	-	-	-	3,996,646	172,808	-	-	-	1,332,674,424	-	-	-	2,524,055,925	2,261,103,560
1,028	205,353	1,635,593	5,453,484	36,988	401,836	4,769	8,651	29,718	15,459	57,057,326	518,444	-	498,576	114,203,723	253,103,896
421,993	6,796,206	32,004,514	714,297,319	743,521	39,980,575	2,749,344	796,682	2,953,126	1,602,495	7,919,313,040	86,256,470	-	152,330,615	14,987,254,288	16,725,487,484
2,688	61,478	400,681	9,351,304	6,691	301,656	25,076	7,334	38,415	20,846	75,405,933	-	-	-	127,624,822	75,402,097
191	3,503	129,271	3,375,438	1,670	51,412	792	213	2,414	575	29,167,627	199	-	532	52,010,441	50,014,693
-	-	-	23,482	-	-	-	-	-	-	221,403	-	-	-	426,172	463,338
-	-	-	1,254	-	-	-	-	-	-	14,538	-	-	-	26,616	24,181
-	-	-	22	-	-	-	-	-	-	250	-	-	-	457	-
424,872	6,861,187	32,534,466	727,048,819	751,882	40,333,643	2,775,212	804,229	2,993,955	1,623,916	8,024,122,791	86,256,669	-	152,331,147	15,167,342,796	16,851,391,793
-	-	-	20,047	-	-	-	-	-	-	381,411	-	-	-	726,471	1,172,782
65	1,835	11,625	268,111	249	12,492	865	243	1,074	594	1,899,130	77,147	-	127,433	4,862,595	11,428,225
2,688	61,478	400,681	9,351,304	6,691	301,656	25,076	7,334	38,415	20,846	75,405,933	-	-	-	127,624,822	75,402,097
-	-	-	11,567	-	-	-	-	-	-	134,123	-	-	-	245,515	269,770
-	-	-	5,003	-	-	-	-	-	-	196,191	-	-	-	524,250	2,061,222
176	377	1,655	-	250	2,360	250	250	250	250	-	4,608	-	8,796	32,737	28,999
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	871,687,384
-	-	-	316	-	-	-	-	-	-	3,658	-	-	-	6,698	3,917
2,929	63,690	413,961	9,636,301	7,190	316,508	26,191	7,827	39,739	21,690	77,639,035	81,755	-	136,229	133,296,617	960,881,614
$ -	$ -	$ -	$73,340	$ -	$ -	$ -	$ -	$ -	$ -	$785,675	$ -	$ -	$ -	1,465,298	326,334
$ 421,943	$ 6,797,497	$ 32,120,505	$ 717,359,225	$ 744,692	$ 40,017,135	$ 2,749,021	$ 796,402	$ 2,954,216	$ 1,602,226	$ 7,946,079,492	$ 86,174,914	$ -	$ 152,194,918	$ 15,033,307,352	$ 15,891,356,627
421,943	6,797,497	32,120,505	717,359,225	744,692	40,017,135	2,749,021	796,402	2,954,216	1,602,226	7,946,079,492	86,174,914	-	152,194,918	15,033,307,352	15,891,356,627

	Pension Pool Participants					Insurance Pool Participants							
	Public Employees Retirement System	Bismarck City Employee Pension Plan	Bismarck City Police Pension Plan	City of Grand Forks Employee Pension Plan	City of Grand Forks Park District Pension Plan	Workforce Safety & Insurance	State Fire & Tornado	State Bonding	Petroleum Tank Release Comp. Fund	Insurance Regulatory Trust Fund	Cultural Endowment Fund	Risk Mgmt	Risk Mgmt Workers' Comp
Additions:													
Investment income:													
Net change in fair value of investments	$ (323,796,192)	$ (9,403,637)	$ (3,823,204)	$ (6,972,005)	$ (884,269)	$ (248,699,445)	$ (2,854,462)	$ (288,730)	$ (425,612)	$ (412,257)	$ (72,271)	$ (537,354)	$ (413,820)
Interest, dividends and other income	70,542,585	2,377,750	935,524	1,390,817	220,803	48,570,716	426,106	51,932	80,952	53,618	11,009	87,650	74,634
	(253,253,607)	(7,025,887)	(2,887,680)	(5,581,188)	(663,466)	(200,128,729)	(2,428,356)	(236,798)	(344,660)	(358,639)	(61,262)	(449,704)	(339,186)
Less investment expenses	9,133,872	300,443	122,917	178,403	24,857	3,887,300	34,285	3,022	4,479	4,252	1,165	6,118	5,277
Net investment income	(262,387,479)	(7,326,330)	(3,010,597)	(5,759,591)	(688,323)	(204,016,029)	(2,462,641)	(239,820)	(349,139)	(362,891)	(62,427)	(455,822)	(344,463)
Securities lending activity:													
Securities lending income	167,467	4,721	1,916	3,568	526	83,573	950	62	92	151	27	124	110
Less Securities lending expenses	(33,473)	(943)	(383)	(712)	(105)	(16,701)	(190)	(14)	(18)	(31)	(3)	(26)	(22)
Net securities lending income	133,994	3,778	1,533	2,856	421	66,872	760	48	74	120	24	98	88
Purchase of units ($ 1 per unit)	-	-	-	4,530,940	419,156	4,000,000	5,560,313	-	-	5,891,765	-	500,000	1,000,000
Total Additions	(262,253,485)	(7,322,552)	(3,009,064)	(1,225,795)	(268,746)	(199,949,157)	3,098,432	(239,772)	(349,065)	5,528,994	(62,403)	44,276	655,625
Deductions:													
Administrative Expenses	528,044	-	-	-	-	285,779	2,898	981	1,078	984	903	985	982
Redemption of units ($ 1 per unit)	61,305,000	2,500,000	750,000	7,640,482	485,665	55,000,000	6,870,000	-	-	6,040,098	28,000	450,000	1,700,000
Total Deductions	61,833,044	2,500,000	750,000	7,640,482	485,665	55,285,779	6,872,898	981	1,078	6,041,082	28,903	450,985	1,700,982
Change in fiduciary net position	(324,086,529)	(9,822,552)	(3,759,064)	(8,866,277)	(754,411)	(255,234,936)	(3,774,466)	(240,753)	(350,143)	(512,088)	(91,306)	(406,709)	(1,045,357)
Fiduciary net position:													
Beginning of year	4,021,875,086	128,345,082	51,889,634	81,713,528	9,366,312	2,309,697,425	22,799,801	3,849,935	6,264,567	7,132,980	612,060	4,386,340	4,307,007
End of year	$ 3,697,788,557	$ 118,522,530	$ 48,130,570	$ 72,847,251	$ 8,611,901	$ 2,054,462,489	$ 19,025,335	$ 3,609,182	$ 5,914,424	$ 6,620,892	$ 520,754	$ 3,979,631	$ 3,261,650

Insurance Pool Participants										Individual Investment Accounts					
ND Veterans' Cemetery Trust Fund	ND Ass'n of Counties Fund	PERS Group Insurance	Budget Stabilization Fund	City of Bismarck Deferred Sick Leave	City of Fargo FargoDome Fund	State Board of Medicine	Lewis & Clark Interpretive Center Endowment	Attorney General Settlement Fund	ND University System Capital Building Fund	Legacy Fund	Job Service of North Dakota	Tobacco Prevention and Control Fund	PERS Retiree Health Credit Fund	Totals 2022	Totals 2021
$ (64,213)	$ (1,077,670)	$ (2,420,582)	$ (58,320,756)	$ (114,900)	$ (6,685,193)	$ (383,821)	$ (132,758)	$ (266,261)	$ (196,129)	$ (1,016,618,213)	$ (7,105,726)	$ -	$ (30,112,037)	$ (1,722,081,517)	$ 2,618,257,668
8,106	147,667	765,365	17,633,373	17,212	895,252	59,680	17,079	69,492	32,740	157,328,175	1,862,254	-	3,885,504	307,545,995	282,043,704
(56,107)	(930,003)	(1,655,217)	(40,687,383)	(97,688)	(5,789,941)	(324,141)	(115,679)	(196,769)	(163,389)	(859,290,038)	(5,243,472)	-	(26,226,533)	(1,414,535,522)	2,900,301,372
1,569	13,148	42,310	907,591	2,312	104,325	6,339	2,488	4,950	2,539	16,515,006	308,015	-	537,631	32,154,613	39,305,773
(57,676)	(943,151)	(1,697,527)	(41,594,974)	(100,000)	(5,894,266)	(330,480)	(118,167)	(201,719)	(165,928)	(875,805,044)	(5,551,487)	-	(26,764,164)	(1,446,690,135)	2,860,995,599
26	343	1,342	31,419	36	2,543	131	45	124	66	507,628	-	-	-	806,990	1,002,370
(4)	(68)	(267)	(6,279)	(10)	(508)	(26)	(12)	(25)	(13)	(101,477)	-	-	-	(161,310)	(200,426)
22	275	1,075	25,140	26	2,035	105	33	99	53	406,151	-	-	-	645,680	801,944
99,000	-	168,170,000	9,646,249	-	-	300,000	-	2,829,692	3,340,902	707,344,657	-	-	5,076,000	918,708,674	635,230,202
41,346	(942,876)	166,473,548	(31,923,585)	(99,974)	(5,892,231)	(30,375)	(118,134)	2,628,072	3,175,027	(168,054,236)	(5,551,487)	-	(21,688,164)	(527,335,781)	3,497,027,745
-	-	-	91,938	-	-	-	-	-	-	1,068,453	-	-	-	1,983,025	2,158,611
-	-	168,900,000	-	-	3,800,000	-	-	598,392	1,572,801	-	4,864,873	158	6,225,000	328,730,469	1,266,579,693
-	-	168,900,000	91,938	-	3,800,000	-	-	598,392	1,572,801	1,068,453	4,864,873	158	6,225,000	330,713,494	1,268,738,304
41,346	(942,876)	(2,426,452)	(32,015,523)	(99,974)	(9,692,231)	(30,375)	(118,134)	2,029,680	1,602,226	(169,122,689)	(10,416,360)	(158)	(27,913,164)	(858,049,275)	2,228,289,441
380,597	7,740,373	34,546,957	749,374,748	844,666	49,709,366	2,779,396	914,536	924,536	-	8,115,202,181	96,591,274	158	180,108,082	15,891,356,627	13,663,067,186
$ 421,943	$ 6,797,497	$ 32,120,505	$ 717,359,225	$ 744,692	$ 40,017,135	$ 2,749,021	$ 796,402	$ 2,954,216	$ 1,602,226	$ 7,946,079,492	$ 86,174,914	$ -	$ 152,194,918	$ 15,033,307,352	$ 15,891,356,627

	Pension Trust		Investment Trust	
	2022	2021	2022	2021
Salaries and wages:				
Salaries and wages	$ 715,193	$ 853,912	$ 1,029,330	$ 1,039,581
Fringe benefits	266,732	705,235	345,578	619,462
Total salaries and wages	981,926	1,559,147	1,374,908	1,659,043
Operating expenses:				
Travel	11,262	2,096	33,400	4,096
Supplies	2,868	1,542	2,205	1,146
Postage and Mailing Services	23,141	28,162	2,684	17,341
Printing	7,278	7,633	377	3,201
Small Office Equipment and Furniture	411	9,853	229	7,356
Insurance	627	523	565	371
Rent/Lease of Building Space	60,273	52,129	48,998	36,236
Repairs	343	167	311	118
Information Technology and Communications	264,661	96,712	82,068	23,356
IT Contractual Services	467,134	142,172	524,942	521,165
Professional Development	14,024	10,294	6,683	5,219
Operating Fees and Services	21,318	16,260	36,827	21,904
Professional Fees and Services	23,456	8,498	82,485	13,042
Consultant Services	433,910	500,192	64,702	86,212
Total operating expenses	1,330,706	876,233	886,476	740,763
Pension trust portion of investment program expenses	278,358	241,195	(278,358)	(241,195)
Depreciation	1,350	1,800	-	-
Total administrative expenses	2,592,340	2,678,375	1,983,025	2,158,611
Capital assets purchased	680,999	-	-	-
Less - nonappropriated items:				
Consultant Services	235,531	203,496	64,702	86,212
Other operating fees paid under continuing appropriation	112,952	113,534	542,265	563,229
Depreciation	1,350	1,800	-	-
Retainage Payable	29,876	-	-	-
Accrual adjustments to employee benefits	6,799	365,693	33,727	292,285
Total nonappropriated items	386,508	684,523	640,694	941,726
Total appropriated administrative expenses	$ 2,886,831	$ 1,993,852	$ 1,342,332	$ 1,216,885

The accompanying notes are an integral part of these statements.

	Pension Trust		Investment Trust	
	2022	2021	2022	2021
Actuary fees:				
Segal Consulting	$ 122,505	$ 93,241	$ -	$ -
Auditing/Accounting fees:				
CliftonLarsonAllen LLP	84,999	77,659	22,460	13,855
Project management fees:				
Segal Consulting	185,909	292,258	-	-
Disability consulting fees:				
Sanford Health	150	-	-	-
Legal fees:				
K&L Gates LLP	10,649	13,246	13,936	18,013
Jackson Walker LLP	9,204	7,099	15,487	37,641
ND Attorney General	20,494	16,689	12,819	16,703
Total legal fees:	40,347	37,034	42,242	72,357
Total consultant expenses	$ 433,910	$ 500,192	$ 64,702	$ 86,212

	Pension Trust		Investment Trust	
	2022	2021	2022	2021
Investment managers' fees:				
Global equity managers	$ 1,082,859	$ 1,474,059	$ 1,482,461	$ 1,909,859
Domestic large cap equity managers	621,946	1,485,841	3,258,391	8,783,440
Domestic small cap equity managers	925,653	894,545	5,993,667	5,898,203
International equity managers	1,068,362	944,488	8,552,582	8,403,141
Emerging markets equity managers	485,198	883,349	810,411	1,453,717
Domestic fixed income managers	1,586,971	1,981,147	14,784,472	17,676,932
Below investment grade fixed income managers	3,376,915	4,089,829	4,759,365	5,641,515
Diversified real assets managers	-	-	17,487,844	15,015,782
Real estate managers	3,001,837	4,038,160	7,053,553	7,851,454
Infrastructure managers	5,365,053	5,179,679	7,152,670	6,891,614
Timber managers	296,841	334,301	360,769	406,296
Private equity managers	4,099,850	7,231,329	6,142,169	8,838,471
Short term fixed income managers	-	-	867,223	880,375
Cash & equivalents managers	29,166	25,059	172,683	177,118
Balanced account managers	-	-	1,173,541	1,129,687
Total investment managers' fees	$ 21,940,651	$ 28,561,786	$ 80,051,801	$ 90,957,604
Custodian fees	268,454	249,724	1,329,330	1,419,325
Investment consultant fees	109,610	169,820	460,346	725,789
SIB Service Fees	-	-	81,809	78,284
Total investment expenses	$ 22,318,715	$ 28,981,330	$ 81,923,286	$ 93,181,002

Reconciliation of investment expenses to financial statements

	2022	2021	2022	2021
Investment expenses as reflected in the financial statements	$ 6,924,716	$ 8,388,601	$ 32,154,613	$ 39,305,773
Plus investment management fees included in investment income				
Domestic large cap equity managers	298,153	527,679	1,728,963	2,018,196
Domestic small cap equity managers	-	-	-	-
International equity managers	362,238	191,418	2,790,698	2,044,266
Emerging markets equity managers	152,835	178,302	254,438	294,471
Domestic fixed income managers	832,128	1,253,598	8,925,752	11,860,842
Below investment grade fixed income managers	2,980,786	3,692,447	4,296,493	5,171,706
Diversified real assets managers	-	-	15,829,379	12,818,627
Real estate managers	1,342,660	2,622,180	2,199,487	3,834,000
Infrastructure managers	5,028,508	4,561,475	6,703,285	6,071,866
Timber managers	296,841	334,301	360,769	406,296
Private equity managers	4,099,850	7,231,329	6,142,169	8,838,471
Cash equivalents managers	-	-	155,167	152,877
Balanced account managers	-	-	382,073	363,611
Investment expenses per schedule	$ 22,318,715	$ 28,981,330	$ 81,923,286	$ 93,181,002

	Approved 2021-2023 Appropriation	2021-2023 Appropriation Adjustment	Adjusted 2021-2023 Appropriation	Fiscal 2022 Expenses	Unexpended Appropriations
All Fund Types:					
Salaries and wages	$ 5,053,977	$ 1,781,862	$ 6,835,839	$ 2,316,308	$ 4,519,531
Operating expenses	1,248,528	2,393,875	3,642,403	897,298	2,745,105
Capital Assets	-	6,300,000	6,300,000	934,913	5,365,088
Contingency	100,000	-	100,000	80,645	19,355
Total	$ 6,402,505	$ 10,475,737	$ 16,878,242	$ 4,229,163	$ 12,649,079

NOTE: *Only those expenses for which there are appropriations are included in this statement.*

Reconciliation of Administrative Expenses to Appropriated Expenditures

	2022
Administrative expenses as reflected in the financial statements	$ 4,575,365
Plus:	
Capitalized software purchases - appropriated	680,999
Less appropriated accrual expense	
Retainage Payable	(29,876)
Less expenses paid under continuing appropriation:	
Consulting Services*	(300,233)
Other operating fees paid under continuing appropriations*	(655,217)
Depreciation expense	(1,349)
Changes in benefit accrual amounts	(40,526)
Total appropriated expenses	$ 4,229,164

* North Dakota Century Code 21-10-06.2 and 15-39.1-05.2 provide authorization for the continuing appropriation.

Special Comments Requested by the Legislative Audit
and Fiscal Review Committee
Year Ended June 30, 2022

The Legislative Audit and Fiscal Review Committee requires that certain items be addressed by auditors performing audits of state agencies. These items and our responses are as follows:

Audit Report Communications

1. What type of opinion was issued on the financial statements?

Unmodified

2. Was there compliance with statutes, laws, rules, regulations under which the agency was created and is functioning?

Yes

3. Was internal control adequate and functioning effectively?

Yes, we did not identify a control deficiency required to be reported by professional standards.

4. Were there any indications of lack of efficiency in financial operations and management of the agency?

No

5. Has action been taken on findings and recommendations included in prior year reports?

There were no prior year findings or recommendations.

6. Was a management letter issued? If so, provide a summary below, including any recommendations and the management response.

No

Audit Committee Communications

1. Identify any significant changes in accounting policies, any management conflicts of interest, any contingent liabilities, or any significant unusual transactions.

   For the year ended June 30, 2022, no new accounting policies were adopted and the application of existing policies was not changed.

2. Identify any significant accounting estimates, the process used by management to formulate the accounting estimates, and the basis for the auditor's conclusions regarding the reasonableness of those estimates.

   The valuation of alternative investments, including private equity and real asset investments, are a management estimate which is primarily based upon net asset values reported by the investment managers and comprise 18% of the total investment portfolio. The values for these investments are reported based upon the most recent financial data available and are adjusted for cash flows through June 30, 2022. Our audit procedures validated this approach through the use of confirmations sent directly to a sample of investment managers and the review of the most recent audited financial statements for these funds. Furthermore, we reviewed management's estimate and found it to be reasonable.

   The actuarial valuation was based on the actuarial assumptions and methods adopted by the Board, including an actuarial expected investment rate of return of 7.25% per annum compounded annually. The valuation takes into account all of the promised benefits to which members are entitled as of July 1, 2022 as required by the North Dakota Century Code. The valuation provides certain information required by GASB to be disclosed in the financial statements. Additionally, the valuation is used to determine the adequacy of the current employer contribution rate. Our audit procedures included reviewing the actuarial valuation and related assumptions used therein and we believe the estimate to be reasonable.

3. Identify any significant audit adjustments.

   None

4. Identify any disagreements with management, whether or not resolved to the auditor's satisfaction, relating to financial accounting, reporting, or auditing matters that could be significant to the financial statements.

   None

5. Identify any significant difficulties encountered in performing the audit.

   None

6. Identify any major issues discussed with management prior to retention.

   None

7. Identify any management consultations with other accounts about auditing and accounting matters.

None

8. Identify any high-risk information technology systems critical to operations based on the auditor's overall assessment of the importance of the system to the agency and its mission or whether any exceptions identified in the six audit report questions addressed above are directly related to the operations of an information technology system.

Based on the audit procedures performed, the Retirement and Investment Office's critical information technology system is the CPAS system. There were no exceptions identified that were directly related to this application.

This report is intended solely for the information and use of the audit committee, management, the Legislative Audit and Fiscal Review Committee, and other state officials, and is not intended to be and should not be used by anyone other than these specified parties.

CliftonLarsonAllen LLP

Baltimore, Maryland
November 2, 2022