

**NORTH DAKOTA RETIREMENT
AND INVESTMENT OFFICE
Bismarck, ND**

**FINANCIAL STATEMENTS
June 30, 2018 and 2017**

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INDEPENDENT AUDITORS' REPORT

Governor Doug Burgum
The Legislative Assembly
David Hunter, Executive Director/CIO
State Investment Board
Teachers' Fund for Retirement Board
North Dakota Retirement and Investment Office

Report on the Financial Statements

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, 2018 and 2017, 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, 2018 and 2017, as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

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

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

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of RIO as of June 30, 2018 and 2017, 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 financial position of each of the individual funds of RIO as of June 30, 2018 and 2017, and the results of 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, 2018 and 2017, 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.

Other Matters

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 Net Pension and OPEB Liability – ND Public Employees Retirement System and employer pension and OPEB 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, 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 auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the 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.

Other 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, 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.

These schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such 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 auditing standards generally accepted in the United States of America. In our opinion, the information is 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 October 31, 2018, 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.

A handwritten signature in cursive script that reads "CliftonLarsonAllen LLP".

CliftonLarsonAllen LLP

Baltimore, Maryland
October 31, 2018

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
David Hunter, Executive Director/CIO
State Investment Board
Teacher's 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 basic financial statements of the North Dakota Retirement and Investment Office (RIO), a department of the State of North Dakota, which collectively comprise RIO's basic financial statements, and the combining and individual fund financial statements, as of and for the year ended June 30, 2018, and the related notes to the financial statements, and have issued our report thereon dated October 31, 2018.

Internal Control over Financial Reporting

Management of RIO is responsible for establishing and maintaining effective internal control over financial reporting. In planning and performing our audit, we considered RIO's internal control over financial reporting as a basis for designing our auditing procedures 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 over financial reporting. Accordingly, we do not express an opinion on the effectiveness of RIO's internal control over financial reporting.

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.

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 determination of financial statement amounts. 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 result 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.

A handwritten signature in cursive script that reads "CliftonLarsonAllen LLP".

CliftonLarsonAllen LLP

Baltimore, Maryland
October 31, 2018

North Dakota Retirement and Investment Office

Management's Discussion and Analysis

June 30, 2018 and 2017

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, 2018 and 2017. Please read it 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 23 investment clients in two investment pools and four individual investment accounts.

Financial Highlights

Total net position increased from the previous fiscal year in the fiduciary funds by \$1.5 billion (11.8%) and \$972 million (8.6%) in FY2018 and FY2017, respectively. Approximately 61% of the FY2018 increase and 90% of the FY2017 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 \$529.9 million and \$399.5 million and net investment income exceeded \$361 million and \$480 million in FY2018 and FY2017, respectively.

Total additions in the fiduciary funds for FY2018 decreased by \$78.1 (3.7%) and increased over \$1 billion (93.3%) in FY2017. Net investment income decreased by \$302 million in FY2018 after rising by \$1.1 billion in FY2017, due to stronger financial markets in FY2017 over FY2018. There was an increase in new purchases of units in the investment program in FY2018 due to stronger oil and gas tax collections affecting the Legacy Fund and the Budget Stabilization Fund after a decrease in FY2017. Total fiduciary fund purchases of units increased \$223.2 million (34.4%) in FY2018 after decreasing by \$115.1 million (15.1%) in FY2017.

Deductions in the fiduciary funds decreased by \$562.8 million (50.7%) in FY2018 after increasing the prior year by \$656.4 million (144.5%). The vast majority of the large swing between fiscal years was due to the drawdown of \$572.5 million from the Budget Stabilization Fund in FY2017 to cover the State's income shortfall during the 2015-17 biennium. Payments to TFFR members in the form of benefits and refunds increased by \$11.5 million (5.8%) and \$10.5 million (5.7%) in FY2018 and FY2017, 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, 2018 and 2017, the TFFR pension plan had a Net Pension Liability (NPL) of \$1.33 billion and \$1.37 billion, and Plan Fiduciary Net Position as a percent of Total Pension Liability (TPL) of 65.5% and 63.2%, 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, 2018 and 2017, were \$13.8 billion and \$12.4 billion, respectively, and were comprised mainly of investments. Total assets increased by \$1.4 billion (11.5%) and \$932.2 million (8.1%) from each prior year primarily due to strong financial markets.

Total liabilities as of June 30, 2018 and 2017, were \$54.7 million and \$87.2 million. The majority of the liabilities were comprised of the securities lending collateral payable. Total liabilities decreased by \$32.5 million (37.3%) and \$39.6 million (31.2%) from each prior year due almost entirely to the decrease in securities lending collateral as a result of having fewer securities on loan at year-end.

RIO's fiduciary fund total net position was \$13.8 billion and \$12.3 billion at the close of fiscal years 2018 and 2017, respectively.

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

	<u>2018</u>	<u>2017</u>	<u>Total % Change</u>
Assets			
Investments	\$ 13,696.7	\$ 12,251.5	11.8%
Securities Lending Collateral	48.1	77.7	-38.0%
Receivables	75.2	69.0	9.1%
Cash & Other	20.9	19.3	8.1%
Total Assets	<u>13,840.9</u>	<u>12,417.5</u>	11.5%
Deferred Outflows of Resources			
Deferred outflows related to pensions	<u>1.4</u>	<u>0.6</u>	113.3%
Liabilities			
Obligations under Securities Lending	48.1	77.7	-38.0%
Accounts Payable & Accrued Expenses	<u>6.6</u>	<u>9.5</u>	-30.9%
Total Liabilities	<u>54.7</u>	<u>87.2</u>	-37.3%
Deferred Inflows of Resources			
Deferred inflows related to pensions	<u>0.1</u>	<u>0.1</u>	-13.0%
Total Net Position	<u>\$ 13,787.5</u>	<u>\$ 12,330.8</u>	11.8%

North Dakota Retirement and Investment Office
Management's Discussion and Analysis
June 30, 2018 and 2017

	<u>2017</u>	<u>2016</u>	<u>Total % Change</u>
Assets			
Investments	\$ 12,251.5	\$ 11,278.3	8.6%
Sec Lending Collateral	77.7	116.6	-33.4%
Receivables	69.0	70.5	-2.2%
Cash & Other	19.3	19.9	-2.9%
Total Assets	<u>12,417.5</u>	<u>11,485.3</u>	8.1%
Deferred Outflows of Resources			
Deferred outflows related to pensions	<u>0.6</u>	<u>0.3</u>	126.0%
Liabilities			
Obligations under Securities Lending	77.7	116.6	-33.4%
Accounts Payable & Accrued Expenses	<u>9.5</u>	<u>10.1</u>	-5.5%
Total Liabilities	<u>87.2</u>	<u>126.7</u>	-31.2%
Deferred Inflows of Resources			
Deferred inflows related to pensions	<u>0.1</u>	<u>0.1</u>	-21.9%
Total Net Position	<u>\$ 12,330.8</u>	<u>\$ 11,358.8</u>	8.6%

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

	<u>2018</u>	<u>2017</u>	<u>Total % Change</u>
Additions:			
Contributions	\$ 168.9	\$ 168.1	0.5%
Net Investment Income	963.2	1,265.3	-23.9%
Net Securities Lending Income	1.3	1.2	5.5%
Purchase of Units	<u>871.3</u>	<u>648.1</u>	34.4%
Total Additions	<u>2,004.7</u>	<u>2,082.7</u>	-3.7%
Deductions:			
Payments to TFFR members	208.0	196.5	5.8%
Administrative Expenses	3.8	3.5	9.3%
Redemption of Units	<u>336.2</u>	<u>910.7</u>	-63.1%
Total Deductions	<u>548.0</u>	<u>1,110.7</u>	-50.7%
Total Change in Net Position	<u>\$ 1,456.7</u>	<u>\$ 972.0</u>	49.9%

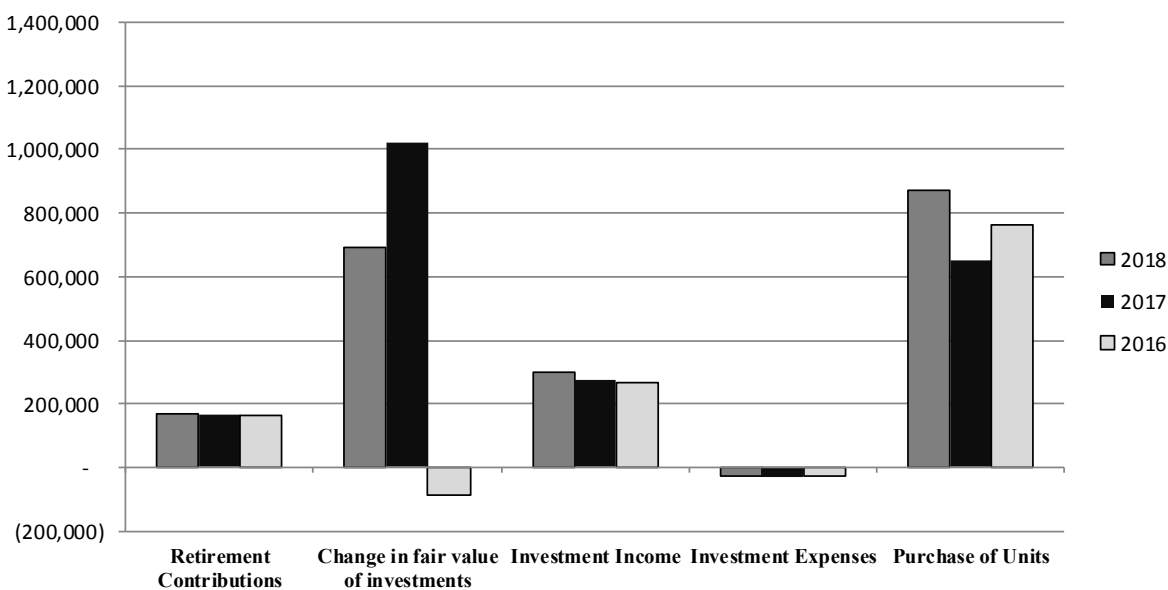
North Dakota Retirement and Investment Office
Management's Discussion and Analysis
June 30, 2018 and 2017

	<u>2017</u>	<u>2016</u>	<u>Total % Change</u>
Additions:			
Contributions	\$ 168.1	\$ 162.0	3.8%
Net Investment Income	1,265.3	151.0	738.1%
Net Securities Lending Income	1.2	1.4	-16.1%
Purchase of Units	648.1	763.2	-15.1%
Total Additions	<u>2,082.7</u>	<u>1,077.6</u>	93.3%
Deductions:			
Payments to TFFR members	196.5	186.0	5.7%
Administrative Expenses	3.5	2.9	19.1%
Redemption of Units	910.7	265.4	243.1%
Total Deductions	<u>1,110.7</u>	<u>454.3</u>	144.5%
Total Change in Net Position	<u>\$ 972.0</u>	<u>\$ 623.3</u>	56.0%

Statement of Changes in Net Position – Additions

Contributions collected by the pension trust fund increased by \$0.8 million (0.5%) and \$6.1 million (3.8%) 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 \$302 million (23.8%) in FY2018 and increased by \$1.1 billion or 731% in FY2017. This was the result of stronger financial markets in FY2017 versus FY2018. Deposits of funds into the investment trust fund (purchase of units) decreased by \$115.1 million (15.1%) in FY2017 partially due to lower oil and gas tax collections affecting the Legacy Fund; but rebounded slightly in FY2018, resulting in an increase of \$223.2 million (34.45%) over FY2017 deposits.

**Additions to Net Position
(in thousands)**



Statement of Changes in Net Position – Deductions

Benefits paid to TFFR plan participants, including partial lump-sum distributions, increased by \$11.3 million (5.9%) and \$10.5 million (5.7%) in FY2018 and FY2017, 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 upon. Refunds increased by nearly \$150,000 (2.8%) in fiscal year 2018 and by approximately \$61,000 (1.1%) in fiscal year 2017.

Administrative expenses increased by nearly \$322,000 in fiscal year 2018 and nearly \$559,000 in fiscal year 2017. This increase was mainly due to an increase in IT contractual services, including the addition of investment risk analysis/monitoring software in the second half of the fiscal year 2017 (a full year in fiscal year 2018), the payment of the biennial retirement administration software maintenance fee in FY2017; and an increase in pension expense each year due to RIO's participation in the NDPERS pension plan.

The redemption of units in the investment trust funds decreased in FY2018 by \$574.5 million and increased in FY2017 by \$645.3 million due almost entirely to the FY2017 drawdown of \$572.5 million in the Budget Stabilization Fund to cover the State's income shortfall during the 2015-17 biennium.

**Deductions from Net Position
(in thousands)**



Conclusion

For the fiscal year ended June 30, 2018, the pension investment pool and the Legacy Fund generated net time weighted investment returns of 9.1% and 7.5%, respectively, surpassing their respective policy benchmarks. The TFFR pension plan generated a net time weighted return of 9.1%, also exceeding its policy benchmark. The insurance investment pool also performed well and achieved a net time weighted return of 5.2% last year. Investment returns exceeded long-term expectations in fiscal 2018 due to the continued strength of the equity markets particularly in the United States. Investment performance benefited from favorable U.S. income tax policy developments which bolstered revenues, margins and capital spending. Global equities earned over 12.3% within the pension trust with the U.S. equity portfolio (up 16.4%) significantly outpacing international equity returns (up 10.1%). Fixed income results were also strong in the U.S. where investment grade debt earned 1.6% and non-investment grade debt earned over 5.1% in FY18 within the pension trust, noting that international debt strategies were largely eliminated during the past year. Real asset performance was mixed with generally strong, above

North Dakota Retirement and Investment Office

Management's Discussion and Analysis

June 30, 2018 and 2017

benchmark returns posted in real estate and infrastructure (both up over 7%), while our timber portfolio lost 2.5% within the pension trust last year. Private equity returns were also disappointing within the pension trust earning slightly over 5.25% the 1-year ended June 30, 2018.

For the fiscal year ended June 30, 2017, the pension investment pool and the Legacy Fund generated net time weighted investment returns of 12.9% and 12.0%, respectively, surpassing their respective policy benchmarks. The TFFR pension plan generated a net time weighted return of 12.9%, also exceeding its policy benchmark. The insurance investment pool also performed well and achieved a net time weighted return of 7.8% last year. Investment returns exceeded long-term expectations in fiscal 2017 due to the surprising strength and resilience of the global financial markets. Investment performance benefitted from relatively low volatility throughout most of last year despite increasing concerns over geopolitical risk in the U.S. and abroad. Global equities earned 19% overall with the pension international equity portfolio (up 21%) outperforming U.S. equity (up 17%). The story was reversed within fixed income, where U.S. centric debt strategies returned over 6% while international debt earned less than 1%. Real asset performance was mixed with strong, above benchmark returns posted in real estate and infrastructure (both up 9%), while our timber portfolio lost 9% in the last year. Private equity returned 11% for the 1-year ended June 30, 2017.

While cumulative returns in the post-credit crisis era have been strong, investors today face numerous challenges in the future that may limit the potential for high market returns and amplify investment risk. First, one could argue that many asset classes and strategies no longer offer compelling valuations for investors. Second, the ever-growing debt burden from unprecedented monetary policy and muted economic growth in a range of economies makes it less and less likely that authorities will be in a position to provide a cushion in a downturn when it occurs. Finally, the specter of the Federal Reserve continuing to raise short-term interest rates in the near future poses a challenge to certain asset classes and strategies to varying degrees. To meet this challenge, the State Investment Board will continue to research strategies and investment options that mitigate and diversify the sources of risk accepted to address funding issues in the challenging years ahead.

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.

TFFR's funding level increased from 63.7% to 65.4% on an actuarial basis (and from 63.2% to 65.5% on a market basis) from July 1, 2017 to July 1, 2018. Investment performance for FY2017 and FY2018, and for the previous five years, has been greater than expected, resulting in improvement in TFFR's funding status in 2017 and 2018. Over the long term, the plan's funding level is projected to gradually improve with full funding expected in approximately 30 years, if all actuarial assumptions are met in the future, including the 7.75% 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.

North Dakota Retirement and Investment Office
Statement of Net Position – Fiduciary Funds
June 30, 2018 and 2017

	Pension Trust		Investment Trust		Total	
	2018	2017	2018	2017	2018	2017
Assets:						
Investments, at fair value						
Global equities	\$ 1,441,132,463	1,352,547,367	\$ 5,205,817,256	\$ 4,684,388,027	\$ 6,646,949,719	\$ 6,036,935,394
Global fixed income	589,368,951	521,927,872	4,099,552,552	3,538,734,254	4,688,921,503	4,060,662,126
Global real assets	416,937,112	407,547,460	1,788,156,119	1,661,716,577	2,205,093,231	2,069,264,037
Cash equivalents	28,631,157	27,243,767	127,104,537	57,364,379	155,735,694	84,608,146
Total investments	<u>2,476,069,683</u>	<u>2,309,266,466</u>	<u>11,220,630,464</u>	<u>9,942,203,237</u>	<u>13,696,700,147</u>	<u>12,251,469,703</u>
Invested securities lending collateral	7,413,200	12,839,759	40,721,545	64,829,660	48,134,745	77,669,419
Receivables:						
Investment income	9,765,629	8,947,870	38,863,279	33,653,192	48,628,908	42,601,062
Contributions	26,548,463	26,326,188	-	-	26,548,463	26,326,188
Miscellaneous	8,127	7,398	28,001	21,368	36,128	28,766
Total receivables	<u>36,322,219</u>	<u>35,281,456</u>	<u>38,891,280</u>	<u>33,674,560</u>	<u>75,213,499</u>	<u>68,956,016</u>
Due from other state agency	174	36	-	14	174	50
Cash and cash equivalents	20,486,449	19,073,513	410,261	263,961	20,896,710	19,337,474
Equipment & Software (net of depr)	6,749	8,549	-	-	6,749	8,549
Total assets	<u>2,540,298,474</u>	<u>2,376,469,779</u>	<u>11,300,653,550</u>	<u>10,040,971,432</u>	<u>13,840,952,024</u>	<u>12,417,441,211</u>
Deferred outflows of resources						
Related to pensions	813,903	384,391	544,101	252,274	1,358,004	636,665
Liabilities:						
Accounts payable	126,480	191,738	136,431	201,551	262,911	393,289
Investment expenses payable	459,438	1,583,834	2,279,952	5,165,064	2,739,390	6,748,898
Securities lending collateral	7,413,200	12,839,759	40,721,545	64,829,660	48,134,745	77,669,419
Accrued expenses	2,395,362	1,685,809	1,111,661	644,911	3,507,023	2,330,720
Miscellaneous payable	-	-	34,655	16,983	34,655	16,983
Due to other state agencies	11,967	6,613	2,572	1,649	14,539	8,262
Total liabilities	<u>10,406,447</u>	<u>16,307,753</u>	<u>44,286,816</u>	<u>70,859,818</u>	<u>54,693,263</u>	<u>87,167,571</u>
Deferred inflows of resources						
Related to pensions	48,519	55,342	27,917	32,528	76,436	87,870
Net position:						
Restricted for pensions	2,530,657,411	2,360,491,075	-	-	2,530,657,411	2,360,491,075
Held in trust for external investment pool participants:						
Pension pool	-	-	3,233,154,948	2,978,824,123	3,233,154,948	2,978,824,123
Insurance pool	-	-	2,171,169,377	2,035,100,078	2,171,169,377	2,035,100,078
Held in trust for individual investment accounts	-	-	5,852,558,593	4,956,407,159	5,852,558,593	4,956,407,159
Total net position	<u>\$ 2,530,657,411</u>	<u>\$ 2,360,491,075</u>	<u>\$ 11,256,882,918</u>	<u>\$ 9,970,331,360</u>	<u>\$ 13,787,540,329</u>	<u>\$ 12,330,822,435</u>
Each participant unit is valued at \$1.00						
Participant units outstanding			<u>11,256,882,918</u>	<u>9,970,331,360</u>		

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

North Dakota Retirement and Investment Office
Statement of Changes in Net Position – Fiduciary Funds
June 30, 2018 and 2017

	Pension Trust		Investment Trust		Total	
	2018	2017	2018	2017	2018	2017
Additions:						
Contributions:						
Employer contributions	\$ 86,675,715	\$ 86,058,868	\$ -	\$ -	\$ 86,675,715	\$ 86,058,868
Member contributions	79,877,611	79,309,153	-	-	79,877,611	79,309,153
Purchased service credit	2,181,106	2,553,200	-	-	2,181,106	2,553,200
Interest, penalties and other	194,028	235,890	-	-	194,028	235,890
Total contributions	<u>168,928,460</u>	<u>168,157,111</u>	<u>-</u>	<u>-</u>	<u>168,928,460</u>	<u>168,157,111</u>
Investment income:						
Net change in fair value of investments						
value of investments	162,026,369	221,797,589	527,542,620	797,372,051	689,568,989	1,019,169,640
Interest, dividends and other income	54,486,768	50,718,890	246,166,774	224,483,911	300,653,542	275,202,801
	<u>216,513,137</u>	<u>272,516,479</u>	<u>773,709,394</u>	<u>1,021,855,962</u>	<u>990,222,531</u>	<u>1,294,372,441</u>
Less investment expenses	5,352,945	6,011,791	21,653,138	23,033,769	27,006,083	29,045,560
Net investment income	<u>211,160,192</u>	<u>266,504,688</u>	<u>752,056,256</u>	<u>998,822,193</u>	<u>963,216,448</u>	<u>1,265,326,881</u>
Securities lending activity:						
Securities lending income	231,448	229,936	1,334,400	1,254,228	1,565,848	1,484,164
Less securities lending expenses	(46,271)	(45,973)	(266,663)	(250,628)	(312,934)	(296,601)
Net securities lending income	<u>185,177</u>	<u>183,963</u>	<u>1,067,737</u>	<u>1,003,600</u>	<u>1,252,914</u>	<u>1,187,563</u>
Purchase of units (\$1 per unit)	-	-	871,266,337	648,096,361	871,266,337	648,096,361
Total additions	<u>380,273,829</u>	<u>434,845,762</u>	<u>1,624,390,330</u>	<u>1,647,922,154</u>	<u>2,004,664,159</u>	<u>2,082,767,916</u>
Deductions:						
Benefits paid to participants	201,648,202	190,029,141	-	-	201,648,202	190,029,141
Partial lump-sum distributions	768,829	1,075,553	-	-	768,829	1,075,553
Refunds	5,561,668	5,411,850	-	-	5,561,668	5,411,850
Administrative expenses	2,128,794	2,173,431	1,669,600	1,303,019	3,798,394	3,476,450
Redemption of units (\$1 per unit)	-	-	336,169,172	910,737,683	336,169,172	910,737,683
Total deductions	<u>210,107,493</u>	<u>198,689,975</u>	<u>337,838,772</u>	<u>912,040,702</u>	<u>547,946,265</u>	<u>1,110,730,677</u>
Change in net position	<u>170,166,336</u>	<u>236,155,787</u>	<u>1,286,551,558</u>	<u>735,881,452</u>	<u>1,456,717,894</u>	<u>972,037,239</u>
Net position:						
Beginning of year	<u>2,360,491,075</u>	<u>\$ 2,124,335,288</u>	<u>\$ 9,970,331,360</u>	<u>\$ 9,234,449,908</u>	<u>\$ 12,330,822,435</u>	<u>\$ 11,358,785,196</u>
End of Year	<u>\$ 2,530,657,411</u>	<u>\$ 2,360,491,075</u>	<u>\$ 11,256,882,918</u>	<u>\$ 9,970,331,360</u>	<u>\$ 13,787,540,329</u>	<u>\$ 12,330,822,435</u>

The accompanying notes are an integral part of these 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 Comprehensive Annual 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.

New Accounting Standards

In fiscal year 2018, RIO implemented GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, ("GASB 75"). The primary objective of this statement is to improve accounting and financial reporting by state and local governments for postemployment benefits other than pensions (other postemployment benefits or OPEB). Due to the immateriality of the amounts in relation to the previous year's financial statements, no prior period adjustments were made to fiscal year 2017 balances; rather, all financial transactions necessary to establish the liability and deferral balances were recorded in fiscal year 2018 only.

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 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. 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

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

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 and Budget Stabilization Fund are managed in the insurance pool. The Legacy Fund, Job Service of North Dakota, Tobacco Prevention and Control Fund, and PERS Retiree Health investments are managed by SIB in individual investment accounts; except for a small portion of the Legacy Fund fixed income assets that will remain pooled until they are liquidated at a future date and their cash allocation that will remain pooled for operational efficiency.

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

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

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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 the 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 it 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:

	<u>Years</u>
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

Most 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 U.S. 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, 2018 were deposited in the Bank of North Dakota. At June 30, 2018 and 2017, the carrying amount of TFFR's deposits was \$20,486,449 and \$19,073,513, respectively, and the bank balance was \$20,528,537 and \$19,081,337, 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 and a pension pool cash account are recorded as investments and have a cost and carrying value of \$88,601,097 and \$92,016,033 at June 30, 2018 and 2017, respectively. In addition, these funds carry cash and cash equivalents totaling \$410,261 and \$263,961 at June 30, 2018 and 2017, 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, 2018 and 2017, the following tables show the investments by investment type and maturity (expressed in thousands).

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2018	Total Fair Value	Less than 1 Year	1-6 Years	6-10 Years	More than 10 Years
Asset Backed Securities	\$ 205,023	\$ 470	\$ 44,775	\$ 41,176	\$ 118,602
Bank Deposits	2,736	2,736	-	-	-
Bank Loans	2,636	387	1,085	1,164	-
Collateralized Bonds	2,752	-	-	250	2,502
Commercial Mortgage-Backed	142,460	-	1,777	968	139,715
Commercial Paper	11,886	11,886	-	-	-
Corporate Bonds	1,479,560	31,658	579,400	451,040	417,462
Corporate Convertible Bonds	24,247	-	14,064	5,156	5,027
Government Agencies	105,819	7,183	62,478	18,693	17,465
Government Bonds	585,476	19,918	230,575	122,793	212,190
Gov't Mortgage Backed	580,245	30	5,555	14,467	560,193
Gov't-issued CMB	106,687	9	605	24,048	82,025
Index Linked Government Bonds	4,618	-	696	-	3,922
Municipal/Provincial Bonds	33,218	600	14,331	2,897	15,390
Non-Government Backed CMOs	60,910	43	2,603	1,724	56,540
Other Fixed Income	2,176	1,739	437	-	-
Repurchase Agreements	(18,967)	(18,967)	-	-	-
Short Term Bills and Notes	44,156	44,156	-	-	-
Sukuk	200	200	-	-	-
Funds/Pooled Investments	1,819,095	-	161,997	1,061,786	595,312
Total Debt Securities	\$ 5,194,933	\$ 102,048	\$ 1,120,378	\$ 1,746,162	\$ 2,226,345

2017	Total Fair Value	Less than 1 Year	1-6 Years	6-10 Years	More than 10 Years
Asset Backed Securities	\$ 101,522	\$ -	\$ 16,105	\$ 24,636	\$ 60,781
Bank Loans	3,687	100	2,301	1,286	-
Commercial Mortgage-Backed	119,452	-	3,999	777	114,676
Corporate Bonds	1,199,355	44,108	391,131	376,693	387,423
Corporate Convertible Bonds	14,457	-	5,026	4,582	4,849
Government Agencies	105,235	8,803	62,171	20,754	13,507
Government Bonds	464,441	2,402	155,204	105,268	201,567
Gov't Mortgage Backed	651,844	1,055	18,024	27,933	604,832
Gov't-issued CMB	57,767	343	4,089	7,011	46,324
Index Linked Government Bonds	31,880	-	13,599	12,357	5,924
Municipal/Provincial Bonds	46,016	4,172	11,454	7,198	23,192
Non-Government Backed CMOs	73,991	2,567	10,902	571	59,951
Other Fixed Income	3,575	1,681	1,894	-	-
Repurchase Agreements	(3,208)	(3,208)	-	-	-
Short Term Bills and Notes	7,827	7,827	-	-	-
Funds/Pooled Investments	1,962,531	-	361,109	1,043,860	557,562
Total Debt Securities	\$ 4,840,372	\$ 69,850	\$ 1,057,008	\$ 1,632,926	\$ 2,080,588

North Dakota Retirement and Investment Office

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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 IOs valued at \$6.7 million and \$8.7 million and POs valued at \$0.0 million and \$4.8 million at June 30, 2018 and 2017, 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, 2018 and 2017, (expressed in thousands).

2018	Total Fair Value	Credit Rating*										
		AAA	AA	A	BBB	BB	B	CCC	CC	C	D	NR
Asset Backed Securities	\$ 204,368	\$ 144,343	\$ 18,759	\$ 11,250	\$ 9,889	\$ 3,163	\$ 1,873	\$ 5,965	\$ 2,976	\$ -	\$ 1,495	\$ 4,655
Bank Deposits	2,736	-	-	2,736	-	-	-	-	-	-	-	-
Bank Loans	2,636	-	-	-	387	887	858	272	-	-	-	232
Collateralized Bond	2,752	2,752	-	-	-	-	-	-	-	-	-	-
Commercial Mortgage Backed	141,995	107,878	6,804	5,158	5,673	6,284	1,140	4,431	520	883	1,232	1,992
Commercial Paper	11,886	-	-	10,810	-	-	-	-	-	-	-	1,076
Corporate Bonds	1,479,560	10,261	52,467	311,750	870,000	170,852	56,483	7,745	-	-	2	-
Corporate Convertible Bonds	24,247	-	-	-	1,742	6,265	7,365	8,875	-	-	-	-
Gov't Agencies	92,701	3,096	61,504	1,594	24,799	1,708	-	-	-	-	-	-
Gov't Bonds	75,958	-	3,763	6,033	43,886	9,699	12,577	-	-	-	-	-
Gov't Mortgage Backed	487,236	-	487,236	-	-	-	-	-	-	-	-	-
Gov't Issued CMB	27,991	-	27,991	-	-	-	-	-	-	-	-	-
Index Linked Government Bonds	696	-	-	-	-	-	696	-	-	-	-	-
Municipal/Provincial Bonds	33,218	235	8,326	13,277	7,863	574	2,943	-	-	-	-	-
Non-Gov't Backed CMOs	60,910	23,309	2,398	11,858	2,745	728	2,136	3,344	3,806	-	809	9,777
Other Fixed Income	2,176	-	-	1,499	480	-	-	-	-	-	-	197
Repurchase Agreements	(18,967)	-	(18,967)	-	-	-	-	-	-	-	-	-
Short Term Bills & Notes	42,636	-	7,422	35,214	-	-	-	-	-	-	-	-
Sukuk	200	-	-	-	-	200	-	-	-	-	-	-
Funds/Pooled Investments	1,819,095	-	1,279,292	110,643	355,231	19,052	54,877	-	-	-	-	-
Total Credit Risk of Debt Securities	4,494,030	\$ 291,874	\$ 1,936,995	\$ 521,822	\$ 1,322,695	\$ 219,412	\$ 140,948	\$ 30,632	\$ 7,302	\$ 883	\$ 3,538	\$ 17,929
US Gov't & Agencies **	700,903											
Total Debt Securities	\$ 5,194,933											

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2017	Total Fair Value	Credit Rating*										
		AAA	AA	A	BBB	BB	B	CCC	CC	C	D	NR
Asset Backed Securities	\$ 101,522	\$ 55,001	\$ 4,386	\$ 9,003	\$ 10,555	\$ 4,143	\$ 2,805	\$ 11,811	\$ 1,766	\$ 67	\$ 1,985	\$ -
Bank Loans	3,687	-	-	-	396	1,993	426	-	-	-	-	872
Commercial Mortgage Backed	85,465	44,485	8,826	6,350	6,958	7,045	4,366	5,349	455	-	1,532	99
Corporate Bonds	1,199,355	8,280	38,298	195,825	744,656	142,769	60,766	8,201	-	105	455	-
Corporate Convertible Bonds	14,457	-	-	-	1,627	3,499	3,911	5,420	-	-	-	-
Gov't Agencies	89,139	11,380	53,086	3,228	19,666	1,779	-	-	-	-	-	-
Gov't Bonds	123,863	-	9,813	46,574	45,427	17,267	4,782	-	-	-	-	-
Gov't Mortgage Backed	492,868	-	492,868	-	-	-	-	-	-	-	-	-
Gov't Issued CMB	11,824	-	11,597	-	227	-	-	-	-	-	-	-
Municipal/Provincial Bonds	46,016	3,909	14,473	9,834	15,514	-	2,286	-	-	-	-	-
Non-Gov't Backed CMOs	72,957	17,748	10,630	20,144	3,981	3,000	3,246	7,752	3,588	-	2,868	-
Other Fixed Income	3,575	3,575	-	-	-	-	-	-	-	-	-	-
Repurchase Agreements	(3,208)	-	(3,208)	-	-	-	-	-	-	-	-	-
Short Term Bills & Notes	3,892	-	3,597	295	-	-	-	-	-	-	-	-
Funds/Pooled Investments	1,962,531	161,292	1,005,167	198,871	329,090	247,377	20,734	-	-	-	-	-
Total Credit Risk of Debt Securities	4,207,943	\$ 305,670	\$1,649,533	\$ 490,124	\$ 1,178,097	\$ 428,872	\$ 103,322	\$ 38,533	\$ 5,809	\$ 172	\$ 6,840	\$ 971
US Gov't & Agencies **	632,429											
Total Debt Securities	\$ 4,840,372											

- * Ratings are determined in the following order:
1. S&P rating
 2. Moody's rating
 3. Fitch rating
 4. Manager-determined rating (internal rating)
 5. 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 *Asset Backed*, *Commercial Mortgage-Backed*, *Gov't Issued Commercial & Gov't Mortgage Backed*, *Gov't Agencies*, *Gov't Bonds*, *Index Linked Gov't Bonds* and *Short Term Bills and Notes* categories are issued by FNMA, FHLB, FHLMC, FAMC and TVA.

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, 2018 and 2017, 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 U.S. 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, 2018 and 2017 (expressed in thousands).

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2018

Currency	Short-Term	Debt	Equity	Real Estate	Total
Argentine peso	\$ 63	\$ 3,064	\$ -	\$ -	\$ 3,127
Australian dollar	9,035	(7,424)	86,331	-	87,942
Brazilian real	875	-	3,703	-	4,578
British pound sterling	5,554	(4,870)	224,748	-	225,432
Canadian dollar	3,862	(3,637)	73,146	-	73,371
Chilean peso	55	-	-	-	55
Colombian peso	213	275	-	-	488
Czech koruna	335	-	-	-	335
Danish krone	20	-	22,089	-	22,109
Egyptian pound	308	-	-	-	308
Euro	13,098	(12,059)	444,208	5,312	450,559
Hong Kong dollar	825	-	113,541	-	114,366
Hungarian forint	154	-	3,432	-	3,586
Indonesian rupiah	55	-	-	-	55
Japanese yen	(3,273)	-	235,053	-	231,780
Malaysian ringgit	154	-	1,683	-	1,837
Mexican peso	609	5,671	1,167	-	7,447
New Israeli shekel	246	-	3,755	-	4,001
New Taiwan dollar	142	-	5,441	-	5,583
New Zealand dollar	946	-	468	-	1,414
Norwegian krone	78	-	14,658	-	14,736
Polish zloty	29	-	1,311	-	1,340
Russian ruble	38	-	-	-	38
Singapore dollar	53	-	7,450	-	7,503
South African rand	(1,276)	1,843	6,443	-	7,010
South Korean won	583	-	12,581	-	13,164
Swedish krona	4,746	-	44,887	-	49,633
Swiss franc	1,554	-	82,868	-	84,422
Thai baht	426	-	5,163	-	5,589
Turkish lira	39	-	737	-	776
International commingled funds (various currencies)	-	-	952,235	25,105	977,340
Total international investment securities	\$ 39,546	\$ (17,137)	\$ 2,347,098	\$ 30,417	\$ 2,399,924

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2017

Currency	Short-Term	Debt	Equity	Real Estate	Total
Argentine peso	\$ -	\$ 509	\$ -	\$ -	\$ 509
Australian dollar	3,344	8,461	64,338	-	76,143
Brazilian real	641	6,742	14,678	-	22,061
British pound sterling	14,956	9,761	195,199	-	219,916
Canadian dollar	6,084	-	55,194	-	61,278
Chilean peso	54	-	-	-	54
Colombian peso	204	-	-	-	204
Czech koruna	-	-	760	-	760
Danish krone	-	-	13,941	-	13,941
Euro	(13,111)	13,951	401,660	9,954	412,454
Hong Kong dollar	1,601	-	77,234	-	78,835
Hungarian forint	89	-	4,413	-	4,502
Indian rupee	7,193	1,398	-	-	8,591
Indonesian Rupiah	59	6,939	1,003	-	8,001
Japanese yen	712	381	221,644	-	222,737
Malaysian Ringgit	74	8,006	1,530	-	9,610
Mexican peso	(45)	26,092	-	-	26,047
New Israeli shekel	543	-	4,103	-	4,646
New Taiwan dollar	(378)	-	3,896	-	3,518
New Zealand dollar	88	-	2,177	-	2,265
Norwegian krone	8,121	-	12,450	-	20,571
Peruvian nuevo sol	2	-	-	-	2
Polish zloty	(5)	9,101	1,684	-	10,780
Russian ruble	325	-	-	-	325
Singapore dollar	300	-	6,177	-	6,477
South African rand	47	7,137	7,663	-	14,847
South Korean won	134	-	12,364	-	12,498
Swedish krona	6,408	-	39,213	-	45,621
Swiss franc	128	-	79,937	-	80,065
Thai baht	197	-	5,013	-	5,210
Turkish lira	25	2,461	806	-	3,292
International commingled funds (various currencies)	-	105,946	916,411	61,315	1,083,672
Total international investment securities	\$ 37,790	\$ 206,885	\$ 2,143,488	\$ 71,269	\$ 2,459,432

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, 2018 and 2017, 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 \$100.0 million and \$133.8 million for fiscal years 2018 and 2017, respectively. At June 30, 2018 and 2017, the SIB investment portfolio had the notional futures balances shown below (expressed in thousands).

<u>Futures</u>	Notional Value	
	<u>June 30, 2018</u>	<u>June 30, 2017</u>
Cash & Cash Equivalent Derivative Futures		
Long	\$ 226,320	\$ 68,249
Short	(962,500)	(725,425)
Equity Derivative Futures		
Long	647,386	623,945
Short	-	-
Fixed Income Derivative Futures		
Long	378,144	287,137
Short	(132,120)	(194,390)
	<u> </u>	<u> </u>
Total Futures	<u>\$ 157,230</u>	<u>\$ 59,516</u>

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 \$(9.1) million and \$(0.2) million for fiscal years 2018 and 2017, respectively. At June 30, 2018 and 2017, the SIB investment portfolio had the following option balances (expressed in thousands).

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<u>Options</u>	Fair Value	
	<u>June 30, 2018</u>	<u>June 30, 2017</u>
Cash & Other Options		
Call	\$ (149)	\$ (2)
Put	(363)	23
Fixed Income Options		
Call	-	88
Put	(5)	203
Total Options	<u>\$ (517)</u>	<u>\$ 312</u>

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, currency 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 \$3.6 million and \$9.2 million for fiscal years 2018 and 2017, respectively. The maximum loss that would be recognized at June 30, 2018 and 2017, if all counterparties failed to perform as contracted is \$2.75 million and \$2.0 million, respectively. Swap fair values are determined by a third party pricing source. At June 30, 2018 and 2017, the SIB's investment portfolio had the swap fair value balances as shown below (expressed in thousands).

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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.

Counterparty/Moody's Rating	Notional Amount		Expiration Date Range	Fair Value	
	June 30, 2018	June 30, 2017		June 30, 2018	June 30, 2017
Bank of America/A1 (2 contracts)	\$ (2,700)		2021	\$ 13	
Bank of America/A1 (2 contracts)		(2,700)	2018 - 2021		35
BNP Paribas/A1 (2 contracts)		(600)	2019 - 2022		(5)
BNP Paribas/A1 (1 contract)	(400)		2019	(2)	
Citibank/A1 (4 contracts)		(7,750)	2018 - 2019		119
Citibank/A1 (23 contracts)	(9,005)		2018 - 2024	(55)	
Credit Suisse First Boston/A1 (8 contracts)		11,705	2017 - 2022		(759)
Credit Suisse First Boston/A1 (2 contracts)	(89,400)		2022 - 2023	1,369	
Deutsche Bank/Baa2 (2 contracts)	2,000		2059	9	
Goldman Sachs/A3 (2 contracts)		(1,800)	2019 - 2020		22
Goldman Sachs/A3 (10 contracts)	(4,890)		2019 - 2063	37	
HSBC Bank/A1 (1 contract)		(100)	2022		(1)
HSBC Bank/A1 (1 contract)	(100)		2023	(1)	
JP Morgan Chase/Aa3 (3 contracts)		(930)	2019 - 2020		2
JP Morgan Chase/Aa3 (1 contract)	(300)		2019	4	
Total Credit Default Swaps	\$ (104,795)	\$ (2,175)		\$ 1,374	\$ (587)

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

Currency Swaps

Currency risk represents the exposure to fair value losses arising from the change in price of one currency against another. A currency swap is a foreign-exchange agreement between two parties to exchange principal and interest in one currency for the same in another currency.

Counterparty/Moody's Rating	Notional Amount		Expiration Date Range	Fair Value	
	June 30, 2018	June 30, 2017		June 30, 2018	June 30, 2017
JP Morgan Chase/Aa3 (1 contract)	\$ -	\$ 106	2020	\$ -	\$ (6)
JP Morgan Chase/Aa3 (1 contract)	106		2020	(7)	
Total Currency Swaps	\$ 106	\$ 106		\$ (7)	\$ (6)

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

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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.

Counterparty/Moody's Rating	Notional Amount		Expiration Date Range	Fair Value	
	June 30, 2018	June 30, 2017		June 30, 2018	June 30, 2017
Citigroup Global Markets/A1 (5 contracts)	\$ (28,885)		2019 - 2025	\$ 1,018	
Credit Suisse First Boston/A1 (34 contracts)		(62,477)	2017 - 2048		1,168
Credit Suisse First Boston/A1 (32 contracts)	94,495		2019 - 2048	2,275	
Goldman Sachs/A3 (1 contract)		5	2017	-	-
JP Morgan Chase/Aa3 (130 contracts)		(642)	2017 - 2046		1,322
JP Morgan Chase/Aa3 (176 contracts)	(134,106)		2018 - 2048	3,122	
Morgan Stanley/A3 (1 contract)		215	2022		(3)
Total Interest Rate Swaps	<u>\$ (68,496)</u>	<u>\$ (62,899)</u>		<u>\$ 6,415</u>	<u>\$ 2,487</u>

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).

Counterparty/Moody's Rating	Notional Amount		Expiration Date Range	Fair Value	
	June 30, 2018	June 30, 2017		June 30, 2018	June 30, 2017
Credit Suisse First Boston/A1 (3 contracts)	\$ -	\$ 522	2020 - 2030	\$ -	\$ (3)
Goldman Sachs/A3 (5 contracts)		1,797	2020 - 2030		(14)
JP Morgan Chase/Aa3 (22 contracts)	5,730		2022 - 2057	(25)	
Total Inflation Swaps	<u>\$ 5,730</u>	<u>\$ 2,319</u>		<u>\$ (25)</u>	<u>\$ (17)</u>

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.

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Counterparty/Moody's Rating	Notional Amount		Expiration Date Range	Fair Value	
	June 30, 2018	June 30, 2017		June 30, 2018	June 30, 2017
Credit Suisse International/A1 (2 contracts)	\$ -	\$ 4,800	2041	\$ -	\$ 21
Credit Suisse International/A1 (2 contracts)	4,800		2041	(20)	
Total Total Return Swaps	\$ 4,800	\$ 4,800		\$ (20)	\$ 21

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 \$2.2 million and \$0.5 million for fiscal years 2018 and 2017, respectively. At June 30, 2018 and 2017, the SIB's investment portfolio included the currency forwards balances shown below (expressed in thousands).

Currency	Cost	Purchases	Sales	Fair Value	
				6/30/2018	6/30/2017
Argentine peso	\$ 2	\$ 3	\$ (1)	\$ 2	\$ -
Australian dollar	(1,868)	1,772	(3,640)	(1,832)	3,297
Brazilian real	1,263	2,050	(787)	1,207	480
British pound sterling	(3,732)	1,585	(5,317)	(3,549)	13,007
Canadian dollar	(2,784)	-	(2,784)	(2,737)	6,110
Colombian peso	218	218	-	213	204
Egyptian pound	302	302	-	308	-
Euro	(18,684)	13,170	(31,854)	(17,897)	(16,369)
Hungarian forint	-	-	-	-	(20)
Indian rupee	-	-	-	-	7,193
Israeli shekel	-	-	-	-	(27)
Japanese yen	(44,787)	15,759	(60,546)	(44,049)	(329)
South Korean won	-	-	-	-	(166)
Mexican peso	14	7,031	(7,017)	83	(1,125)
Norwegian krone	-	-	-	-	7,333
Peruvian nuevo sol	-	-	-	-	2
Polish zloty	-	-	-	-	46
Russian ruble	79	4,994	(4,915)	38	325
Singapore dollar	-	-	-	-	(514)
South African rand	(1,886)	-	(1,886)	(1,727)	(515)
Swedish krona	4,746	6,393	(1,647)	4,629	6,415
Turkish lira	-	-	-	-	446
New Taiwan dollar	-	-	-	-	(498)
United States dollar	67,118	120,395	(53,277)	67,119	(25,329)
Total forwards subject to currency risk				\$ 1,808	\$ (34)

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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, 2018 and 2017, the tables below show the SIB's derivative investments subject to interest rate risk (expressed in thousands).

2018

	Total Notional Value	3 months or less	3 to 6 months	6 to 12 months	1-5 years	Greater than 5 years
Futures-interest rate contracts	\$ (490,157)	\$ (442,696)	\$ (160,157)	\$ (50,322)	\$ 163,018	\$ -
Options-margined interest rate contracts	(17)	(17)	-	-	-	-
Total	\$ (490,174)	\$ (442,713)	\$ (160,157)	\$ (50,322)	\$ 163,018	\$ -

	Total Fair Value	3 months or less	3 to 6 months	6 to 12 months	1-5 years	Greater than 5 years
Options - interest rate contracts	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Options on futures	(5)	(5)	-	-	-	-
Swaps - interest rate contracts	6,390	-	251	179	1,229	4,731
Swaps - credit contracts	1,374	-	37	2	1,392	(57)
Total	\$ 7,759	\$ (5)	\$ 288	\$ 181	\$ 2,621	\$ 4,674

2017

	Total Notional Value	3 months or less	3 to 6 months	6 to 12 months	1-5 years	Greater than 5 years
Futures-interest rate contracts	\$ (564,429)	\$ (615,292)	\$ 128,182	\$ (63,483)	\$ (13,836)	\$ -
Total	\$ (564,429)	\$ (615,292)	\$ 128,182	\$ (63,483)	\$ (13,836)	\$ -

	Total Fair Value	3 months or less	3 to 6 months	6 to 12 months	1-5 years	Greater than 5 years
Options - caps and floors	\$ 46	\$ -	\$ -	\$ -	\$ 46	\$ -
Options - interest rate contracts	(1)	(1)	-	-	-	-
Options on futures	253	253	-	-	-	-
Swaps - interest rate contracts	2,470	136	131	97	532	1,574
Swaps - credit contracts	(587)	-	1	-	(588)	-
Total	\$ 2,181	\$ 388	\$ 132	\$ 97	\$ (10)	\$ 1,574

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, 2018 and 2017 (expressed in thousands).

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2018	Dollars in \$(000)			
	Fair Value Measures Using			
	Fair Value 6/30/18	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by fair value level				
Short Term Securities				
Commercial Paper	\$ 11,886	\$ -	\$ 11,886	\$ -
Short Term Bills and Notes	44,156	-	44,156	-
Short Term Securities	56,042	-	56,042	-
Fixed income investments				
Asset Backed Securities	192,586	-	192,586	-
Bank Loans	2,636	-	2,636	-
Collateralized Bonds	2,752	-	2,752	-
Commercial Mortgage-Backed	140,642	-	137,012	3,630
Corporate Bonds	1,479,560	-	1,479,296	264
Corporate Convertible Bonds	24,247	-	24,247	-
Funds - Fixed Income ETF	28,654	28,654	-	-
Government Agencies	105,819	-	104,115	1,704
Government Bonds	585,476	-	585,476	-
Government Mortgage Backed Securities	580,245	-	580,245	-
Gov't-issued Commercial Mortgage-Backed	106,687	-	106,687	-
Index Linked Government Bonds	4,618	-	4,618	-
Municipal/Provincial Bonds	33,218	-	33,218	-
Non-Government Backed C.M.O.s	55,798	-	53,407	2,391
Other Fixed Income	2,376	-	2,376	-
Total fixed income investments	3,345,314	28,654	3,308,671	7,989
Equity investments				
Common Stock	4,193,715	4,193,668	-	47
Convertible Equity	2,547	-	2,547	-
Funds - Equities ETF	276,921	276,921	-	-
Preferred Stock	2,060	2,049	11	-
Rights/Warrants	167	167	-	-
Stapled Securities	4,865	4,865	-	-
Total equity investments	4,480,275	4,477,670	2,558	47
Derivative investments				
Exchange Cleared Swaps	7,739	-	7,739	-
Options	(517)	(5)	(512)	-
Swaps	(2)	-	(2)	-
Total derivative investments	7,220	(5)	7,225	-
Total investments by fair value level	\$ 7,888,851	\$ 4,506,319	\$ 3,374,496	\$ 8,036

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Investments measured at the net asset value (NAV)	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Commingled Funds-Debt	\$ 1,790,441	\$ -	Daily, monthly
Commingled Funds-Equities	1,082,603	-	Daily, monthly
Distressed Debt	310,992	45,971	Quarterly, Not eligible
Long/Short	208,253	-	Monthly
Mezzanine Debt	540	8,505	Not eligible
Private Credit	238,107	177,200	Not eligible
Private Equity	191,437	300,526	Not eligible
Real Assets	1,729,935	265,460	Quarterly, Not eligible
Total investments measured at the NAV	\$ 5,552,308	\$ 797,662	
Investments at other than fair value			
Cash and adjustments to cash	\$ 196,912		
Bank Certificates of Deposit	58,222		
Other miscellaneous securities	19,374		
Repurchase Agreements	(18,967)		
Total investments at other than fair value	\$ 255,541		
Total investments	<u>\$ 13,696,700</u>		

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2017	Fair Value Measures Using			
	Fair Value 6/30/17	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by fair value level				
Short Term Securities				
Short Term Bills and Notes	\$ 7,826	\$ -	\$ 7,532	\$ 294
Short Term Securities	7,826	-	7,532	294
Fixed income investments				
Asset Backed Securities	100,985	-	100,823	162
Bank Loans	3,687	-	3,687	-
Commercial Mortgage-Backed	119,451	-	119,451	-
Corporate Bonds	1,199,355	-	1,198,360	995
Corporate Convertible Bonds	14,456	-	14,456	-
Funds - Fixed Income ETF	29,259	29,259	-	-
Government Agencies	104,775	-	98,097	6,678
Government Bonds	464,441	-	464,441	-
Government Mortgage Backed Securities	652,306	-	651,753	553
Gov't-issued Commercial Mortgage-Backed	57,767	-	57,767	-
IndexLinked Government Bonds	31,880	-	31,880	-
Municipal/Provincial Bonds	46,016	-	46,016	-
Non-Government Backed C.M.O.s	65,402	-	62,487	2,915
Other Fixed Income	3,578	-	3,575	3
Total fixed income investments	2,893,358	29,259	2,852,793	11,306
Equity investments				
Common Stock	3,752,805	3,752,771	-	34
Convertible Equity	1,746	-	1,746	-
Funds - Common Stock	4,149	4,149	-	-
Funds - Equities ETF	221,791	221,791	-	-
Preferred Stock	2,898	2,898	-	-
Rights/Warrants	12	-	-	12
Stapled Securities	4,547	4,547	-	-
Total equity investments	3,987,948	3,986,156	1,746	46
Derivative investments				
Exchange Cleared Swaps	1,842	-	1,851	(9)
Options	312	253	59	-
Swaps	58	-	58	-
Total derivative investments	2,212	253	1,968	(9)
Total investments by fair value level	\$ 6,891,344	\$ 4,015,668	\$ 2,864,039	\$ 11,637

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Investments measured at the net asset value (NAV)	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Commingled Funds-Debt	\$ 1,729,361	\$ -	Daily, monthly
Commingled Funds-Equities	1,039,323	-	Daily, monthly
Distressed Debt	318,519	12,500	Quarterly, Not eligible
Long/Short	193,356	-	Monthly
Mezzanine Debt	1,781	8,526	Not eligible
Private Equity	167,162	286,819	Not eligible
Real Assets	1,603,883	163,475	Quarterly, Not eligible
Total investments measured at the NAV	\$ 5,053,385	\$ 471,320	
Investments at other than fair value			
Cash and adjustments to cash	\$ 244,004		
Bank Certificates of Deposit	56,819		
Other miscellaneous securities	9,126		
Repurchase Agreements	(3,208)		
Total investments at other than fair value	\$ 306,741		
Total investments	\$ 12,251,470		

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, 2018 and 2017, unfunded commitments in one of its two distressed debt funds totaled \$46.0 million and \$12.5 million, respectively. This fund is not eligible for redemptions. The other fund is eligible for redemptions with quarterly liquidity and 60 days notice, and has no unfunded commitment.

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, 2018 and 2017.

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 2-5 years, and unfunded commitments of \$8.5 million and \$8.5 million as of June 30, 2018 and 2017, respectively.

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 employs two senior private debt funds, commonly referred to as direct lenders, which are structured as custom managed accounts that are not eligible for redemptions during remaining investment lives of 3 to 4 years. The SIB first committed to the two funds in this category in FY2018 and the unfunded commitments totaled \$177.2 million as of June 30, 2018.

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. 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 \$300.5 million and \$286.8 million in unfunded private equity commitments as of June 30, 2018 and 2017, 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 different real estate funds in the portfolio. Three of those funds are open-ended vehicles that accept redemption requests quarterly with a 30-90 day notification period. One fund is in wind-down and will be distributing the final proceeds within the next 6-12 months. The remaining seven funds are closed-ended limited partnerships that are not eligible for redemptions. Those eight funds have a combined unfunded commitment of \$79.2 million and \$78.4 million as of June 30, 2018 and 2017, 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 2-8 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, 2018 and 2017, include both open and closed-ended funds. The 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 closed-ended funds have unfunded commitments of \$186.3 million and \$85.0 million at June 30, 2018 and 2017, 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, U.S. government securities and irrevocable letters of credit. U.S. securities are loaned versus collateral valued at 102% of the fair value of the securities plus any accrued interest. Non-U.S. 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 61 and 59 days as of June 30, 2018 and 2017, respectively. Cash open collateral is invested in a short term investment pool, which had an interest sensitivity of 3 days and 3 days as of June 30, 2018 and 2017. 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

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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, 2018 and 2017 (expressed in thousands).

2018	Securities Lent	Non-Cash Collateral Value	Cash Collateral Investment Value
Lent for cash collateral:			
US agency securities	\$ 27	\$ -	\$ 28
US government securities	885	-	909
US corporate fixed income securities	19,599	-	20,129
Global corporate fixed income securities	942	-	990
US equities	22,812	-	23,365
Global equities	2,583	-	2,714
Lent for non-cash collateral:			
US agency securities	751	772	-
US government securities	3,894	4,005	-
US corporate fixed income securities	149,102	153,336	-
US equities	208,835	214,360	-
Global equities	41,776	44,399	-
Total	\$ 451,206	\$ 416,872	\$ 48,135

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		<u>Securities Lent</u>	<u>Non-Cash Collateral Value</u>		<u>Cash Collateral Investment Value</u>
2017					
Lent for cash collateral:					
US agency securities	\$	546	\$ -	\$	558
US government securities		2,268	-		2,326
US corporate fixed income securities		23,063	-		23,596
Global government fixed income securities		3,285	-		3,443
US equities		43,984	-		45,032
Global equities		2,531	-		2,714
Lent for non-cash collateral:					
US agency securities		4,978	5,071		-
US government securities		2,089	2,128		-
US corporate fixed income securities		112,041	114,160		-
US equities		187,733	191,606		-
Global equities		40,229	42,734		-
Total		<u>\$ 422,747</u>	<u>\$ 355,699</u>		<u>\$ 77,669</u>

Note 4 - Capital Assets

	<u>June 30, 2016</u>	<u>Additions</u>	<u>Retirements</u>	<u>June 30, 2017</u>	<u>Additions</u>	<u>Retirements</u>	<u>June 30, 2018</u>
Office equipment	\$19,321	\$ 8,999	\$ (11,441)	\$16,879	\$ -	\$ -	\$16,879
Less accumulated depreciation on office equipment	(19,321)	(450)	11,441	(8,330)	(1,800)	-	(10,130)
Software	1,213,500	-	-	1,213,500	-	-	1,213,500
Less accumulated depreciation on software	(1,213,500)	-	-	(1,213,500)	-	-	(1,213,500)
	<u>\$ -</u>	<u>\$ 8,549</u>	<u>\$ -</u>	<u>\$ 8,549</u>	<u>\$ (1,800)</u>	<u>\$ -</u>	<u>\$ 6,749</u>

Note 5 - State Agency Transactions

Due To/From Other State Agencies

Amounts due from/to other state agencies are as follows as of June 30, 2018 and 2017:

	2018	2017
Due To		
Information Technology Department	\$ 7,280	\$ 6,617
Office of Administrative Hearings	33	-
Office of Attorney General	7,157	1,356
Office of Management and Budget	69	289
Total due to other state agencies	\$ 14,539	\$ 8,262
Due From		
Public Employees Retirement System	\$ 174	\$ -
Surplus Property	-	50
Total due from other state agencies	\$ 174	\$ 50

These 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.

Note 6 - Operating Leases

RIO leased office space under an operating lease effective July 1, 2017 through June 30, 2023. RIO also incurs rent expense at other locations on a temporary basis to sponsor retirement education for TFFR members. Rent expense totaled \$87,766 and \$82,861 for fiscal years 2018 and 2017, respectively. Minimum payments under the lease for fiscal 2019 are \$86,171 annually.

Note 7 - 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, 2018 and 2017 are summarized as follows:

	Beginning Balance 7/1/2017	Additions	Reductions	Ending Balance 6/30/2018	Amounts Due Within One Year
Accrued Leave	\$176,864	\$144,638	(\$125,423)	\$196,079	\$117,453
	Beginning Balance 7/1/2016	Additions	Reductions	Ending Balance 6/30/2017	Amounts Due Within One Year
Accrued Leave	\$171,503	\$144,423	(\$139,062)	\$176,864	\$109,212

Pension and Investment Trust Funds liquidate the accrued annual leave.

Note 8 - 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, 2018 and 2017, the number of participating employer units was 214 and 215, respectively, consisting of the following:

	June 30, 2018	June 30, 2017
Public School Districts	176	176
County Superintendents	6	6
Special Education Units	19	19
Vocational Education Units	4	5
Other	9	9
Total	214	215

TFFR's membership consisted of the following:

	2018	2017
Retirees and beneficiaries currently receiving benefits	8,743	8,501
Terminated employees - vested	1,623	1,600
Terminated employees - nonvested	971	878
Total	11,337	10,979
Current employees		
Vested	7,696	7,543
Nonvested	3,185	3,331
Total	10,881	10,874

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 nonvested 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 9.15% and 12.81% for the years ended June 30, 2018 and 2017, 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, 2018 and 2017, TFFR had net realized gains of \$108,984,395 and \$72,282,438, respectively.

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Net Pension Liability

The components of the net pension liability of TFFR at June 30, 2018 and 2017 (expressed in thousands), were as follows:

	June 30, 2018	June 30, 2017
Total pension liability	\$ 3,863,515	\$ 3,734,017
Plan fiduciary net position	<u>(2,530,657)</u>	<u>(2,360,491)</u>
Net pension liability (NPL)	<u>\$ 1,332,858</u>	<u>\$ 1,373,526</u>
 Plan fiduciary net position as a percentage of the total pension liability	65.5%	63.2%

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of July 1, 2018 and 2017, using the following actuarial assumptions:

Valuation date	July 1, 2018	July 1, 2017
Inflation	2.75%	2.75%
Salary increases	4.25% to 14.50%; varying by service, including inflation and productivity	4.25% to 14.50%; varying by service, including inflation and productivity
Cost of living adjustments	None	None
Investment rate of return	7.75% net of investment expenses, including inflation	7.75% net of investment expenses, including inflation

For active and inactive members, mortality rates were based on the RP-2014 Employee Mortality Table projected generationally using Scale MP-2014. For healthy retirees, mortality rates were based on the RP-2014 Healthy Annuitant Mortality Table set back one year, multiplied by 50% for ages under 75 and grading up to 100% by age 80, projected generationally using Scale MP-2014. For disabled retirees, mortality rates were based on the RP-2014 Disabled Mortality Table set forward four years.

The actuarial assumptions used in the July 1, 2018 and 2017 valuations were based on the results of an actuarial experience study dated April 30, 2015, for the period July 1, 2009 – June 30, 2014. An actuarial experience study is generally conducted every five years.

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

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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 June 30, 2018 and 2017 are summarized in the following tables:

2018	Target	Long-Term Expected Real Rate of Return
Asset Class	Allocation	Return
Global Equity	58.0%	6.7%
Global Fixed Income	23.0%	1.5%
Global Real Assets	18.0%	5.1%
Cash Equivalents	1.0%	0.0%

2017	Target	Long-Term Expected Real Rate of Return
Asset Class	Allocation	Return
Global Equity	58.0%	6.7%
Global Fixed Income	23.0%	0.8%
Global Real Assets	18.0%	5.2%
Cash Equivalents	1.0%	0.0%

Private equity is included in the Global Equity asset class.

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 2.75% for expected inflation.

Discount Rate

The discount rate used to measure the total pension liability was 7.75% as of June 30, 2018 and 2017. 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, 2018 and 2017 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, 2018 and 2017. 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, 2018 and 2017.

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Sensitivity of Net Pension Liability

The following presents the net pension liability of the TFFR employers calculated using the discount rate of 7.75% as of June 30, 2018 and 2017, 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:

	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
2018			
Employers' net pension liability	\$ 1,799,744,383	\$ 1,332,858,315	\$ 944,554,161
2017			
Employers' net pension liability	\$ 1,826,126,843	\$ 1,373,525,753	\$ 996,748,988

Note 9 - 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 Comprehensive Annual 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. 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 and OPEB plans 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. 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 System 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. Member contribution rates are 7% and employer contribution rates are 7.12% of covered compensation.

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 for the PERS, the HPRS and the Defined Contribution Plan is set by statute at 1.14% of covered compensation. The employer contribution for employees of the state board of career and technical education is 2.99% of covered compensation for a period of eight years ending October 1, 2015. 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.

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 from the PERS, the HPRS, the Defined Contribution Plan, the Chapter 27-17 judges or an employee receiving disability 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.

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. 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, 2018 and 2017, RIO reported a liability of \$2,629,203 and \$1,490,832, respectively, for its proportionate share of the net pension and OPEB liability. Due to the net OPEB liability at June 30, 2017, being immaterial to the overall financial statements of RIO and the individual funds, no prior period adjustment was made. The net pension and OPEB liability was measured as of June 30, 2017 and 2016, 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, 2017, RIO's pension plan proportion was 0.156317 percent and as of June 30, 2016, RIO's proportion was 0.152969 percent. RIO's OPEB plan proportion was 0.147503% as of June 30, 2017 and 2016.

RIO recognized pension and OPEB expense of \$405,602 and \$121,469 for the years ended June 30, 2018 and 2017, respectively. At June 30, 2018 and 2017, RIO reported deferred outflows of resources and deferred inflows of resources related to pensions and OPEB from the following sources:

North Dakota Retirement and Investment Office
Notes to Combined Financial Statements
June 30, 2018 and 2017

	Deferred Outflows of Resources		Deferred Inflows of Resources	
	2018	2017	2018	2017
Differences between expected and actual experience	\$ 14,934	\$ 22,395	\$ 15,088	\$ 13,805
Changes in assumptions	1,041,506	137,436	56,669	74,065
Net differences between projected and actual earnings on plan investments	33,791	207,993	4,411	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	138,324	155,225	268	-
Employer contributions subsequent to the measurement date	<u>129,449</u>	<u>113,616</u>	<u>-</u>	<u>-</u>
Total	<u>\$ 1,358,004</u>	<u>\$ 636,665</u>	<u>\$ 76,436</u>	<u>\$ 87,870</u>

Deferred outflows of resources related to pensions and OPEB resulting from employer contributions subsequent to the measurement date in the amount of \$129,449 will be recognized as a reduction of the net pension liability in the year ended June 30, 2019.

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	
2019	\$ 261,128
2020	307,595
2021	271,889
2022	202,198
2023	107,533
Thereafter	<u>1,776</u>
	<u>\$ 1,152,119</u>

Actuarial assumptions

The total pension and OPEB liabilities in the July 1, 2017 and 2016 actuarial valuation were determined using the following actuarial assumptions, applied to all periods included in the measurement:

2018 – Pension Plan

Inflation		3.50%
Salary increases	Service at Beginning of Year:	Increase Rate:
	0	15.00%
	1	10.00%
	2	8.00%
	Age*	
	Under 36	8.00%
	36 - 40	7.50%
	41 - 49	6.00%
	50+	5.00%

*Age-based salary increase rates apply for employees with three or more years of service

Investment rate of return	7.75%, net of investment expenses
Cost-of-living adjustments	None

2017 - Pension Plan

Inflation	3.50%
Salary increase (Payroll Growth)	4.50% per annum
Investment Rate of Return	8.00%, net of investment expenses
Cost of Living Adjustment	None

For active members, inactive members and healthy retirees, mortality rates were based on the RP-2000 Combined Healthy Mortality Table set back two years for males and three years for females, projected generationally using the SSA 2014 Intermediate Cost scale from 2014. For disabled retirees, mortality rates were based on the RP-2000 Disabled Mortality Table set back one year for males (no setback for females) multiplied by 125%.

The actuarial assumptions used were based on the results of an actuarial experience study completed in 2015. They are the same as the assumptions used in the July 1, 2017 and 2016, funding actuarial valuation for NDPERS.

As a result of the 2015 actuarial experience study, the NDPERS Board adopted several changes to the actuarial assumptions effective July 1, 2015. This includes changes to the mortality tables, disability incidence rates, retirement rates, administrative expenses, salary scale, and percent married assumption.

OPEB Plan

Inflation	2.50%
Salary increase	Not applicable
Investment Rate of Return	7.50%, net of investment expenses
Cost of Living Adjustment	None

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

For active members, inactive members and healthy retirees, mortality rates were based on the RP-2000 Combined Healthy Mortality Table set back two years for males and three years for females, projected generationally using the SSA 2014 Intermediate Cost scale from 2014. For disabled retirees, mortality rates were based on the RP-2000 Disabled Mortality Table set back one year for males (no setback for females) multiplied by 125%.

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:

2018 - Pension Plan

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Global Equity	57%	6.7%
Global Fixed Income	22%	1.0%
Global Real Assets	20%	5.2%
Cash Equivalents	1%	0.0%

2017 - Pension Plan

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Global Equity	58%	7.2%
Global Fixed Income	23%	1.1%
Global Real Assets	18%	5.2%
Cash Equivalents	1%	0.0%

2018 - OPEB Plan

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Large Cap Domestic Equity	37%	5.8%
Small Cap Domestic Equity	9%	7.1%
International Equity	14%	6.2%
Core-Plus Fixed Income	40%	1.6%

2017 - OPEB Plan

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Large Cap Domestic Equity	37%	6.4%
Small Cap Domestic Equity	9%	7.6%
International Equity	14%	6.8%
Core-Plus Fixed Income	40%	1.8%

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. In years where assets are not projected to be sufficient to meet benefit payments, which is the case for the PERS pension plan as of June 30, 2017, the use of a municipal bond rate is required.

The Single Discount Rate (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR 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).

The pension plan's fiduciary net position was projected to be sufficient to make all projected future benefit payments through the year of 2061. Therefore, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2061, and the municipal bond rate was applied to all benefit payments after that date. For the purpose of this valuation, the expected rate of return on pension plan investments is 7.75%, the municipal bond rate is 3.56%, and the resulting Single Discount Rate is 6.44%.

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

The discount rate used to measure the total pension liability was 8 percent as of June 30, 2016. The projection of cash flows used to determine the discount rate assumes that member and employer contributions will be made at rates equal to those based on the July 1, 2016, 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, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments for current plan members as of June 30, 2016. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability as of June 30, 2016.

The discount rate used to measure the total OPEB liability was 7.5%. 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, 2017, and July 1, 2016, 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.

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

The following presents the 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:

	1% Decrease (5.44%)	Current Discount Rate (6.44%)	1% Increase (7.44%)
2018			
RIO's net pension liability	\$ 3,410,833	\$ 2,512,527	\$ 1,765,175
	1% Decrease (6.5%)	Current Discount Rate (7.5%)	1% Increase (8.5%)
RIO's net OPEB liability	146,065	116,676	91,486
2017			
	1% Decrease (7%)	Current Discount Rate (8%)	1% Increase (9%)
RIO's net pension liability	\$ 2,114,716	\$ 1,490,832	\$ 965,177

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 Comprehensive Annual Financial Report. This report can be accessed on the NDPERS website at <https://ndpers.nd.gov/about/financial/annual-report-archive/>.

Note 10 - 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 11 - Contingencies/Litigation

The State Investment Board has been named as a defendant in two cases, arising out of the Tribune and General Motors 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 has been retained for both cases, in addition to assistance received from the ND Office of Attorney General. As of June 30, 2018, no liability has been recorded for the General Motors bankruptcy proceedings as it is too early in the litigation process to reasonably determine whether any payments will be required, but mediation efforts remain on-going. The claim against the SIB in the Tribune bankruptcy litigation has been dismissed, but a final order has not been entered because the Court has yet to decide the remaining claims in the case against unrelated defendants; however, the U.S. District Court has stayed the Trustee's request to amend the complaint to add a constructive fraudulent transfer claim pending the Second Circuit's disposition of the unrelated defendant's claims in light of the U.S. Supreme Court's decision in Merit Management. Any final judgment (including with respect to the claim against the SIB) is subject to appeal. Accordingly, no liability has been recorded at this time.

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)

	2018	2017	2016	2015	2014
Total pension liability					
Service cost	\$ 78,041	\$ 75,476	\$ 68,239	\$ 60,618	\$ 56,752
Interest	287,375	276,412	265,440	249,064	237,821
Changes of benefit terms	-	-	-	-	-
Differences between expected and actual experience	(27,939)	(10,749)	(8,093)	2,209	9,347
Changes of assumptions	-	-	-	171,325	-
Benefit payments, including refunds of member contributions	(207,979)	(196,516)	(185,969)	(172,239)	(162,259)
Net change in total pension liability	<u>129,498</u>	<u>144,623</u>	<u>139,617</u>	<u>310,977</u>	<u>141,661</u>
Total pension liability - beginning	<u>3,734,017</u>	<u>3,589,394</u>	<u>3,449,777</u>	<u>3,138,800</u>	<u>2,997,139</u>
Total pension liability - ending (a)	<u><u>\$3,863,515</u></u>	<u><u>\$3,734,017</u></u>	<u><u>\$3,589,394</u></u>	<u><u>\$3,449,777</u></u>	<u><u>\$ 3,138,800</u></u>
Plan fiduciary net position					
Contributions - employer	\$ 86,676	\$ 86,059	\$ 82,840	\$ 78,422	\$ 62,355
Contributions - member	79,878	79,309	76,343	72,268	56,555
Contributions - purchased service credit	2,181	2,553	2,768	1,601	2,034
Contributions - other	194	236	45	172	48
Net investment income	211,345	266,688	8,239	73,205	294,246
Benefit payments, including refunds of member contributions	(207,979)	(196,516)	(185,969)	(172,239)	(162,259)
Administrative expenses	(2,129)	(2,173)	(1,852)	(1,923)	(1,586)
Net change in plan fiduciary net position	<u>170,166</u>	<u>236,156</u>	<u>(17,586)</u>	<u>51,506</u>	<u>251,393</u>
Plan fiduciary net position - beginning **	<u>2,360,491</u>	<u>2,124,335</u>	<u>2,141,921</u>	<u>2,090,415</u>	<u>1,839,584</u>
Plan fiduciary net position - ending (b)	<u><u>\$2,530,657</u></u>	<u><u>\$2,360,491</u></u>	<u><u>\$2,124,335</u></u>	<u><u>\$2,141,921</u></u>	<u><u>\$ 2,090,977</u></u>
Plan's net pension liability - ending (a) - (b)	<u><u>\$1,332,858</u></u>	<u><u>\$1,373,526</u></u>	<u><u>\$1,465,059</u></u>	<u><u>\$1,307,856</u></u>	<u><u>\$ 1,047,823</u></u>
Plan fiduciary net position as a percentage of the total pension liability	65.5%	63.2%	59.2%	62.1%	66.6%
Covered payroll	\$ 679,809	\$ 674,971	\$ 649,725	\$ 615,105	\$ 580,053
Plan's net pension liability as a percentage of covered payroll	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 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
2009	\$ 41,986	\$ 37,488	\$ 4,498	\$ 454,396	8.25%
2010	52,053	39,837	12,216	482,868	8.25%
2011	65,113	44,545	20,568	509,091	8.75%
2012	69,374	46,126	23,248	527,156	8.75%
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%

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	26 years
Asset valuation method	5-year smoothed market
Inflation	2.75%; decreased from 3% prior to July 1, 2015.
Salary increases	4.25% - 14.5%, including inflation and productivity; 4.5% - 14.75% prior to July 1, 2015.
Investment rate of return	7.75%, net of investment expenses, including inflation. Rate was decreased from 8% beginning July 1, 2015.
Retirement age	In the 2015 valuation, rates of retirement were changed to better reflect anticipated future experience. In the 2010 valuation, expected retirement ages of plan members were adjusted to more closely reflect actual experience.
Mortality	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

<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
9.15%	12.81%	0.39%	3.56%	16.35%	13.60%

*Note: Annual money-weighted rates of return not available prior to 2013.

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

	2018	2017	2016	2015
RIO's proportion of NDPERS net pension liability (asset)	0.156317%	0.152969%	0.145546%	0.121849%
RIO's proportion of NDPERS net OPEB liability (asset)	<u>0.147503%</u>	_____	_____	_____
RIO's proportionate share of NDPERS net pension liability (asset)	\$ 2,513	\$ 1,491	\$ 990	\$ 773
RIO's proportionate share of NDPERS net OPEB liability (asset)	<u>117</u>	_____	_____	_____
RIO's covered payroll	<u>\$ 1,596</u>	<u>\$ 1,507</u>	<u>\$ 1,377</u>	<u>\$ 1,026</u>
RIO's proportionate share of NDPERS net pension liability (asset) as a percentage of its covered payroll	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	<u>7.31%</u>	_____	_____	_____
NDPERS Plan fiduciary net position as a percentage of the total pension liability	61.98%	70.46%	77.15%	77.70%
NDPERS Plan fiduciary net position as a percentage of the total OPEB liability	<u>59.78%</u>	_____	_____	_____

*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)

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
RIO's Statutorily required pension contributions	\$ 112	\$ 114	\$ 107	\$ 98	\$ 73
RIO's Statutorily required OPEB contributions	18	18			
RIO's pension contributions in relation to the statutory required contribution	112	114	107	98	73
RIO's OPEB contributions in relation to the statutory required contribution	<u>18</u>	<u>18</u>			
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
RIO's Covered payroll	\$1,567	\$1,596	\$1,507	\$1,377	\$1,026
RIO's pension contributions as a percentage of covered payroll	7.12%	7.12%	7.12%	7.12%	7.12%
RIO's OPEB contributions as a percentage of covered payroll	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	Bismarck	Bismarck	City of					Petroleum	Insurance		
	Employees	City	City	Grand Forks	City of	Workforce	State		Tank	Regulatory	Cultural	
	Retirement	Employee	Police	Employee	Grand Forks	Safety &	Fire &	State	Release	Trust	Endowment	Risk
System	Pension Plan	Pension Plan	Pension Plan	Park District	Insurance	Tornado	Bonding	Comp. Fund	Fund	Fund	Mgmt	
Assets:												
Investments												
Global equities	\$ 1,758,136,479	\$ 45,411,219	\$ 20,347,059	\$ 38,131,021	\$ 4,385,816	\$ 423,076,842	\$ 8,037,780	\$ -	\$ -	\$ 1,695,244	\$ 246,307	\$ 1,483,201
Global fixed income	711,111,712	33,668,838	11,617,747	15,323,940	1,690,211	1,053,618,793	12,590,595	1,851,487	3,031,127	1,963,236	166,390	3,177,996
Global real assets	523,555,401	19,382,533	7,856,074	9,511,050	657,776	417,515,875	-	-	-	-	22,531	-
Cash equivalents	24,962,756	505,569	201,498	578,342	29,331	19,307,985	2,301,209	1,532,584	3,077,600	1,970,317	13,408	247,570
Total investments	3,017,766,348	98,968,159	40,022,378	63,544,353	6,763,134	1,913,519,495	22,929,584	3,384,071	6,108,727	5,628,797	448,636	4,908,767
Invested sec lending collateral	8,901,748	299,313	122,399	205,941	12,246	5,229,084	82,158	5,503	8,910	15,367	1,999	19,500
Investment income receivable	6,456,644	209,347	83,870	88,855	9,523	9,598,168	137,200	27,143	58,544	8,995	191	47,449
Operating Cash	107,101	-	-	-	-	83,579	1,175	955	972	1,166	357	1,122
Miscellaneous receivable	8,089	-	-	-	-	5,192	62	9	17	5	1	14
Due from other state agency	-	-	-	-	-	-	-	-	-	-	-	-
Total assets	3,033,239,930	99,476,819	40,228,647	63,839,149	6,784,903	1,928,435,518	23,150,179	3,417,681	6,177,170	5,654,330	451,184	4,976,852
Deferred outflows of resources												
Related to pensions	158,043	-	-	-	-	105,691	1,273	188	369	101	24	313
Liabilities:												
Investment expenses payable	572,476	35,434	13,914	5,794	(976)	286,331	2,406	628	1,030	391	(41)	43
Securities lending collateral	8,901,748	299,313	122,399	205,941	12,246	5,229,084	82,158	5,503	8,910	15,367	1,999	19,500
Accounts payable	39,630	-	-	-	-	25,322	303	45	86	26	6	70
Accrued expenses	342,613	-	-	-	-	235,049	3,233	432	894	212	53	755
Miscellaneous payable	-	5,978	2,450	3,766	384	-	-	-	-	-	-	-
Due to other state agencies	743	-	-	-	-	477	6	1	2	-	-	1
Total liabilities	9,857,210	340,725	138,763	215,501	11,654	5,776,263	88,106	6,609	10,922	15,996	2,017	20,369
Deferred inflows of resources												
Related to pensions	8,690	-	-	-	-	6,624	107	13	29	-	1	30
Net position held in trust for external investment pool participants												
	\$ 3,023,532,073	\$ 99,136,094	\$ 40,089,884	\$ 63,623,648	\$ 6,773,249	\$ 1,922,758,322	\$ 23,063,239	\$ 3,411,247	\$ 6,166,588	\$ 5,638,435	\$ 449,190	\$ 4,956,766
Each participant unit is valued at \$ 100												
Participant units outstanding	3,023,532,073	99,136,094	40,089,884	63,623,648	6,773,249	1,922,758,322	23,063,239	3,411,247	6,166,588	5,638,435	449,190	4,956,766

North Dakota Retirement and Investment Office
Combining Statement of Net Position – Investment Trust Funds – Fiduciary Funds
Year Ended June 30, 2018 (with Comparative Totals for 2017)

Insurance Pool Participants												Individual Investment Accounts			
Risk Mgmt Workers' Comp	ND Ass'n. of Counties Fund	PERS Group Insurance	Budget Stabilization Fund	City of Bismarck Deferred Sick Leave	City of Fargo Fargo Dome Fund	State Board of Medicine	Lewis & Clark Interpretive Center Endowment	Legacy Fund	Job Service of North Dakota	Tobacco Prevention and Control Fund	PERS Retiree Health Credit Fund	Totals			
												2018	2017		
\$ 1976,995	\$ 2,065,140	\$ -	\$ -	\$ 217,921	\$ 22,268,970	\$ 472,765	\$ 245,963	\$ 2,766,036,036	\$ 30,038,541	\$ 5,462,162	\$ 76,081,795	\$ 5,205,817,256	\$ 4,684,388,027		
3,213,958	3,667,588	29,883,918	106,919,606	474,404	17,422,087	1,730,618	450,409	1,929,981,907	65,100,605	40,386,152	50,509,228	4,099,552,552	3,538,734,254		
-	-	-	-	-	4,459,835	45,279	-	805,149,765	-	-	-	1,788,156,119	1,661,716,577		
160,695	176,663	1,722,976	5,956,531	36,251	443,172	6,162	7,046	54,793,877	550,890	8,507,958	14,147	127,104,537	57,364,379		
5,351,648	5,909,391	31,606,894	112,876,137	728,576	44,594,064	2,254,824	703,418	5,555,961,585	95,690,036	54,356,272	126,605,170	11,220,630,464	9,942,203,237		
23,091	21,660	276,031	994,559	2,547	196,018	16,640	2,654	24,284,177	-	-	-	40,721,545	64,829,660		
4,901	1,271	3,813	727,641	1,452	35,225	(3,707)	(133)	21,357,528	434	8,890	35	38,863,279	33,653,192		
114	-	-	4,371	-	-	-	-	208,349	-	-	-	410,261	263,961		
14	-	-	103	-	-	-	-	14,495	-	-	-	28,001	21,368		
-	-	-	-	-	-	-	-	-	-	-	-	-	14		
5,380,768	5,932,322	31,886,738	114,602,811	732,575	44,825,307	2,267,757	705,939	5,601,826,134	95,690,470	54,365,162	126,605,205	11,300,653,550	10,040,971,432		
310	-	-	6,155	-	-	-	-	271,634	-	-	-	544,101	252,274		
(278)	777	8,719	29,437	122	2,438	418	138	1,150,895	73,229	4,388	92,239	2,279,952	5,165,064		
23,091	21,660	276,031	994,559	2,547	196,018	16,640	2,654	24,284,177	-	-	-	40,721,545	64,829,660		
70	-	-	502	-	-	-	-	70,371	-	-	-	136,431	201,551		
712	-	-	29,916	-	-	-	-	497,792	-	-	-	1,111,661	644,911		
-	349	1,919	-	250	2,653	250	250	-	6,133	3,099	7,174	34,655	16,983		
1	-	-	9	-	-	-	-	1,332	-	-	-	2,572	1,649		
23,596	22,786	286,669	1,054,423	2,919	201,109	17,308	3,042	26,004,567	79,362	7,487	99,413	44,286,816	70,859,818		
26	-	-	3,214	-	-	-	-	9,183	-	-	-	27,917	32,528		
\$ 5,357,456	\$ 5,909,536	\$ 31,600,069	\$ 113,551,329	\$ 729,656	\$ 44,624,198	\$ 2,250,449	\$ 702,897	\$ 5,576,084,018	\$ 95,611,108	\$ 54,357,675	\$ 126,505,792	\$ 11,256,882,918	\$ 9,970,331,360		
5,357,456	5,909,536	31,600,069	113,551,329	729,656	44,624,198	2,250,449	702,897	5,576,084,018	95,611,108	54,357,675	126,505,792	11,256,882,918	9,970,331,360		

	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
Additions:												
Investment income:												
Net change in fair value of investments	\$ 86,115,456	\$ 5,176,598	\$ 2,356,809	\$ 4,557,454	\$ 461,549	\$ 56,336,181	\$ 706,982	\$ (25,066)	\$ (39,367)	\$ 114,512	\$ 26,754	\$ 169,318
Interest, dividends and other income	66,566,132	2,310,859	921,416	1,398,714	123,586	47,422,961	488,940	65,328	115,418	619,100	9,983	114,213
	262,681,588	7,487,457	3,278,225	5,956,168	585,135	103,759,142	1,195,922	40,262	76,051	176,422	36,737	283,531
Less investment expenses	6,474,152	245,148	99,784	137,236	10,205	3,697,172	28,024	2,493	4,198	2,059	649	5,207
Net investment income	256,207,436	7,242,309	3,178,441	5,818,932	574,930	100,061,970	1,167,898	37,769	71,853	174,363	36,088	278,324
Securities lending activity:												
Securities lending income	284,370	9,040	3,739	6,237	460	200,862	2,926	136	229	348	72	595
Less Securities lending expenses	(56,854)	(1,808)	(746)	(12,466)	(92)	(40,117)	(584)	(28)	(45)	(69)	(13)	(118)
Net securities lending income	227,516	7,232	2,993	4,991	368	160,745	2,342	108	184	279	59	477
Purchase of units (\$ 1 per unit)	2,500,000	-	-	408,086	332,342	3,500,000	1,000,000	-	-	4,376,500	-	-
Total Additions	258,934,952	7,249,541	3,181,434	6,232,009	907,640	103,722,715	2,170,240	37,877	72,037	4,551,142	36,147	278,801
Deductions:												
Administrative Expenses	507,190	-	-	-	-	311,969	3,786	1,084	1,265	1,048	682	1,150
Redemption of units (\$ 1 per unit)	14,220,000	-	1,200,000	5,956,175	291,386	74,500,000	1,100,000	-	300,000	4,200,000	17,500	1,100,000
Total Deductions	14,727,190	-	1,200,000	5,956,175	291,386	74,811,969	1,103,786	1,084	301,265	4,201,048	18,182	1,101,150
Change in net position	244,207,762	7,249,541	1,981,434	275,834	616,254	28,910,746	1,066,454	36,793	(229,228)	350,094	17,965	(822,349)
Net position:												
Beginning of year	2,779,324,311	918,865,553	38,108,450	63,347,814	6,156,995	1,893,847,576	2,199,6785	3,374,454	6,395,816	5,288,341	43,1225	5,779,115
End of year	\$ 3,023,532,073	\$ 99,116,094	\$ 40,089,884	\$ 63,623,648	\$ 6,773,249	\$ 1,922,758,322	\$ 23,063,239	\$ 3,411,247	\$ 6,166,588	\$ 5,638,435	\$ 449,190	\$ 4,956,766

North Dakota Retirement and Investment Office
 Combining Statement of Changes in Net Position – Investment Trust Funds – Fiduciary Funds
 Year Ended June 30, 2018 (with Comparative Totals for 2017)

Insurance Pool Participants			Individual Investment Accounts										Totals	
Risk Mgmt Workers' Comp	ND Ass'n of Counties Fund	PERS Group Insurance	Budget Stabilization Fund	City of Bismarck Deferred Sick Leave	City of Fargo Fargo Dome Fund	State Board of Medicine	Lewis & Clark Interpretive Center Endowment	Legacy Fund	Job Service of North Dakota	Tobacco Prevention and Control Fund	PERS Retiree Health Credit Fund	2018	2017	
\$ 215,550	\$ 109,928	\$ (534,557)	\$ (694,082)	\$ 17,889	\$ 2,364,132	\$ 23,597	\$ (1,265)	\$ 253,324,655	\$ 483,223	\$ 828,375	\$ 5,447,995	\$ 527,542,620	\$ 797,372,051	
115,469	126,224	856,706	1,024,321	16,401	937,419	50,861	4,667	117,456,240	2,739,029	102,409	3,138,168	246,166,774	224,483,911	
330,719	236,152	322,149	330,239	33,990	3,301,551	74,458	3,402	370,780,895	3,222,252	930,784	8,586,163	773,709,394	1,021,855,962	
5,330	8,864	40,622	84,143	1,960	72,390	4,025	666	10,018,870	303,667	26,688	379,586	21,653,138	23,033,769	
325,389	227,288	281,527	246,096	32,030	3,229,161	70,433	2,736	360,762,025	2,918,585	904,096	8,206,577	752,056,256	998,822,193	
662	691	1,564	2,504	91	7,735	1,848	29	810,262	-	-	-	1,334,400	1,254,228	
(131)	(138)	(312)	(499)	(17)	(1,544)	(368)	(7)	(161,927)	-	-	-	(266,663)	(250,628)	
531	553	1,252	2,005	74	6,191	1,480	22	648,335	-	-	-	1,067,737	1,003,600	
-	1,300,000	217,085,760	107,202,755	-	750,000	-	700,139	529,870,755	-	-	2,240,000	871,266,337	648,096,361	
325,920	1,527,841	217,368,539	107,450,856	32,104	3,985,352	719,133	702,897	891,281,115	2,918,585	904,096	10,446,577	1,624,390,330	1,647,922,154	
1,158	-	-	5,440	-	-	-	-	834,828	-	-	-	1,669,600	1,303,019	
500,000	-	223,250,000	-	-	970,000	-	-	-	4,564,111	4,000,000	-	336,169,172	910,737,683	
501,158	-	223,250,000	5,440	-	970,000	-	-	834,828	4,564,111	4,000,000	-	337,838,772	912,040,702	
(175,238)	1,527,841	(5,881,461)	107,445,416	32,104	3,015,352	719,133	702,897	890,446,287	(1,645,526)	(3,095,904)	10,446,577	1,286,551,558	735,881,452	
5,532,694	4,381,695	37,481,530	6,105,913	697,552	41,608,846	2,178,536	-	4,685,637,731	97,256,634	57,453,579	116,059,215	9,970,331,360	9,234,449,908	
\$ 5,357,456	\$ 5,909,536	\$ 31,600,069	\$ 113,551,329	\$ 729,656	\$ 44,624,198	\$ 2,250,449	\$ 702,897	\$ 5,576,084,018	\$ 95,611,108	\$ 54,357,675	\$ 126,505,792	\$ 11,256,882,918	\$ 9,970,331,360	

North Dakota Retirement and Investment Office
Pension and Investment Trust Funds – Schedule of Administrative Expenses
Years Ended June 30, 2018 and 2017

	Pension Trust		Investment Trust	
	2018	2017	2018	2017
Salaries and wages:				
Salaries and wages	\$ 792,299	\$ 819,284	\$ 792,288	\$ 795,303
Fringe benefits	568,887	392,012	419,698	294,409
Total salaries and wages	<u>1,361,186</u>	<u>1,211,296</u>	<u>1,211,986</u>	<u>1,089,712</u>
Operating expenses:				
Travel	15,062	23,870	35,114	25,098
Supplies	2,266	13,216	932	6,454
Postage and Mailing Services	36,993	55,577	13,593	31,428
Printing	15,606	17,106	4,500	6,375
Small Office Equipment and Furniture	2,908	30,542	1,339	12,589
Insurance	387	405	223	233
Rent/Lease of Building Space	55,396	51,561	32,370	31,300
Repairs	155	596	75	314
Information Technology and Communications	71,000	68,469	17,863	14,928
IT Contractual Services	109,750	173,580	443,184	212,767
Professional Development	8,184	13,563	2,878	4,189
Operating Fees and Services	15,106	16,445	21,014	22,148
Professional Fees and Services	15,629	10,446	22,771	9,619
Consultant Services	<u>198,099</u>	<u>264,493</u>	<u>81,025</u>	<u>57,681</u>
Total operating expenses	<u>546,541</u>	<u>739,869</u>	<u>676,881</u>	<u>435,123</u>
Pension trust portion of investment program expenses	219,267	221,816	(219,267)	(221,816)
Depreciation	<u>1,800</u>	<u>450</u>	<u>-</u>	<u>-</u>
Total administrative expenses	<u>2,128,794</u>	<u>2,173,431</u>	<u>1,669,600</u>	<u>1,303,019</u>
Capital assets purchased	<u>-</u>	<u>8,999</u>	<u>-</u>	<u>-</u>
Less - nonappropriated items:				
Consultant Services	198,099	264,493	81,025	57,681
Other operating fees paid under continuing appropriation	125,270	75,026	509,663	275,461
Depreciation	1,800	450	-	-
Accrual adjustments to employee benefits	<u>255,922</u>	<u>75,607</u>	<u>168,895</u>	<u>51,223</u>
Total nonappropriated items	581,091	415,576	759,583	384,365
Total appropriated expenditures	<u>\$ 1,547,703</u>	<u>\$ 1,766,854</u>	<u>\$ 910,017</u>	<u>\$ 918,654</u>

North Dakota Retirement and Investment Office
Pension and Investment Trust Funds – Schedule of Consultant Expenses
Years Ended June 30, 2018 and 2017

	Pension Trust		Investment Trust	
	2018	2017	2018	2017
Actuary fees:				
Cavanaugh MacDonald Consulting	\$ -	\$ 38,632	\$ -	\$ -
Segal Company	71,499	91,742	-	-
Total Actuary Fees	<u>71,499</u>	<u>130,374</u>	-	-
Auditing/Accounting fees:				
CliftonLarsonAllen LLP	82,527	108,987	29,073	28,213
Disability consulting fees:				
Sanford Health	425	300	-	-
Legal fees:				
K&L Gates LLP	16,541	3,152	21,646	4,171
Kasowitz, Benson, Torres & Friedman	197	1,357	309	1,777
Jackson Walker LLP	3,105	-	9,316	-
ND Attorney General	23,805	20,323	20,681	23,520
Total legal fees:	<u>43,648</u>	<u>24,832</u>	<u>51,952</u>	<u>29,468</u>
Total consultant expenses	<u>\$ 198,099</u>	<u>\$ 264,493</u>	<u>\$ 81,025</u>	<u>\$ 57,681</u>

North Dakota Retirement and Investment Office
Pension and Investment Trust Funds – Schedule of Investment Expenses
Years Ended June 30, 2018 and 2017

	Pension Trust		Investment Trust	
	2018	2017	2018	2017
Investment managers' fees:				
Global equity managers	\$ 1,380,401	\$ 1,426,842	\$ 1,794,894	\$ 1,835,909
Domestic large cap equity managers	(368,098)	551,198	557,670	3,136,644
Domestic small cap equity managers	586,340	455,668	1,544,538	1,424,504
International equity managers	954,958	852,764	6,229,944	5,315,874
Emerging markets equity managers	697,607	633,942	1,124,677	955,585
Domestic fixed income managers	1,593,550	2,017,975	11,337,399	12,073,101
Below investment grade fixed income managers	1,953,550	1,383,336	2,675,936	1,997,463
Diversified Real Assets	-	-	4,036,212	2,634,755
International fixed income managers	270,428	423,318	311,924	481,699
Real estate managers	2,660,866	2,541,836	5,965,804	5,885,718
Infrastructure managers	1,316,541	803,006	1,681,789	990,596
Timber managers	395,760	437,057	480,991	524,309
Private equity managers	1,513,944	1,225,954	1,773,739	1,436,330
Short term fixed income managers	-	-	122,965	347,423
Cash & equivalents managers	36,561	20,203	165,053	60,352
Balanced account managers	-	-	965,154	896,911
Total investment managers' fees	<u>\$ 12,992,408</u>	<u>\$ 12,773,099</u>	<u>\$ 40,768,689</u>	<u>\$ 39,997,173</u>
Custodian fees	233,938	213,843	927,794	839,740
Investment consultant fees	150,251	124,539	566,574	446,215
SIB Service Fees	-	-	82,764	70,812
Total investment expenses	<u><u>\$ 13,376,597</u></u>	<u><u>\$ 13,111,481</u></u>	<u><u>\$ 42,345,821</u></u>	<u><u>\$ 41,353,940</u></u>

Reconciliation of investment expenses to financial statements

	2018	2017	2018	2017
Investment expenses as reflected in the financial statements	\$ 5,352,945	\$ 6,011,791	\$ 21,653,138	\$ 23,033,769
Plus investment management fees included in investment income				
Domestic large cap equity managers	94,592	137,262	364,567	449,770
Domestic small cap equity managers	-	-	-	-
International equity managers	273,564	245,130	1,603,690	1,324,344
Emerging markets equity managers	697,608	633,942	1,124,677	955,585
Domestic fixed income managers	1,236,026	1,636,949	7,619,590	8,458,272
Below investment grade fixed income managers	1,541,521	984,510	2,133,969	1,427,213
Diversified real assets managers	-	-	2,037,750	937,298
Real estate managers	1,514,375	1,458,158	2,110,333	2,025,430
Infrastructure managers	758,699	340,728	974,220	419,451
Timber managers	395,760	437,057	480,991	524,309
Private equity managers	1,511,507	1,225,954	1,770,886	1,436,329
Cash equivalents managers	-	-	140,122	40,973
Balanced account managers	-	-	331,888	321,197
Investment expenses per schedule	<u><u>\$ 13,376,597</u></u>	<u><u>\$ 13,111,481</u></u>	<u><u>\$ 42,345,821</u></u>	<u><u>\$ 41,353,940</u></u>

North Dakota Retirement and Investment Office
 Schedule of Appropriations – Budget Basis – Fiduciary Funds
 July 1, 2017 to June 30, 2019 Biennium

	Approved 2017-2019 Appropriation	2017-2019 Appropriation Adjustment	Adjusted 2017-2019 Appropriation	Fiscal 2018 Expenses	Unexpended Appropriations
All Fund Types:					
Salaries and wages	\$ 4,425,570	\$ -	\$ 4,425,570	\$ 2,148,355	\$ 2,277,215
Operating expenses	862,484	-	862,484	309,365	553,119
Contingency	52,000	-	52,000	-	52,000
Total	<u>\$ 5,340,054</u>	<u>\$ -</u>	<u>\$ 5,340,054</u>	<u>\$ 2,457,720</u>	<u>\$ 2,882,334</u>

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

Reconciliation of Administrative Expenses
to Appropriated Expenditures

	<u>2018</u>
Administrative expenses as reflected in the financial statements	\$ 3,798,394
Less:	
Consulting Services*	(279,124)
Other operating fees paid under continuing appropriations*	(634,933)
Depreciation expense	(1,800)
Changes in benefit accrual amounts	<u>(424,817)</u>
Total appropriated expenses	<u>\$ 2,457,720</u>

* 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, 2018**

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

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, 2018, the financial statements include the impact of adoption of Governmental Accounting Standards Board (GASB) Statement number 75 and Statement number 82.

GASB 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, replaces the requirements for Statement number 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended, and improves accounting and financial reporting for postemployment benefits other than pensions. Due to the immateriality of the amounts in relation to the previous year's financial statements, no prior period adjustments were made to fiscal year 2017 balances; rather, all financial transactions necessary to establish the liability and deferral balances were recorded in fiscal year 2018 only.

GASB 82, Pension Issues-An Amendment of GASB Statements No. 67, No. 68, and No. 73, addresses certain issues with the presentation of payroll-related measures in required supplementary information, and the classification of payments made by employers to satisfy employee contribution requirements. Upon examination, it was determined that RIO is currently presenting information in accordance with the requirements.

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 16% 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, 2018. 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 7.75% per annum compounded annually. The valuation takes into account all of the promised benefits to which members are entitled as of July 1, 2018 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
October 31, 2018